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REPORT
OF THE
SECRETARY OF WAR;

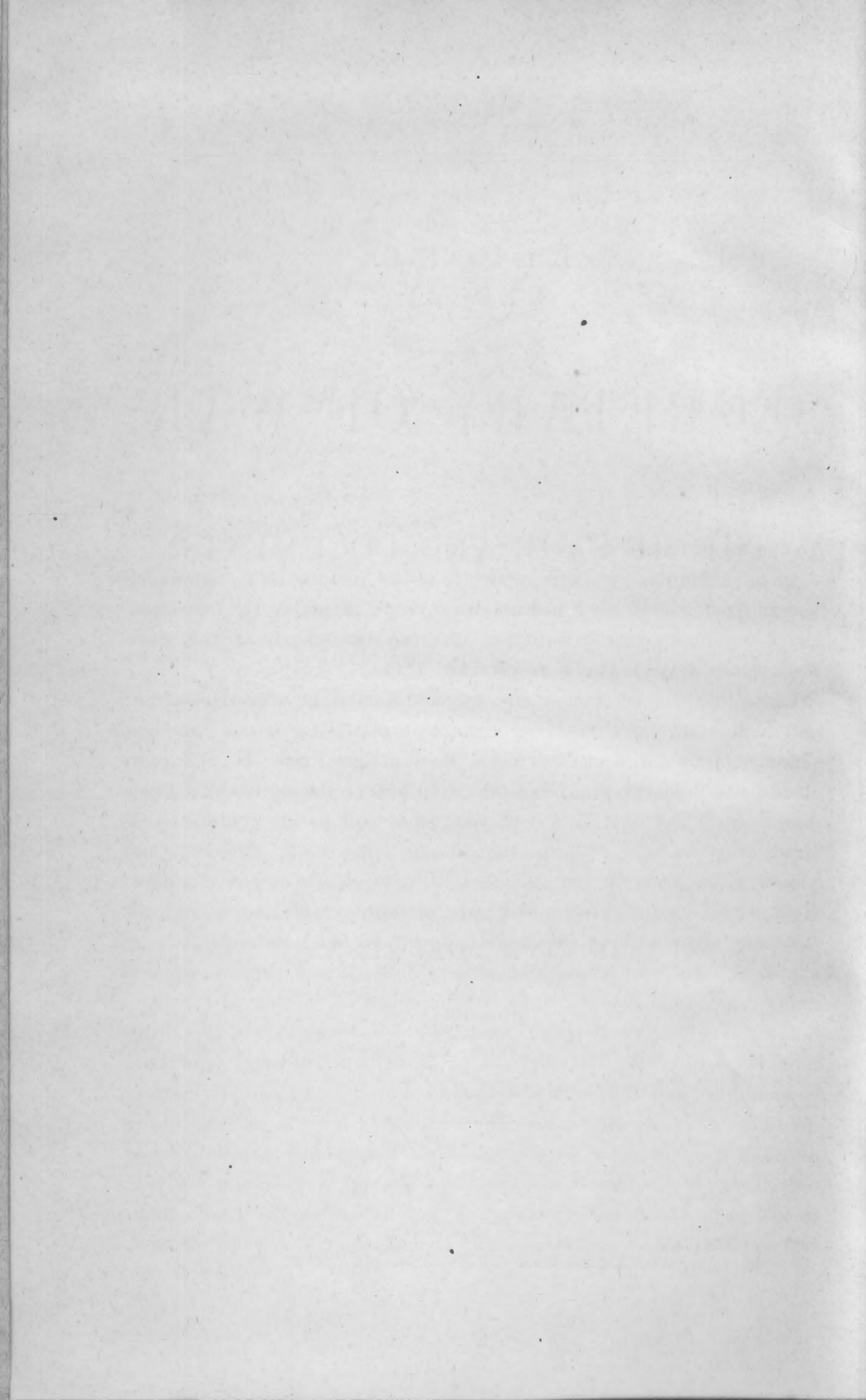
BEING PART OF
THE MESSAGE AND DOCUMENTS
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REPORT

OF THE

SECRETARY OF WAR.

WAR DEPARTMENT,
Washington, November 3, 1891.

To the PRESIDENT:

In submitting to you this report, it seems proper, as a preliminary to such comment as they may require, to refer briefly to the new legislative and administrative measures affecting the Department that have been inaugurated during your administration.

In the line of coast defense, sites for fortifications have been procured, and engineering work has been begun on batteries for mortars, and emplacements for guns, at New York, Boston, San Francisco, Hampton Roads, and Washington. The north wing and center section of the gun factory at Watervliet have been completed and nearly equipped. A south wing, doubling the capacity, is now being built. Provision has already been made for the manufacture by the Government of ninety-eight breech-loading steel rifled guns of high power, and a contract has been made with private manufacturers for one hundred more. A supply of submarine mines and seventy-three 12-inch mortars are also under construction.

For the improvement of the enlisted force new methods of recruiting have been adopted. It is carried on more in small towns and rural communities, and the recruits are held on probation and their antecedents carefully inquired into. The ration has been increased by the addition of one pound of vegetables daily. Soldiers are now entitled to a discharge at the end of three years of faithful service, and are permitted to purchase their discharge at any time after one year. Summary courts have been established for the speedy trial of petty offenses.

If the men desire, competent officers are assigned to defend them before courts-martial. Punishments in time of peace, under the articles of war, have been defined and limited. Sunday inspections and tattoo roll-call have been abolished; schools and gymnasia established. These, together with the specific measures undertaken for that purpose, have reduced the percentage of desertions to a lower point than ever before in the history of the Army, and in the last year have reduced the number of inmates of our military prisons over 20 per cent.

A system of examination of officers for promotion has been established, and their promotion, with the exception of one grade, has been put upon a lineal basis throughout the Army. The retired list has been relieved by appropriate legislation. An efficiency record of officers has been kept, enabling their selection for special duty to be made on that basis.

In pursuance of a policy of concentrating the troops in larger posts, about one-fourth of the number of posts occupied in 1889 have been abandoned, and the reservations turned over to the Interior Department. The employment of contract surgeons, in addition to the regular medical corps, has been nearly dispensed with. The licenses of most post traders have been revoked. The enlistment of Indians has been successfully undertaken. The detail of officers to colleges has been increased and new rules adopted. The Rebellion Records have been published much more rapidly under increased appropriations and a reorganization of the work. The military and hospital records of the late war have been brought together in the Record and Pension Division, the settlement of pension claims has been expedited, and the preservation of these valuable records for effective use is well toward completion. When finished six hundred clerks can be discharged or transferred to other Departments.

COAST DEFENSE.

The problem of adequate coast defense has practically been settled. Fortunately it has not been a question of party politics. There has been much discussion and some difference of individual opinion in respect to the rapidity with which the work should be executed and as regards details. It has been generally recognized, however, in Congress and by the public press as a national concern—a thoroughly American policy. Nor is it a new departure. The report of the Endicott Board, under the act of Congress of March 3, 1885, states that in 1860 our coast defenses “were not surpassed by those of any country

for efficiency either for offense or defense, and were entirely competent to resist the vessels of war of that period." But after the close of the war there was a most rapid development in the means of offensive warfare, while the fortifications which we had were not kept up, and much less was new work undertaken. Our coast cities, which in 1860 were well protected, in 1890 were defenseless.

In 1883 Congress provided for a joint board of army and navy officers to examine and report what method should be adopted for the manufacture of heavy ordnance for the use of the Army and Navy, and the cost of buildings, tools, and implements therefor. This board, after visiting the chief ordnance establishments of Europe and the principal steel manufactories of this country, submitted a report in 1884 which recommended the establishment of two gun factories, one for the Army at Watervliet Arsenal, West Troy, N. Y., and another for the Navy in this city, and that our steel manufacturers should be encouraged by suitable legislation to incur the large expense of erecting the plant necessary for producing such gun metal as is required.

In 1885 Congress provided that a board composed of army and navy officers and civilians, of which the Secretary of War should be a member and president, should examine and report at what ports fortifications or other defenses were most urgently required, and the character and kind of defenses best adapted for each with reference to armament and the utilization of torpedoes, mines, or other defensive appliances. This board submitted a systematic and elaborate plan for the defense of the sea-coast at the twenty-six principal ports, and, with less detail, provisions for the defense of the lake frontier. Simultaneously with the investigations of this board the two Houses of Congress independently considered the subject, the Senate by a Select Committee on Ordnance and War Ships, of which General Hawley was chairman, and the House, by a Commission on Ordnance and Gunnery, of which Mr. Randall was chairman. The reports of these committees, made in 1886, are replete with valuable information. The conclusions reached by these various boards, so different in composition and so well qualified to consider the question from every point of view, were harmonious, and their several reports furnish all the details needful for an intelligent consideration of the subject. They have afforded the bases of legislation and appropriations of Congress which have inaugurated our present definite policy in respect to coast defenses.

This policy necessarily contemplates a system of land defenses as its

most important feature. We have some 4,000 miles of sea-coast, exclusive of Alaska. No great naval power has more than a few hundred miles of coast to defend, and yet even they protect their harbors with heavy fortifications and high-power guns. The cost of land defenses has not increased as rapidly as the cost of the means of attacking them. They are not only the cheapest to build, but once built the cost of maintaining them can be reduced to the minimum. Neither are they an experiment, nor can they become useless, but they may be built with a view to further strengthening if required, and capable of mounting larger guns if necessary.

Two appropriations of \$500,000 each for the purchase of sites for fortification and sea-coast defenses were made by the last Congress. Allotments have been made under these appropriations for sites for gun and mortar batteries at Grovers Cliff in Boston Harbor; Point Comfort, Fort Wadsworth, Plumb Island, and Sand Point in New York Harbor; Laguna Merced in San Francisco Harbor, and Sheridan Point on the Potomac. Proceedings of condemnation have been commenced to obtain other sites near Fort Wadsworth and Fort Hamilton in New York Harbor; Willoughby Spit in Hampton Roads, and Point Lobos in San Francisco Harbor. Over half of the entire appropriation has been allotted and about \$350,000 expended. Other payments are to be made as soon as the examination of titles by the Department of Justice is completed. The balance of the appropriation will probably be expended during the next five months, but it will not be sufficient to pay the awards of juries in cases now pending. I recommend that an appropriation of \$500,000 be continued annually until the important sites are secured. It will require this amount for several years to pay for sites as rapidly as they will be needed for use, and it is economy to acquire them as quickly as possible after their location has been determined.

At its last session Congress made an appropriation for building the south wing of the new gun factory at Watervliet and for the substantial completion of that plant, except that space has been left to add machinery for finishing 16-inch guns if their manufacture should be deemed advisable. The work of construction is now well advanced, and the machinery under contract.

Certain provisions in the last two fortification acts were designed to induce private manufacturers in this country to coöperate with the Government in fabricating guns as well as in supplying the steel forgings.

Advantageous bids were received and a contract made with the Bethlehem Company for supplying twenty-five 8-inch, fifty 10-inch, and twenty-five 12-inch guns.

This contract, and the output of the gun factory from forgings already under contract, provide for the manufacture of one hundred and ninety-eight breech-loading steel rifle guns of high power, sixty-two of 8-inch caliber, eighty-six of 10-inch, and fifty of 12-inch. Four have been finished, two 8-inch, one 10-inch, and one 12-inch; twenty-four more will be finished in 1892, thirty-four in 1893, forty in 1894, when the machinery at the gun factory will be nearly complete. Thereafter there can be manufactured about forty-five per year, and the deliveries from the Bethlehem one-hundred-gun contract will be eight to fourteen yearly, according to the proportion of small or large caliber. Besides the one hundred and ninety-eight, for which provision has already been made, if forgings are supplied to the gun factory, three hundred and fifty more guns can be turned out within the next ten years, and mostly of 10 and 12 inch caliber. I believe these figures to be conservative, and that the actual results will be greater, for with experience in manufacture the work should progress more rapidly.

Two batteries, each for sixteen 12-inch mortars, and emplacements for two 12-inch, two 10-inch, and four 8-inch guns are now in process of construction for the defense of New York; also one battery for sixteen 12-inch mortars, and emplacements for one 10-inch gun, with two more in preparation, at Boston; and emplacements for two 10-inch guns, with one 10-inch and three 12-inch in preparation, at San Francisco; for two 10-inch guns at Hampton Roads, and for two 10-inch guns at Washington. Progress has also been made in providing a suitable supply of submarine mines. A considerable number are on hand or under contract for the defense of New York, San Francisco, Boston, Hampton Roads, Philadelphia, Washington, and Charleston, and some of the mining casemates for operating them are completed or under contract at these ports and at Portland, Me. Contracts have also been made for the early delivery of seventy-three 12-inch cast-iron rifled mortars, hooped with steel, of a pattern known to be serviceable, though probably not equal to an all-steel construction now under test.

The Department has been obliged, on account of the financial embarrassment of the contractors, to extend the time until January, April, and July, 1892, for the delivery of the ten guns contracted for with the Pneumatic Dynamite Gun Company for Sandy Hook, Fort Schuy-

ler, Fort Warren, and San Francisco. One of these guns was to be of 8-inch, and nine of them 15-inch caliber. Three of the latter are, by law, to be mounted on the Pacific coast. The Chief of the Bureau of Ordnance states that—

Reports furnished the Department of trials made of a 15-inch pneumatic dynamite gun manufactured in this country for the English Government are quite favorable to the performance of the gun and its projectile.

The point has now been reached when, by the continuance of the present rate of appropriations for coast defenses, which have been moderate, the work can be carried on systematically and judiciously. To stop or check it now would be to lose much that has been done; to continue will be both safety and economy. Each year some part of it can be completed so as to become available, and thereafter every gun mounted will add to its efficiency.

The Board of Ordnance and Fortification in their report say:

Four years' continuance of similar legislation and activity and it can no longer be said that the United States is defenseless against foreign powers.

FIELD AND SIEGE ARTILLERY.

Good progress has been made in the production of improved rifle steel ordnance.

3.2-INCH STEEL FIELD GUNS.—One hundred have been completed and twenty-five more are under manufacture. The ten regular light batteries are nearly supplied with these guns, and they are now being furnished to the National Guard.

3.6-INCH HEAVY STEEL FIELD GUNS.—A type gun has been completed and proved by a test to be satisfactory. The manufacture of twenty-four others and carriages for them will soon be commenced.

3.6-INCH STEEL FIELD MORTARS.—The type mortar in this class was tested last year. Sixteen of these pieces are now in process of manufacture and will be completed with cast-steel carriages within the coming year.

5-INCH BREECH-LOADING STEEL RIFLE FOR SIEGE SERVICE.—The type gun is completed and has stood a satisfactory test. The manufacture of ten more has been commenced and should be completed during the ensuing year. A carriage for this gun has also been manufactured and tried, and ten to mount the ten guns under manufacture will be made at the Watertown Arsenal for issue with the guns.

7-INCH BREECH-LOADING STEEL HOWITZER FOR SIEGE SERVICE.—The type gun has been completed and tested, and ten more will be

finished during 1892. An experimental carriage for this howitzer has been manufactured, and is now at the proving ground for test. If satisfactory others will be completed as fast as the howitzers are ready for mounting.

MAGAZINE SMALL-ARMS.

During the year a board has been appointed, consisting of officers from the ordnance, cavalry, and infantry, to consider, test, and report upon magazine small-arms. They have examined those in use in the principal European armies, but a satisfactory smokeless powder is an essential element for consideration in fixing upon the reduced caliber. Their experiments and reports of similar trials made abroad indicate that magazine arms are still so far from perfection that it is not wise to change from our present excellent single loader to a magazine system in too great haste.

If we have been slow in this matter, we have at least been saved the great expense incurred by most foreign nations in adopting an unsatisfactory magazine arm prematurely. The Board, which has not as yet made a report, is still conducting experiments, and is giving American inventors every aid and facility for perfecting and testing their arms.

DESEPTION.

Desertions from the Army for the year ending September 30 have been less than in any other year in the history of the Army. Previous to 1820 there are no reliable records, but from that time till the beginning of the War of the Rebellion the average annual rate of desertion was 14.8 per cent of the enlisted strength, and since the war it has been nearly the same. From January 1, 1867, to June 30, 1891, twenty-four and one-half years, the number of desertions from the Army was 88,475. It has cost the Government a very large sum for pay, clothing, subsistence, and transportation of recruits to replace these men.

For the year ending June 30, 1889, the rate was 11.6 per cent; for the year ending June 30, 1890, 9 per cent; for the year ending June 30, 1891, 6.1 per cent. During the twelve months ending September 30, 1891, the rate was only 5.8 per cent, and for a like period ending October 31, 5.7 per cent. The diminution is still going on, and the percentage is being reduced month by month. Great as the reduction has been, however, there is no good reason why desertions should not be reduced to 3 or even 2 per cent. Probably they can not be reduced below 2 per cent. This much will have to be charged to the perversity of human nature and the ineradicable restlessness of the American people.

RECRUITS.

An effort has been made to improve the character of the recruits of the Army by excluding, as far as practicable, men of questionable habits or reputation. Applicants for enlistment are not accepted unless they produce satisfactory evidence of good character. In case of doubt they are held on probation a reasonable time, and, if the result of the probation is not satisfactory, are discharged before any expense for uniform, pay, or transportation is incurred. Heretofore recruiting has been carried on in from thirty to forty of the largest cities of the country, and the rendezvous have sometimes been established in sections of these cities frequented by the least desirable classes from which to obtain recruits. Besides giving special care to the proper location of such rendezvous as are still maintained in the larger cities, the experiment has been tried, with excellent results, of extending recruiting to the smaller towns. The number of recruiting stations has thus been increased more than five-fold, and besides many villages and rural districts are visited by non-commissioned officers from neighboring rendezvous. Wherever regiments are favorably located for sending recruiting parties into the towns and villages within a reasonable distance from their posts, they are required to depend largely for recruits upon their own exertions. As a result the number of desirable recruits obtained from the rural districts during the past year has been much larger than heretofore, and that has doubtless contributed considerably toward the great reduction of desertion.

By a recent order the maximum age at which original enlistments are made has been reduced five years, and is now limited to those under the age of thirty years. It would be very desirable if this age limit could be still further reduced and no reënlistments allowed except in case of such non-commissioned officers as have attained special proficiency. This would return the soldier after three or five years' service to civil life, in the majority of cases better fitted for it than when he enlisted. It is better that the soldier's service should be an incident, and not the business, of his life. If retained too long in the Army he can not succeed out of it, and so may end his days in the Soldiers' Home, instead of in a home of his own. The Army, in time of peace, while training men for the possible contingency of war, should not unfit them for the certain duties of peace. But the age limit can not be further reduced unless greater inducement is offered to a good class of young men to enlist. This should be done by a reasonable increase in the pay of non-commissioned officers, espe-

cially that of first sergeants, and by giving them a better opportunity to compete upon examination for commissions. The increased expense in the pay of non-commissioned officers could, if necessary, be balanced by curtailing somewhere else. The cost could be saved in many places better than it can be spared in this. The character and efficiency of the company depends largely upon the first sergeant.

PROMOTION FROM THE RANKS.

I would renew the suggestion of my last report, that the provision of the statute, making the recommendation of the company commander a condition precedent to promotion from the ranks to a lieutenancy, be repealed. Every soldier should be permitted to appear before preliminary boards and be given an opportunity to establish his claim to consideration. This preliminary examination should be very critical regarding antecedents, and take a wide scope with reference to the personal and moral character of the candidates.

Under this more liberal provision, I believe that more men would qualify than could be commissioned. The most meritorious could be selected upon the final examinations. It would be well if there were some provision by which others, that establish a high degree of proficiency, but fail to secure commissions, might be permitted to retire from the service with some honorary recognition.

COURTS-MARTIAL.

Thirty-two of the thirty-four Articles of War under which enlisted men can be tried, authorize the punishment of the offender at the discretion of the court. In consequence there was great variance of punishment prevailing in different military departments. The only check upon this disparity was the remission of sentences deemed excessive, by the exercise of Executive clemency. Although that lessened the evil, it impaired the certainty of punishment and perverted the proper use of the pardoning power. By an act of Congress, approved September 27, 1890, you were authorized to prescribe and define the limits which punishments, left to the discretion of courts-martial, should not exceed in time of peace.

By virtue of that authority you issued an order, which took effect on the 28th of March last, prescribing uniform punishments for different offenses, properly graded in accordance with their gravity. An act of October 1, 1890, instituting summary courts in certain cases, has provided a more speedy and satisfactory method than the formal court-

martial for the trial and punishment of petty offenses. The right to demand and receive a trial before a regular court-martial is reserved to the accused if he desires. Both these measures have been in the interest of prompt and uniform administration of justice, and are proving very satisfactory both to officers and men.

THE THREE-BATTALION ORGANIZATION.

The question of the three-battalion organization for the infantry has been before Congress, and on account of the great defects of the present system must necessarily be the subject of discussion until remedied by legislation. A measure in other respects desirable which would materially increase the expense of the Army might not receive favorable consideration, but the essential features of this change can be had without increase of expense.

The single battalion organization of infantry is radically defective and unfit for actual service under present conditions. During the period since the civil war our infantry organization has remained unchanged, and is now, in respect to the single battalion feature, obsolete. It is so vicious that the first step in case of war must be to abolish it and to start anew. It can not be amended or modified; it is unwieldy, incapable of subdivision to either make or meet attack under methods now prevailing, and the situation grows worse with every improvement of arms. The development of range, rapidity, and accuracy of fire of modern arms has been so great that a smaller and more flexible battalion is essential, for this development makes celerity in handling troops on the field a prime necessity.

The adoption of the three-battalion system has been repeatedly urged by all our distinguished generals, and General Sherman considered it of such commanding importance that he made it the only subject of recommendation in his last report as General of the Army.

But important as it was at that time, it is a necessity now, for under the new tactics required by the increase in range and rapidity of fire, a ten-company battalion can not be maneuvered. The principle can be adopted and the substantial advantages of the three-battalion organization obtained without increase of cost; two of the battalions to be composed of the present eight full companies, and the third to be in part a skeleton battalion, which could readily be completely organized in case of war.

THE ARTILLERY.

A bill for the reorganization of the artillery passed both Houses at the last session of Congress, but amendments were added in the Senate, and the amended bill reached the House so late in the session that it failed to receive action. From a purely military standpoint the organization of this arm is not defective, but two first lieutenants in each battery are an unnecessary expense.

There are now twenty-six first lieutenants and thirteen second lieutenants in each regiment of artillery. The number of lieutenants can be reduced without embarrassing the efficiency of the organization, so that seven regiments of two battalions of four foot batteries each, and one battalion of two light batteries will cost no more than the present five regiments; and this form of organization will be a better nucleus and more readily admit of expansion and the necessary increase in case of war.

Promotion is slow during a long peace under the most favorable conditions, and, in respect to the first lieutenants of artillery, it is so great that the officers are beyond the age of most efficient service before they become captains. Captains of infantry serve on the average four years longer in that grade before promotion than do captains of cavalry or artillery, while first lieutenants of artillery serve four years longer in that grade than do first lieutenants of infantry or cavalry. The proposed measures will tend to remedy these inequalities in promotion.

THE PAY CORPS.

The law now provides that no appointments of paymasters shall be made until the number of majors shall have been reduced below twenty-nine. Without casualties or retirements for disability, the corps will be reduced below the number authorized, and there will be a vacancy in the place of an officer retired for age in September next. Already applications are being received for appointment in this corps in anticipation of early vacancies.

In view of the great number of posts that have been abandoned in the last three years, and the probability that others will be in the immediate future, and that these posts are, as a rule, the remote ones, requiring the most travel and time to reach, the corps might be still further reduced without injury to the service. Besides this, most of the posts and arsenals are located in or near towns and the force at some of them is

so small that payments can be made by checks sent by mail or by money sent by express, at a decided saving of time and expense.

To send a paymaster and clerk 100 or 200 miles to pay 50, and in several cases less than 25 men, requiring from 1,500 to over 2,000 miles' travel annually, for each post, seems an antiquated and unbusiness-like method, and I have recently directed that payments at several points be made in the manner above indicated. The corps can be safely reduced to twenty-five majors or even less if the Secretary of War be authorized to assign officers of other arms of the service, at remote posts occupied by small garrisons, as acting assistant paymasters in addition to their other duties.

ENLISTMENT OF INDIANS AS REGULAR SOLDIERS.

In March last a general order was issued authorizing the enlistment of one company of Indians for each of the twenty-six regiments of white cavalry and infantry serving west of the Mississippi River. This action was taken after careful inquiry into the conduct in the past of Indian scouts and police employed in a military or quasi-military capacity.

The primary object, fully justifying the experiment, in my judgment, was to give employment, in useful and legitimate channels, to a considerable number of Indians of the warlike tribes. Having been deprived, by the extinction of game, of both employment and means of subsistence, they can not be changed at once from nomads to quiet and successful farmers. Incidentally it was hoped that the habits of obedience, cleanliness, and punctuality, as well as of steady labor in the performance of both military and industrial work inculcated by service in the Army, would have a good effect on those who might enlist, and also furnish an object lesson of some value and exert a healthy influence upon others of their tribes.

It was not deemed advisable to urge Indians into the service hastily, and special efforts have been made to inform them of the responsibilities they would incur and the duties that would be required of them as soldiers. The results have been very satisfactory. Seven companies, three of cavalry and four of infantry, have been recruited to their full complement, and seven others partially, and the reports indicate that the organization of these will be completed at an early day. I have had an opportunity to personally inspect some of these Indian cavalry troops, and have received full reports showing the condition of others. In good conduct, drill and military bearing, attention to duty, observ-

ance of courtesies, and care of horses, arms and equipment, clothing, barracks, mess rooms and kitchens, they are at least equal to soldiers of other races of no greater experience.

For example, Troop L, of the First Cavalry, recruited from the Crow tribe, though none of its members had had more than five months' service, furnished as early as September 14 last its full quota of non-commissioned officers, trumpeters, and privates for guard, fatigue, and other post duties; and on a recent two weeks' practice march of the command to which it belongs demonstrated its capacity for the performance of the various duties of the expedition. The colonel of the First Cavalry recognizes that the men of this troop possess in a high degree the characteristics and traits essential in light cavalry, and considers them a valuable acquisition to his regiment. Satisfactory reports have also been received of the progress of the Indian infantry companies.

Nothing unfavorable has been brought to the attention of the Department regarding the utility as military organizations of the Indian companies of either arm, but so far there is every reason to believe that much more than was expected of the experiment will be realized. They are treated in all respects like other soldiers, and the same duties are required of them. They are dressed the same, fed the same, taught to cook and eat their food in the same manner, and in every respect they strive earnestly to equal, and, if possible, outdo their white comrades. All commands are given in English, and though few of them understand the language they learn the sound of their orders quickly and make rapid progress in drill.

Some of the companies, which have only been enlisted for three or four months, would make a creditable appearance at any encampment or review. When it is considered that a short time ago many of these Indian soldiers were "blanket Indians," that few of them ever had on a suit of clothes, slept under a roof, ate at a table, used a knife and fork, wore shoes, or had their hair cut, the transformation is indeed remarkable.

The habit for a few years of wearing good clothes, eating good food well cooked by themselves, and living in clean and comfortable quarters, and the lesson that these comforts are earned by their own good conduct, will not be entirely lost upon men of any race or color. They are receiving instruction in English and in the methods of civilized life that will help them to help themselves when discharged. They will be impressed with the power of the Government and the folly and futility of disobedience of its authority.

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I am confident that after a few months' training they will be fit for any service, and, properly managed, will furnish a valuable addition to the military strength of the nation. Great care must be taken in the selection of officers to whom is intrusted the instruction and development of these companies. Only officers of high character, that believe in the work and in the possibility of progress and civilization for the Indian, who are patient and faithful, and not only soldiers of the highest order, but imbued with something of the missionary spirit as well, should be selected.

It is not only an important step toward their civilization, self-support and control, but is the cheapest and best insurance against further Indian troubles. While I believe they will prove trustworthy in any service, even against their own people, they will, at least, be sureties in some measure for their respective tribes.

ABANDONMENT OF SMALL POSTS.

Twenty-eight army posts, about one-fourth of the entire number June 1, 1889, have been abandoned since that date. Ten or twelve more can be abandoned as soon as suitable shelter for the troops is provided at more central points. The troops should be assembled by regiments; or at least battalions, in well-built posts at strategic and convenient points as rapidly as it can be done consistently with adequate protection against possible Indian depredations. Even for this purpose it has been found by experience that troops stationed at convenient railroad centers are more available than those at posts nearer the scene of trouble but not on the railway. Besides the economy of transportation, supplies, etc., a much greater percentage of men is available for service from a large post than from a small one. Fewer are employed outside of their legitimate military duty, and the discipline and drill of the command is improved.

CONTRACT SURGEONS.

In 1889 there were forty-eight acting assistant surgeons, commonly called "contract surgeons," of the fifty allowed by Congress. The number has been reduced to twenty-one, and the services of these can be spared during the present fiscal year. I have therefore made no estimate for the employment of contract surgeons for the coming fiscal year. There has also been a reduction in the numbers of the hospital corps and of the matrons. The abandonment of posts has made these reductions practicable.

The regular estimates for the medical department will be about \$150,000 less than last year, due to economy in its administration and to the discontinuance of the employment of contract surgeons.

POST TRADERS.

At the beginning of this administration there were licensed post traders at most army posts. They were a privileged class, exempt from taxation because located on Government reservations, and had practically a monopoly of the trade in such articles as were not furnished or sold by the quartermaster or commissary. Wherever cities and villages have grown up near the formerly remote western posts, and the post trader has thus ceased to be a necessity, it has been my purpose to discontinue the system as rapidly as possible, and permit the trade of military posts outside of the ordinary governmental supplies to take its regular channels.

On the 4th of March, 1889, there were eighty-five of these traders. There are now but twenty-two, and seven of these have been notified that their licenses will be revoked within a short time at a date so fixed as to give them an opportunity to sell or reduce their stocks. Four of the remaining fifteen are at posts whose abandonment has been ordered or soon will be, so that at the end of the fiscal year there will be only eleven remaining.

The parties who held these privileges had large personal and political influence, and it has not been an easy or a pleasant task to make this change. Many of them, also, had invested considerable capital in these enterprises, and were, therefore, entitled to consideration and a reasonable time to close their business. But their profits had been large, and I believe that no injustice has been done them. It was a pernicious system and necessity was the only excuse for its existence at any time. It has outlived whatever usefulness it may have had, and its longer continuance is not for the interest of the service or for the public good.

RECORD AND PENSION DIVISION.

In my last annual report I referred to the creation of the Record and Pension Division of this Department in July, 1889. It was placed under the direction of Major Ainsworth and given charge of all the hospital and service records of the volunteer armies in the war, and of all business in the Department relating thereto. At that time there were 40,654

unadjusted and unanswered cases on hand, all of which, together with current business, was disposed of before June 30, 1890. During the past fiscal year the division received 459,497 cases, of which the records of the office show that 98 per cent were disposed of and answered within twenty-four hours of their receipt. There were no cases left over undisposed of June 30, 1891.

The number of cases received during the past year was 158,259 in excess of the previous year, being an increase in business of 52 per cent. As about two-thirds of the business of this division is in connection with the Pension Bureau of the Interior Department, I take the liberty of quoting from the report of Commissioner Raum to the Secretary of the Interior September 22, 1891, in which he says: "The great improvement which Major Ainsworth has brought to that branch of the public service enables this Bureau to receive within twenty-four hours from the day of the calls full reports as to the military and medical history of claimants as shown by the records of the War Department, whereas in former years these requests remained unanswered for months."

In addition to the current work of the office, the clerks of the division have also been engaged in transcribing the original records by the card-index system. The copying of the hospital records was completed in 1890, and work was then begun on the muster rolls and military records of all soldiers, not only in the War of the Rebellion, but also in the Mexican war and the Florida and other Indian wars. Work was first begun on the rolls of the New York troops, which were the most difficult on account of the large number of different organizations. It required eleven months to complete them. As this work progresses, however, the labor of searching is diminished, and the current business of the division can be managed by fewer clerks, leaving a larger force for the permanent work of the preservation of the records. It is expected that by the first of December next there will remain to be transcribed only the rolls of the eight following States: Illinois, Indiana, Massachusetts, Michigan, New Jersey, Ohio, Pennsylvania, and Wisconsin.

These records were rapidly going to destruction, although for generations they will be indispensable for the transaction of the public business. I have already spoken in my previous reports of the necessity of their preservation and of the excellence of the card-index system, not only for the accomplishment of that purpose, but also for the most economical and expeditious use of the information they contain. At the present rate of progress this work can be completed within the

next year and a half, or early in 1893, at which time this Department can dispense with the services of about 600 of its present clerks, at a saving to the Government, in salaries, rent, and otherwise, of at least \$1,000,000 yearly.

These clerks, who have been faithful to their work and whose efficiency has been proved, are entitled to consideration, and I trust some provision may be made for their transfer to other Departments of the governmental service instead of making new appointments in those Departments.

MILITARY RECORDS OF THE REVOLUTION.

These records are scattered and not readily accessible for reference, the most valuable being in the State Department, while others are in the Treasury and Interior Departments. Provision should be made by Congress for collecting these records in one department, where they could be properly indexed and arranged for use when required.

REBELLION RECORDS.

It will require in all 105 books of the present average size to complete the first series which covers all war operations proper. In the nine years previous to July 1, 1889, thirty-six books had been printed. Since that time thirty-one have been completed and distributed, twenty-one of these since September 1, 1890, when the increased appropriation became available. Eight more have been put in type and are being indexed.

The volumes issued during the past year cover the Mine Run campaign of the Army of the Potomac, the operations on the South Atlantic coast in 1863, the Chickamauga campaign, including the battles of Missionary Ridge, Lookout Mountain, and the siege of Knoxville, together with the campaigns in the Wilderness and the Shenandoah Valley, the movements of all the armies to May 1, 1864, and those in West Virginia, Maryland, and Pennsylvania down to August 3, 1864.

The narrative relating to the Trans-Mississippi region has been carried to June 30, 1864, and that relating to the operations of the South Atlantic Coast to November 30, of the same year. The volumes, five in all, relating to the important operations of the Atlanta campaign are now in press and will be printed and distributed before January 1. The present rate of progress will carry the work to the end of 1864 during the current fiscal year, and complete this series embracing the entire official record of the campaigns of the war during the fiscal year ending June 30, 1893.

The second series, which will number twenty books, for which a large amount of valuable matter has already been collected and prepared for compilation, and upon which the work of publication will be commenced as soon as the first series is completed, will contain the correspondence, orders, reports, and returns, Union and Confederate, relating to prisoners of war, and (so far as military authorities are concerned) to State and political prisoners. The second series will be followed by the third and fourth (numbering in all eight volumes), which will contain the reports, orders, and correspondence in regard to the raising of troops, etc., but not relating directly to the military operations.

Since September 1, 1890, 231,000 books have been received from the printer, and 170,212 have been addressed and distributed; 1,100,000 address labels have been printed; 5,984 books have been sold; 16 books have been indexed; 240,000 cards have been used in the preparation of the indexes; 105,206 folios of reports and correspondence have been copied, compared with the originals, and converted into printer's copy; 5,650 galleys and 14,119 pages of proof have been received and revised.

EXAMINATIONS FOR PROMOTION.

Under the provisions of the act of Congress approved October 1, 1890, examinations for promotion have been extended to all officers of the Army below the rank of major. In consequence of its immediate application to a large number of officers previously not subject to any test for promotion, inquiry in the first instance was restricted to subjects requiring but little preparatory study. An amended plan of much larger scope has been prepared and published, which will come into operation on the 1st of January, 1893, thereby giving all interested ample time for preparation. In regard to the line, strictly technical and scientific subjects have been carefully excluded, and the examination confined to matters regarded as applying exclusively to fitness for practical service.

The necessary preparation for examination has stimulated professional study throughout the Army. From the progressive improvement apparent in the records of examining boards, it is believed that the investigations necessary to qualify under the new requirements will result in the most gratifying proficiency, especially in the combatant arms of the service.

LINEAL PROMOTION.

Section 1, of the act of October 1, 1890, provides that promotions in each arm of the service shall be according to seniority in the next lower grade, except that first lieutenants in commission when the law became operative were, by an amendment to the bill, excepted from this provision. The apparent object of the exception was that certain inequalities that had arisen in promotions from second to first lieutenantcies under the old system of regimental promotion might, perhaps, be rectified by the accidental fluctuations possible in future promotions to captaincies. It was an effort to cure an evil by its continuance.

The expectation with regard to the proviso depends entirely upon chance, and is to a great extent fallacious. The disadvantages of the regimental system are made more apparent when applied to only one class of officers, and especially so when contrasted with the uniform and more just results which are obtained in all other grades of the Army. For example, since the passage of the above act first lieutenants of cavalry have been promoted to be captains that stood thirty-seventh, forty-second, and sixty-first, respectively, on the Army Register at the date of their promotions. In the artillery first lieutenants have been promoted that stood eighteenth, twentieth, and twenty-third, respectively, and in the infantry those that stood only one hundred and sixtieth, one hundred and sixty-third, and two hundred and ninth in the lineal list of lieutenants of that arm of the service. The exception should be repealed and the law made to apply uniformly to all.

EFFICIENCY RECORDS.

The Department should have at its immediate disposal correct information relative to the capacity, habits, and professional attainments of each officer of the Army. This information is required by the Secretary and by the superior military authorities in selecting officers for the varied, important, and often-times delicate duties to which they are frequently assigned. I found in the Department no system for procuring or preserving such knowledge for use. The personal acquaintance possessed by a few in the Department and at headquarters regarding a limited number of army officers constituted practically the sole information upon which officers had to be detailed for special duty.

The just claims of every officer are entitled to and should receive consideration. In order to meet this necessity each officer has been required, by general orders, to report upon any studies which he has

pursued in the immediate line of his profession or otherwise, and any special work which he has done; and commanding officers have likewise been required to furnish full reports upon each officer under their command. The information thus obtained constitutes what is known as the efficiency record of officers.

A personal acquaintance with the officers of the Army justifies me in saying that the reports have been made with fairness and great accuracy. These records have been of much assistance in the selection of officers for detached service. The effect upon the officers, also, has been salutary, and must be increased by the knowledge that selection for special service will depend upon their records and not upon influence. If the system thus inaugurated be continued it can not fail to do much good for the service.

CIVILIAN APPOINTMENTS.

As a result of the military legislation of the last session, it has become necessary during the fiscal year to give effect to the act of June 11, 1878, by selecting a number of candidates from civil life for appointment as second lieutenants in the Army. It has been the purpose of the Department in making these selections to secure the best possible material, and to this end the recommendations on file were carefully scrutinized and the instructors at the principal colleges at which military instruction is given were invited to submit the names of those students who, in addition to high scholarship, had evinced the greatest aptitude for the military service. The candidates thus selected were subjected to a rigid examination as to their physical and mental qualifications, and only those who successfully passed were recommended for appointment. Of forty-one candidates who were authorized to appear, twenty-three succeeded in passing most creditable examinations. Of these thirteen had received military instruction under Army officers at colleges. Ten were members of the National Guard. Those first selected have been ordered to Fort Leavenworth for special military instruction, and satisfactory reports have been received of their aptitude and capacity, and of the zeal and energy with which they have entered upon the performance of their duties.

APPRENTICE BATTALION.

The formation of an apprentice battalion, to be composed of boys from sixteen to eighteen years of age, has often been recommended by prominent officers of the Army, and the question of its organization

under the present law has been considered. The purpose of the plan, however, would be better accomplished by the aid of some legislation.

It has been suggested that this battalion be composed of a superior class of lads, one to be selected from each Congressional district, and that they be given a good English education and military and manual training, so as to fit them for either civil life or military service.

I am not prepared to give the measure unqualified recommendation, but it is favored by so many officers of ability and experience that it is entitled to consideration.

MILITIA.

The present method of allotment of the annual appropriation of \$400,000 for arming and equipping the militia, which is prescribed by the act of February 12, 1887 (24 Stats., 401), and which gives to each State an amount proportionate to its Congressional representation, is not such as to produce the best results. The aid given different States is very disproportionate. The amount of Government aid received by some States is not more than half that received by others that maintain double the number of men in their National Guard.

There is no inducement for the maintenance of a greater number of militia than is actually required by the law, but rather the reverse, if economy be consulted. The allotment as now made is not based upon what the States do in return for the appropriation, but what they ought to do. It would be better to help those who help themselves. If the appropriation, or even one-half of it, was distributed upon the basis of the effective force of the National Guard maintained by the several States, it would better accomplish its purpose of encouraging that organization.

By the detail of officers and troops to the various annual encampments throughout the country, the War Department has rendered the National Guard of the several States such assistance as was in its power. The association of this force, necessarily the main dependence of the country in any great war, with the regular Army is of great advantage to both organizations. In this and every other way possible the Federal Government should coöperate with the States in the maintenance and education of the National Guard.

NATIONAL CEMETERIES.

There are eighty-two national cemeteries, in which are buried 328,115 soldiers. Each cemetery is under the care of a superintendent who

served in the Army of the United States and was disabled from active service in the line of duty. The expense of caring for these cemeteries and for "repairs to roadways" leading to them is provided for by an appropriation in the sundry civil bill. But these roadways are *constructed* under special legislation for each case, the amount of the appropriation depending as much upon the skill and energy with which the bill is pressed as upon the necessary cost of a sufficiently good road. The result has been that some cemeteries have fared very much better in the way of road construction than others.

A general appropriation, smaller in amount than the sum of the special appropriations annually made, to be allotted where most needed, would be more just and economical and give more uniform and better general results. It will also be in accord with the general system of construction work by the Quartermaster's Department, where the care of these cemeteries is lodged.

CHICKAMAUGA AND CHATTANOOGA NATIONAL PARK.

The act of August 19, 1890, established a national park at the battlefield of Chickamauga, and placed its supervision and control under the War Department. The act authorized the appointment by the Secretary of War of a commission of three to have immediate charge of the park, and provided that each commissioner named should have actively participated in the battle of Chickamauga or one of the battles about Chattanooga.

Two of the commissioners were required to be appointed from civil life, and the third to be selected from among those officers of the Army best acquainted with the details of the battles of Chickamauga and Chattanooga, to act as secretary of the Commission. Under the provisions of the act I appointed J. S. Fullerton, of Missouri, who was assistant adjutant-general on the staff of Gen. Gordon Granger; Alexander P. Stewart, of Tennessee, a major-general commanding a division in the Confederate Army of Tennessee; Capt. S. C. Kellogg, of the Army, who was aide-de-camp on the staff of General Thomas, as members of the Commission, and Gen. H. V. Boynton, who was lieutenant-colonel commanding the Thirty-fifth Ohio Infantry, as an assistant and expert in historical work.

The Commission has made good progress, in view of the obstacles encountered in acquiring the land. Deeds for a small portion have already been received and are in the hands of the Attorney-General for investi-

gation of title. Not being able to obtain some of the land at a price deemed reasonable, proceedings for condemnation were had. In these cases the land has been appraised, and title can be procured as soon as the money is paid into court. The greater part, however, is now awaiting appraisement, but it is probable that title to most of it will soon be obtained. The States of Georgia and Tennessee have ceded jurisdiction over the park within their respective limits. The Commission has been diligent and earnest, and made the best progress possible under the circumstances.

EXPENDITURES, APPROPRIATIONS, AND ESTIMATES.

Expenditures for fiscal year ending June 30, 1891.

Salaries and contingent expenses	\$2, 150, 646. 53
Military establishment: Support of the Army and Military Academy ..	25, 344, 199. 73
Public works, including river and harbor improvements	16, 061, 478. 96
Miscellaneous objects	7, 894, 439. 46
Total	51, 450, 764. 68

Appropriations for fiscal year ending June 30, 1892.

Salaries and contingent expenses	2, 022, 830. 00
Military establishment: Support of the Army and Military Academy ..	24, 849, 426. 88
Public works, including river and harbor improvements	8, 611, 614. 22
Miscellaneous objects	3, 699, 553. 95
Total	39, 183, 425. 05

Estimates for the fiscal year ending June 30, 1893.

Salaries and contingent expenses	2, 086, 178. 00
Military establishment: Support of the Army and Military Academy ..	26, 299, 170. 77
Public works	13, 208, 393. 00
Miscellaneous objects	4, 381, 861. 60
Total	45, 975, 603. 37

CONCLUSION.

I would refer you to the report of the Major-General Commanding the Army for further information concerning the condition of the Army, and for its operations during the year; to the reports of the several bureaus and divisions of the Department for fuller details of its administration, and to the reports of the Board of Visitors and of the Superintendent concerning the Military Academy. They all contain valuable suggestions, fully and clearly presented.

I have not attempted to make any recapitulation of or merely formal

reference to them. It has seemed better that I should simply discuss those matters with respect to which some particular duty is charged upon me, or which seemed to be of the most general interest to the Army or the Department as a whole. I would call your special attention to the full account, in the report of General Schofield, of the operations of the Army last winter during the troubles with the Sioux Indians. This campaign, which was made in midwinter in a severe climate, was conducted in a manner deserving commendation.

The character and attainments of the older officers of the Army, who made their records during the great war, is too well understood to require any mention; but I wish to pay a well-deserved tribute to the younger officers, who have not had the great war opportunities of their seniors. Nothing in my connection with the Army has gratified me so much as the general high character and professional attainments of the younger officers of the Army, who have made the most of their opportunities under the conditions of comparative peace. It is upon them that we must depend in the future, and they can be implicitly relied upon to be equal to the requirements of any emergency.

As I am about to retire from this Department, I desire to acknowledge the earnest and loyal coöperation which I have at all times received in its administration from all of its officers and officials, and the encouragement and support which I have ever had from you.

REDFIELD PROCTOR,
Secretary of War.

APPENDIX.

APPENDIX

STATEMENT
OF
APPROPRIATION UNDER DIRECTION OF THE WAR DEPARTMENT
FOR THE
FISCAL YEAR ENDING JUNE 30, 1891,
SHOWING
THE AMOUNT APPROPRIATED UNDER EACH TITLE OF APPROPRIATION,
THE AMOUNT DRAWN BY REQUISITION UPON THE TREASURY,
AND THE BALANCES SUBJECT TO REQUISITION JULY 1, 1891.

Statement of appropriations under direction of the War Department for the fiscal year ending June 30, 1891, showing the amount appropriated under each title of appropriation, the amount drawn by requisition upon the Treasury, and the balances subject to requisition July 1, 1891.

Title of appropriation.	Balance July 1, 1890.	Appropriated July 1, 1890, to June 30, 1891.	Repayments July 1, 1890, to June 30, 1891.	Aggregate available.	Payments July 1, 1890, to June 30, 1891.	Carried to surplus fund June 30, 1891.	Balance June 30, 1891.
SALARIES, CONTINGENCIES, ETC.							
Salaries, office of Secretary of War.....	\$5,740.58	\$108,101.12		\$113,841.70	\$104,579.72	\$4,961.06	\$4,300.92
Salaries, office of Adjutant-General.....	20,320.81	227,377.53		247,698.34	225,101.37	10,915.81	11,681.16
Salaries, office of Inspector-General.....	50.00	6,637.81		6,687.81	6,197.25		490.56
Salaries, office of Judge-Advocate General.....	507.10	14,821.65		15,328.75	14,580.00	422.85	325.90
Salaries, Signal Office.....	5,083.96	154,893.70		159,977.66	152,630.53	3,073.96	4,273.17
Salaries, office of Quartermaster-General.....	5,799.92	156,440.00		162,239.92	155,441.99	4,519.92	2,278.01
Salaries, office of Commissary-General.....	925.30	42,760.00		43,685.30	41,730.53	538.60	1,416.17
Salaries, office of Surgeon-General.....	15,146.17	186,528.63		201,674.80	184,372.22	7,256.17	10,046.41
Salaries, office of Paymaster-General.....	368.58	39,523.28		39,891.86	39,379.97	107.05	404.24
Salaries, office of Chief of Ordnance.....	402.02	44,860.00		45,262.02	44,820.98	216.42	224.62
Salaries, office of Chief of Engineers.....	229.44	23,240.00		23,469.44	22,905.29	54.44	509.71
Salaries, office of Publication of Records of the Rebellion.....	2,990.30	31,659.46		34,649.76	29,774.79	1,805.73	3,069.24
Salaries of employes, public buildings and grounds, under Chief Engineer.....		95,240.00		95,240.00	95,239.53	.47	
Contingent expenses, public buildings and grounds, under Chief Engineer.....		1,000.00		1,000.00	984.82	14.52	.66
Salaries, record and pension division, War Department.....	313.34	957,524.15		957,837.49	924,473.01		33,364.48
Disposal of useless papers, War Department.....		300.00		300.00	300.00		
Contingent expenses, War Department.....	5,257.45	57,395.00		62,652.45	62,274.68	106.37	271.40
Postage Postal Union countries, War Department.....	910.85	1,500.00		2,410.85	1,125.00	845.85	440.00
Stationery, War Department.....	29.22	42,000.00		42,029.22	40,534.85	29.22	1,465.15
Rent of buildings, War Department.....	4.31	4,600.00		4,604.31	4,200.00	4.31	400.00
Total salaries, contingent expenses, and postage.....	64,070.35	2,196,402.33		2,260,481.68	2,150,646.53	34,873.35	74,961.80
MILITARY ESTABLISHMENT.							
Expenses of Commanding General's office.....		1,750.00		1,750.00	1,750.00		
Expenses of recruiting.....	29,526.48	138,699.60		168,226.08	104,841.48	4,805.93	58,578.67
Contingencies of the Adjutant-General's Department.....	23.07	2,000.00		2,023.07	1,969.20	23.07	30.80
Contingencies of Inspector-General's Department.....		500.00		500.00	500.00		
Contingencies of the Army.....	1,664.86	18,258.77		19,923.63	16,580.57	189.06	3,154.00
Signal Service of the Army.....	129.20	10,000.00		10,129.20	9,960.00	121.17	48.03
Pay etc., of the Army.....	380,043.07	13,242,994.77		13,623,037.84	13,083,110.32	388,003.57	151,923.95
Subsistence of the Army.....	360,302.26	1,953,025.22		2,313,327.48	1,685,577.24	205,661.49	422,088.75
Regular supplies, Quartermaster's Department.....	139,870.11	2,767,832.84		2,907,702.95	2,454,510.00	116,170.95	337,022.00
Incidental expenses, Quartermaster's Department.....	24,082.08	692,510.99		716,593.07	677,579.88	333.03	38,680.16
Barracks and quarters.....	6,144.44	781,478.16		787,622.60	746,422.66	2,683.99	38,515.95
Transportation of the Army and its supplies.....	6,492.88	3,817,687.16		3,824,180.04	3,390,916.75	3,090.11	430,173.18
Transportation of the Army and its supplies, Pacific railroads.....		267,113.27		267,113.27	267,113.27		
Fifty per centum of arrears of army transportation due certain land-grant railroads.....		24,896.85		24,896.85	24,892.88	3.97	
Horses for cavalry and artillery.....	1,290.34	205,997.36		207,287.70	171,834.65	1,286.34	34,166.71

Construction and repair of hospitals	1, 113.71	100, 007.20	101, 120.91	74, 094.68	855.89	26, 170.34
Quarters for hospital stewards	505.91	12, 500.00	13, 005.91	11, 997.92	385.56	622.43
Shooting galleries and ranges	637.04	14, 496.05	15, 133.09	9, 726.42		5, 406.67
Purchase of land for target ranges, Fort McPherson, Ga.		16, 500.00	16, 500.00			16, 500.00
Rifle range, Fort Sheridan, Ill		10, 000.00	10, 000.00	9, 748.00		252.00
Clothing and camp and garrison equipage	40, 781.16	1, 338, 237.23	1, 379, 018.39	1, 258, 107.28	41, 473.23	79, 437.88
Medical and hospital department	40, 064.02	215, 794.16	255, 858.18	179, 081.77	18, 018.61	58, 757.80
Maintenance Army and Navy Hospital, Hot Springs, Ark	951.64	2, 000.00	2, 951.64	2, 000.00	951.64	
Army Medical Museum		5, 000.00	5, 000.00	5, 000.00		
Library Surgeon-General's Office		10, 000.00	10, 000.00	10, 000.00		
Engineer depot at Willets Point, N. Y	3, 012.94	9, 500.00	12, 512.94	12, 475.33	22.81	14.80
Ordnance stores, etc	1, 016.68	360, 000.00	361, 016.68	345, 340.45	1, 219.20	14, 457.03
Ordnance service	178.47	80, 137.90	80, 316.37	80, 131.99	178.47	5.91
Ordnance material, proceeds of sale	354, 611.32	39, 184.32	393, 795.64	15, 309.45		379, 486.19
Manufacture of arms	49, 862.12	400, 000.00	449, 862.12	408, 498.82		41, 363.30
Manufacture or purchase of magazine guns	1, 255.00		1, 255.00		1, 255.00	
Pay of Military Academy	30, 407.43	229, 945.97	260, 353.40	206, 516.66	18, 943.49	34, 893.25
Current and ordinary expenses, Military Academy	.30	62, 031.15	62, 031.45	58, 899.16	2, 532.29	600.00
Miscellaneous items and incidental expenses, Military Academy ..	37.50	21, 120.00	21, 157.50	19, 712.90	1, 337.30	107.30
Total military establishment	1, 474, 004.03	26, 851, 198.97	28, 325, 203.00	25, 344, 199.73	809, 546.17	2, 171, 457.10
PUBLIC WORKS.						
<i>Buildings and grounds, Military Academy.</i>						
Buildings and grounds, Military Academy	20, 500.00	123, 326.00	143, 826.00	89, 737.46	262.54	53, 826.00
Workshops, Military Academy			\$24.12	24.12	24.12	
New academic building, Military Academy	489, 500.00		489, 500.00	15, 500.00		474, 000.00
New gymnasium, Military Academy	99, 500.00		99, 500.00	53, 000.00		46, 500.00
Quarters for enlisted men, Military Academy			21.96	21.96	21.96	
Total buildings and grounds, Military Academy	609, 500.00	123, 326.00	46.08	732, 872.08	158, 237.46	574, 326.00
Repayments in excess of payments				46.08		
Actual expenditures				158, 191.38		
<i>Arsenals.</i>						
Rock Island Bridge, Rock Island, Ill	24, 692.73	82, 960.00	107, 652.73	97, 372.81		10, 279.92
Rock Island Arsenal, Rock Island, Ill	109, 457.52	158, 000.00	267, 457.52	112, 712.23		154, 745.29
Augusta Arsenal, Augusta, Ga		3, 000.00	3, 000.00	3, 000.00		
Columbia Arsenal, Columbia, Tenn	143, 127.07		143, 127.07	109, 373.53		33, 753.54
Frankford Arsenal, Philadelphia, Pa		6, 000.00	6, 000.00	6, 000.00		
Kennebec Arsenal, Augusta, Me			519.30			519.30
Springfield Arsenal, Springfield, Mass		115, 000.00	115, 000.00	47, 000.00		68, 000.00
Army Gun Factory, Watervliet Arsenal, West Troy, N. Y	331, 596.98	1, 097, 643.00	1, 429, 239.98	213, 478.29		1, 215, 761.69
Watervliet Arsenal, West Troy, N. Y		36, 427.00	36, 427.00	33, 027.00		3, 400.00
Benicia Arsenal, Benicia, Cal		3, 000.00	3, 000.00	3, 000.00		
Watertown Arsenal, Watertown, Mass		7, 500.00	7, 500.00	7, 500.00		
Repairs of arsenals	29.77	50, 000.00	50, 029.77	49, 998.59	30.77	.41
Testing machine	425.10	10, 000.00	10, 425.10	10, 000.00	425.10	

Statement of appropriations under direction of the War Department for the fiscal year ending June 30, 1891, etc.—Continued.

Title of appropriation.	Balances July 1, 1890.	Appropriated July 1, 1890, to June 30, 1891.	Repayments July 1, 1890, to June 30, 1891.	Aggregate available.	Payments July 1, 1890, to June 30, 1891.	Carried to surplus fund June 30, 1891.	Balance June 30, 1891.
PUBLIC WORKS—continued.							
<i>Arsenals—Continued.</i>							
Powder depot, Dover, N. J.....	\$19,299.92			\$19,299.92			\$19,299.92
Proving ground, Sandy Hook, N. J.....		\$66,900.00		66,900.00	\$4,283.00		62,617.00
Selecting site for ordnance proving ground.....			\$443.80	443.80		\$443.80	
Total arsenals.....	628,629.09	1,636,430.00	963.10	2,266,022.19	696,745.45	899.67	1,568,377.07
Repayments in excess of payments.....					963.10		
Actual expenditures.....					695,782.35		
<i>Fortifications.</i>							
Construction of a counterpoise battery.....		40,000.00		40,000.00	2,600.00		37,400.00
Protection of shore, Fortress Monroe, Va.....		27,000.00		27,000.00	5,000.00		22,000.00
Artesian well, Fortress Monroe, Va.....		6,000.00		6,000.00			6,000.00
Armament of fortifications.....	2,677,973.10	3,100,395.00		5,778,368.10	776,880.37		5,001,487.73
Preservation and repair of fortifications.....	51,479.75	160,000.00		211,479.75	110,173.70	5,637.60	95,668.45
Board of ordnance and fortifications.....		150,000.00		150,000.00			150,000.00
Board on fortifications or other defenses.....	28,470.77			28,470.77			28,470.77
Board on army gun factories.....		3,000.00		3,000.00	92.60		2,907.40
Plans for fortifications.....		10,000.00		10,000.00	2,250.00		7,750.00
Torpedoes for harbor defense.....	496,400.00	346,000.00		842,400.00	274,282.26		568,117.74
Torpedo howitzers.....		15,000.00		15,000.00			15,000.00
Machine guns.....	200.00	20,000.00		20,200.00			20,155.20
Ammunition for morning and evening gun.....	30,447.72	20,000.00		50,447.72	32,876.66	1,623.06	15,948.00
Artillery targets.....	9.49	5,000.00		5,009.49	5,000.00	9.49	
Pneumatic dynamite guns.....	587,361.45			587,361.45			587,361.45
Sea walls and embankments.....	16,050.25			16,050.25	6,300.00		9,750.25
Purchase of sites for seacoast defenses.....	100.28			100.28			100.28
Sites for fortifications and seacoast defenses.....		1,000,000.00		1,000,000.00	253,898.36		746,101.64
Gun and mortar batteries.....		1,971,000.00		1,971,000.00	146,158.04		1,824,841.96
Sea wall, Governors Island, New York Harbor.....		50,000.00		50,000.00	5,000.00		45,000.00
Powder and projectiles, proceeds of sales.....	5,938.12			5,938.12	597.85		5,340.27
Contingencies of fortifications, certified claims.....		2,724.29		2,724.29	2,713.89	10.40	
Total fortifications.....	3,894,430.93	6,926,119.29		10,820,550.22	1,623,868.53	7,280.55	9,189,401.14
<i>Buildings and grounds in and around Washington.</i>							
Improvement and care of public grounds.....	2,093.62	66,450.00		68,543.62	65,750.82	1,293.62	1,498.18
Repairs, fuel, etc., Executive Mansion.....		33,000.00		33,000.00	32,239.35	710.89	49.76

Lighting, etc., Executive Mansion	222.00	28,472.00	28,694.00	26,692.86	945.16	1,055.98
Repairs to water pipes and fire plugs	495.94	2,500.00	2,995.94	2,454.07	495.94	45.93
Telegraph to connect the Capitol with the Departments and the Government Printing Office		1,250.00	1,250.00	1,250.00		
Water supply, Executive Mansion	5,300.00		5,300.00			5,300.00
Water supply, District of Columbia	111,709.28		111,709.28	111,709.28		
Building for State, War, and Navy Departments	71,518.81		71,518.81	25,500.00		46,018.81
Increasing the water supply of Washington, D. C.	431,795.17	811.20	432,606.37			432,606.37
Erection of fishways at Great Falls	30,020.32		30,020.32	500.00		29,520.32
Building for Army Medical Museum and Library	1,191.86		1,191.86			1,191.86
Purchase and reconstruction of Aqueduct Bridge, District of Columbia	7.33		7.33		7.33	
Care and maintenance of Washington Monument	7.74	11,120.00	11,127.74	10,996.66	119.10	11.98
Total buildings and grounds in and around Washington	654,362.07	142,792.00	811.20	797,965.27	277,093.04	517,300.19
Repayments in excess of payments				811.20	3,572.04	
Actual expenditures				276,281.84		
<i>Military posts.</i>						
Purchase of land adjoining military reservation at West Point, N. Y.		404.30	404.30		404.30	
Purchase of Fort Brown reservation, Tex.	160,000.00		160,000.00			160,000.00
Fort Marion, Fla.		15,000.00	15,000.00	15,000.00		
Wharf at Fortress Monroe, Va.	27,000.00		28,340.80			28,340.80
Bridge over Mill Creek, Fortress Monroe, Va.		115.78	115.78			115.78
Sewerage system, Fortress Monroe, Va.	24,500.00		24,500.00			24,500.00
Military posts	81,239.69	690,000.00	771,239.69	657,617.45		113,622.24
Officers' quarters, military post at Columbus, Ohio	18.10		471.90			471.90
Military post at Fort D. A. Russell, Wyo.		309.80	309.80	309.80		
Purchase of land adjoining military post at Madison Barracks, N. Y.	7,000.00		7,000.00		7,000.00	
Fort Brady military post, Mich.	107,697.60		107,697.60	10,860.00		96,837.60
Military post at Fort Omaha, Nebr.	123,333.34		123,333.34	9,949.80		113,383.54
Military post, Fort Sidney, Nebr.		15,000.00	15,004.86			15,004.86
Military post near Newport, Ky. (site)	11,972.05		11,972.05			11,972.05
Military post near Newport, Ky. (buildings)	97.63	50,000.00	50,097.63	36,758.12		13,339.51
Military post, Fort Bliss, Tex.		150,000.00	150,000.00	1,041.00		148,959.00
Military post at Fort Robinson, Nebr.		1,330.01	1,330.01	1,330.01		
Military post near Denver, Colo.		5.83	5.83			5.83
Military post, Atlanta, Ga.		75,000.00	75,000.00			75,000.00
Military post near Chicago, Ill.	90,095.88		90,095.88	89,749.22		346.66
Military post, Fort Snelling, Minn.		15,000.00	15,000.00			15,000.00
Military post, Plattsburg, N. Y.		200,000.00	200,000.00			200,000.00
Improvement of National Park, Island of Mackinaw, Mich.	973.98		973.98	973.98		
Improvement of Yellowstone National Park		75,000.00	75,000.00	49,999.90		25,000.10
Chickamauga and Chattanooga National Park		125,000.00	125,000.00	20,246.92		104,753.08
Fort Jefferson, Garden Key, Fla.		652.07	652.07		652.07	
Total military posts	633,928.27	1,411,639.81	2,977.44	2,048,545.52	893,836.20	1,146,652.95
Repayments in excess of payments				2,977.44	8,056.37	
Actual expenditures				890,858.76		

Statement of appropriations under direction of the War Department for the fiscal year ended June 30, 1891—Continued.

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REPORT OF THE SECRETARY OF WAR.

Title of appropriation.	Balances July 1, 1890.	Appropriated July 1, 1890, to June 30, 1891.	Repayments July 1, 1890, to June 30, 1891.	Aggregate available.	Payments July 1, 1890, to June 30, 1891.	Carried to surplus fund June 30, 1891.	Balance June 30, 1891.
PUBLIC WORKS—Continued.							
<i>Harbors and rivers.</i>							
Improving harbor at—							
Belfast, Me.....	\$1,980.16	\$10,000.00	.....	\$11,980.16	\$980.16	.....	\$11,000.00
Rockland, Me.....	.....	37,500.00	.....	37,500.00	8,500.00	.....	29,000.00
York, Me.....	4,985.50	10,000.00	.....	14,985.50	14,985.50	.....	.....
Breakwater from Mount Desert to Porcupine Island, Me.....	82,990.00	50,000.00	.....	82,990.00	5,083.00	.....	77,907.00
Improving harbor at—							
Portland, Me.....	.....	40,000.00	.....	40,000.00	.....	.....	40,000.00
Camden, Me.....	.....	6,000.00	.....	.....	500.00	.....	5,500.00
Improving channel in Back Cove, Portland, Me.....	.....	25,000.00	.....	25,000.00	500.00	.....	24,500.00
Improving harbor at—							
Rockford, Me.....	.....	5,000.00	.....	5,000.00	500.00	.....	4,500.00
Portsmouth, N. H.....	4,497.00	13,000.00	.....	17,497.00	500.00	.....	16,997.00
Harbor of refuge at Little Harbor, N. H.....	.....	40,000.00	.....	40,000.00	7,500.00	.....	32,500.00
Improving harbor at—							
Burlington, Vt.....	7,000.00	20,000.00	.....	27,000.00	8,000.00	.....	19,000.00
Swanton, Vt.....	326.93	.....	.....	326.93	.....	.....	326.93
Breakwater at Gordon's Landing, Lake Champlain, Vt.....	.....	6,000.00	.....	6,000.00	6,000.00	.....	.....
Improving harbor at—							
Boston, Mass.....	22,000.00	145,000.00	.....	167,000.00	31,700.00	.....	135,300.00
Edgartown, Mass.....	.....	2,000.00	.....	2,000.00	600.00	.....	1,400.00
Chatham, Mass.....	.....	5,000.00	.....	5,000.00	600.00	.....	4,400.00
Hingham, Mass.....	.....	5,000.00	.....	5,000.00	5,000.00	.....	.....
Hyannis, Mass.....	.....	8,000.00	.....	8,000.00	8,000.00	.....	.....
Gloucester, Mass.....	.....	15,000.00	.....	15,000.00	.....	.....	15,000.00
Harbor of refuge, Sandy Bay, Cape Ann, Mass.....	10,000.00	150,000.00	.....	160,000.00	48,000.00	.....	112,000.00
Improving harbor at—							
Lynn, Mass.....	.....	15,000.00	.....	15,000.00	5,000.00	.....	10,000.00
Manchester, Mass.....	2,294.00	5,000.00	.....	7,294.00	.....	.....	.....
Nantucket, Mass.....	.....	25,000.00	.....	25,000.00	13,500.00	.....	11,500.00
Newburyport, Mass.....	.....	25,000.00	.....	25,000.00	8,000.00	.....	17,000.00
New Bedford, Mass.....	.....	10,000.00	.....	10,000.00	7,187.31	.....	2,812.69
Plymouth, Mass.....	1,000.00	8,000.00	.....	9,000.00	6,000.00	.....	3,000.00
Provincetown, Mass.....	990.00	7,500.00	.....	8,490.00	990.00	.....	7,500.00
Scituate, Mass.....	.....	10,000.00	.....	10,000.00	.....	.....	10,000.00
Salem, Mass.....	.....	14,000.00	.....	14,000.00	100.00	.....	13,900.00
Vineyard Haven, Mass.....	2,748.00	10,000.00	.....	12,748.00	11,248.26	.....	1,502.74
Wareham, Mass.....	.....	5,000.00	.....	5,000.00	3,187.58	.....	1,812.42
Winthrop, Mass.....	1,000.00	5,000.00	.....	6,000.00	6,000.00	.....	.....
Wellfleet, Mass.....	.....	4,000.00	.....	4,000.00	.....	.....	4,000.00

Westport, Mass.	1,000.00	1,000.00	1,000.00	
Harbor of Refuge, Point Judith, R. I.	75,000.00	75,000.00	43,500.00	31,500.00
Improving cove, Coasters Harbor Island, R. I.	5,500.00	5,500.00	5,500.00	
Improving harbor at—				
Rock Island, R. I.	15,000.00	15,000.00	10,200.00	4,800.00
Greenwich Bay, R. I.	2,000.00	2,000.00	2,000.00	
Newport, R. I.	12,500.00	12,500.00	12,500.00	
Breakwater at New Haven, Conn.	14,946.00	130,000.00	134,946.00	110,908.00
Harbor of Refuge at Duck Island, Conn.		25,000.00	25,000.00	17,500.00
Improving harbor at—				
Bridgeport Conn.	744.00	20,000.00	20,744.00	14,244.00
Black Rock, Conn.		5,000.00	5,000.00	5,000.00
Clinton, Conn.		3,500.00	3,500.00	
Five-mile River, Conn.	50.00	5,000.00	5,050.00	5,050.00
Milford, Conn.		2,500.00	1,500.00	1,000.00
New Haven, Conn.		15,000.00	15,000.00	500.00
Norwalk, Conn.	4,000.00		4,000.00	4,000.00
Stonington, Conn.		12,500.00	12,500.00	
Stamford, Conn.		5,000.00	4,500.00	500.00
Wilson Point, Conn.		30,000.00	12,000.00	18,000.00
Improving Buttermilk Channel, N. Y.	65,000.00		65,000.00	30,837.00
Improving Arthur Kill between Staten Island and New Jersey, N. Y., and N. J.		7,000.00	7,000.00	750.00
Breakwater at Rouse's Point, Lake Champlain, N. Y.		15,000.00	15,000.00	3,500.00
Improving harbor at Buffalo, N. Y.	24,744.00	300,000.00	324,744.00	168,244.00
Improving Canarsie Bay, N. Y.	396.00	5,000.00	5,396.00	5,000.00
Improving channel between Staten Island and New Jersey, N. Y. and N. J.		15,000.00	15,000.00	2,500.00
Improving channel in Gowanus Bay, N. Y.	20,000.00	160,000.00	180,000.00	115,000.00
Improving harbor at Charlotte, N. Y.	15,302.58	25,000.00	40,302.58	30,764.58
Improving Flushing Bay, N. Y.		20,000.00	20,000.00	15,000.00
Improving harbor at—				
Great Sodus Bay, N. Y.	3,321.94	10,000.00	13,321.94	10,000.00
Greenport, N. Y.		5,000.00	5,000.00	1,500.00
Glen Cove, N. Y.		15,000.00	15,000.00	9,000.00
Huntington, N. Y.		10,000.00	10,000.00	6,500.00
Larchmont, N. Y.		5,000.00	5,000.00	
Little Sodus Bay, N. Y.	776.78	13,000.00	13,776.78	13,000.00
Oak Orchard, N. Y.		5,000.00	5,000.00	3,000.00
Dunkirk, N. Y.	498.41	20,000.00	20,498.41	8,498.41
Ogdensburg, N. Y.	4,970.00	42,000.00	46,970.00	37,000.00
Olcott, N. Y.		30,000.00	30,000.00	16,500.00
Oswego, N. Y.	55,182.82	30,000.00	85,182.82	25,044.82
Port Chester, N. Y.		5,000.00	5,000.00	500.00
Port Jefferson, N. Y.	374.76	25,000.00	25,374.76	22,874.76
Plattsburgh, N. Y.		32,500.00	32,500.00	26,000.00
Pultneyville, N. Y.		2,000.00	2,000.00	1,000.00
Rondout, N. Y.		5,000.00	5,000.00	5,000.00
Saugerties, N. Y.		10,000.00	10,000.00	
Improving Tonawanda Harbor and Niagara River, N. Y.	20,067.00	75,000.00	95,067.00	63,000.00
Improving New York Harbor, N. Y.	200,000.00	160,000.00	360,000.00	90,000.00

Statement of appropriations under direction of the War Department, for the fiscal year ending June 30, 1891, etc.—Continued.

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REPORT OF THE SECRETARY OF WAR.

Title of appropriation.	Balances July 1, 1890.	Appropriated July 1, 1890, to June 30, 1891.	Repayments July 1, 1890, to June 30, 1891.	Aggregate available.	Payments July 1, 1890, to June 30, 1891.	Carried to surplus fund June 30, 1891.	Balance June 30, 1891.
PUBLIC WORKS—continued.							
<i>Harbors and rivers—Continued.</i>							
Improving harbor at—							
Sackett's Harbor, N. Y.	\$500.00			\$500.00	\$500.00		
Mamaroneck, New York	220.55			220.55			\$220.55
Improving Sheepshead Bay, N. Y.	478.00			478.00	478.00		
Improving Raritan Bay, N. J.		\$40,000.00		40,000.00	20,000.00		20,000.00
Survey of harbor at Atlantic City, N. J.	991.40		\$5.09	996.49			996.49
Improving Shoal Harbor and Compton's Creek, N. J.		5,000.00		5,000.00	4,500.00		500.00
Improving harbor between Philadelphia, Pa., and Camden, N. J.	199,000.00	500,000.00		699,000.00	32,500.00		666,500.00
Improving harbor at Erie, Pa.	39,886.62	40,000.00		79,886.62	37,100.00		42,786.62
Improving Marcus Hook, Pennsylvania.		5,000.00		5,000.00			5,000.00
Ice harbor at—							
New Castle, Del.	6,983.00	8,100.00		15,083.00			15,083.00
Reedy Island, Del.	15,926.90		350.03	16,276.93	40.00		16,236.93
Constructing pier in Delaware Bay near Lewes, Del.	10,000.00			10,000.00	10,000.00		
Improving harbor at—							
Delaware Breakwater, Del.		80,000.00		80,000.00	20,000.00		60,000.00
Wilmington, Del.		30,000.00		30,000.00	20,000.00		10,000.00
Removing obstructions from the harbor at Delaware Breakwater, Del.			734.08	734.08			734.08
Improving harbor at—							
Baltimore, Md.	39,892.00	491,200.00		531,092.00	181,300.00		349,792.00
Breton Bay, Leonardtown, Md.		5,000.00		5,000.00	4,100.00		900.00
Annapolis, Md.	1,524.58			1,524.58			1,524.58
Cambridge, Md.		5,000.00		5,000.00			5,000.00
Cape Charles City, Va.		25,000.00		25,000.00	25,000.00		
Norfolk, Va.		150,000.00		150,000.00	29,968.71		120,031.29
Onancock, Va.		6,000.00		6,000.00	3,000.00		3,000.00
Beaufort, N. C.	2,000.00	15,000.00		17,000.00	2,100.00		14,900.00
Improving Edenton Bay, N. C.	2,447.41			2,447.41			2,447.41
Improving water way between—							
New Berne and Beaufort, N. C.	7,477.00			7,477.00			7,477.00
Beaufort Harbor and New River, N. C.		15,000.00		15,000.00	10,500.00		4,500.00
Improving harbor at—							
Charleston, S. C.	191,825.00	370,000.00		561,825.00	286,825.00		275,000.00
Georgetown, S. C.		8,000.00		8,000.00			8,000.00
Improving Winyaw Bay, S. C.	88,744.00	100,000.00		188,744.00	16,744.00		172,000.00
Improving harbor at—							
Brunswick, Ga.		35,000.00		35,000.00	25,500.00		9,500.00
Darien, Ga.		25,000.00		25,000.00	13,000.00		12,000.00
Savannah, Ga.	2,225.00	350,000.00		352,225.00	327,000.00		25,225.00

Improving Cumberland Sound, Georgia and Fla.....		112,500.00		112,500.00	43,000.00		69,500.00
Improving Apalachicola Bay, Florida.....		20,000.00		20,000.00	2,000.00		18,000.00
Improving channel, Charlotte Harbor and Pease Creek, Fla.....		35,000.00		35,000.00	5,000.00		30,000.00
Improving Tampa Bay, Fla.....		25,000.00		25,000.00	10,000.00		15,000.00
Improving harbor at—							
Cedar Keys, Fla.....		2,500.00		2,500.00	2,500.00		
Key West, Fla.....		6,955.00		46,955.00	21,955.00		25,000.00
Pensacola, Fla.....	6,000.00	25,000.00		31,000.00	6,000.00		25,000.00
St. Augustine, Fla.....		20,000.00		20,000.00	20,000.00		
Mobile, Ala.....		350,000.00		350,000.00	90,000.00		260,000.00
Improving Biloxi Bay, Miss.....	13,458.00	9,000.00		22,458.00	13,458.00		9,000.00
Improving ship channel in Galveston Bay, Tex.....	15,000.00	40,000.00		55,000.00	5,040.00		49,960.00
Improving harbor at—							
Brazos Santiago, Tex.....	57,865.00			57,865.00	1,010.00		56,855.00
Galveston, Tex.....	90,000.00	1,100,000.00		1,190,000.00	90,000.00		1,100,000.00
Ashtabula, Ohio.....		40,000.00		40,000.00	10,000.00		30,000.00
Black River, Ohio.....		12,000.00		12,000.00	6,500.00		5,500.00
Cleveland, Ohio.....		75,000.00		75,000.00	27,000.00		48,000.00
Fairport, Ohio.....		30,000.00		30,000.00	15,700.00		14,300.00
Huron, Ohio.....		16,000.00		16,000.00	9,000.00		7,000.00
Port Clinton, Ohio.....		3,000.00		3,000.00	1,000.00		2,000.00
Sandusky City, Ohio.....		45,000.00		45,000.00	15,000.00		30,000.00
Toledo, Ohio.....		205,000.00		205,000.00	37,000.00		168,000.00
Mouth of Muskingum River, Ohio.....		30,000.00		30,000.00	13,000.00		17,000.00
Vermillion, Ohio.....		2,000.00		2,000.00			2,000.00
Michigan City, Ind.....	3,000.00	57,500.00		60,500.00	24,358.28		36,141.72
Calumet, Ill.....	4,088.00	20,000.00		24,088.00	8,625.00		15,463.00
Chicago, Ill.....	16,544.75	100,000.00		116,544.75	26,544.75		90,000.00
Waukegan, Ill.....	3,983.00	35,000.00		38,983.00	17,983.00		21,000.00
St. Louis, Mo.....		182,000.00		182,000.00	120,000.00		62,000.00
Harbor of refuge at—							
Grand Marais, Mich.....	1,611.22	50,000.00		51,611.22	1,721.95		49,889.27
Portage Lake, Mich.....		8,000.00		8,000.00	4,000.00		4,000.00
Sand Beach, Mich.....		30,000.00		30,000.00			30,000.00
Improving harbor at—							
Black Lake, Mich.....		10,000.00		10,000.00	6,000.00		4,000.00
Charlevoix, Mich.....		9,000.00		9,000.00	7,000.00		2,000.00
Frankfort, Mich.....		10,000.00		10,000.00	5,000.00		5,000.00
Grand Haven, Mich.....		75,000.00		75,000.00	32,000.00		43,000.00
Manistee, Mich.....		50,000.00		50,000.00	27,000.00		23,000.00
Cheboygan, Mich.....	18,000.00			18,000.00	45.00		17,955.00
Ludington, Mich.....	50,000.00			50,000.00	43,000.00		7,000.00
Manistiquie, Mich.....	2,500.00			2,500.00			2,500.00
Marquette, Mich.....	4,882.00	40,000.00		44,882.00	10,700.00		34,182.00
Monroe, Mich.....		5,000.00		5,000.00	5,000.00		
Muskegon, Mich.....		10,000.00		50,000.00	20,000.00		30,000.00
Ontonagon, Mich.....		10,000.00		11,804.80	11,804.80		
Pentwater, Mich.....	1,804.80	8,000.00		8,000.00	5,000.00		3,000.00
Petosky, Mich.....		15,000.00		15,000.00			15,000.00
St. Joseph, Mich.....		20,000.00		20,000.00	15,000.00		5,000.00
South Haven, Mich.....		15,000.00		15,000.00	9,000.00		6,000.00
Thunder Bay, Mich.....		5,500.00		5,500.00	5,500.00		

Statement of appropriations under direction of the War Department for the fiscal year ending June 30, 1891, etc.—Continued.

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Title of appropriation.	Balances July 1, 1890.	Appropriated July 1, 1890, to June 30, 1891.	Repayments July 1, 1890, to June 30, 1891.	Aggregate available.	Payments July 1, 1890, to June 30, 1891.	Carried to surplus fund June 30, 1891.	Balance June 30, 1891.
PUBLIC WORKS—continued.							
<i>Harbors and rivers—Continued.</i>							
Improving harbor at—							
White River, Mich.....		\$17,000.00		\$17,000.00	\$5,000.00		\$12,000.00
Improving Eagle Harbor, Mich.....	\$2,486.33			2,486.33			2,486.33
Improving mouth and harbor of Cedar River, Mich.....	2,000.00			2,000.00			2,000.00
Harbor of Refuge, Lake Huron, Mich.....	34,940.20			34,940.20	20,075.00		14,865.20
Steam launch or tug at Harbor of Refuge, Lake Huron, Mich.....	4,098.86			4,098.86		4,098.86	
Purchase of Portage Lake and Lake Superior canals, Mich.....		350,000.00		350,000.00			350,000.00
Preservation of Portage Lake and Lake Superior canals, Mich.....		10,000.00		10,000.00			10,000.00
Improving harbor at—							
Ahnapee, Wis.....	981.00	6,000.00		6,981.00	2,981.00		4,000.00
Ashland, Wis.....	11,494.40	60,000.00		71,494.40	22,230.00		49,264.40
Green Bay, Wis.....	6,000.00	10,000.00		16,000.00	9,000.00		7,000.00
Kenosha, Wis.....	993.00	17,500.00		18,493.00	7,493.00		11,000.00
Kewaunee, Wis.....		20,000.00		20,000.00	15,500.00		4,500.00
Manitowoc, Wis.....		8,000.00		8,000.00	6,944.87		1,055.13
Menomonee, Wis.....	4,974.00			4,974.00	2,949.51		2,024.49
Milwaukee, Wis.....		6,000.00		6,000.00			6,000.00
Oconto, Wis.....	3,000.00			3,000.00	1,000.00		2,000.00
Pensaukee, Wis.....	3,500.00			3,500.00			3,500.00
Port Washington, Wis.....		3,000.00		3,000.00			3,000.00
Racine, Wis.....		17,500.00		17,500.00	2,000.00		15,500.00
Superior Bay and Saint Louis Bay, Wis.....	15,603.70	65,000.00		80,603.70	27,640.00		52,963.70
Sheboygan, Wis.....	992.00	15,000.00		15,992.00	5,392.00		10,600.00
Two Rivers, Wis.....		3,000.00		3,000.00	2,500.00		500.00
Improving Harbor of Refuge, Milwaukee Bay, Wis.....	3,987.00	80,000.00		83,987.00	9,987.00		74,000.00
Harbor of Refuge at entrance of Sturgeon Bay Canal, Wis.....		3,000.00		3,000.00	1,000.00		2,000.00
Improving Minnesota Point at Superior, Wis.....		4,895.00		4,895.00	4,895.00		
Ice harbor at Dubuque, Iowa.....	4,503.99			4,503.99			4,503.99
Improving harbor at—							
Agate Bay, Minn.....	1,897.40	25,000.00		26,897.40	1,100.00		25,797.40
Grand Marais, Minn.....	1,132.50	22,350.00		23,482.50	7,482.50		16,000.00
Duluth, Minn.....	13,303.60	100,000.00		113,303.60	68,327.60		44,976.00
Breakwater and harbor of refuge between Straits of Fuca and San Francisco, Cal.....	141,373.08			141,373.08	514.56		140,858.52
Improving Humboldt Harbor and Bay, Cal.....	105,000.00	80,000.00		185,000.00	76,265.00		108,735.00
Improving harbor at—							
Oakland, Cal.....	97,689.00	250,000.00		347,689.00	130,245.00		217,444.00
Wilmington, Cal.....	112,391.10	34,000.00		146,391.10	95,280.00		51,111.10
San Luis Obispo, Cal.....		40,000.00		40,000.00	15,000.00		25,000.00
San Diego, Cal.....		60,500.00		60,500.00	13,500.00		47,000.00

REPORT OF THE SECRETARY OF WAR.

Survey of San Francisco Harbor, San Pablo and Suisun bays, Strait of Carquinez, and mouths of San Joaquin and Sacramento rivers, Cal.	1,000.00		1,000.00		1,000.00
Survey of Pacific coast between Points Duma and Capistrano, Cal.		5,000.00	5,000.00	1,500.00	3,500.00
Improving—					
Entrance to Coos Bay and Harbor, Oregon		125,000.00	125,000.00	85,000.00	40,000.00
Yaquina Bay, Oregon		165,000.00	165,000.00	95,000.00	70,000.00
Tillamook Bay and Bar, Oregon		500.00	500.00	500.00	
Nehalem Bay, Oregon		10,000.00	10,000.00	1,500.00	8,500.00
Lubec Channel, Me.	10,497.00		10,497.00	10,497.00	
Moosebec Bar at Jonesport, Me.	1,500.00	15,000.00	16,500.00	4,500.00	12,000.00
Bagaduce River, Me.	2,800.00	4,000.00	6,800.00		6,800.00
Kennebunk River, Me.		20,000.00	20,000.00	3,500.00	16,500.00
Kennebec River, Me.	19,031.00	50,000.00	69,031.00	64,031.00	5,000.00
Penobscot River, Me.	11,995.00	25,000.00	36,995.00	9,930.00	27,065.00
Pleasant River, Me.		3,500.00	3,500.00	3,500.00	
Narragausus River, Me.		7,500.00	7,500.00	7,500.00	
Saco River, Me.		65,000.00	65,000.00	11,500.00	53,500.00
Saint Croix River, Me.		35,000.00	35,000.00		35,000.00
Harriscekit River, Me.		10,000.00	10,000.00		10,000.00
Bellamy River, N. H.		10,000.00	10,000.00	500.00	9,500.00
Cocheo River, N. H.		25,000.00	25,000.00	2,500.00	22,500.00
Otter Creek, Vt.		5,000.00	5,000.00	50.00	4,950.00
Ipswich River, Mass.	2,395.00		2,395.00		2,395.00
Merrimac River, Mass.		10,000.00	10,000.00	100.00	9,900.00
Powow River, Mass.	3,000.00	5,000.00	8,000.00		8,000.00
Taunton River, Mass.		7,000.00	7,000.00	5,900.00	1,100.00
Weymouth River, Mass.		10,000.00	10,000.00	10,000.00	
Removing Green Jacket Shoal, Providence River, R. I.		25,000.00	25,000.00	20,739.93	4,260.07
Improving—					
Providence River and Narragansett Bay, R. I.		50,000.00	50,000.00	30,600.00	19,400.00
Pawcatuck River, R. I.		16,600.00	16,600.00	8,586.92	8,013.08
Pawtucket River, R. I.		30,000.00	30,000.00	16,780.05	13,219.95
Connecticut River, between Hartford and Holyoke, Conn.	8,940.30		8,940.30		8,940.30
Connecticut River, Conn.		12,500.00	12,500.00	8,000.00	4,500.00
Housatonic River, Conn.	18,481.00	35,000.00	53,481.00	17,546.00	35,935.00
Mystic River, Conn.		10,000.00	10,000.00	5,000.00	5,000.00
Thames River, Conn.	12,951.00	20,000.00	32,951.00	10,033.00	22,918.00
Removing obstructions in East River and Hell Gate, N. Y.	80,000.00	200,000.00	280,000.00	90,000.00	190,000.00
Improving—					
Brown's Creek, N. Y.		12,000.00	12,000.00	500.00	11,500.00
East Chester Creek, N. Y.	6,941.00		6,941.00		6,941.00
Narrows at Lake Champlain, New York and Vermont,	1,989.00		1,989.00		1,989.00
Grass River, N. Y.		6,000.00		6,000.00	
Great Chazy River, N. Y.		10,000.00	10,000.00	5,000.00	5,000.00
Harlem River, N. Y.	145,000.00	250,000.00	395,000.00	70,365.00	324,635.00
Hudson River, N. Y.	58,000.00	150,000.00	208,000.00	95,000.00	113,000.00
Patchogue River, N. Y.		15,000.00	15,000.00	2,500.00	12,500.00
St. Lawrence River, N. Y.	5,000.00		5,000.00	5,000.00	
Ticonderoga River, N. Y.		2,000.00	2,000.00	50.00	1,950.00
Newtown Creek, N. Y.	5,000.00	35,000.00	40,000.00	40,000.00	
Wappingers Creek, N. Y.		13,000.00	13,000.00	1,000.00	12,000.00
Alloway Creek, N. J.		6,000.00	6,000.00	6,000.00	

Title of appropriation.	Balances July 1, 1890.	Appropriated July 1, 1890, to June 30, 1891.	Repayments July 1, 1890, to June 30, 1891.	Aggregate available.	Payments July 1, 1890, to June 30, 1891.	Carried to surplus fund June 30, 1891.	Balance June 30, 1891.
PUBLIC WORKS—continued.							
<i>Harbors and Rivers—Continued.</i>							
Improving—							
Mattawan Creek, N. J.		\$2,500.00		\$2,500.00			\$2,500.00
Elizabeth River, N. J.		5,000.00		5,000.00	\$500.00		4,500.00
Maurice River, N. J.		8,000.00		8,000.00			8,000.00
Passaic River, N. J.	\$4,704.00	45,100.00		49,804.00	2,454.00		47,350.00
Raritan River, N. J.	8,429.00	50,000.00		58,429.00	23,929.00		34,500.00
Shrewsbury River, N. J.		10,000.00		10,000.00	9,000.00		1,000.00
South River, N. J.	1,194.00	5,000.00		6,194.00	4,500.00		1,694.00
Raccoon River, N. J.	2,242.77			2,242.77			2,242.77
Squan River, N. J.		2,000.00		2,000.00			2,000.00
Dam at Herr Island, Allegheny River, near Pittsburg, Pa.	33,679.90	85,000.00		68,679.90	85.00		68,594.90
Purchase of Upper Lock and Dam, Monongahela River, between Pittsburg, Pa., and Morgantown, W. Va.	161,733.13	162,000.00		323,733.13	400.00		323,333.13
Cost of condemnation of Upper Lock and Dam, Monongahela River, between Pittsburg, Pa., and Morgantown, W. Va.	2,533.87	5,000.00		7,533.87	2,431.55		5,102.32
Improving—							
Allegheny River		20,000.00		20,000.00	2,943.64		17,056.36
Delaware River, Pa. and N. J.	52,000.00	250,000.00		302,000.00	71,500.00		230,500.00
Schuylkill River		45,000.00		45,000.00	20,500.00		24,500.00
Survey of Delaware River between Philadelphia, Pa., and Camden, N. J.	4,465.28			4,465.28			4,465.28
Improving—							
Appoquinimink River, Del.		5,000.00		5,000.00	5,000.00		
Broadkin River, Del.	3,478.00			3,478.00	3,478.00		
Smyrna River, Del.		5,000.00		5,000.00	5,000.00		
Fairlee Creek, Md.		5,000.00		5,000.00	5,000.00		
Choptank River, Md.	3,983.00	7,500.00		11,483.00	4,483.00		7,000.00
Chester River, Md.	2,958.54	5,000.00		7,958.54	500.00		7,458.54
Elk River, Md.		10,000.00		10,000.00	2,700.00		7,300.00
North East River, Md.		2,500.00		2,500.00	2,500.00		
Manokin River, Md.		7,500.00		7,500.00	7,500.00		
Patuxent River, Md.		6,000.00		6,000.00	5,100.00		900.00
Susquehanna River near Havre de Grace, Md.		4,000.00		4,000.00			4,000.00
Wicomico River, Md.	957.06	10,000.00		10,957.06	200.00		10,757.06
Potomac River	5,000.00	280,000.00		285,000.00	83,000.00		202,000.00
Water way from Chincoteague Bay to Indian River Bay, Va., Md., and Del.	39,950.00	50,000.00		89,950.00	39,950.00		50,000.00
Hampton Creek and Bar, Va.		10,000.00		10,000.00	200.00		9,800.00
Acquia Creek, Va.		10,000.00		10,000.00	3,700.00		6,300.00
Ocoquan Creek, Va.		10,000.00		10,000.00	4,200.00		5,800.00
Nomini Creek, Va.	500.00	5,000.00		5,500.00	5,500.00		
Urbana Creek, Va.		3,000.00		3,000.00	1,300.00		1,700.00
Appomattox Creek, Va.		15,000.00		15,000.00	8,500.00		6,500.00

Chickahominy Creek, Va.		2,500.00		2,500.00	250.00		2,250.00
James River Creek, Va.		200,000.00		200,000.00	110,000.00		90,000.00
Mattaponi River, Va.		3,000.00		3,000.00	2,300.00		700.00
Nansemond River, Va.	1,000.00	10,000.00		11,000.00			11,000.00
Potomac River at Mount Vernon, Va.		2,500.00		2,500.00	2,500.00		
Pamunky River, Va.		3,000.00		3,000.00	2,300.00		700.00
Rappahannock River, Va.	2,350.00	15,000.00		17,350.00	8,433.03		8,916.97
Staunton River, Va.	201.00	8,000.00		8,201.00	366.26		7,834.74
York River, Va.	1,100.00	30,000.00		31,100.00	12,100.00		19,000.00
North Landing River, Va. and N. C.	2,500.00			2,500.00			2,500.00
New River, Va. and W. Va.	2,341.79			2,341.79			2,341.79
Dan River, Va. and N. C.			\$39.63	39.63			39.63
Big Sandy River, W. Va. and Ky.	11,445.00	36,000.00		47,445.00	31,445.00		16,000.00
Elk River, W. Va.		2,500.00		2,500.00	2,500.00		
Buckhannon River, W. Va.		1,900.00		1,900.00	1,000.00		
Cheat River, W. Va.		13,000.00		13,000.00	8,000.00		5,000.00
Gauley River, W. Va.		3,000.00		3,000.00	3,000.00		
Guyandotte River, W. Va.		2,000.00		2,000.00	2,000.00		
Great Kanawha River, W. Va.	159,559.00	300,000.00		459,559.00	100,400.00		359,159.00
Little Kanawha River, W. Va.		40,000.00		40,000.00	35,000.00		5,000.00
Monongahela River, W. Va.	4,924.00			4,924.00	4,924.00		
Shenandoah River, W. Va.	15,583.40		477.55	16,060.95	40.00		16,020.95
Water way from Norfolk Harbor, Va. to Albemarle Sound, N. C.		10,000.00		10,000.00	700.00		9,300.00
Ocracoke Inlet, N. C.		90,000.00		90,000.00	3,000.00		87,000.00
Water way between New River and Swansboro, N. C.		5,000.00		5,000.00	800.00		4,200.00
Contentinia Creek, N. C.		7,000.00		7,000.00	5,000.00		2,000.00
Fishing Creek, N. C.		10,000.00		10,000.00			10,000.00
Mackey Creek, N. C.		15,000.00		15,000.00	500.00		14,500.00
Cape Fear River, N. C.	1.50	190,000.00		190,001.50	70,000.00		120,001.50
Pasquotank River, N. C.		3,000.00		3,000.00	3,000.00		
New River, N. C.	2,990.00	5,000.00		7,990.00			7,990.00
Neuse River, N. C.	1,973.85	20,000.00		21,973.85	11,966.00		10,007.85
Lockwoods Folly River, N. C.		5,000.00		5,000.00	5,000.00		
Lumber River, N. C.	1,990.00	5,000.00		6,990.00	3,490.00		3,500.00
Pamlico and Tar Rivers, N. C.	1,490.00	10,000.00		11,490.00	2,990.00		8,500.00
Roanoke River, N. C.	6.76	25,000.00		25,006.76	8,000.00		17,006.76
Roanoke River, N. C. and Va.	11,000.00			11,000.00	11,000.00		
Trent River, N. C.	13.50	5,000.00		5,013.50	5,000.00		13.50
Yankin River, N. C.		5,000.00		5,000.00	3,300.00		1,700.00
Waccamaw River, N. C. and S. C.		12,500.00		12,500.00	9,000.00		3,500.00
Mingo Creek, S. C.		5,000.00		5,000.00	2,500.00		2,500.00
Wappoo Cut, S. C.	1,646.00	10,000.00		11,646.00	11,646.00		
Ashley River, S. C.	755.37			755.37			755.37
Beaufort River, S. C.		12,500.00		12,500.00	4,200.00		8,300.00
Congaree River, S. C.	1,000.00	5,000.00		6,000.00	4,500.00		1,500.00
Clark River, S. C.		2,500.00		2,500.00	500.00		2,000.00
Edisto River, S. C.		5,000.00		5,000.00	2,000.00		3,000.00
Great Pee Dee River, S. C.	2,011.75	12,500.00		14,511.75	6,100.00		8,411.75
Little Pee Dee River, S. C.		5,000.00		5,000.00	3,000.00		2,000.00
Salkihatchie River, S. C.		5,000.00		5,000.00	1,000.00		4,000.00
Santee River, S. C.	1.89	30,000.00		30,001.89	14,500.00		15,501.89
Wateroe River, S. C.	6,972.06	12,500.00		19,472.06	6,972.00		12,500.00

Statement of appropriations under direction of the War Department for the fiscal year ending June 30, 1891, etc.—Continued.

Title of appropriation.	Balances July 1, 1890.	Appropriated July 1, 1890, to June 30, 1891.	Repayments July 1, 1890, to June 30, 1891.	Aggregate available.	Payments July 1, 1890, to June 30, 1891.	Carried to surplus fund June 30, 1891.	Balance June 30, 1891.
PUBLIC WORKS—continued.							
Harbors and rivers—Continued.							
Improving—							
Jekyl Creek, Ga.		\$7,500.00		\$7,500.00	\$7,000.00		\$500.00
Altamaha River, Ga.		15,000.00		15,000.00	6,000.00		9,000.00
Chattahoochee River, Ga. and Ala.		20,000.00		20,000.00	15,000.00		5,000.00
Coosa River, Ga. and Ala.		300,000.00		300,000.00	82,981.73		217,018.27
Flint River, Ga.		20,000.00		20,000.00	7,500.00		12,500.00
Ocmulgee River, Ga.		30,000.00		30,000.00	22,500.00		7,500.00
Oconee River, Ga.	\$0.25	25,000.00		25,000.25	20,500.00		4,500.25
Oostenaula and Coosawattee rivers, Ga.	499.39			499.39			499.39
Savannah River, Ga.		25,000.00		25,000.00	10,500.00		14,500.00
La Grange Bayou, Fla.	4,839.20	3,000.00		7,839.20	3,000.00		4,839.20
Sarasota Bay, Fla.		5,000.00		5,000.00	1,500.00		3,500.00
Volusia Bar, Fla.		500.00		500.00	500.00		
Acklawaha River, Fla.		10,000.00		10,000.00	2,500.00		7,500.00
Apalachicola River, Fla.		2,000.00		2,000.00	2,000.00		
Choctawhatchee River, Fla. and Ala.	492.00	12,500.00		12,992.00	4,992.00		8,000.00
Caloosahatchee River, Fla.		3,600.00		3,600.00	3,600.00		
Manatee River, Fla.		6,000.00		6,000.00			6,000.00
Saint Johns River, Fla.	14,930.05	170,000.00		184,930.05	50,000.00		134,930.05
Suwanee River, Fla.		3,000.00		3,000.00	3,000.00		
Withlacoochee River, Fla.		5,400.00		5,400.00	1,400.00		4,000.00
Escambia and Conecuh rivers, Fla. and Ala.	1,000.00	7,500.00		8,500.00	4,488.58		4,013.41
Alabama River, Ala.	3,000.00	20,000.00		23,000.00	7,995.57		15,004.43
Black Warrior River, Ala.	4,646.40	150,000.00		154,646.40	59,646.40		95,000.00
Cahaba River, Ala.	6,982.00			6,982.00	3,000.00		3,982.00
Tallapoosa River, Ala.		4,000.00		4,000.00	947.85		3,052.15
Warrior and Tombigbee rivers, Ala.		125,000.00		125,000.00	55,000.00		70,000.00
Yazoo River, Miss.	2,000.00	25,000.00		27,000.00	15,000.00		12,000.00
Bluff Creek, Miss.		1,000.00		1,000.00			1,000.00
Tchula Lake, Miss.		3,000.00		3,000.00			3,000.00
Steele Bayou, Miss.		2,500.00		2,500.00			2,500.00
Big Black River, Miss.	5,000.00			5,000.00	2,500.00		2,500.00
Big Sunflower River, Miss.		5,000.00		5,000.00	5,000.00		
Chickasaw River, Miss.		5,000.00		5,000.00	1,500.00		3,500.00
Leaf River, Miss.		5,000.00		5,000.00	1,500.00		3,500.00
Noxubee River, Miss.		3,000.00		3,000.00			3,000.00
Pascagoula River, Miss.	10,000.00	20,000.00		30,000.00	25,025.00		4,975.00
Pearl River, Miss.	3,981.00	28,000.00		31,981.00	10,500.00		21,481.00
Tallahatchee River, Miss.		5,000.00		5,000.00	5,000.00		
Mississippi River.	257,703.96	4,200,000.00		4,457,703.96	1,861,454.77		2,596,249.19

Mississippi River from Minneapolis to Des Moines Rapids, Minn., Iowa, Mo., Ill., and Wis.	56,030.00	500,000.00	556,030.00	226,025.36	330,004.64
Mississippi River from Des Moines Rapids to mouth Illinois River, Ill. and Mo.	18,694.00	165,000.00	183,694.00	88,632.82	95,061.18
Mississippi River between mouths of Ohio and Illinois Rivers, Ill. and Mo.	88,168.00	400,000.00	488,168.00	183,068.00	355,100.00
Mississippi River above Falls of St. Anthony, Minn.		18,000.00	18,000.00	12,000.00	6,000.00
Mississippi River from St. Paul to Des Moines Rapids, Minn., Iowa, Mo., Ill., and Wis.	2,319.61		2,319.61	919.56	1,400.05
Reservoirs at head waters of Mississippi River	8,000.00	80,000.00	88,000.00	19,000.00	69,000.00
Improving Des Moines Rapids, Mississippi, Iowa, and Ill.		22,000.00	22,000.00	13,500.00	8,500.00
Gauging the waters of Lower Mississippi and its tributaries	3,666.29	2,333.71	6,000.00	6,000.00	
Operating snag and dredge boats on Upper Mississippi River		25,000.00	25,000.00	25,000.00	
Removing obstructions in Mississippi River	45,000.00	49,089.17	94,089.17	94,089.17	
Constructing jetties and other works at South Pass, Mississippi River		125,000.00	125,000.00	125,000.00	
Examinations and surveys at South Pass, Mississippi River		10,000.00	10,000.00	10,000.00	
Mississippi River Commission	4,272.19	7,575.00	12,047.19	7,575.00	\$4,272.19
Improving—					
Bogue Chitto, La.		5,000.00	5,000.00		5,000.00
Bayou Beuf, La.		5,000.00	5,000.00	1,000.00	4,000.00
Bayou Bartholomew, La. and Ark.		5,000.00	5,000.00	3,500.00	1,500.00
Bayou Courtableau, La.		2,200.00	2,200.00	2,200.00	
Bayou Black, La.	319.31		319.31		319.31
Bayou D'Arbonne, La.		2,000.00	2,000.00	2,000.00	
Bayou Lafourche, La.	35,354.05	50,000.00	85,354.05	15,354.05	70,000.00
Bayou Plaquemine, La.	43,830.00	100,000.00	143,830.00	33,830.00	110,000.00
Bayous Rondeway and Vidal, La.		1,000.00	1,000.00	500.00	500.00
Bayou Teche, La.	462.08	5,000.00	5,462.08	462.08	5,000.00
Connecting Bayou Teche with Grand Lake at Charenton, La.	22,100.05		22,100.05		22,100.05
Improving—					
Bayou Bonne, La.	2,992.00		2,992.00		2,992.00
Amite River, La.		3,800.00	3,800.00	3,800.00	
Calcasieu River and Pass, La.	9,977.00	75,000.00	84,977.00	100.00	84,877.00
Tensas River, La.		5,000.00	5,000.00	500.00	4,500.00
Tickfaw River, La.		1,000.00	1,000.00	1,000.00	
Tchefuncte River, La.		1,000.00	1,000.00		1,000.00
Red River, La. and Ark.	11,000.00	100,000.00	111,000.00	33,500.00	77,500.00
Survey of Red River, La.		28,000.00	28,000.00	6,500.00	21,500.00
Improving—					
Arkansas Pass and Bay, Tex.	39,897.00		40,772.35	105.00	40,667.35
Sabine Pass, Tex.		300,000.00	300,000.00	10,600.00	289,400.00
Mouth of Brazos River, Tex.	16,651.57		16,651.57		16,651.57
Passo Cavallo, Tex.	35,368.78		35,368.78		35,368.78
Buffalo Bayou, Tex.		25,000.00	25,000.00	16,000.00	9,000.00
Cedar Bayou, Tex.		18,150.00	18,150.00	150.00	18,000.00
Cypress Bayou, Tex. and La.		10,000.00	10,000.00	10,000.00	
Trinity River, Tex.		10,000.00	10,000.00	8,000.00	2,000.00
Neches River, Tex.	4,157.84		4,157.84		4,157.84
Removing obstructions in Arkansas River, Ark. and Kans.	971.00	20,000.00	20,971.00	10,973.17	9,997.83
Improving—					
Arkansas River, Ark.	58,227.00	180,000.00	238,227.00	98,113.30	140,114.30
Black River, Ark. and Mo.		5,000.00	5,000.00	3,500.00	1,500.00

Statement of appropriations under direction of the War Department for the fiscal year ending June 30, 1891, etc.—Continued.

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REPORT OF THE SECRETARY OF WAR.

Title of appropriation.	Balances July 1, 1890.	Appropriated July 1, 1890, to June 30, 1891.	Repayments July 1, 1890, to June 30, 1891.	Aggregate available.	Payments July 1, 1890, to June 30, 1891.	Carried to surplus fund June 30, 1891.	Balance June 30, 1891.
PUBLIC WORKS—continued.							
<i>Harbors and rivers—Continued.</i>							
Improving—							
Fourche Le Fevre River, Ark.....		\$7,500.00		\$7,500.00	\$5,500.00		\$2,000.00
St. Francis River, Ark.....		4,000.34		4,000.34	4,000.34		
Quachita River, Ark.....	\$1,500.00			1,500.00	1,500.00		
Quachita River, Ark. and La.....	7,000.00	15,000.00		22,000.00	11,001.00		10,999.00
Red River above Fulton, Ark.....		2,000.00		2,000.00	2,000.00		
White River, Ark.....	988.69	30,000.00		30,988.69	19,407.05		11,581.64
Petit Jean River, Ark.....	2,194.00			2,194.00	2,194.00		
Caney Fork River, Tenn.....		2,500.00		2,500.00	1,000.00		1,500.00
Clinch River, Tenn.....		4,000.00		4,000.00	1,500.00		2,500.00
Big Hatchie River, Tenn.....		5,000.00		5,000.00	300.00		4,700.00
Cumberland River above Nashville, Tenn.....	222,000.00	250,000.00		472,000.00	54,995.91		417,004.09
Cumberland River below Nashville, Tenn.....	1,980.00	40,000.00		41,980.00	7,461.92		34,518.08
French Broad River, Tenn.....		10,000.00		10,000.00	3,000.00		7,000.00
Forked Deer River, Tenn.....		2,500.00		2,500.00	300.00		2,200.00
Hiawassee River, Tenn.....		1,500.00		1,500.00			1,500.00
Tennessee River above Chattanooga, Tenn.....	2,000.00	30,000.00		32,000.00	16,000.00		16,000.00
Tennessee River below Chattanooga, Tenn., Ala., and Ky.....	15,000.00	475,000.00		490,000.00	152,996.09		337,003.91
Cumberland River above mouth of the Jellico, Ky.....	5,000.00			5,000.00	4,000.00		1,000.00
Falls of the Ohio River at Louisville, Ky.....	154,399.00	85,000.00		239,399.00	43,390.00		196,009.00
Kentucky River, Ky.....		180,000.00		180,000.00	81,870.86		98,129.14
Licking River, Ky.....		3,000.00		3,000.00	3,000.00		
Rough River, Ky.....		25,000.00		25,000.00	5,000.00		20,000.00
Tradewater River, Ky.....	1,985.00			1,985.00	1,500.00		485.00
Survey of the Ohio River below Pittsburg, Pa.....	9,565.92			9,565.92			9,565.92
Improving—							
Ohio River below Pittsburg, Pa.....		250,000.00		250,000.00	2,500.00		247,500.00
Ohio River.....	180,851.84	300,000.00		480,851.84	151,758.48		279,093.36
Muskingum River, Ohio.....	36,608.00			36,608.00	3,922.92		32,685.08
Sandusky River, Ohio.....		1,500.00		1,500.00			1,500.00
Operating snag boats on Ohio River.....		12,500.00		12,500.00	12,500.00		
Examination of Portage Lake and Lake Superior, ship canals, Mich.....	5,128.70			5,128.70	2,078.87		3,049.83
Improving—							
Hay Lake Channel, Sault Sainte Marie River, Mich.....	299,560.00	700,000.00		999,560.00	299,560.00		700,000.00
St. Clair Flats Canal, Mich.....	1,000.00	80,000.00		81,000.00	31,000.00		50,000.00
Black River, Mich.....		35,000.00		35,000.00	25,500.00		9,500.00
Clinton River, Mich.....		10,000.00		10,000.00	10,000.00		
Menomonee River, Mich., and Wis.....		54,000.00		54,000.00	17,000.00		37,000.00
Saginaw River, Mich.....		75,000.00		75,000.00	40,000.00		35,000.00
Rouge River, Mich.....		10,000.00		10,000.00	10,000.00		

St. Joseph River, Mich		1,000.00		1,000.00		1,000.00
St. Marys River, Mich	828,529.00	1,000,000.00		2,328,529.00	302,020.00	2,026,509.00
St. Marys River and St. Marys Falls Canal, Mich	182.31			182.31		182.31
Thunder Bay River, Mich		10,000.00		10,000.00		
Chippewa River, Wis	600.00	10,000.00		10,600.00	3,600.00	7,000.00
St. Croix River, Wis. and Minn		8,000.00		8,000.00	6,500.00	1,500.00
Fox River, Wis	6,000.00	100,000.00		106,000.00	88,026.16	87,973.84
Fox and Wisconsin rivers, Wis	2,000.00			2,000.00		
Damages by improvement of Fox and Wisconsin rivers (certified claims)		158,402.87		158,402.87	158,293.87	109.00
Improving—						
Red river of the North Minn. and Dak		25,000.00		25,000.00	11,000.00	14,000.00
Minnesota River, Minn	9,967.00			9,967.00		9,967.00
White River, Ind	4,988.00			4,988.00	1,500.00	3,488.00
Wabash River, Ind. and Ill	5,931.00	65,500.00		71,431.00	33,431.00	88,000.00
Illinois and Mississippi Canal, Ill		500,000.00		500,000.00	12,000.00	488,000.00
Improving—						
Calumet River, Ill	37,181.08			37,181.80	37,181.80	
Calumet River, Ill. and Ind		50,000.00		50,000.00	12,974.88	37,025.12
Illinois River, Ill	3,447.15	200,000.00		203,447.15	49,162.30	154,284.85
Galena River, Ill		100,000.00		100,000.00		100,000.00
Kaskaskia River, Ill		6,000.00		6,000.00		6,000.00
Black River, Mo		7,000.00		7,000.00	4,500.00	2,500.00
Gasconade River, Mo		4,000.00		4,000.00	1,000.00	3,000.00
Little River, Mo. and Ark	1,796.07			1,796.07	1,722.35	73.72
Little River, Mo		3,000.00		3,000.00	500.00	2,500.00
Osage River, Mo. and Kans	1,989.00	55,000.00		56,989.00	3,989.00	53,000.00
St. Francis River, Mo		10,500.00		10,500.00	5,514.37	4,985.63
Missouri River, from mouth to Sioux City, Iowa		800,000.00		800,000.00	193,962.12	606,037.88
Survey of Missouri River above Missouri River Falls, at Fort Benton, Mont.	15,000.00			15,000.00	15,000.00	
Removing obstructions in Missouri River from St. Joseph, Mo., to mouth	59,500.00			59,500.00	38,160.00	21,340.00
Improving—						
Missouri River	87,789.46	800,000.00		887,789.46	178,558.75	209,230.71
Yellowstone River, Mont. and Dak	11,800.00			11,800.00	80.00	11,720.00
Napa River, Cal	3,000.00	10,000.00		13,000.00	11,000.00	2,000.00
Petaluma Creek, Cal	2,000.00	4,000.00		6,000.00	6,000.00	
Redwood Creek, Cal		8,000.00		8,000.00	2,000.00	6,000.00
Sacramento and Feather rivers, Cal	51,998.10	30,000.00		81,998.10	81,998.10	
San Joaquin River, Cal	100.98	75,000.00		75,100.98	41,250.00	33,850.98
Examination and survey of Columbia River, Oregon	2,934.39		\$235.10	3,169.49		3,169.49
Gauging waters of Columbia River, Oregon	1,000.00			1,000.00	200.00	800.00
Improving—						
Mouth of Columbia River, Oregon and Wash	10,000.00	475,000.00		485,000.00	240,000.00	245,000.00
Columbia River at Cascade, Oregon		435,000.00		435,000.00	270,000.00	165,000.00
Columbia River and Lower Willamette River below Portland, Oregon	5,902.04	100,000.00		105,902.04	55,902.04	50,000.00
Coquille River, Oregon		30,000.00		30,000.00	20,000.00	10,000.00
Siuslaw River, Oregon		50,000.00		50,000.00	1,500.00	48,500.00
Upper Columbia and Snake rivers, Oregon and Wash		20,000.00		20,000.00	10,000.00	10,000.00
Umpqua River, Oregon		9,000.00		9,000.00	3,000.00	6,000.00
Willamette River above Portland, Oregon	79.11	11,000.00		11,079.11	8,079.11	3,000.00
Youngs and Klaskanine rivers, Oregon		1,600.00		1,600.00		
Columbia River from Rock Island Rapids to Priest Rapids, Wash		70,000.00		70,000.00	50,000.00	20,000.00

Statement of appropriations under direction of the War Department for the fiscal year ending June 30, 1891—Continued.

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REPORT OF THE SECRETARY OF WAR.

Title of appropriation.	Balances July 1, 1890.	Appropriated July 1, 1890, to June 30, 1891.	Repayments July 1, 1890, to June 30, 1891.	Aggregate available.	Payments July 1, 1890, to June 30, 1891.	Carried to surplus fund June 30, 1891.	Balance June 30, 1891.
PUBLIC WORKS—Continued.							
<i>Harbors and rivers—Continued.</i>							
Improving—							
Chehalis River, Wash.....		\$3,000.00		\$3,000.00	\$3,000.00		
Cowlitz River, Wash.....		8,000.00		8,000.00	5,000.00		\$3,000.00
Skagit, Stielaquamish, Nooksack, and Snoqualmie rivers, Wash.....	\$2,990.18	12,000.00		14,990.18	12,990.18		2,000.00
<i>Examinations, surveys, etc.</i>							
Survey to connect lakes Union, Washington, and Samamish with Puget Sound.....		10,000.00		10,000.00	10,000.00		
Surveys for deep-water harbor, Gulf of Mexico.....	766.96			766.96			766.96
Surveys for Hennepin Canal.....	633.66			633.66	633.66		
Examination of Illinois and Michigan and Hennepin canals.....	97.44			97.44	97.44		
Operating and care of canals and other works of navigation.....		753,567.24		753,567.24	753,567.24		
Removing sunken vessels or craft obstructing or endangering navigation.....		48,661.60		48,661.60	48,661.60		
Examinations, surveys, and contingencies of rivers and harbors.....	20,089.40	225,000.00		245,089.40	97,181.68		147,907.72
Total harbors and rivers.....	5,853,092.66	29,235,624.93	\$2,716.83	35,091,434.42	12,419,212.93	\$8,371.05	22,663,850.44
Deduct repayment in excess of payments.....					2,716.83		
Actual expenditures.....					12,416,496.10		
MISCELLANEOUS OBJECTS.							
<i>Signal Service.</i>							
Observation and report of storms.....	113,978.82	267,284.35		381,263.17	293,354.04	4,331.21	83,577.92
Observation and exploration in the Arctic seas.....	156.96			156.96		156.96	
Signal Service—							
Medical Department.....	600.00	2,627.20		3,227.20	2,583.73		643.47
Pay, etc.....	15,342.30	422,866.36		438,208.66	424,558.83	12,294.88	1,355.45
Subsistence.....	5,216.34	339.00		5,555.34	339.00	5,216.34	
Regular supplies.....	9,185.67	4,599.68		13,785.35	5,480.91	6,833.21	1,471.23
Incidental expenses.....	395.47	175.00		570.47	246.08	278.47	45.92
Transportation.....	1,436.59	17,649.50		19,086.09	15,761.81	500.17	2,824.11
Barracks and quarters.....	669.06	233.10		902.16	233.10	669.06	
Contingent expenses.....	4,500.00			4,500.00	4,454.46		45.54
Cable, Columbia River.....	30.00			30.00		30.00	
Repair of Signal Service cable, Columbia River.....	50.50			50.50		50.50	
Establishing signal station—							
On island of Nantucket.....	6.00			6.00		6.00	
At Point Judith, Fla.....	954.27			954.27		954.27	

Road to the Signal station on Pike's Peak, Colo.....	10,000.00			10,000.00			10,000.00
Telegraph service between Tatoosh Island and Port Angeles, Wash.....		6,800.00		6,800.00	1,000.00		5,800.00
Total Signal Service.....	103,521.98	722,374.19		885,096.17	748,011.96	31,320.57	105,763.64
<i>National cemeteries.</i>							
National cemeteries.....	2,214.38	100,001.00		102,215.38	97,974.20	759.05	3,482.13
Pay of superintendents of national cemeteries.....	574.17	61,160.00		61,734.17	61,019.83	405.68	308.66
Road from—							
Natchez to the national cemetery, Mississippi.....	106.29			106.29			106.29
New Berne National Cemetery, North Carolina.....			12.95	12.95			12.95
Antietam National Cemetery, Maryland.....		5,000.00		5,000.00	4,998.88		3.12
Marietta National Cemetery, Georgia.....		8,264.77		8,264.77	8,264.77		
Staunton National Cemetery, Virginia.....	6,000.00			6,000.00			6,000.00
Alexandria National Cemetery, Virginia.....		7,000.00		7,000.00			7,000.00
Road to the national cemetery—							
Near Pineville, La.....			11.12	11.12		11.12	
At Hampton, Va.....	2,000.00			2,000.00			2,000.00
Near Beverly, N. J.....			451.44	451.44			451.44
Presidio of San Francisco, Cal.....	16,890.41			16,890.41	16,890.41		
Port Hudson, La.....	13,500.00			13,500.00	100.00		13,400.00
Near Fredericksburg, Va.....		8,000.00		8,000.00	3,500.00		4,500.00
Approaches to the national cemetery, Culpeper, Va.....		4,500.00		4,500.00	4,500.00		
Repairing roads to national cemeteries.....	4,555.75	15,000.00		19,555.75	10,531.06		9,004.69
Confederate cemeteries near Columbus, Ohio.....	75.46			75.46		75.46	
National cemetery, Hampton, Va.....		10,000.00		10,000.00	250.00		9,750.00
Levee at Brownsville National Cemetery, Tex.....		3,735.00		3,735.00	3,735.00		
Headstones for graves of soldiers.....	70,378.80	10,000.00		80,378.80	20,411.53		59,967.27
Burial of indigent soldiers.....		1,500.00		1,500.00	1,500.00		
Total national cemeteries.....	116,295.26	234,160.77	475.51	350,931.54	233,693.68	1,251.31	115,986.55
Repayments in excess of payments.....					475.51		
Actual expenditures.....					233,218.17		
<i>Artificial limbs and appliances and support of destitute patients.</i>							
Artificial limbs.....	5,626.79	525,000.00		530,626.79	515,569.67	9,024.71	6,032.41
Appliances for disabled soldiers.....	1,000.00	2,000.00		3,000.00	2,145.05	604.95	250.00
Trusses for disabled soldiers.....		10,003.00		10,003.00	10,003.00		
Maintenance of Garfield Hospital.....	8.51	15,000.00		15,003.51	14,999.77	1.87	1.87
Support and medical treatment of destitute patients.....	1,416.74	19,000.00		20,416.74	18,510.76		1,905.98
Total artificial limbs and appliances and support of destitute patients.....	8,047.04	571,003.00		579,050.04	561,228.25	9,631.53	8,190.26
<i>Civil surveys.</i>							
Transportation of reports and maps to foreign countries.....	197.90	100.00		297.90	200.00	97.90	
Battle lines and sites for tablets at Antietam.....		15,000.00		15,000.00			15,000.00
Surveys for military defenses.....			24.00	24.00		24.00	
Survey of boundary lines between Indian Territory and Texas.....	7,572.36			7,572.36		7,572.36	
Survey of road from Aqueduct Bridge to Mount Vernon.....	2,112.71			2,112.71			2,112.71
Survey of northern and northwestern lakes.....	3,557.09	12,000.00		15,557.09	1,025.49		14,531.60

Statement of appropriations under direction of the War Department for the fiscal year ending June 30, 1891, etc.—Continued.

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REPORT OF THE SECRETARY OF WAR.

Title of appropriation.	Balances July 1, 1890.	Appropriated July 1, 1890, to June 30, 1891.	Repayments July 1, 1890, to June 30, 1891.	Aggregate available.	Payments July 1, 1890, to June 30, 1891.	Carried to surplus fund June 30, 1891.	Balance June 30, 1891.
MISCELLANEOUS OBJECTS—Continued.							
<i>Civil surveys—Continued.</i>							
Maps of battlefield of Chickamanga.....		\$3,000.00		\$3,000.00	\$3,000.00		
Geographical surveys west of the 100th meridian.....		6.45		6.45	6.45		
Total civil surveys.....	\$13,440.06	30,106.45	\$24.00	43,570.51	4,231.94	\$7,694.26	\$31,644.31
Repayments in excess of payments.....					24.00		
Actual expenditures.....					4,207.94		
<i>Miscellaneous.</i>							
Medical and surgical history.....	226.34		2,485.60	2,711.94		2,711.94	
Prevention of obstructive and injurious deposits within the harbor and adjacent waters of New York City.....	26,960.79	33,000.00		59,960.79	30,084.46	42.91	29,833.42
Portrait of Grover Cleveland, ex-President of the United States.....		2,500.00		2,500.00	2,500.00		
Arming and equipping the militia.....	263,365.19	400,000.00		663,365.19	362,697.10	19,548.11	281,119.98
Arms and quartermasters stores for State of Wyoming.....		5,666.64		5,666.64			5,666.64
Water supply, Fort D. A. Russell, Wyo.....	2,895.83		62.32	2,958.15			2,958.15
Artillery school, Fortress Monroe, Va.....		5,000.00		5,000.00	5,000.00		
Infantry and artillery school, Fort Leavenworth, Kans.....		1,500.00		1,500.00	1,500.00		
Support of military prison at Fort Leavenworth, Kans.....	18,508.01	90,780.00		109,288.01	76,836.45	13,166.50	19,285.06
Publication of Official Records of War of the Rebellion.....		235,000.00		235,000.00	199,560.38		35,439.62
Reprinting war maps.....			98.02	98.02			98.02
Expenses of military convicts.....	8,299.21	5,000.00		13,299.21	5,889.36	3,232.26	4,177.59
State or Territorial homes for disabled volunteer soldiers and sailors.....		481,822.42		481,822.42	481,822.42		
Support of—							
National home for disabled volunteer soldiers.....	33,634.89	2,856,765.45		2,690,400.34	2,600,588.95	33,634.89	56,176.50
Refugees, freedman and abandoned lands.....	44.00			44.00		44.00	
Soldiers' home.....	2,289,103.39	687,885.91		2,976,689.30	586,619.37		2,390,069.93
Military stores for Montana militia.....	11,792.29			11,792.29			11,792.29
Twenty per cent additional compensation.....		1,377.48		1,377.48	1,377.48		
Ordnance stores for Washington and Maine.....		18,900.00		18,900.00	18,526.61		373.39
Gunboats on Western rivers.....		120.33		120.33	120.33		
Total miscellaneous.....	2,654,829.94	4,625,018.23	2,645.94	7,282,494.11	4,373,122.91	72,380.61	2,836,990.59
Repayments in excess of payments.....					2,645.94		
Actual expenditures.....					4,370,476.97		

War claims of States.

Examination of claims of States and Territories under act of June 27, 1882.....	5,689.75		5,689.75		5,689.75
Reimbursing State and citizens of California for expenses in suppressing Modoc Indian hostilities.....	224.25		224.25		224.25
Refunding to States expenses incurred in raising volunteers.....		61,619.70	61,619.70	61,619.70	
Reimbursement to certain States and Territories expenses incurred in repelling invasions and suppressing Indian hostilities, act June 27, 1882.....		148,615.97	148,615.97	148,615.97	
Total war claims of States.....	5,914.00	210,235.67	216,149.67	210,235.67	5,914.00

War claims of volunteers.

Bounty to volunteers, their widows and legal heirs.....	307.26	498,674.23	498,981.49	497,628.04	1,046.19	307.26
Pay of two and three years' volunteers.....	115.04	758,742.62	758,857.66	757,583.30	1,178.98	95.38
Bounty under act of July 28, 1866.....		58,793.44	58,793.44	58,423.44	370.00	
Horses and other property lost in the military service.....	492.60	81,781.30	82,273.90	77,365.95	925.00	3,982.95
Commutation of rations to prisoners of war in rebel States and to soldiers on furlough.....	7.50	51,064.25	51,071.75	49,169.74		1,902.01
Traveling expenses of First Michigan Cavalry.....		200.70	200.70	200.70		
Traveling expenses of California and Nevada volunteers.....		71.15	71.15	71.15		
Collecting, drilling, and organizing volunteers.....		127.75	127.75	127.75		
Pay of companies of Texas Mounted Rangers.....		37.43	37.43	37.43		
Pay of claims adjudicated by board of officers, acts August 3, 1852, and August 5, 1854.....		2,863.49	2,863.49	2,863.49		
Services and supplies of Montana volunteers in Nez Percé Indian war.....	657.00		657.00			657.00
Pay, transportation, services, and supplies of Oregon and Washington volunteers in 1855-'56.....		5,115.81	5,115.81	5,115.81		
Reimbursement to Missouri militia, services rendered United States.....		996.37	996.37	996.37		
Rogue River Indian war.....		216.99	216.99	216.99		
Providing for the comfort of sick and discharged soldiers.....	1.92		1.92			1.92
Pay of volunteers, Mexican war.....		657.18	657.18	657.18		
Extra pay to officers and men who served in the Mexican war.....		2,484.10	2,484.10	2,484.10		
Payment of mounted riflemen under Col. John C. Fremont in 1846.....		25.00	25.00	25.00		
Capture of Jefferson Davis.....	1,503.38		1,503.38			1,503.38
Preventing and suppressing Indian hostilities.....		23.67	23.67	23.67		
Support of four companies of volunteers mustered at Camp Scott, Utah, act June 12, 1858.....		90.96	90.96	90.96		
Total war claims of volunteers.....	3,084.70	1,461,966.44	1,465,051.14	1,453,081.07	3,520.17	8,449.90

Relief acts.

Claims of officers and men of the Army for destruction of private property.....		2,715.04	2,715.04	2,715.04		
Claims of loyal citizens for supplies furnished during the rebellion.....	6,939.00		6,939.00			6,939.00
Claims for quartermaster's stores and commissary supplies.....	2,146.73		2,146.73	90.00	10.00	2,046.73
Awards for quartermaster's stores and commissary supplies taken by Army in Tennessee.....	130.00		130.00			130.00
Claims allowed under acts March 3, 1883 and 1887, for stores and supplies taken by the Army.....		4,525.00	4,525.00	4,525.00		

Statement of appropriations under direction of the War Department for the fiscal year ending June 30, 1891, etc.—Continued.

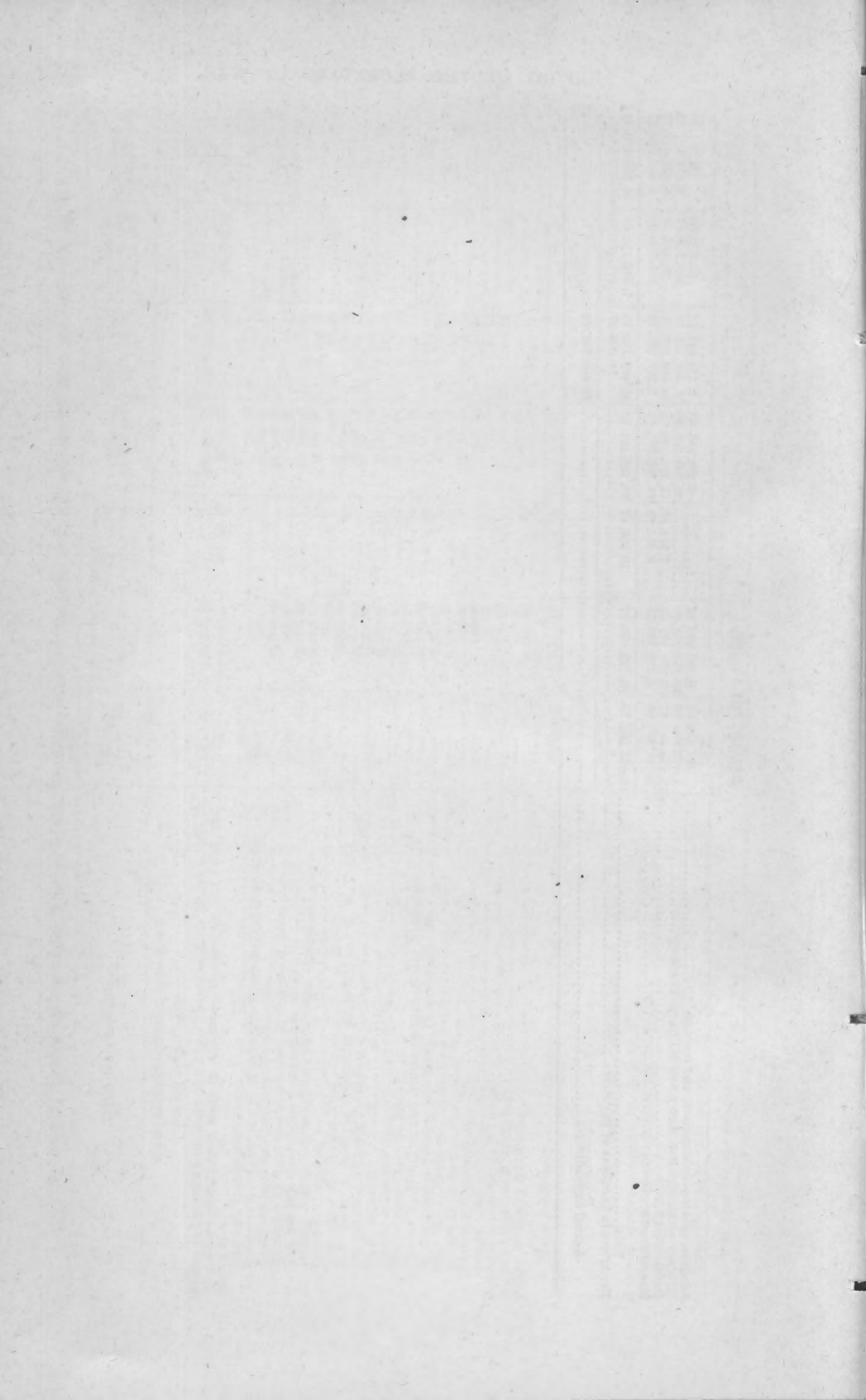
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REPORT OF THE SECRETARY OF WAR.

Title of appropriation.	Balances July 1, 1890.	Appropriated July 1, 1890, to June 30, 1891.	Repayments July 1, 1890, to June 30, 1891.	Aggregate available.	Payments July 1, 1890, to June 30, 1891.	Carried to surplus fund June 30, 1891.	Balance June 30, 1891.
MISCELLANEOUS OBJECTS—continued.							
<i>Relief acts—Continued.</i>							
Stores and supplies taken by the Army (Bowman Act), March 3, 1891.....		\$75,481.82		\$75,481.82	\$75,481.82		
Tents for sufferers from floods in Arkansas, Mississippi, and Louisiana.....			\$5,708.37	5,708.37		\$5,708.37	
Relief of—							
Richard Trabue and others.....	\$113.66			113.66			\$113.66
Sufferers from overflow of Mississippi River and its tributaries.....	40,000.00			40,000.00	39,417.21		582.79
Destitute citizens, Territory of Oklahoma.....		44,800.00		44,800.00			44,800.00
The heirs or legal representatives of Samuel H. Moer.....		52.97		52.97	52.97		
The Norfolk County ferry committee.....		42,300.00		42,300.00	42,300.00		
Isabella Hance, administratrix of William Hance.....		3,835.30		3,835.30	3,835.30		
Capt. E. C. Bowen.....		54.00		54.00	54.00		
The estate of Thomas Niles.....		6,050.00		6,050.00	6,050.00		
J. L. Cain, A. A. Kyle, Alexander Kennedy, and G. M. Hazen.....		20,676.75		20,676.75	20,676.75		
The estate of Charles F. Bowers.....		230.00		230.00			
D. H. Mitchell.....		9,270.83		9,270.83	9,270.83		
Stubbs & Lockey.....		2,128.87		2,128.87	2,128.87		
The heirs of Mary J. Eddy.....		1,990.16		1,990.16	1,990.16		
Charles H. Wording and others, owners of brig Xenophon.....		2,000.00		2,000.00	2,000.00		
William Jewel College, of Liberty, Clay County, Mo.....		2,200.00		2,200.00	2,200.00		
Mrs. M. J. Donahoe.....		345.50		345.50	345.50		
Albert H. Emery.....		75,000.00		75,000.00	75,000.00		
Timothy Hennessy.....		240.00		240.00	240.00		
James Lindsay.....		874.35		874.35	874.35		
Reimbursement to H. W. Keyes.....		300.00		300.00	300.00		
Relief of Thomas B. McElwee.....		117.00		117.00	117.00		
Relief of Henry A. Greene.....		3,303.00		3,303.00	3,303.00		
Total relief acts.....	49,329.39	298,490.59	5,708.37	353,528.35	298,197.80	5,718.37	54,612.18
Repayments in excess of payments.....					5,708.37		
Actual expenditures.....					287,489.43		
<i>Erection of monuments.</i>							
Trenton battle monument, Trenton, N. J.....		30,000.00		30,000.00			30,000.00
Statue to memory of Lafayette and compatriots.....	21,491.62	5,000.00		26,491.62	26,490.00		1.62
Pedestal for statue of—							
Gen. Philip H. Sheridan.....	40,000.00	10,000.00		50,000.00			50,000.00
Gen. John A. Logan.....	40,000.00	10,000.00		50,000.00			50,000.00
Gen. Winfield Scott Hancock.....	40,000.00	10,000.00		50,000.00			50,000.00
Total erection of monuments.....	141,491.62	65,000.00		206,491.62	26,490.00		180,001.62

RECAPITULATION.

Salaries, contingent expenses, and postage	64,079.35	2,196,402.33	-----	2,260,481.68	2,150,646.53	34,873.35	74,961.80
Military establishment, Army and Military Academy	1,474,004.03	26,851,198.97	-----	28,325,203.00	25,344,199.73	809,546.17	2,171,457.10
Public works	12,273,943.02	39,475,932.03	7,514.65	51,757,389.70	16,068,993.61	28,488.30	35,059,907.79
Miscellaneous objects	3,154,953.99	8,218,555.34	8,853.82	11,882,363.15	7,903,293.28	131,516.82	3,347,553.05
Total	16,966,980.39	76,742,088.67	16,368.47	93,725,437.53	51,467,133.15	1,004,424.64	41,253,879.74
Repayments in excess of payments					16,368.47	-----	-----
Actual expenditures					51,450,764.68	-----	-----



REPORT
OF THE
MAJOR-GENERAL COMMANDING THE ARMY.

REPORT

OF THE

MAJOR-GENERAL COMMANDING THE ARMY.

HEADQUARTERS OF THE ARMY,
Washington, September 24, 1891.

SIR: I have the honor to submit the following report of operations of the Army during the last year, together with the reports of department commanders, the commanding officers of the Artillery School at Fort Monroe, and of the Infantry and Cavalry School at Fort Leavenworth, and those of the Adjutant-General and Inspector-General of the Army.

Upon the retirement of Brig. Gen. John Gibbon, April 20, 1891, Brig. Gen. Thomas H. Ruger, was assigned to the command of the Division of the Pacific, including at that time, the Departments of California and the Columbia. Subsequently Col. August V. Kautz, Eighth Infantry, was appointed brigadier-general to succeed General Gibbon, and, on July 2, 1891, was assigned to the command of the Department of the Columbia.

By the Executive order of July 2, 1891, the military divisions were discontinued, some changes made in the organization of departments, and the department commanders ordered to report directly to the Commanding General of the Army. The accompanying report of the Adjutant-General gives the precise organization of departments and their commanders at the present time, together with the stations of troops therein.

The past year was marked by a disturbance among the Sioux Indians, which was formidable in fact, and threatened to be far more formidable than any Indian war that had occurred in many years. The correspondence on file in the Adjutant-General's office and the report of Gen. Miles set forth, in detail, the nature and apparent causes of the threatened trouble with the Sioux, and the orders of the President designed to suppress that trouble as promptly and effectively as possible, having mainly in view the protection of the extended settlements surrounding the Sioux Reservation against destruction by hostile Indians. The execution of those orders involved the concentration of nearly one-half of the infantry and cavalry of the Army, and some artillery, upon the Sioux Reservation, for which purpose it was necessary to bring troops from nearly all parts of the country west of the Mississippi River. These movements were necessarily attended with great expense, but happily, the result fully justified the vigor of the measures adopted, which resulted in the suppression of the uprising without loss of life on the part of peaceful citizens, though the Army suffered considerable loss, and quite a large band of Indians was destroyed in conflict with the troops.

The following gallant officers were killed and wounded:

Killed.—Capt. George D. Wallace, Seventh Cavalry, and Lieut. Edward W. Casey, Twenty-second Infantry.

Wounded.—Lieut. Ernest A. Garlington, John C. Gresham, and James D. Mann, Seventh Cavalry; Lieut. John Kinzie, Second Infantry, and Lieut. Harry L. Hawthorne, Second Artillery.

Lieut. Mann subsequently died from the effects of his wounds. Also 30 enlisted men were killed and 44 wounded.

The experience gained in the campaign of last winter is valuable, as indicating the possible extent and the probable limits of future danger from any uprising of the Indian tribes. If it were true, as was then so generally believed, that the Sioux Indians meditated a general uprising, and their plans had been matured and executed with the secrecy and energy that usually characterize Indian movements, it would have been entirely impossible, with the troops then located near the Sioux Reservation, though constituting a very large fraction of the Army, to have prevented great loss of life and property in the surrounding settlements; while if, as was also believed by many, the uprising was intended to embrace other warlike tribes in other parts of the country, the entire military force of the United States would have been wholly inadequate to prevent great damage to the settlements surrounding the reservations. Whatever may be the fact as to those Indian plans, they were, happily, so far anticipated that the Sioux Indians were surrounded by an effective cordon of troops before they were ready for action; while the disaffection had at the time not spread so far among other tribes as to become dangerous.

A careful consideration of all the circumstances of this uprising among the Sioux seems to justify the opinion that no considerable number of them had seriously intended to engage in hostilities against the United States, unless driven to such a course by unbearable hardship, or in self-defense against the military operations ordered for their subjection. There is hence a well-grounded belief that, by the constant exercise of discretion in the management of the Indians, coupled with justice in all dealings of the Government with them, and the presence of a sufficient military force to overawe the turbulent minority among them, there need be no serious apprehension of an extended uprising of the Sioux, and, probably, not of any other Indian tribe.

It is also well worthy of the most serious consideration, that by the addition of a few thousand men to the enlisted strength of the Army, whereby a sufficient force might at all times be stationed in the vicinity of the great reservations, the danger of an uprising and resulting destruction of frontier settlements would be entirely removed, and the great expense of transportation of troops from distant parts of the country entirely avoided. I respectfully refer to the accompanying reports of division and department commanders, and their subordinate officers, for all the details of the operations of the troops during the Sioux campaign.

In all other parts of the Indian country almost entire peace has prevailed during the past year, notably in the Department of Arizona, which was for so many years the scene of barbarities committed by the Indians, and of the most arduous service ever rendered by any troops.

ARMY REORGANIZATION.

Whatever may be the judgment of Congress respecting the aggregate strength of the military force to be maintained in time of peace, it can not be doubted that the organization of that force should be such as to

make it most effective, and at the same time capable of most ready expansion whenever an increase is decided upon.

As heretofore frequently pointed out in the reports of the several commanders who have dealt with the subject, the conditions of modern tactics require the three-battalion organization for the infantry, as well as for the cavalry and artillery, each battalion to consist of not more than four companies, troops, or batteries. It has also been heretofore fully explained that in the artillery the company organization ought to be made to conform to that in the other arms of the service, namely, with one captain and two lieutenants, instead of three or four lieutenants, as under the present laws. It has also been fully explained that the necessities of the seacoast defense of the United States will speedily require some increase in the aggregate strength of the artillery. A careful estimate has shown that seven regiments, in lieu of the present five, will be required for this service, and that such a reorganization as will convert the present five regiments into seven can be made with very slight increase of expense, there being now in the five regiments almost the entire number of officers required to properly officer seven regiments.

I beg leave to invite attention to the annual reports of last year as setting forth more fully my own views, and those entertained by other officers of the Army on this subject, and to express the hope that Congress may be pleased, during the coming session, to provide for the desired reorganization of the infantry and artillery, leaving the question of aggregate strength to be determined in the wisdom of Congress for the present and at any future time.

THE NATIONAL DEFENSE.

The important question of national defense, which has been so thoroughly and publicly discussed in past years, is now confidently regarded as settled by the legislative action of the last two Congresses. The wise policy thus inaugurated will, doubtless, be steadily pursued until the great seacoast harbors are placed in condition to resist any attack from a foreign enemy.

Satisfactory progress has been made in the construction of the gun factory at Watervliet, N. Y., in the manufacture of type guns of the highest qualities, and in the manufacture of service mortars, and their emplacement at the most exposed and important positions upon the seacoast, while contracts have been made for the material necessary for the construction of large numbers of guns and mortars, and for the purchase of completed guns of the highest type. It will only require moderate annual appropriations for the next few years to place the extended seacoast of this country in such condition that no foreign enemy could inflict upon it any serious loss or damage. When this is accomplished, the dignified and just policy which this country has adopted toward all foreign nations may be steadily adhered to without apprehension of results unfavorable either to the welfare or to the honor of this country.

INDIANS IN THE ARMY.

It is assumed, as a general principle of military policy, that all of the permanent inhabitants of the country, without respect to race or previous condition, should in time of war furnish their fair proportion of the military forces of the country, and, with this end in view, that all should have representation in the permanent establishment. It has also been demonstrated by experience, as well as by reason, that one of the most affective and most rapid methods of civilizing the savage

tribes of a country, and converting them from enemies into friends, is to receive a reasonable proportion of them into the military service of the country. With these ends in view it has been decided by the War Department to enlist a fair proportion of the Indians of the western Territories, and organize them into regular companies as component parts of the existing regiments of cavalry and infantry. Although this policy has not yet progressed very far in its execution, the results have been entirely satisfactory, and it is recommended that it be adhered to until the American Indian constitutes a due proportion of the enlisted strength of the Army.

MILITARY INSTRUCTION.

The Artillery School at Fort Monroe maintains the high state of efficiency which has heretofore characterized it, and which has resulted from many years of earnest effort on the part of the officers of artillery, supported and encouraged by the War Department. Through it every young officer of artillery may now receive, in due time, that thorough scientific education which is necessary to the efficiency of the artillery service under the greatly changed modern conditions, and those officers having special aptitude and ambition may pursue their scientific military studies without limit.

The Infantry and Cavalry School at Fort Leavenworth has been steadily developed until its condition approaches closely to the ideal standard which has been set for it. Its opportunities are now sought for by young officers, as a means of gaining that higher education in the science of war which is essential to the satisfactory performance of the higher duties of the staff, and of the command of large bodies of troops in time of war.

The law of Congress requiring examinations for promotion in the line of the Army has also given a much-needed stimulus to the young officers to pursue their military studies, and will in the end undoubtedly serve to improve very largely the general state of military education. This good result will be accomplished with the elimination from the service of only the very few who are incapable from constitutional defects of intellect or character from becoming good officers.

An advance has also been made in the direction of general education in the Army through the regulation which makes attendance upon the post schools on the part of such enlisted men as may be selected for the purpose a military duty, as well as their instruction by such officers and noncommissioned officers as may be detailed for that duty. It is confidently believed that these measures have placed the system of education in the Army on a very satisfactory basis, and that it only requires development, which will come in due time. It is respectfully recommended that Congress continue to make a small annual appropriation for the support of the Infantry and Cavalry School at Fort Leavenworth, as well as for the Artillery School at Fort Monroe, so that all the essential military schools may have the direct recognition and support of Congress.

PRACTICAL INSTRUCTION IN ARTILLERY AND IN SMALL ARMS.

During the year the practice of the infantry and cavalry troops with the rifle, carbine, and revolver has been carried out with the same zeal which has characterized this branch of instruction in preceding years. A few modifications have been made in the small-arms firing regulations. (See General Order, No. 143, Adjutant-General's office, of 1890.) These in brief are, optional practice by officers after having attained thorough proficiency in the use of their arm; discontinuance of monthly

reports of target firing and monthly target orders; abolition of division competitions; introduction of target "K" (the silhouette of a mounted soldier) in revolver firing, and some minor changes in the course of instruction for practice with the revolver; number of cavalry competitions increased from three to four; competitions for distinguished marksmen made annual instead of biennial; allowance of ammunition doubled for revolver practice.

The relative standing of the troops in this branch of instruction can not be determined in advance of the reports, which are not due until October 31. But the results of the annual competitions indicate the same proficiency in firing as heretofore.

Progress in light artillery and seacoast artillery instruction continues to be satisfactory, though the latter suffers unavoidable discouragement from the lack of modern material. It is, therefore, the more pleasant to note the very successful experiment made during the year with the object of obtaining the best possible instruction from the use of the present unsatisfactory equipment. This has been the institution of a series of competitions in the artillery regiments, in which stress has been laid, not so much on the results of actual firing, as upon the general training of the gunners, upon their proficiency in those general principles which will render them quick to make profitable use of more modern material whenever it may be supplied. The continuance of these competitions, the cost of which is almost nothing, should be specially encouraged.

The following military posts being no longer necessary have been abandoned since the last annual report: Forts Abraham Lincoln, N. Dak.; Davis, Tex.; Lowell, Ariz.; Marey, N. Mex.; Shaw, Mont.; Selden, N. Mex.; Union, N. Mex., and Fort Lewis, Colo. These added to the number practically abandoned during the last two years and previously reported amount to twenty-eight military posts. Fort Bidwell has been temporarily reoccupied by a small force. This serves largely to mark the advance which has been made in the settlement of the western Territories and the subjugation of the roaming Indians which formerly impeded that settlement. The garrisons of the several abandoned posts have been united to those of a more permanent character, giving larger garrisons, and consequent increased efficiency and economy in the administration. It is anticipated that a few additional frontier posts may be abandoned within the next few years.

Liberal allowance should be made for the additional barracks, quarters, and stables rendered necessary by this increase of garrison, at the more permanent and important posts. The money thus expended will very soon be saved to the Treasury in the increased economy resulting from the concentration of the troops, and the annual saving will thereafter be permanent.

The legislation of the last Congress, affecting the personnel of the Army, has been greatly beneficial in its effects. What remains most to be desired is the reorganization of the infantry and artillery, heretofore referred to, and a reasonable increase in the compensation, and consequent dignity, of the noncommissioned officers of the line. In this country the difference between the lowest commissioned grade and the highest noncommissioned has always been too great. This disparity has been made still more apparent, in recent years, by the progress of general education, and such improvements in the art of war and the tactics of armies as have imposed much more important duties and responsibilities than formerly upon noncommissioned officers of the line. I respectfully recommend that the pay of these noncommis-

sioned officers be increased, so as to equal those of like grades in the Corps of Engineers.

I respectfully invite attention to the detailed reports of the several department commanders, commanding officers of the military schools, and those of the Adjutant-General and Inspector-General, which I will not attempt to summarize or refer to in detail.

The remarks of Maj. Gen. Howard, commanding the Department of the East, respecting the necessity of a fortified seaport at some point on the Southern Atlantic coast of the country are worthy of special consideration; also those of Brig. Gen. McCook, commanding the Department of Arizona, respecting the necessity for the fortification and armament of the port of San Diego, Cal. The necessities of other and more prominent seaports are too well known to need special mention.

All the reports show that the general state of discipline in the Army is excellent, the one lamentable exception being that of the Fourth Cavalry at Fort Walla Walla. The measures which have been adopted for the improvement of the condition of the enlisted men and for the exclusion of undesirable characters from enlistment have worked together to elevate the character and increase the contentment of the soldiers, without in any measure, it is believed, impairing their efficiency. The winter campaign against the Sioux developed the most cheerful endurance of the greatest hardships, as well as great gallantry in action, and a total absence of desertions while in the field in the presence of the enemy.

The sanitary condition of the Army has also been excellent during the past year. In this connection facts disclosed by special report of the Surgeon-General to the Adjutant-General of the Army are worthy of note, as showing the beneficial effect of the special care of invalid soldiers by their transfer either to the Army and Navy General Hospital at Hot Springs, or by a change of station to hospitals other than those where their disability was first reported. More than half of all such invalids who would otherwise have been discharged from the service have been restored to military duty. This measure and the great efficiency shown by the medical department during the winter campaign are worthy of high commendation.

The readiness of the Army for active field service in an emergency has long been greatly impaired by the reduction of means of transportation to that which is required for the ordinary post service, making it necessary to procure, by whatever means may be available, the transportation required for troops in the field. Though this condition is always to be regretted, it is a source of no little satisfaction that the Quartermaster's Department was able during the recent campaign to supply by contract, or otherwise, the requisite means of transportation without great or injurious delays in the movement of troops.

The Commissary Department and the Ordnance Department were, as usual, efficient in making the necessary provisions for the supply of the troops in the field, and I take pleasure in expressing my high appreciation of the manner in which all the staff departments of the Army discharged their duties under these extraordinary circumstances, as well as of the manner in which the officers of those departments on duty in Washington have cordially assisted the Commanding General of the Army in carrying out the instructions of the Secretary of War and of the President.

I have the honor to be, sir, your obedient servant,

Hon. REDFIELD PROCTOR,
Secretary of War.

J. M. SCHOFIELD,
Major-General Commanding.

REPORTS

TO THE

MAJOR-GENERAL COMMANDING THE ARMY.

REPORT OF THE ADJUTANT-GENERAL.

HEADQUARTERS OF THE ARMY,
ADJUTANT-GENERAL'S OFFICE,
Washington, October 1, 1891.

GENERAL: Pursuant to your instructions, I have the honor to submit the annual returns of the Army:

A.—Showing actual strength of the Army June 30, 1891.

B.—Showing position and distribution of the troops by departments, taken from the latest returns on file in the Adjutant-General's Office.

C.—Geographical departments and posts, with distribution of troops, post offices, telegraph stations, and nearest railroad stations and boat landings.

D.—Statement showing gain and loss in the enlisted strength of the Army during the fiscal year ending June 30, 1891.

E.—List of garrisoned posts, with strength and number of desertions therefrom.

The number of enlisted men now in service June 30, 1891, who are drawing increased pay under the act of Congress of August 4, 1854, is as follows:

Five years' continuous service (\$2 per month).....	4,393
Ten years' continuous service (\$3 per month).....	1,597
Fifteen years' continuous service (\$4 per month).....	964
Twenty years' continuous service (\$5 per month).....	752
Twenty-five years' continuous service (\$6 per month).....	120
Thirty years' continuous service (\$7 per month).....	4
Thirty-five years' continuous service (\$8 per month).....	1
Forty years' continuous service (\$9 per month).....	1

The number of those who will become entitled to increased pay under the act of Congress of May 15, 1872, during the fiscal year ending June 30, 1893, is—

Reënlisted pay	367
One dollar per month for third year of service	3,493
Two dollars per month for fourth year of service	3,318
Three dollars per month for fifth year of service	1,558

And the number of enlisted men whose terms will expire during the fiscal year ending June 30, 1893, is 2,538.

The officers of the Adjutant-General's Department are properly assigned and in the discharge of their appropriate duties.

THE MILITARY PRISON.

Under an order made by the Secretary of War October 2, 1890, the military prison was constituted an independent military post under the immediate command of the Major-General Commanding the Army.

The reports from the officers of the military prison at Fort Leavenworth, Kans., for the year ending June 30, 1891, herewith submitted, show a satisfactory condition of affairs connected with that institution throughout the year. A remarkable decrease in the number of prisoners in confinement has taken place during the year, and it has been found, by comparison of statistics, that the decrease in the number received is about an even rate with the decrease of the number of desertions from the Army, which is about 30 per cent. of the average for the past 10 years. At the beginning of the year there were 481 prisoners in confinement; the number received during the year was 245 and the number lost was 348, leaving 378 in confinement June 30, 1891.

The appropriation for maintaining the prison was \$90,780, of which \$75,043.21 was expended, and there will yet be some disbursements from the balance for transportation of discharged prisoners, the accounts for which have not all been rendered by the railroad companies performing the service.

The various industries in the prison and the improvements about the prison and the post of Fort Leavenworth have been carried on with customary diligence, and there does not appear to have been any lack of useful occupation for prisoners. The number of days of skilled labor was 50,068 and the number of days of unskilled labor was 78,872. The account with the Quartermaster's Department for labor performed shows that there was \$223,525.25 due the prison June 30, 1890; that the credit for labor performed during the year was \$19,786.79; that stores of the value of \$1,099.89 were received upon the same account, leaving \$242,212.15 due the prison June 30, 1891.

There were manufactured during the year 3,591 pairs of boots, 24,813 pairs of shoes, 5,016 barrack chairs, 347 mess tables, 110 mess benches, 1,978 mess stools, 1,558 sets of harness, 2,841 boilers, 718 kettles, 245 steamers, 295 coffee pots, 1,656 pans, 15,876 joints of stove-pipe, 13,981 corn brooms, 10,686 whisks, clothing for prisoners at Alcatraz Island, California (140 coats, 177 trousers, 170 shirts, 154 drawers, 100 overalls, and 300 stockings), and a great quantity of miscellaneous articles in all of the shops.

The prison farm yielded 3,800 bushels of potatoes, 3,500 bushels of corn, 2,632 bushels of miscellaneous vegetables, and about 45,000 heads of cabbage. These products make up an important part of the subsistence of the prisoners, and not only reduce the cost of feeding them but no doubt contribute greatly toward maintaining their general health.

The mess fund had \$2,330.61 to its credit June 30, 1890. The amount received during the year was \$5,036.94; expended, \$5,104.78, leaving \$2,262.77 on hand June 30, 1891.

The amount realized for the prison fund from labor of prisoners and sales of miscellaneous material was \$1,113.38, all of which was turned into the United States Treasury.

The mental and moral improvement of the prisoners have been objects of special attention, and the indications are that good results will follow the faithful efforts of the officer who has had charge of these departments.

No deaths have occurred in the past two years either in the guard or among the prisoners, a fact which speaks well for the sanitary condition of the prison and the vigilance and skill of the prison surgeon.

DESERTIONS.

It is with much satisfaction that the Adjutant-General reports a marked reduction during the past year in the number of desertions from the Army. In 1889, the number reported was 2,835, in 1890 it was reduced to 2,344, while the entire number during the past year is 1,503, or 841 less than during the preceding year and a little more than one-half of the number reported in 1889. Deducting the five desertions from the Indian scouts employed in the Department of the Platte and 71 from the several rendezvous, etc., the actual number of desertions from the organized commands of the Army is 6.2 per cent. of their total mean strength.

This gratifying condition is due largely to the beneficent and wise legislation of Congress, which is briefly indicated as follows:

(1) Authorizing enlisted men, under certain conditions, to purchase their release from service, or to claim an honorable discharge after serving three years;

(2) Increase of the army ration by one pound of vegetables; and

(3) Provision for the trial by a summary court, within 24 hours from the time of arrest, of all enlisted men charged with minor offenses, and limiting the punishment to a code of specific penalties to be prescribed by the President.

That this office should be fully advised on a question of such vital importance to the Army, commanders of posts and recruiting rendezvous were directed to report quarterly, commencing January 1, 1891, all desertions from their respective commands during the preceding quarter and the action taken by them thereon. From the reports received, it appears that 225 desertions took place during the first three months of the present year, and 450 during the quarter ended June 30, 1891. It is assumed that the increase in the second quarter is due to the fact that discontented men are stimulated to desert by the greater possibility during the open season to at once obtain employment at more remunerative wages. But discontented enlisted men are steadily decreasing in numbers as shown by the fact that, of the total number of desertions in each of the past three fiscal years, 64 per cent. thereof occurred in each year between April 1 and September 30 (in the first and last quarters), the actual number being 1,836 in 1888-'89, 1,507 in 1889-'90, and 976 in the year ended June 30, 1891.

To amplify clearly the number of desertions which have occurred under the new conditions and during the most recent period, it is shown that from April 1 to September 30, 1891 (the number for September being estimated), only 896 desertions are reported. This is a gratifying decrease in number during a period of the year when 64 per cent. of all desertions usually occur.

The data show that of the 675 deserters in the first six months of the present year 226 had 6 months or less of service, 331 had served 1 year or less, while the number of deserters in the *first* and the *last* 6 months of their second year of service was nearly equal, being 63 and 59, respectively.

I beg to invite attention to the fact that Fort Adams had the largest percentage of desertions of any one post, 16 per cent. The next in number were Forts Hamilton, Assiniboine, Randall, Hancock, and Ringgold, 13 per cent., while 43 posts had 4 per cent. and under, and 2 posts had no desertions. This shows that special efforts are necessary to ascertain the cause for the large number of desertions at certain posts, as shown in table "E" attached, when compared with the small number of desertions at posts situated in the same latitude, and at which

the same conditions prevail; especially the large number of desertions from some companies as compared with others at the same post.

That much remains to be done to afford adequate employment of a professional character to enlisted men to abolish all occasion for discontent with the military service is evident from the fact that there is still 6 per cent. of the Army deserting.

In connection with this important subject I beg to invite attention to the enormous expense entailed upon the Government by the crime of desertion. From January 1, 1867, to June 30, 1891, 24½ years, the number of desertions from the Army was 88,475. It is estimated that the average expense of the Government to replace a deserter is \$260; that is to say, to place a recruit in the status in which the deserter was at the date of his desertion. This amount is the average expense on account of pay, clothing, and subsistence received by the deserter during his service and the cost of transportation to the place from which he deserted. As the largest number of desertions occur before the men have rendered any service of value to the Government, the expense of replacing the 88,475 men, which foots up to the enormous sum of \$23,003,500, has been an actual loss to the Government without the least compensating advantage.

But even this great loss is not all the Government has suffered from desertion, for during these past 24½ years over 16,000 deserters have been apprehended or surrendered, and the amount of the reward paid for their apprehension, their transportation to posts, and the expense of convening courts martial for their trial is one not readily calculable, but is estimated at \$2,500,000. There have been 255,712 men enlisted and reenlisted for the Army during this period of 24½ years. Had there been no desertions it would have only been necessary to enlist 167,237 to keep the Army full. Hence it appears that over one third of the number enlisted have deserted. This condition of affairs can be regarded only as a military humiliation and, considering all its effects and consequences, a public calamity.

The necessity therefore for such legislation and administration as will make desertion an unknown crime is of paramount importance.

It is estimated that at the date of the passage of the act of Congress (April 11, 1890) amending the one hundred and third article of war, there were nearly 57,000 deserters at large liable to apprehension and trial. Of this number only 317 have applied and received "certificates of release" under the amended article. There are now at large probably 50,000 deserters who are disenfranchised by their act, under sections 1996 and 1998 of the Revised Statutes, but no longer liable to apprehension and trial.

During the three fiscal years ended June 30, 1888, 1889, and 1890, 1,041 deserters were apprehended, an average of 347 for each year. Since January 1, 1891, the reward for the apprehension of deserters has been increased to \$60, and the law authorizing civil officers to make arrests has been in full operation. The beneficial effects of these measures are already shown by the fact that in seven months (from January 1 to July 31, 1891) over 300 deserters were apprehended, and it is reasonable to expect that the increase in the number apprehended in the future will be much larger as the new measures become better known, especially so as post commanders are now required to send to civil officers and certain recruiting officers special descriptive lists of every man absent without leave as soon as the fact is reported to him and there is a probability of the man having deserted.

In connection with the above the figure-card system of identification

adopted 2 years ago has made it almost impossible for deserters to reënlist without being detected soon after joining. Since the system has been in operation 38 deserters have been identified after reëntering the service as recruits. No class of men in the Army can be less relied upon than the professional deserter, and when this class find it impossible to reënlist without being identified and punished the number of desertions will correspondingly decrease. It is believed that the 38 detected covers nearly all repeaters in the enlistment of 12,000 recruits made in the past 2 years. Twenty-seven was the number identified last year, and this number bears direct relation to the number (1,503) who deserted during the same period.

It is proper to assume that as a rule the number of "repeaters" bears direct relation to the number of desertions. Hence as there were 7,690 desertions in the three years of 1887, 1888, and 1889, there were probably not more than 229, repeaters enlisted in those years, few of whom are now in the service. This is not nearly so large a number as has been generally supposed.

SEMIMONTHLY PAYMENTS.

I beg to invite attention to the subject of payments in the Army, and to earnestly recommend that the necessary legislation be obtained providing for semimonthly payments of the enlisted men of the Army, as a measure in the direct interest of good discipline and tending to the greater satisfaction and contentment of the men.

As a tentative measure, monthly payments were inaugurated some years ago at a few selected posts, the list of which was gradually increased until it now embraces seventy-six military posts. Early last year a circular letter was addressed by this office to the company commanders stationed at Washington Barracks, D. C., Fort Myer, Va., Fort Monroe, Va., Fort McHenry, Md., Fort Leavenworth, Kans., Fort Riley, Kans., Fort McPherson, Ga., and the several posts in New York Harbor, including Willets Point, requesting a report setting forth the advantages and disadvantages of the monthly-payment system as developed by actual experience, together with such suggestions as may be pertinent to the subject.

The reports received in answer to the above inquiry are overwhelmingly in favor of the monthly system, but seven out of fifty-eight expressing a preference for bimonthly payments, while eleven officers are decidedly of opinion that still more frequent payments would be advantageous. The reasons advanced in favor of monthly payments are briefly: That they foster a spirit of manly independence among the men; work in the interest of good discipline by diminishing gambling and the need of resorting to the pernicious and demoralizing business of money-borrowing at enormous rates of interest, and make the men happier and better satisfied.

The proposed scheme of semimonthly payments assimilates to the custom of the best foreign services, as shown by the following extracts from the English "Royal Warrant for the Pay of the Army," "The Armed Strength of France," and "The Armed Strength of the German Empire:—"

ENGLISH ARMY.

The pay of noncommissioned officers and men shall, when practicable, be issued weekly, in arrear; and, in the event of a soldier misconducting himself, such soldier may be ordered by his commanding officer *to receive his pay daily*.

FRENCH ARMY.

The pay of the men is fixed *by the day* and is drawn, in advance, by the regimental paymaster on the 1st and 16th of the month. It is paid to the captains on the 1st, 6th, 11th, 16th, 21st, and 26th of each month for the number of days interval between each of these dates.

GERMAN ARMY.

Noncommissioned officers and men receive their pay (the month reckoned at 30 days) in advance on the 1st, 11th, and 21st of each month.

The above extracts show that the German troops are paid trimonthly; the French Army, every five days; and, in the English service, weekly payments are the rule, with the proviso—for obvious reasons and as a disciplinary measure—that men misbehaving may be compelled to receive their pay daily.

If, in armies varying from 250,000 to 500,000 men, such frequent payments are possible, surely no unsurmountable obstacles can prevent semimonthly or even weekly payments in our Army of less than 25,000 men. Frequent payments are, also, in accord with the usage of all commercial and industrial corporations and firms in discharging their indebtedness to their employes. In the Treasury Department payments are made weekly; in the War Department, every 15 days.

The sections of the Revised Statutes governing payments to the Army are as follows:

SEC. 1188. The paymasters and additional paymasters shall pay the regular troops and shall pay all other troops in the service of the United States, when required to do so by order of the President.

SEC. 1189. The Army shall be paid in such manner that the arrears shall at no time exceed two months, unless circumstances shall render further arrears unavoidable.

It will be noted that section 1189 simply establishes the outside limits of payments to the troops. Section 1188 requires direct payment to be made by the paymaster and should, therefore, to accomplish more frequent payments, be amended so as to provide that other officers—preferably the quartermaster of each post—shall receive from the paymaster, and disburse to the men, the amounts required for each authorized payment made between the regular bimonthly pay settlements. The receipt of the money due semimonthly to be optional with the men.

In conclusion, I beg to allude to the remarks of a distinguished military writer who says in substance that the bimonthly mode of payment is atrocious. It is convenient for the Government but is ruinous to discipline, to habits of economy, and to the temper of the men. Soldiers who are paid only once in two, and sometimes but once in four months, are thus tempted to spend, and often to their own hurt, the comparatively large sums that then fall into their hands. The soldier then often becomes a mere medium for the transfer of his pay from the disbursing officer to some wrongful object. The occasional pay day puts a strain upon all the resources of discipline, moral and physical. It is contended by the pay department, with much show of reason, that it is impossible to make more frequent payments without waste of money and a great increase of clerical work and of the pay force; but it is only voicing the opinion of every thoughtful, considerate officer of the line, to say that such payments can, and certainly should, be made. The essential objections usually urged are that the accounts are so complicated as to require skilled accountants and that money in large sums should pass through bonded officers. There is no necessary reason why soldiers' wages should be a peculiarly obscure subject, and, if necessary, the law should be changed.

In the rough the following seems practicable: There is a quartermaster at each post charged with the care of public property, often much greater in value than any paymaster handles at once, and he makes certain disbursements. Now, let the company commander prepare pay rolls in a general way, much as at present, but on a basis of, say, at the rate of \$10 a month for a private's pay and the higher grades in proportion, for those who have need of their money. Every 15 days let the captain give each of these men a non-transferable order on the quartermaster, to be paid by him in cash, for one-half of this, less (excluding cents) the stoppages that may be authorized. This for the regular pay pure and simple. Once in two or four months a paymaster should visit the post and, while there, review and make up the entire rolls, settling the extra-duty accounts, correcting errors, if any, establishing balances and paying such differences as may remain to the credit of the men. Should a soldier on any particular pay day prefer not to take his order, it should be passed to his credit as a deposit to draw interest from the time the regular paymaster at his next settlement takes it up. Money due soldiers in arrest and confinement should not be paid, but should be passed to the credit of their retained pay for settlement on final statements. In the field, frequent payments may be suspended in the discretion of the Commanding General—but that is a question of detail, not of principle.

Such a system is feasible and desirable, although numerous theoretical objections may be plausibly urged by conservative experts to whom the older is always the better way. But officers whose lives are spent in garrison can never desire the perpetuation of a system that encourages usury, gambling, drinking, and, as many believe, desertion.

Frequent payments will introduce thrift, economy, contentment, and worth in the Army, as frequent payments bring these conditions wherever they are resorted to.

Should payments to the Army after the manner suggested be authorized by law the same number of paymasters would be required as now. To post quartermasters, for the additional labor and responsibility pay duties would impose upon them, additional compensation should be legalized, depending upon the number of companies at the post.

DISCHARGES.

The act of June 16, 1890, authorizes the President to permit an enlisted man of the Army, in time of peace, to purchase his discharge, and provides that, at the end of three years from the date of his enlistment, every soldier whose antecedent service has been faithful shall be entitled to receive a furlough for three months with the further proviso that at the end of such furlough he shall be entitled to receive his discharge upon his own application.

The regulations adopted by the War Department under the above law are as follows:

I.—Discharge by purchase to be confined to the second and third years of the first enlistment, the enlisted man applying for discharge to inclose with his application an amount of money determined as follows: During the first month of the second year, \$120; and thereafter, \$5 less per month for each succeeding month until the end of the third year.

II.—Every soldier who, on June 16, 1890, had served 3 years or less, and every soldier enlisted subsequently to that date, to be, on his application, furloughed for a period not to exceed 3 months, so dated that the furlough shall expire not later than the last day of the third month following the end of the third year of his enlistment, provided that his service has been faithful, and at the expiration of his furlough the man shall, on his application, be honorably discharged from the service.

III.—Enlisted men who have served 10 years or more, continuously or otherwise, to be classified as veteran soldiers, and discharge granted thereto from the War Department by way of favor, so far as the interests of the service will admit or the merits of each case justify.

IV.—All soldiers discharged as above provided not to be entitled to travel allowances and to be ineligible to again enlist in the Army for 1 year from the date of discharge.

The number of men, arranged by classes, availing themselves of the provisions of the act of June 16, 1890, is as follows for the fiscal year ended June 30, 1891:

Purchase men.....	718
Three years' men.....	939
Veterans.....	324
Total.....	1,981

In adopting the rule that men so discharged should be ineligible for reënlistment for 1 year from date of discharge the fact was not overlooked that such a regulation had a disadvantage as well as an advantage. The former lies in the fact that the rule excludes from the Army—always for an entire year and frequently for all time—a class of men already trained and disciplined and, as a rule, steady and reliable. The advantage, however, expected to be derived from the provision is that it would cause soldiers to weigh carefully the effect of the exclusion as regards their own interests and thereby reduce the number taking their discharge before the end of the full term of their enlistment. While it is true that the desire of discharge indicates a measure of dissatisfaction with the service, it is equally true that the feeling arises mainly from the belief that they can improve their condition by returning to civil life, and it was expected that such of them as, after 1 year's experience, had found this belief to be erroneous would return to the ranks and become thoroughly contented soldiers.

As no definite conclusions could be deduced from the bare number of men, ascertained monthly, seeking relief from military service under the provisions of the law, commanders of posts and companies—the latter the most directly interested and the best qualified to form a correct opinion—were requested by this office to consider and report upon the subject in its threefold aspects, viz:

- (1) Are the men quitting the service valuable soldiers as a rule?
- (2) Does the period of exclusion produce the desired effect?
- (3) What change, if any, is recommended?

In compliance with this request reports have been received to date from the majority of post and company commanders. There is no question that the classes of men seeking release from military service after 3 years in the ranks or as veterans are composed, as a rule, of valuable soldiers, for in a total of nearly 400 officers less than one-tenth answer the question negatively. With regard to men who purchased their discharge opinions are less pronounced, while on the second and third points there is much diversity of views and suggestions, many advocating a shorter term of exclusion, some claiming that the present period of exclusion fails to produce the effect desired, while quite a number urge that the time which has elapsed since the law went into effect is too short to justify them in formulating a correct opinion.

After a careful examination of the reports received I am of the opinion that the existing rules should not be changed until more experience has shown clearly what amendment, if any, of the rules is needed to give the best results.

That the presence in the ranks of a company of one or more men

who, after procuring their discharge for the purpose of advancing their personal interests, enlist again would probably act as a deterrent to some extent upon other restless members of the company is perhaps true, yet the best interests of the military service forbid that the Army be made or looked upon as a place of refuge that may be abandoned at will. It is no new axiom that very few men profit by the experience of others, and therefore too much stress should not be laid upon the possible effect of the return to a command of men who have voluntarily severed their connection with it. The matter for serious consideration is whether the present length of exclusion will not cause many valuable soldiers, who leave the Army under the provision of the law, to be weaned from it and be entirely lost to the service, and more time is required to solve this question.

It is believed that the number of applications for discharge will decrease as time is given to men to reflect that while a means is offered them to leave the service in an honorable manner should they so desire, yet that by doing so they forego the pecuniary advantages of faithful service for the full term of enlistment, viz \$1 per month increased pay for the third year, \$2 for the fourth, and \$3 for the fifth year, together with the travel allowances to which full-term men are entitled on discharge.

That the law of June 16, 1890, has proved beneficial to the Army is evidenced by the large reduction in the number of desertions and the presence in the ranks, June 30, 1891, of about 12,000 men with a service ranging from 3 to 10 years.

At no period of its century of existence has the Army been better paid, better subsisted, afforded more means of improvement and rational recreation than during the past year, or, owing to the unremitting and wisely directed efforts of the officers charged with its recruitment, composed of more intelligent, cheerful, and contented men.

POST SCHOOLS AND LIBRARIES.

The yearly reports of the operations of the present system of education in the Army have been received, and much interesting and valuable information has been elicited in response to a circular of inquiry from this office on the subject of military schools and the condition of post libraries as regards the number of interesting (nonprofessional) books in good condition, and the number of such books which should be added yearly to afford a fair amount of reading matter to enlisted men.

By general orders from headquarters of the Army, dated October 7, 1890, the methods of management and instruction were left to the discretion of post commanders under such special instructions as department commanders might deem essential, and the latter were intrusted with the duty of the selection of text-books.

The general sentiment of the officers directly interested in this matter, as well as those responding to the circular of inquiry, above referred to, is in favor of the War Department prescribing a uniform course of studies, under a general method and with fixed rules for exemptions and rewards, and that qualified teachers be provided and suitably remunerated.

After thorough consideration of the suggestions offered in these reports, I have reached the following conclusions:

That the men to receive school instruction in the Army should be divided into two classes—

An elementary class, in which attendance should be compulsory, for instruction in reading, writing, the fundamental rules in arithmetic, and the history and geography of the United States;

A superior class, whenever practicable, for the benefit of enlisted men ambitious to extend their field of knowledge. Attendance in this class to be voluntary, but to be encouraged by every possible means. The course to embrace history, geography, letter writing, the higher arithmetic and mensuration, and the principles of algebra and geometry. It is suggested that each year's course of instruction be complete in itself, for it would not be safe to assume that the majority of scholars would remain two or more successive years at the same post.

The school term should not be extended over 6 months of each year.

Each class to be examined at the end of each school term and the men found proficient to receive a certificate or warrant which shall be noted in the company descriptive book and on the discharge in the same manner as in reporting marksmen. The certificate of proficiency in the elementary class to exempt the man from further compulsory attendance.

It is not doubted that the proposed certificate of proficiency would act as a powerful stimulus to increased application and study on the part of the men, and its adoption would be only an extension of the principle governing the Army, that successful efforts are entitled to official recognition and reward.

SCHOOL TEACHERS.

To insure that measure of success to the school system in the Army which its importance demands requires school-teachers specially trained and fully competent for the duties required of them. In the light of past experience it is not believed that this can be attained by the detail of enlisted men, who, however competent they may be so far as education is concerned, lack in the majority of cases the special and rare qualification necessary to instruct others. In order to secure, therefore, the best results possible, I beg to recommend that legislative authority be asked to enlist for each post a fully qualified school-teacher, to be designated as "post school teacher," and to receive the pay and allowances of a hospital steward. Appointments to be made by the Secretary of War after the candidate has passed an examination before a board of officers convened to inquire into the character, special capacity, and aptitude of applicants for these important positions, for which also enlisted men of the Army should be considered eligible. Such a law would be a great inducement to the well-educated enlisted men, and sufficient to insure applications for appointment from well-educated young men in civil life competent as instructors.

While the possession of scholastic attainments necessarily increase the value and efficiency of noncommissioned officers, many cogent reasons exist why mere proficiency in studies should not establish a claim for promotion to that class. Noncommissioned officers are selected because possessing in a high degree courage, honesty, fidelity, force of character, and natural tact and ability in controlling the men. The whole company is often a narrow field for such selections, and serious detriment would result from limiting company commanders to men possessing a certificate of proficiency in studies.

For the benefit of the noncommissioned officer class it is recommended that their instruction be conducted in a post school for non-commissioned officers only, notwithstanding the objection advanced by

some officers that such a course would interfere with the duties of company commanders and lessen their authority and responsibilities. The selection and appointment of noncommissioned officers would remain, as now, with captains of companies, but the establishment of a post school for noncommissioned officers would substitute systematic instruction, under an officer selected by reason of his special qualifications, to the present necessarily disconnected method of recitations in tactics, etc., conducted by the captain of each company.

As exemplifying the successful results of a properly conducted school of this class, I beg to submit the following interesting report of the officer charged, for the two past years, with the management and conduct of the school for noncommissioned officers at Fort Myer, Va.:

This school is composed of all the noncommissioned officers at the post, and instruction was given twice a week, on Tuesdays and Thursdays, from 10:45 to 11:45 a. m. The object of the school was to instruct the noncommissioned officers as thoroughly as time and opportunity would permit in their various duties, and to explain the general principles of the drill regulations, minor tactics, especially in hasty sketching and road reconnaissance, Blunt's Small Arms Firing Regulations, anatomy of the horse, shoeing, together with treatment of local injuries.

Owing to the lack of proper text-books, charts, materials, and the shortness of time, the instructor often felt hampered, but this feeling was offset in a great degree by the close attention of the members of the class.

The course may be roughly divided into four parts:

1. Drill regulations.
2. Minor tactics.
3. The horse.
4. Small arms firing regulations.

The method pursued in this part of the course was to assign lessons of definite length and to require recitations in the classroom supplemented by the solution of tactical problems at the blackboard. The schools of the soldier, platoon, and company were studied, likewise the general rules for successive formations in the school of the battalion. Special stress was laid on distances, intervals, and the posts and duties of guides. The general principles of biting, saddling, and equitation were explained in two lectures, and I might add I think it a mistake that a fuller explanation of these is not contained in the Drill Regulations. When the Drill Regulations had been finished a written examination covering them was given with very satisfactory results, the highest percentage being 96.

The lack of proper text-books adapted to the use of noncommissioned officers rendered it necessary for the instructor to lecture upon the various principles of minor tactics, *e. g.*, advance and rear guards, outposts, hasty sketching, and road reconnaissance. Hasty sketching was exploited at full length and detailed instruction given in the use of the various topographical signs, use of instruments, and plotting of a hasty survey. Then the class was divided into parties and sent into the field equipped with box and prismatic compasses, and the road in the vicinity of the post surveyed and plotted. The various maps were then condensed into one large one by two members of the class. I append the originals turned over to me together with specimens of the road reports submitted. The results speak for themselves. In examining this work it should be borne in mind that the majority of the men had never seen a compass, and that in the year previous a few of the class had had but a very limited experience in work of this nature.

In that part of the course pertaining to the horse, lectures were given on the anatomy, the points to be observed in selection, age, shoeing, treatment of injuries with illustration of bandaging, administration of medicines, and stable management. This part of the course was copiously illustrated by enlargements made from the plates in various anatomical works on the subject.

Blunt was then taken up, following the same method of instruction as in the first part of the course.

The modern tendency of individualizing the soldier, together with the adoption of a looser formation in tactical dispositions, have led the French and German authorities to require more from their noncommissioned officers than a mere knowledge of drill regulations; and I doubt that if the general method of instruction of our noncommissioned officers be looked into, they will be found to possess much more than an elementary knowledge of their drill book. The unquestioned necessity of a larger scope in their instruction being admitted, I can see no better way than to unite the noncommissioned officers of each battalion in a class under a competent instructor and to follow a course prescribed by the War Department. This would necessitate the preparation of a manual which could be very easily compiled from

the ample literature on this subject. Such a compilation would possess the advantage of putting the principles before the noncommissioned officers in simple language without that discussion usually found in treatises, and in a way easy of comprehension.

From two years' experience with the class here, I have observed as a result of instruction that each noncommissioned officer takes a greater interest in his duties as he now understands what he is doing; and I think it creates that distinction between the noncommissioned officer and the private which is so desirable. The mere fact that they know more than the men causes them to be looked up to and consequently respected.

This singularly lucid and convincing exposition of the subject absolutely leaves nothing to be added, while it proves that this young officer fully appreciates the demands of the service in this respect; his report exhibits skill, sound judgment, and zeal in suggesting and applying means of improving and perfecting it that can only spring from an ardent devotion to its interests and can not be too highly commended.

That the maintenance of a post library, containing a judicious selection of interesting and instructive books, is a positive benefit to the enlisted men, and becomes an important factor in improving the *morale* of the Army, is too evident a proposition to need argument. The reading class in the service is quite as much interested in the better class of literature as the general public, and the experience at posts possessing a good miscellaneous library indicates that the general desire of the enlisted men may be graded as follows: High class standard fiction, travel, biography, history, etc. From reports received it appears that well selected post libraries are few in number; the majority of the collections of books, dignified by the name of libraries, consist mainly of odds and ends in a more or less dilapidated condition, the result of much handling or being heirlooms from abandoned military posts.

With a view to the establishment of libraries at all permanent posts and the reasonable increase of all yearly, I beg to recommend an annual appropriation of \$10,000, being on the basis of \$25 per company, the lowest amount that should be estimated for that purpose; the books to be selected with the sole view of their suitableness to meet the demands of the enlisted men of the Army for interesting as well as instructive and profitable reading.

EXTRA DUTY.

The necessities of the permanent military establishment demand much extra-duty labor not purely military, but involving the very existence of the Army, and which, in the past, when the Army was scattered at small and isolated frontier posts, could only be obtained from the troops. It is, however, uncertain in its operation, as really good workmen are not easily found, and detrimental to the best interests of the service, as it tends to relax discipline and impair the military usefulness of the men. It also seriously interferes with the selection of the best soldiers for non-commissioned officers, as it involves a pecuniary sacrifice on their part to accept a higher grade with less pay than they receive as privates on extra duty.

As a radical cure for all the evils attending the present system of "extra duty," I beg to recommend that Congress be asked to authorize the creation, under the control of the Secretary of War, of a United States army service corps, to include mechanics, clerks, teamsters, laborers, etc., the post baker and the post and company cooks organized substantially on the basis of the present hospital corps. By this means the combatant arms of the service would be completely emancipated from manual labor, the effective strength of the Army would be increased by

the return to the ranks for purely military duty of nearly, if not quite, seventeen hundred men, and the quartermaster's and subsistence departments would be made capable of conducting within themselves all their various operations.

In his annual report for 1889, General Holabird, Quartermaster-General, strongly advocates the enlistment of men for the Quartermaster's Department, and states that in "June there were on the rolls more than 2,000 men employed on extra duty and that their compensation above their ordinary pay exceeded \$200,000 per annum."

If the \$200,000 expended yearly for extra-duty pay in addition to the regular pay of the men so detailed were appropriated for the maintenance of a "corps of army service men" to relieve the troops from furnishing extra-duty men, there can be no doubt that honest, capable working men can be secured, and that both the Quartermaster's Department and Subsistence Department as well as the whole Army will be greatly benefited thereby. The present system of details of enlisted men on extra duty is so well known to be injurious to discipline and the *morale* of the Army that its discontinuance and the establishment of a special corps for the purpose has become a necessity.

By the following act, approved 20th of April, 1890, the detachment of Army service men in the Quartermaster's Department was enlisted at the Military Academy:

That the enlisted men known as the artillery detachment at West Point shall be mustered out of the service as artillerymen and immediately reënlisted as Army servicemen in the Quartermaster's Department, continuing to perform the same duties and to have the same pay, allowances, rights, and privileges, and subject to the same rules, regulations, and laws in the same manner as if their service had been continuous in the artillery, and their said service shall be considered and declared to be continuous in the Army. (Act approved April 20, 1890.)

The Superintendent of the Military Academy thus refers to the detachment in his annual report of the Academy:

The men are not soldiers in the ordinary acceptation of the term, but are clerks, overseers, mechanics, watchmen, janitors, and laborers.

They are neither armed, drilled, nor equipped as soldiers; while authorized to wear the undress uniform of an artillery soldier when not at work, they are required to appear in fatigue costume whenever doing duty as mechanics or laborers.

With but few exceptions, the men have been earnest, faithful, and industrious in the discharge of their varied duties during the year.

If the enlistment of a corps of clerks, mechanics, bakers, cooks, teamsters, and laborers for the Quartermaster's and Subsistence Departments be authorized by Congress, on the basis of the Hospital Corps, an effectual fighting force will be secured to the Army, and the great supply departments—the Quartermaster's and Subsistence—would be able to control their various operations without having, as now, to depend upon the doubtful expedient of securing extra-duty laborers. Such a corps under the control of the War Department will provide disciplined mechanics and laborers wherever most needed, and without any delay.

SUMMER MARCHES.

Movements of troops, for the purpose of field instructions, have been ordered during the past summer by the respective department commanders, as follows:

Department of the East.—The companies of the Nineteenth Infantry, stationed at Fort Wayne, to complete their target practice at Fort Mackinac, so as to attend the annual encampment of Michigan State troops to take place at Whitmore Lake, about 40 miles from Detroit,

for 5 days, beginning July 16, and participate in the exercises incident to the encampment.

Department of Dakota.—The Third Infantry, of the garrison of Fort Snelling, Minn., under the command of the colonel of the regiment, to make a practice march to Camp Douglas, Wis., commencing the movement so as to arrive at Camp Douglas by the 26th of July, for encampment at that place with the Wisconsin National Guard. On the breaking up of the National Guard encampment at Camp Douglas, the command to return by marching to its post.

Department of the Missouri.—Light Batteries A, Second Artillery, and F, Fourth Artillery, under command of Major Williston, Third Artillery, to leave Fort Riley, Kans., equipped for field service, on a practice march, about August 27, proceeding to St. Joseph, Mo., thence to Kansas City, Mo., via Fort Leavenworth, and thence to their station. Such drills and field exercises as are practicable to be had during the march under the direction of the commanding officer.

Department of the Platte.—Practice marches not to exceed 100 miles, and to include such exercises as may be practicable, were ordered to be made from Forts Douglas, Logan, Niobrara, Robinson, Sidney, D. A. Russell, Du Chesne, Washakie, McKinney, and Randall. The entire garrison of the several posts named—except 1 officer, 4 men of each troop or company, and one-half of the privates of the hospital corps—to form the moving column.

Department of Texas.—The troops at Fort Sam Houston to make a practice march of about 15 days, beginning so as to terminate about the last of July. One of the camps during the march to be with the Texas State Guard, at Austin, Tex.

While no reports have yet been received from the commanders of the marching columns, it is certain that much benefit has resulted to the troops participating in the field exercises above indicated.

GYMNASIUMS AND DRILLS.

The erection and maintenance of properly equipped gymnasiums at military posts is a matter of great importance in order to afford men the requisite facilities for indulging in exercises that break the monotony and on indoor days help pass the time, and all the time directly tend to make of the physically well developed recruit an athletic soldier. It is therefore recommended that an annual appropriation of \$100,000 be asked for from Congress until every large permanent post as well as each of the recruiting depots are provided with a suitable building and the necessary apparatus. The result of such legislation will be to banish discontent in somewhat the same ratio it has been reduced by the act of June 16, 1890, the effects of which have been presented under the heads of "discharges" and "desertions," by which 841 men have been kept in the service and \$218,660 have been saved thereby to the Government the past year.

It is the duty of post commanders to institute athletic games and weekly practice marches in summer in place of the unnecessary mechanical drills. They have the authority, but it requires an appropriation from Congress to secure to the enlisted men the just benefit that will come from properly constructed and equipped gymnasiums, canteens, and libraries for use in bad weather and during the inclement season. The three great recruiting depots, where recruits are assembled before they are sent to regiments, are as important for their instruction as the Military Academy is for the instruction of officers.

Strenuous efforts have been made to establish a gymnasium at each of these depots and, notwithstanding difficulties in the way of providing suitable buildings, the progress made has been very satisfactory and the results most encouraging. From a report of inspection at Jefferson Barracks it appears that—

The officers without exception pronounce these exercises (at the gymnasium) very successful and of great benefit to the recruits. They secured rapid development and varied the monotony and weariness of the drills. The officer in charge is a zealous instructor and secures the attention and hearty coöperation of his classes. Some of the sergeant instructors are rapidly becoming efficient and spend a great deal of time in perfecting themselves.

With a view to extending the course of gymnastic exercises at the several recruiting depots, the superintendent of the recruiting service was advised, April 22, 1891, that—

A course of gymnastic exercises to extend throughout the period of the 3 months depot instruction, in which all recruits undergoing that instruction shall participate, with the exception of the sick, such reenlisted and previous service men, and such of the recruits as are more than 30 years of age, as commanding officers may see fit to excuse therefrom, will be inaugurated at each of the recruiting depots as soon as practicable.

The exercises will be held daily, Saturdays and Sundays excepted, those of each day to be of 1 hour's duration for each particular class participating, and to be conducted during such of the morning hours as depot commanders may direct.

Each company will be divided into three classes, each of which shall contain respectively the recruits receiving instructions in the first, second, and third month; and each class will be divided into sections composed respectively of those who are under instruction in the first, second, third, and fourth week of the month; although in the second and third months, sections may be numerically less, depending upon the number of, and the proficiency attained by, the recruits, or they may to a certain extent act unitedly, as many of the exercises will be identical, permitting a considerable number to engage in them at one and the same time.

When practicable, however, two companies will be united, forming a single class and exercised during one of the two morning hours now devoted to tactical instruction—one class engaging therein the first, and the other the second hour.

In case sections are too large to admit of thorough systematic teaching—that is, should any contain more than 10 or 12 men when primarily taught in movements, especially any of the first month—they will be separated into convenient squads, and each squad or section will be placed under the immediate direction of a non-commissioned officer. Noncommissioned officers for this purpose will be provided by an equitable detail from the companies; they will be retained in that branch of the prescribed exercises in which they are best qualified to instruct, and will be supervised by a competent commissioned officer specially detailed for that duty, if any such are present at depots, otherwise by commanding officers of companies, under the direction of depot commanders. Efforts will be made to secure at depots the services of graduates of the Military Academy who have received a practical education in gymnastics, that they may be placed in charge of gymnasia, be responsible for property, and personally direct all instruction thereat; but for the present, unless competent officers can be found at depots to be so detailed, company commanders, through their noncommissioned officers, will exert themselves to impart the best instruction possible under the circumstances. Should an officer be specially detailed, he will be permanently assisted by 1 or 2 of the noncommissioned officers of the instruction companies who manifest the greatest aptitude for the position of assistants. The officer and noncommissioned officers thus detailed shall be excused from the directed tactical drills.

Commanding officers will set apart the most suitable available building or rooms for the practice, if such action has not already been taken by them; and if rooms selected are not appropriate in many particulars, much of the instruction can be carried on out of doors in propitious weather. It is hoped that convenient and appropriate buildings can be secured at all of the three depots, at no distant period.

At a number of military posts part of the profits of the canteen has been applied to the purchase of suitable apparatus for elementary gymnastic exercises, but, as a matter of course, these efforts, while measurably effective, lack the comprehensiveness of a well devised system of exercises conducted under favorable conditions and, for want of proper accommodations, labor under serious disadvantages.

While the soldier is subjected to rigid discipline in his habits of life, his food is carefully selected and well prepared and his clothing is well adapted to the protection of his body, he can not, as yet, be considered as a physically well-trained man. The best results of drills with arms or in maneuvers are obtained, as in any other occupation or handicraft, when the special work to be accomplished is interrupted by engaging in efforts judiciously devised to increase individual ability and develop the required physical powers.

The wish of the alert officers and enlisted men of the Army is unanimous to have such continuous and varied occupation of their time in right physical culture, in games, gymnastics, and practice marches, in addition to the necessary drills and studies, as will keep them fully employed throughout the day. Interest in drills, mental culture, bayonet exercise and rifle practice will be increased and the true object of a soldier's discipline—the development of all his faculties, mental and physical, and their subordination to control—will be reached, and then only, when a comprehensive scheme for physical training, through the necessary action of Congress, is made possible at all of our military posts.

As a rule from 1 to 2 hours *daily* are devoted to instruction in parade-ground drill, which from its sameness and monotony becomes irksome to both officers and men and therefore without good results. I commend to your attention a recommendation received this year from an inspector general that instead of *daily* drills at each post certain days in each week be designated in the favorable season for drill and instruction in minor tactics, outpost, patrol, picket duty, packing mules, etc., and that on such days every officer and man be required to attend, except the sick and the necessary guard.

CANTEENS.

The substitution of canteens for post traders' stores, determined upon early in 1889 after a thorough investigation of the respective merits and demerits of the two systems, has been progressing steadily and will soon be an accomplished fact. Of the 85 traders' stores existing at the time mentioned 22 are still maintained, but of the latter all but 1 (at a very isolated although permanent station) will be discontinued within the next few years, in consequence either of the directed revocation of the traders' licenses upon a specified future date, or of the withdrawal of the garrisons from the posts at which they are carried on. Canteens are in successful operation at 80 posts, as against 68 at the date of the last annual report. During the 6 months preceding June 30, 1891, the canteens transacted a business aggregating nearly \$650,000, an increase of about \$140,000 over the preceding 6 months, and of \$175,000 over the corresponding part of the year 1890. Approximately, the sum total of \$1,160,000 was expended by soldiers at their canteens during the fiscal year last past, with a resulting profit (exclusive of the 10 per cent. payable under the regulations into the band funds) of \$250,000, of which about one-third was expended in increasing the fixtures of the several establishments and in providing apparatus for indoor and outdoor games and for gymnastics; while the remainder, say \$160,000, was returned to the companies and devoted to the improvement of their messes. Of the 20 posts having no canteens all but 7 are temporary or one-company stations; and it is presumed that in most of the cases where neither of these unfavorable conditions exist the nonestablishment of a canteen has been owing to the lack of suitable accommodations.

Without depreciating post-traders as a class, and while conceding that in some respects their establishments at frontier posts were, in the days of frontier isolation, a great convenience alike to the garrisons and to citizens, it is nevertheless a fact, which well-informed persons will not question, that many of the features of the trader system were odious and demoralizing, and that both the moral tone and the material interests of the Army have been improved in consequence of its supersession by the canteen. An analysis of the latest semiannual reports of post commanders on the operations of the canteens at their respective posts confirms the truth of the latter statement. From sixty-four reports, in which the effect of the canteen upon the contentment, discipline, and welfare of the men is discussed, the opinions of the writers may be summarized as follows: Two have not yet reached a conclusion; one repeats his previously expressed opinion that the canteen, while productive of good in some respects, is hurtful in others, and sixty-one declare in more or less emphatic language that the effect has been beneficial. The remarks of the colonel of the First Cavalry (whose headquarters are at the important post of Fort Custer, Mont.) upon this interesting subject are worthy of reproduction in this connection. The colonel says:

It will be seen that the financial operations of the canteen have been very satisfactory, giving large returns to each organization composing it at the least expense. It enables the soldier to live almost sumptuously, giving him a great and plenteous variety of food. The effect upon the welfare and discipline of the command has been excellent; in fact there has been no bad infraction of the regulations since the post tradership here has been abolished and the canteen established. Drunkenness and the offenses incident to it (for nearly all could be traced directly or indirectly to it) for which nine-tenths of the men were tried has virtually disappeared. As an interesting comparison, the records of this post show that the number of men confined and cases tried by courts-martial have decreased more than one-half since the post trader resigned.

Another report, made by Col. E. F. Townsend, Twelfth Infantry, commanding Fort Leavenworth, Kans., epitomizes the difficulties that are encountered everywhere in the so called prohibition States in consequence of the provision incorporated in the Army appropriation act of June 30, 1890, forbidding the sale of intoxicants at any posts "in any State or Territory in which the sale of alcoholic liquors, beer, or wine is prohibited by law." Colonel Townsend's report upon the effect of this prohibitive clause is as follows and requires no comment:

Although Kansas is nominally a prohibition State the prohibition law is openly set at naught. At the town of Leavenworth, adjoining the post, there are several hundred saloons engaged in the selling of beer or liquor, and licenses to sell are granted with little or no question by the authorities. Yet because the law is upon the statute book and this post is within the limits of a prohibition State the post canteen is not allowed to sell beer. (Army regulations forbid the sale of anything stronger than light beer at canteens.) The consequence is that after the men are paid off they resort to the town and there spend their money in the saloons, returning to the post, many of them, badly under the influence of liquor. Absence from duty and summary courts follow, with fines and confinement in the guardhouse, even if there be no worse results. Discipline is much injured and, in my opinion, will never be better while such a state of affairs exists.

The officers rendering the sixty-four reports above referred to—many of whom were at first opposed to the introduction of the canteen—are not only men of experience and mature judgment, but they have, more perhaps than any other class, a deep interest in the sobriety, contentment, and well-being of their commands, upon the efficiency of which their professional reputation measurably rests. The substantial unanimity with which they commend the canteen system is conclusive as to

its superior merits. It is not, of course, claimed that the system is without faults ; none can be devised that is absolutely free from them or from objectionable features of some sort, but the prediction, at first frequently and confidently made by opponents of it, that certain alleged weak points in the system would speedily demonstrate its inexpediency and bring about a change, has proved to be untrue and is now rarely if ever heard. Certainly the management of canteens—while more or less successful according to the tact, energy, and business capacity of the several managers, has been uniformly characterized by strict probity as well as by a sincere desire to ameliorate the condition of the enlisted soldier, a fact which reflects the utmost credit on the officers of the Army who, without appreciably sharing in the benefits, have cheerfully assumed the labors and responsibilities incident in the conduct of the institution. As a means of insuring its stability and increasing its usefulness I am more than ever impressed with the necessity for and can not too strongly urge that *the Government* should provide ample and suitable garrison buildings for the accommodation of the canteen and its proper adjuncts.

RECRUITING SERVICE.

The recruiting service, as conducted under existing regulations, may be considered under two divisions—the general and the special.

The general recruiting service is conducted, under the supervision of a superintendent stationed in New York City, by officers selected for the purpose and detached from their regiments for a 2 years' tour of duty.

Rendezvous are located in several of the principal cities, with temporary branches, when practicable, in smaller cities or towns within convenient distance. The recruits enlisted at these stations are collected at recruiting depots, where they receive at least 3 months' instruction and training before assignment to regiments.

During the past year these depots have been maintained at Davids Island, N. Y. H., and Columbus Barracks, Ohio, for infantry and heavy artillery, and at Jefferson Barracks, Mo., for cavalry and light artillery.

October 1, 1890, recruiting rendezvous were in operation at the following places : Two in each of the cities of Boston, New York, Philadelphia, and Chicago ; and one each at Augusta, Me. ; Providence, R. I. ; New Haven, Conn. ; Albany, Brooklyn (a branch of New York City), Buffalo, and Rochester, N. Y. ; Camden and Newark, N. J. ; Johnstown and Pittsburg, Pa. ; Cincinnati and Cleveland, Ohio ; Evansville and Indianapolis, Ind. ; Detroit, Mich. ; Milwaukee, Wis. ; St. Paul and Minneapolis, Minn. ; St. Louis, Mo. ; Memphis, Tenn. ; Louisville, Ky. ; Wheeling, W. Va. ; Baltimore and Hagerstown, Md. ; Washington, D. C., and Augusta, Ga.

In October, 1890, rendezvous were opened at Springfield, Mass., Harrisburg, Pa., Fort Wayne and Terre Haute, Ind. ; in November, at Elmira, N. Y., Davenport, Iowa, and San Francisco, Cal. ; in December at Charlotte, N. C. ; and in January, 1891, at Knoxville, Tenn. In November, 1890, the rendezvous at Augusta was transferred to Portland, and in July, 1891, the rendezvous at Johnstown, Pa., and Charlotte, N. C., were transferred to Wilkes-Barre, Pa., and Greensboro, N. C. The rendezvous at Hagerstown, Md., Augusta, Ga., and Memphis, Tenn., were closed in January, April, and May, 1891, respectively.

To supplement the operations of these regularly established rendez-

vous and reach as far as possible the better classes in the smaller towns and rural districts, *temporary branch rendezvous* have been maintained for a longer or shorter time, as circumstances dictated, in about thirty such places, but the direct results of these efforts have not been encouraging. The location of the established rendezvous in the larger cities is generally well known in the surrounding country as the result of judicious advertising and the wide circulation of recruiting posters and hand bills, and experience indicates that, as a rule, men in these country districts who desire to enter the Army prefer to seek a city rendezvous for the purpose. Some of the temporary branches, however, have been quite successful, and as regards others, at which few if any enlistments were made, it is undoubtedly the fact that the visits of the recruiting officer and party have served to awaken an interest in the military service that has resulted in increasing the number of applicants at the regular rendezvous.

SPECIAL RECRUITING.

The special recruiting service is conducted by officers who are not detached for the purpose from their respective posts, except in case of special regimental recruiting tours, when the absence is only temporary. Under this head are embraced the department, the regimental (ordinary and special), the engineer, and miscellaneous recruiting.

Under existing instructions a *department recruiting service* is organized in each department except the East. The assistant adjutant-general at department headquarters is the superintendent, and enlistments are made at military posts, the recruits having the choice of any company or regiment in the department in which there is a vacancy. The officers for this duty are designated by the department commander.

The *regimental recruiting service* is conducted, under the superintendence of the regimental commander, by officers named by him, and in like manner the commanding officer of the battalion of engineers is the battalion superintendent.

There is nothing calling for remark regarding the special recruiting service during the past year except as relates to the special regimental recruiting service and the recruiting of Indian companies by special department recruiting officers.

The special regimental recruiting service has for its object the supplying of a regiment with recruits through the exertions of its own officers, from the section in which the regiment is serving. The instructions emanate from the Adjutant General's Office and a certain territory is assigned each regiment which is favorably located for the purpose. The regimental commander is the superintendent and to him is left the selection of the officers for this duty, the places (within the territory assigned) best adapted for temporary rendezvous, and the particular method—within the scope of the general instructions governing—of conducting the service. A recruiting officer and party may be ordered from place to place, remaining at each from a few days to a month or more, as circumstances may warrant; or temporary rendezvous may be established at several different points and left in charge of a non-commissioned officer, to be visited by the recruiting officer once in ten days, or oftener, as necessity may require. Sometimes only one point will be selected and a rendezvous maintained there, from time to time, as recruits are needed. Another plan which has been recently urged by this office as practicable at certain seasons, and already tried with

a good degree of success, was outlined as follows in the instructions to regimental commanders:

A captain or lieutenant, to be specially detailed and announced in orders in the usual manner, may be sent with a party of say eight or ten men, including a field musician, and supplied with such suitable means of transportation as may be available at regimental headquarters, together with the necessary camp equipage, etc., for a tour of the surrounding country, to cover from one to three weeks or more as circumstances may warrant. Rations for the men and forage for the animals, beyond what can be conveniently carried, also fuel when necessary, may be purchased at different points under instructions to be given by the department chief commissary and chief quartermaster, respectively. As regard rations, however, it must be understood that this authority to purchase is limited to the more bulky components thereof, such as fresh meat, vegetables, and perhaps bread. Upon the return of one such party, another officer and party could be sent out in a different direction—or from another post of the regiment, with the approval of the department commander—this to be repeated as often as desirable, thus giving an opportunity to different officers and a number of enlisted men to share in the duty of recruiting for the regiment and of contributing toward securing for its ranks a desirable class of men, an object in which all the members of the regiment should be alike interested.

In view of the provision, in the appropriation for the expenses of recruiting, for these traveling recruiting parties, every effort has been made by this office to extend this system of recruiting to as many regiments as were willing to undertake it. In fact, in some instances, regimental commanders have been urged to a trial of the plan against their own judgment, and, in one or two such cases, with the best results.

At present twenty-one regiments and the light artillery battalion have orders to recruit at temporary stations, but owing to certain local obstacles, such as the great demand for labor during the harvesting of crops, a temporary scarcity of officers, etc., all of these have not yet sent parties out. The territory assigned to the various regiments in which to conduct these tours embraces the New England States, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, Georgia, Florida, Alabama, Mississippi, Louisiana, Texas, Kentucky, Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Missouri, Nebraska, Kansas, Colorado, Idaho, Washington, Oregon, California, Oklahoma Territory, and Indian Territory.

During the fiscal year ended June 30, 1891, temporary rendezvous were opened by special regimental recruiting officers in 160 different places, and, from many of these, members of the recruiting parties were sent to surrounding towns, or settlements, to look up recruits, greatly multiplying the number of places in which recruits were sought at their homes in the rural districts.

In several cases, notably that of the Eleventh Infantry, which, with two parties in the field in western New York, obtained 135 recruits in less than four months, regiments have succeeded in keeping their ranks recruited by this method; and even where it has not resulted in an immediate accession of recruits, it has, as stated in a former report, resulted in disseminating such needed information concerning the Army and in removing prejudice against the military service, the outgrowth of ignorance and misrepresentation. How great such ignorance is in some communities may be gathered from the following extract from the report of a regimental commander:

A sergeant arrived at the post last night with three recruits, and he reports that there is great misapprehension as to the position of a soldier. The people have an idea that men when enlisted are sent here and kept locked up in the fort, with no privileges or liberty, and that they are liable at any time to be sent out to some other regiments. They do not take into account either that the pay is almost all expending money, clothing, food, lodging, etc., being furnished.

Some obstacles in the way of perfect success still remain to be overcome, but the plan evidently grows in favor, and it is proposed to extend and perfect it as rapidly as possible, as I am convinced that with the earnest coöperation of regimental commanders better men can thus be secured than by depending wholly upon the rendezvous in the large cities.

INDIAN ENLISTMENTS.

The enlistment, in separate companies, of an Indian contingent as part of the regular military force, having been determined upon, the recruitment of eight troops of cavalry and nineteen companies of infantry was provided for in the following order:

General Orders }
No. 28. }

HEADQUARTERS OF THE ARMY,
ADJUTANT-GENERAL'S OFFICE,
Washington, March 9, 1891.

By direction of the Secretary of War the following instructions are published for the information and guidance of all concerned:

1. The following named companies, now skeletonized under the provisions of General Orders Nos. 76 and 79 of 1890, namely, Troop L of each of the cavalry regiments (except the Ninth and Tenth), and Company I of each of the infantry regiments (except the Sixth, Eleventh, Fifteenth, Nineteenth, Twenty-fourth, and Twenty-fifth), will be recruited by the enlistment of Indians to the number of fifty-five for each troop and company. Whenever practicable, the enlistments for each regiment will be made within the department in which the regimental headquarters are located, by officers to be nominated by and under the immediate supervision of the regimental commander. When necessary, special instructions for recruiting in other localities will be given from the Headquarters of the Army, upon the commendation of the department commander.

The officers, in making such enlistments, will be under the direction and control of the respective commanders of departments, as special department recruiting officers, and will render the usual reports and returns. In general they will be governed by existing laws and regulations; but a competent knowledge of the English language need not be considered an essential qualification, and married men not exceeding ten for each troop or company may be enlisted with the approval of the department commander. Enlistments of Indians under the provisions of this order will be separately reported on trimonthly reports and other returns of the recruiting service, and will be carefully distinguished from enlistments of Indian scouts.

Regimental commanders may, with the approval of the proper department commander, temporarily attach to the Indian companies such officers as are especially fitted for service therewith; and as soon as prepared to recommend officers for permanent assignment thereto, will submit their names, through the proper channel, to the Adjutant-General.

Ultimately, noncommissioned officers for these companies will be supplied by the appointment of Indians, in the manner indicated by regulations; but until this is practicable, available noncommissioned officers of either of the skeleton companies of a regiment may be utilized, or, if necessary, noncommissioned officers from organized companies of the regiment may be temporarily detailed.

By command of Major-General Schofield:

J. C. KELTON,
Adjutant-General.

As might have been expected, a measure so novel could not be inaugurated without provoking criticism and awakening suspicion and opposition more or less pronounced; but as the conditions of the service became known, also the desire of the Government to promote the welfare of the Indians, many availed themselves of the opportunity afforded them and recruiting has progressed until now seven complete troops and companies have been raised and nine more are in process of recruitment, two of the latter having over 30 men each and three others numbering from 14 to 20. While there is at present a lull in the mat-

ter of Indian enlistments, there is reason to believe that most of the companies designated will be recruited to a fair strength after winter sets in.

During the past year unceasing efforts have been made to secure a desirable class of recruits in sufficient numbers to meet the wants of the Army; but, as in the preceding year, the general business prosperity had a tendency to keep down the number of applicants, while the rigid examination to which these are subjected as regards their physical, mental, and moral fitness for the service has, as was to be expected, resulted in keeping the number of enlistments comparatively low. Where, as formerly, every able-bodied and apparently otherwise unobjectionable applicant was promptly accepted, many of this class now offering themselves are not sworn into the service, either because the investigation that is made of their antecedents shows them to be unworthy or undesirable, or for the reason that at the end of the probationary term allowed them for deliberation (varying from 1 to 6 days), they themselves conclude not to carry out their previously expressed intention of enlisting.

The Army is now about 2,000 below the authorized strength, but this is fully as good a condition as was anticipated, since the provisions of the act of Congress of June 16, 1890, according to enlisted men greater privileges of discharge, would naturally operate, *at first*, to increase the number of vacancies to be filled, while the extreme circumspection that is now enjoined upon recruiting officers, as above indicated, necessarily serves to lessen the number of enlistments at each rendezvous. However, this slower rate of enlistment, as a result of the higher qualifications insisted upon, has its compensation in the improved *morale* of the Army and the consequent reduction in the rate of desertion. That this reduction is to be credited, in part, to an improvement in the class of recruits supplied, is indicated by the following: For the fiscal year 1890, the number of desertions from the recruiting depots was equal to 1.5 per cent. of their average enlisted strength; for the fiscal year 1891, to 1 per cent. only. Again, during the fiscal year 1890 the desertions of men in the first year of enlistment formed 62.5 per cent. of the whole number of desertions for that year, while the percentage for the fiscal year 1891 was 57.8 per cent.

The total number of enlistments and reënlistments in the Army for the year ended June 30, 1891 (excluding those not included in the legal limit of 25,000 men) was 8,435, classified as follows:

For the general recruiting service.....	4,590
For the department recruiting service	819
For the Indian companies	418
For the special regimental recruiting service.....	714
For the Engineer Battalion.....	106
	6,647
For regiments, detachments, etc.....	1,789

Of the 6,647 accepted recruits, 4,711 were native born and 1,936 of foreign birth; 5,858 were whites, 371 colored, and 418 Indians. The total number of applicants was 26,174, of whom 19,527 (over 74 per cent. of the whole number) were rejected by recruiting officers as lacking the necessary qualifications, either physical, mental, or moral, showing that recruiting officers have, as a rule, taken every precaution to prevent the enlistment of men unfitted from any cause for the duties of soldiers.

I submit the recommendation of one of the inspectors-general that the average age of the enlisted men of the Army is too high and that it is

most important to reduce the maximum age for enlistment from 35 to 30 years. Statistics for the month of July, 1891, show that the average age of men enlisted for the cavalry was 23 years and for the infantry and artillery 24 years. The average age of men reenlisted for the cavalry was 30 years and for the infantry and artillery 34 years. In this connection it is suggested that to meet new military requirements the total length of service of private soldiers be limited to three enlistments (15 years), retaining only noncommissioned officers until retired. By this means the Army could be kept up to a higher standard of efficiency, as it would be composed of men capable of standing all the physical tests of the military service. It would also return to civil pursuits men still capable for any walk of life, whose army training would prove of vast service in case of emergency, giving the country a reserve force of men well instructed in the duties of a soldier.

By limiting absolutely the length of service of the private to 15 years the old "professional soldier" will in a few years be eliminated from the Army, much to its benefit as a military duty force under the new conditions now rapidly coming into effect and much to its advantage in contentment and efficiency under difficulties.

I beg to say there is no reason why the laws and regulations of the military service and military administration may not readily be brought to such condition that there will be few desertions; none why the best young men of the country should not be perfectly contented to serve in the Army from 3 to 10 years; no reason why thousands of young men should not be waiting an opportunity to enlist in it; no reason why an honorable discharge from the military service should not be more sought for than a diploma from a public high school, and when obtained be of more advantage.

The Army that will best serve the country to-day—one which right-minded, practical officers long for and look to Headquarters of the Army, the War Department, and Congress to secure to it—is one in which the noncommissioned officers will be well compensated, energetic, kindly disposed men of professional experience and attainments; in which the privates will be young men upon entering the Army; in which all the infantry and artillery captains, inasmuch as promotion to them comes very slowly, and the captains' duties never cease, will on the march and in the field be mounted by the Quartermaster's Department. They should be mounted on the march so that at the end of the day they may be alert to see to the condition and wants of their men.

This can be effected with little additional expense to the Government by modifying the regulations which now allow forage for two horses to many officers at stations where they only need forage for one. When such conditions are realized, then, in connection with the wise and beneficent regulations and laws now governing it, the Army of the United States will attain its rightful degree of efficiency and will, as a great public school, be most helpful to the country in scattering throughout the land robust, well-disciplined men in the prime of life to engage in whatever civil pursuits they may choose to follow, and, in time of war, to become its trained military defenders.

As the Headquarters of the Army and War Department have, by making important amendments to the Army Regulations and by introducing to and advocating before Congress much wise legislation, reduced desertion in two years from 11 per cent. to 6 per cent., there is no reason why in the next two years, with the help of Congress, the very unnecessary military crime of desertion may not be reduced to two per cent. and then soon become an obsolete offense; this for the honor of the Army and as an economy to the Government.

PROVISION FOR THIRTY YEARS' SERVICE—RETIREMENT OF ENLISTED MEN.

While the 30 years retiring law for enlisted men, enacted in 1885, is well deserved and most beneficial to individuals it has been, and until modified and supplemented will continue to be, of little real advantage to the efficiency of the Army. Only four of the enlisted men of the Army will reach the retiring age this year, but sympathy for the old soldier keeps many in service to *await* retirement after they have ceased to be able to perform with alacrity the duties of the soldier. Moreover, the law practically retires only the veteran non-commissioned officers, for few privates can endure 30 years' military service. There are now on the retired list of enlisted men 642; of these the noncommissioned officers number 444 out of a class of 4,385—one out of 10, while the number of retired privates number 198 out of a class of 19,643, one out of 100.

It is suggested that the law should not leave it entirely optional with enlisted men to seek its benefits, for as a consequence some ordnance sergeants who are generally over 20 years in service before appointed remain in service years after they could and should be on the retired list; after their efficiency and usefulness have disappeared. I recommend that the law be amended to permit enlisted men to retire at 25 years and making the retirement mandatory when they have served 30 years. This year 120 men will reach the twenty-fifth year of their service.

PROVISION FOR 20 YEARS' SERVICE.

The men who serve 20 years, and only about 509 are now on the rolls of the Soldier's Home, can on their discharge seek this Home, or obtain from it outdoor relief, if incapacitated.

PROVISION FOR 10 AND 15 YEARS' SERVICE RECOMMENDED.

The men who serve 10 and 15 years, numbering $11\frac{1}{2}$ per cent. of the Army, derive no benefit of any kind on discharge from the Government unless disabled on duty incident to the service. I again invite attention to the claims of these classes of enlisted men when honorably discharged after faithful service to the Government, which has by that time appropriated the best of their activities, all that is desirable. Ten to fifteen years' service on the frontier, subject to every call involving hazard of health and life, consume the best energies of the most robust men.

With years and duty the soldier who has rendered honorable service deserves well of the Republic. He has borne his life in his hands, an offering for the public good. His comrades have filled unnoticed graves from everglade to cañon. Exposure and hardship have bronzed his face and stiffened his limbs, and the friends of his youth are in other paths, with other interests. He has had human frailties, but he has also had manly devotion, and the raw boy who, half in ignorance, swore to obey the orders of the officers appointed over him, has become the faithful soldier through whom and his fellows alone have those officers been able to discharge their own duties, and upon whom, as on a strong arm, the physical security of the nation has rested.

The enlisted soldier rarely has a pen or a voice given to his public praise; yet, man for man, the regular troops of the United States have no equal in intelligening valor and soldierly devotion.

When physical infirmity overtakes these men, as it generally does after ten or fifteen years, there should be appropriate provision for them. They are neither saints nor demi-gods. They are men, often rough in body, ignorant of books, and sometimes deficient in the minor morals, but strong in the sturdy virtues of obedience, truthfulness, fidelity. Prevented from forming family ties, they are friendless in the social world, and with a long training that has eliminated all personal responsibility beyond that of submission to authority, they are as guileless and as helpless as children in the sharp competition of civil life.

The retired list after 30 years is a well-merited boon, but the limit should be lowered to 25, certainly for service below that of the noncommissioned staff. Not one man in ten thousand can carry a musket more than 25 years. And a corps of watchmen in garrison and over the public civil buildings might well be opened to the retired enlisted soldier.

Every generous employer who gets from his employes long years of faithful service at moderate wages, under circumstances involving the daily hazard of life, gives them on discharge some gratuity. The Government should do no less.

I recommend that all honorably discharged enlisted men of 15 years' service, of temperate habits and who have served honestly and faithfully, be given a bounty of \$200; that all who serve 10 years under similar circumstances be given a bounty of \$100. During the next 5 years annual appropriations amounting to \$352,500 would be necessary to meet this liability should these bounties be authorized by law.

SUMMARY OF RECOMMENDATIONS.

As a means of calling special attention to the needs of the military service, I submit this summary of the several recommendations and suggestions contained in this report and in my report to the Secretary of War, viz:

REPORT TO THE SECRETARY OF WAR.

Renewal of oath of enlistment after the soldier joins his regiment.

Increase of pay to noncommissioned officers and the appointment of fifty "post sergeant majors." The increased expense would be almost \$228,000 annually.

Increase of pay (\$3 per month) to men granted "medals of honor." This will require an appropriation of \$2,736 per annum.

Civil employment for honorably discharged soldiers of not less than 10 years' service in the Bureaus of the War Department in Washington City, and at large. There are some 7,000 positions, comprising clerks, watchmen, messengers, laborers, etc., to which such men could be appointed.

REPORT TO THE MAJOR-GENERAL COMMANDING.

Semi-monthly payments.

To increase the efficiency of post schools, and to enlist for each post a fully qualified schoolteacher, to receive the pay and allowances of a hospital steward. This would require an appropriation of \$60,000 per annum.

To establish libraries at all permanent posts and that an annual appropriation of \$10,000 be asked for the purpose.

To organize a United States Service Corps, to consist of clerks, mechanics, teamsters, bakers, cooks, and laborers, and to abolish extra-duty labor.

The amount paid for "extra-duty pay," with the addition thereto of the regular pay received by men so detailed will, it is believed, cover the expense of such a corps, consisting of 1,200 to 1,400 men.

That an annual appropriation of \$100,000 be made for gymnasiums for permanent posts.

That suitable buildings be provided for the post canteens and amusement rooms.

That the maximum age for the enlistment of men be reduced from 35 to 30 years and that the length of service of private soldiers be limited to 15 years, retaining only noncommissioned officers until retired.

That captains of artillery and infantry on the march and in the field be mounted by the Quartermaster's Department.

That a bounty be given to men on discharge after 10 and 15 years' faithful and efficient service.

This would require \$352,500 annually for the next 5 years.

It is reasonable to believe that if the recommendations and suggestions submitted receive favorable action such contentment will prevail in the Army as will surely go far to counteract the causes and blot out the odious offense of desertion. which so much reduces its efficiency, adds enormously to the expense of recruiting, and is such a drain upon the political power of the country, as shown by the fact of 50,000 men at large disenfranchised and \$28,000,000 lost to the Treasury during the past 24½ years.

I submit these views as not too optimistic when the condition of the Army to-day is compared with its condition two years ago.

Respectfully submitted.

J. C. KELTON,
Adjutant-General.

Maj. Gen. JOHN M. SCHOFIELD,
Commanding the Army.

MILITARY PRISON REPORTS.

COMMANDANT'S OFFICE, U. S. MILITARY PRISON,
Fort Leavenworth, Kans., July 20, 1891.

GENERAL: I have the honor to transmit herewith annual reports of the prison surgeon, chaplain, executive officer, quartermaster, commissary, and commanding officer provost guard of the prison, together with the various tabulated statements showing the number of prisoners received and discharged, their offenses, age, nativity, occupation, etc., also the amount of work performed by them.

Since my last report, First Lieut. R. K. Evans, Twelfth Infantry, and First Lieut. W. E. Almy, Fifth Cavalry, have been relieved from duty at the prison and have been replaced by First Lieut. Frederick Von Schrader, Twelfth Infantry, and First Lieut. Frederick Perkins, Sixteenth Infantry, who have been assigned to duty respectively as prison quartermaster and commanding officer of the provost guard.

Permanent improvements have been made in and around the prison as follows:

(1) The old wooden cells heretofore used for solitary confinement, while adequate for ordinary purposes, have become warped and unfitted for use, and are entirely inadequate in case of any general disturbance, liable to happen in all prisons. Ample preparation serves as a preventive, and although this punishment is not largely used it has been deemed advisable to construct, as became convenient, more suitable stone cells. Eighteen such cells have been constructed in the basement of the same building, amply ventilated by pipes which are to lead to a flue.

(2) The chapel, which is the one portion of the prison which should be rendered as attractive as possible to secure voluntary attendance, has been greatly improved by constructing a gallery capable of holding 100 people, and the part over the pulpit has been ornamented by arches to relieve the hitherto bare appearance. There has also been purchased, by the authority of the Secretary of War, a pipe organ, which greatly adds to the musical part of the services; and outside iron stairs have been built, which allow visitors to enter the gallery without going into the main chapel or prison.

(3) The roofs of the chapel, hospital, and guards' quarters, which were of shingle, and so worn as to leak badly, have been replaced by raised tin and tin-shingle roofs.

(4) The ceiling of the guards' quarters has been completed, and hard-maple floors have been laid to replace the worn flooring in the guards' amusement room, the hospital, and the school room. Hard wood, while slightly more expensive, is economical because it will last many times as long as soft wood.

(5) Tunnels, of which 266 feet are completed, are being made to lay the steam and water pipes, which have caused much digging up of the prison yard.

(6) Many of the prison buildings and officers' quarters have been repainted, the old paint having become worn.

(7) The plumbing in three sets of officers' quarters, having been found defective, has been renewed in accordance with modern improvements, one of which was done entirely by prison labor.

(8) A single Troy laundry machine has been introduced to replace the old system, which was worn out. This is found to do the laundry work better than the former system.

(9) A new mortising machine and a scroll saw have been placed in the carpenter shop to replace those which had become unserviceable.

(10) Several hundred yards of sewer pipe have been laid to carry off the surface drainage in which was mingled the washing from the prisoners' and hospital kitchen, etc., and which ran along one of the pleasure drives about the reservation, being offensive in summer.

(11) The old stone ice-house used formerly for the department headquarters officers, which was found to deface the most beautiful portion of the prison grounds, has been removed. The stone was partly used to construct a large ice-house near the small lake, which had also been constructed by the prison at the request of the department

commander. The cavity left by the ice-house has been filled and sodded, adding greatly to the appearance of the prison park.

(12) Some cottonwood trees near the prison and in the hospital grounds have been found very objectionable from the scattering of the seeds. These have been removed, and large elm and other trees taken from too thickly shaded portions of the grounds have been put in their place. Also many large trees were found too thickly collected have been moved to places where needed. This was done during the winter when the temperature was above freezing. The transplantations have proved successful in every case.

(13) A new brick sidewalk, with 1,400 feet of stone curbing, has been laid along the walk to the dummy station, the old brick being used for arches of the steam-pipe tunnel.

Various improvements have also been made at the post of Fort Leavenworth by prison labor, such as the making and laying of stone steps in front of the new officers' quarters, laying brick walks and sewer pipe, building the ice-house, as before mentioned, constructing dam for ice pond, planting several hundred trees about the grounds, making new and repairing old roads with rock from the prison quarries, repairing vacant houses, painting barracks and quarters, etc.

It has not been practicable to extend the industry of mat making, owing to inability to secure old rope in sufficient quantity. Through some misapprehension a large amount of such rope at Fort Riley, accumulated during the winter Indian campaign, was, I understand, destroyed instead of being sent to this prison.

The industry created to utilize the rags from the tailor-shop, that of weaving carpets, has been entirely successful. The carpet has been used in the prison offices and guards' barracks and sold to officers or enlisted men. It is found that carpet already worn out can be cut and woven over at slight cost. The shorter pieces of rags are made into rag mats.

In addition to the work done for the quartermaster's department in the manufacture of clothing for prisoners at Alcatraz Island, and for the prison in the manufacture of uniform and discharge suits for prisoners, the prison tailor-shop makes discharge suits for all prisoners dishonorably discharged and sentenced to serve a term in post guard-houses. I renew my recommendation that all such prisoners be uniformed as at this prison and at Alcatraz Island. It is probable that the cost would be but slightly, if at all, greater than the present method.

The following exhibit shows the receipts and expenditures during the year:

Items.	Appropriation.	Expended.	Balance.
Subsistence	\$24,000.00	\$18,126.20	\$5,873.80
Tobacco	300.00	300.00	.....
Forage and hay for bedding	3,000.00	2,090.00	910.00
Stationery	1,000.00	998.08	1.92
Clothing and donations*	9,400.00	8,997.18	402.82
Medical supplies	2,000.00	2,000.00	.....
Advertising	200.00	65.40	134.60
Apprehension of escaped prisoners	300.00	60.00	240.00
Pay of employes and extra-duty pay	18,080.00	16,434.77	1,645.23
Fuel and general supplies	20,000.00	19,958.60	41.40
Buildings	5,000.00	4,816.83	183.17
Transportation of discharged prisoners	7,500.00	1,196.15	6,303.85
Total	90,780.00	75,043.21	15,736.79

* In addition to the sum of \$8,997.18 expended at prison for prisoners' clothing and donations, \$290 was disbursed by the authorities at Alcatraz Island in payment of donations of prisoners released from confinement at that point during the fiscal year.

Of \$75,043.21 expended during the year, \$1,196.15 was paid for transportation of discharged prisoners and \$820 for donations to prisoners released at post; which sums being deducted leave as the expenditures of the prison proper \$73,027.06, against \$79,753.35 expended in fiscal year 1890, and \$79,818.92 expended in fiscal year 1891.

Of the balance, \$15,736.79, unexpended on June 30, 1891, \$6,303.85 is for transportation of discharged prisoners, leaving a balance of appropriation for the prison proper of \$9,432.94.

Of the appropriation, \$78,860 was received from the Treasury, \$75,043.21 expended, and \$1,012.94 turned into the Treasury, leaving \$2,803.85 retained for payment of accounts for transportation of discharged prisoners during the fiscal year 1891, not yet presented for payment.

Of the appropriation for the fiscal year 1890 a balance of \$5,392.11 was retained on account of transportation of discharged prisoners. Of this amount \$2,058.41 was

expended during the year, and on March 31, 1891, the unexpended balance of \$3,333.70 was by me turned into the Treasury.

Number of donations sent to posts.....	164
Donations paid by authorities at Alcatraz Island.....	58
Donations to prisoners released at prison.....	339

Total number of donations..... 561, at \$5 = \$2,805

Citizens' suits sent to posts during the year, 226.

From labor of prisoners and sales of material the following amounts were realized for the prison fund account during the year:

Received by prisoners' labor.....	\$842.33
Sale of rag carpets and mats.....	40.08
Sale of scrap iron, copper, etc.....	230.97

Total..... 1,113.38

The above amount was turned into the Treasury June 30, 1891.

A full statement of the prison mess fund will be found in the accompanying report of the prison commissary.

The following exhibits the account of the prison with the quartermaster's department for labor furnished during the year:

Due prison June 30, 1890.....	\$223,525.25
To labor performed during the year.....	19,786.79

Total..... 243,312.04

By clothing and equipage received during the year..... \$1,031.73

By quartermaster stores received during the year..... 68.16

1,099.89

Balance due prison June 30, 1891..... 242,212.15

Net increase during the year..... 18,686.90

The receipts from the prison farm during the year were as follows:

Potatoes, 3,800 bushels; corn, 3,500 bushels; turnips, 600 bushels; beets, 450 bushels; carrots, 420 bushels; tomatoes, 335 bushels; lettuce, 130 bushels; squash, 110 bushels; peas, 98 bushels; salsify, 95 bushels; spinach, 86 bushels; okra, 85 bushels; radishes, 78 bushels; beans, 75 bushels; cucumbers, 70 bushels; and about 45,000 heads of cabbage.

This year the following have been planted:

Ninety acres of corn, 65 acres potatoes, 20 acres beans, and some 30 acres of other vegetables, such as cabbage, carrots, onions, parsnips, beets, turnips, etc.

The unusual rains and high water of the Missouri River will cause a loss of one-half to three fourths of the crop planted, especially the important items of potatoes and cabbage, which are already ruined, though the loss will be partially made up by cutting hay from grasses, the seeds of which were planted with the wheat and oats which had been gathered in previous years.

Clearing of the bottom lands progressed during the winter, resulting in a yield of 170 cords of wood, which have been accounted for on the returns.

The report of the prison quartermaster gives in detail the work performed for the quartermaster's department in the various prison shops, with cost of each article manufactured. The actual cost to the Government of the prison-made boots and shoes would be found by taking credit for the scrap leather sold and excluding the labor of prisoners, as follows:

By crediting price of scrap leather sold:	
Sewed cavalry boots.....	\$3,427.9
Sewed campaign shoes.....	2,032.6
By excluding cost of prison labor:	
Sewed cavalry boots.....	3,031.4
Sewed campaign shoes.....	1,804.5

The price of the above articles, including prison labor, is greater than those purchased by contract, which is accounted for partly by small differences in the material and work, such as the use of patent metal thread in place of ordinary thread in the outer seam, which is a thread having two strands of brass wire, putting rivets in each side of the upper, crimping the backs, and sewing on the tongue, but much more is due to two facts: First, that the very great reduction in the amount of footwear manufactured makes the cost of supervision very much greater, the civilian force of the shop having been kept prepared to manufacture several times as many

articles as have been ordered; second, that attention has been principally directed to make articles of which no just complaint could be made, and therefore to the rejection of any portions of the leather however slightly defective, especially those portions toward the belly and flanks; that is, there has been no attempt to "cut closely" the leather, which involves greater expenditure and higher cost to the footgear than if "cut closely." It is believed that the results of this system have been greater average durability to the footwear and a diminution of complaints, and that the footwear is fully worth the price charged.

I invite special attention to that portion of the report giving the results of experiments in the use of viscolized leather and to the recommendations of the prison quartermaster, in all of which I concur.

Attention is invited to the report of the prison surgeon, which records the gratifying fact that the health of the prison, both as regards soldiers and prisoners, has been exceptionally good, no death having occurred during the past two fiscal years. It is only just to state that though the medical treatment of prisoners is a very ungrateful task, through their tendency to make numerous frivolous complaints, no greater skill or care could be devoted to any class than is so conscientiously given by the prison surgeon to all cases of real sickness among the prisoners, the results of which may be seen in the remarkable health record of this prison.

The report of the executive officer shows that the general discipline of the prison is excellent, though, as he points out, some incorrigible characters present problems difficult of solution. Such men all prison authorities acknowledge to be incapable of reform by any human agency, and for such the indeterminate sentence, that is, confinement until reformed or for life, is the only adequate remedy that is found sufficient for protection to society. While the general class of army convicts are not what are technically, or as recognized by civil society, criminals, there are some individuals who drift into the army of a class as incorrigible as can be found in any State prison. For such, however, the discipline of this prison is as fully competent to deal as is that of any prison. It is, however, hopeless to expect the reformation of such vicious characters under any system which includes short determinate sentences, while the adoption of the modern advanced reformatory idea would require legislation which it is probably not possible to secure at present.

I concur in the recommendation that the summary court be given power to try prisoners to replace the garrison court-martial. The power is given courts-martial to try prisoners by section 1361, Revised Statutes. The prison regulations prescribe that they may be tried by a general or garrison court-martial "according to the nature and degree of the offense." The evident intention of Congress being to replace the garrison court-martial by the summary court, it may suffice to amend the prison regulations in order to accomplish the object of this recommendation.

While the commandant has full power of punishment, there are many minor cases which should be investigated under sworn testimony, bearing the penalty of perjury to secure truthfulness, and for this purpose the summary court is even more suitable in a prison than elsewhere.

I therefore recommend that by regulation or legislation the summary court be given power to try prisoners.

The reports of the executive officer and of the commanding officer of the provost guard show that the discipline of the guard is excellent. Some indifferent soldiers occasionally get transferred into the guard and are found to be lax in their maintenance of discipline and too sympathetic to properly enforce the rules, but when found such are speedily weeded out by the aid of the War Department.

I renew my recommendation of last year that the guard be uniformly armed with the Spencer repeating shotgun. This is a very important matter which I trust will be speedily acted upon.

The amusement room of the provost guard continues to furnish harmless amusement to the men and profit to their mess.

The report of the commissary shows that the prisoners have been well fed, as is now considered proper in all well-regulated prisons, under the conviction that men required to do hard labor should have ample and wholesome food.

The losses to the prison farm from the late excessive rains and high stage of water will make some drains on the mess fund to furnish vegetables and antiscorbutics.

The report of the chaplain gives the results of the moral and religious work among the prisoners, which has been faithfully performed. The school has been more successful than was hoped, and its effects can not fail to be beneficial. It is expected that under the diminished number of prisoners almost all who serve out their sentences can be made to pass through the moderate curriculum before they leave the prison.

The behavior of the prisoners during the past year has been good, with the usual exceptions. The sweeping alterations of the periods of confinement to which they were sentenced have made the maintenance of discipline somewhat difficult through the restlessness always occasioned by hope of release and the disappointment expe-

rienced when not released. Such a state of mind is antagonistic to all reformatory influences, it being one of the most necessary conditions of good behavior and obedience to rules that prisoners should feel certain that only good conduct and faithful work can reduce their sentences. When such a feeling obtains, as it can only do when a fixed rule is carried out for a long period, the management of prisons becomes much easier and all reformatory influences have an opportunity to affect the mind not fully preoccupied by expectation of and schemes for release.

I renew my recommendation that in case of remissions prisoners shall be required to serve out the time forfeited for misconduct. It is hoped, however, that the new code of punishment may do away with the necessity for remissions of sentences.

During the past fiscal year there were but 3 escapes and 3 recaptures, and during the past 3½ years 19 escapes and 20 recaptures.

No prisoners have been sent to the insane asylum during the past year.

For many years the commandant of the prison has been ordered to attend the annual sessions of the National Prison Association as a representative of the War Department. At the past congress, held at Cincinnati, the commandant was elected a member of the board of directors of the association.

I desire to specially commend the officers on duty at the prison for their exceptionally zealous, faithful, and efficient performance of duty, which has greatly aided me in maintaining a high state of discipline.

Some changes having been made in the rules to carry out the prison regulations, a copy of the new rules is attached hereto.

Very respectfully, your obedient servant,

J. W. POPE,

Captain and A. Q. M., U. S. A., Commandant.

The ADJUTANT-GENERAL, U. S. ARMY,
Washington, D. C.

OFFICE OF THE PRISON SURGEON, U. S. MILITARY PRISON,
Fort Leavenworth, Kans., July 3, 1891.

SIR: I have the honor to make the following report of the medical department of the military prison for the year ending June 30, 1891. The conditions affecting the health of this command during the year have been eminently favorable, and the continued immunity from mortality is largely attributable to the excellent sanitary condition of the prison and to the care taken to furnish wholesome food and suitable clothing for its inmates. For more than two years past there has been no mortality either among the provost guard or military prisoners.

A consolidated report of military prisoners under treatment during the fiscal year ending June 30, 1891, is embraced in the following tabular statement:

Race.	Remain- ing June 30, 1890.	Taken sick.	Total.	Returned to duty.	Discharged for disability.	Remain- ing under treatment.
White	4	342	346	339	4	3
Colored		9	9	9		

Mean strength of prisoners for the year is 418; mean strength enlisted men, 103—total mean, 521. Daily average of sick to mean strength of prisoners, 1.31; this is the smallest average hitherto attained. The diseases of greatest prevalence have been catarrhal and malarial in character. Only three or four cases of obstinate continued fever have presented themselves, and but one case of well-marked enteric fever. The prison has enjoyed an exemption from pneumonia during the past year to a greater extent than heretofore. A return epidemic of "la grippe" visited the prison in less severe form than last year, but well marked.

Four prisoners and three members of the provost guard were discharged for disability. The disabilities in the cases of the three members of the guard were due to infirmities incident to age and long service in the Army. Two of the prisoners had pulmonary consumption, one had Bright's disease, and one chronic gastritis, all due to inherent predisposition or vicious habits.

The prison hospital has been furnished with a new roof of tin, replacing the shingle roof put on fourteen years ago, when the hospital was built; hard-wood floors have also been laid in the hospital wards and in the hallway.

Very respectfully, your obedient servant,

J. P. WRIGHT,

Lieutenant-Colonel and Surgeon, U. S. A., Prison Surgeon.

The ADJUTANT, U. S. MILITARY PRISON,
Fort Leavenworth, Kans.

UNITED STATES MILITARY PRISON,
Fort Leavenworth, Kans., June 30, 1891.

SIR: In reporting the work in my department for the fiscal year ending June 30, 1891, I am pleased to say that I think it the best year's work I have ever done in the prison. I believe more men, in proportion to the whole number here during the year, have been led to reform in many more things than in any previous year.

The Temperance Union and the Y. M. C. A. have both done excellent work in their special fields, and every week brings evidence of this from those who have been discharged. I do not mean to say that every man who signs the total abstinence pledge in here will always maintain it, nor do I say that every member of the Y. M. C. A. will prove a devout and humble christian; but that these societies both find and help men to better lives who would never have tried but for their help is evident.

I have incorporated in this report such statistics as were asked for by the Wardens' Association in addition to the special report made directly to said association.

The school has been kept diligently at work in the curriculum provided in prison regulations, and with some exceptions there has been evident benefit. When a man says, "I have gotten along so far without any education, and am satisfied I can the remainder of my life," it requires a decided transformation to make him see that he would make a better soldier or sailor if he were educated; and that new birth is rarely acquired by one who has passed the twenty-fifth milestone of a wandering, shiftless life.

The tabulated report of the library shows what and how much has been read during the past year. We can only repeat that a good book is a mighty factor in the hand of one who has the disposition to read it, and such is eminently the case here.

The prohibition of all forms of vice (with the exception of the use of tobacco) comes as near being absolute as is possible while men talk and think; but as long as the U. S. Government permits and indorses this and kindred evils, so long may weak humanity be expected to gratify a debased appetite.

A civil government that holds the spiritual element in it responsible for the morals of that government, and gives the spiritual element no support, is very derelict.

Moral and civil governments are collaborators for the welfare of the governed; all prisons come under this law, and where these operate most harmoniously there will the best results be reached.

Punishments for past offenses and reformation to prevent repetition, or other crimes, is the purpose of penal institutions, and where any facility or means to that end is neglected, a fault or blunder has been committed. Men cannot be driven into morality; but when temptations are removed, men, like children, may be led.

We are under renewed obligations to the ladies of the Soldiers and Sailors' Aid, to R. B. Pool of the Y. M. C. A. of New York, to the Temperance Union of Kansas, and the Y. M. C. A. of Leavenworth, for their assistance and kindly offices, and to the generous publishers of periodicals—monthly, weekly, and daily—throughout the United States for the donations they have made on behalf of the prisoners.

The commandant, Capt. J. W. Pope; the surgeon, Lieut. Col. J. P. Wright, and in fact all connected with the prison, have placed me under obligations for privileges and courtesies looking toward the advancement of my work.

Very respectfully, your obedient servant,

JOHN B. MCCLERY,
Chaplain, U. S. A., Prison Chaplain.

THE ADJUTANT, U. S. MILITARY PRISON.

Number of prisoners received from July 1, 1890, to June 30, 1891.—Deserters, 194; other offenses, 49—total, 243.

Religion.—Protestant, 173; Catholic, 69; Hebrew, 1—total, 243.

Nativity.—United States: Arkansas, 1; Connecticut, 3; Delaware, 1; District of Columbia, 1; Georgia, 2; Illinois, 3; Indiana, 12; Iowa, 2; Kansas, 1; Kentucky, 9; Louisiana, 1; Maryland, 9; Massachusetts, 14; Michigan, 10; Mississippi, 1; Missouri, 5; New Hampshire, 2; New Jersey, 6; New York, 36; North Carolina, 1; Ohio, 21; Pennsylvania, 22; Rhode Island, 2; South Carolina, 3; Tennessee, 3; Virginia, 7; West Virginia, 1; Wisconsin, 5. Foreign: Austria, 1; Canada, 7; East Indies, 1; England, 13; Germany, 17; Ireland, 23; Poland, 5; Scotland, 7; Sweden, 2; Switzerland, 1; Wales, 2.

Birthplace of parents.—United States: Connecticut, 3; Georgia, 1; Illinois, 2; Indiana, 6; Iowa, 1; Kentucky, 11; Louisiana, 4; Maryland, 4; Maine, 1; Massachusetts, 15; Michigan, 10; Missouri, 2; New Hampshire, 6; New Jersey, 2; New York, 11; North Carolina, 1; Ohio, 6; Pennsylvania, 21; Rhode Island, 5; South Carolina, 1; Tennessee, 5; Virginia, 6; West Virginia, 2; Wisconsin, 1. Foreign: Australia, 1; Canada, 1; England, 22; France, 2; Germany, 22; Ireland, 59; Poland, 2; Scotland, 2; Sweden, 1; Switzerland, 1; Wales, 2; West Indies, 1.

Cause for enlisting in the Army.—To soldier, 217; want of work, 13; to see the West,

1; drink, 4; trouble, 1; to make money, 2; change of climate, 3; induced by friends, 1; enlisted by his father against his will, 1.

Arm of service.—Cavalry, 89; infantry, 94; artillery, 21; general service, 33; battalion of engineers, 3; general staff, 2; cavalry detachment at Military Academy, 1.

Occupation prior to enlistment.—Laborers, 124; mechanics, 99; clerks, 15; sailors, 5.

Where tried.—Department of the Atlantic, 62; Department of the Missouri, 49; Department of Dakota, 28; War Department, 44; Department of the Platte, 33; Department of the Columbia, 2; Department of Texas, 23.

Cause for desertion.—Dissatisfied, 42; drink, 67; trouble, 14; sickness, 9; did not desert, 5; officers and noncommissioned officers, 31; could not get furlough, 2; to go home, 7; induced, 1; no cause, 14; to get married, 1; no food, 1. Of these 194 deserters 3 are repeaters.

Where raised.—City, 174; town, 36; country, 50.

First enlistment, 205; more than one enlistment, 38; enlisted under right name, 195; enlisted under an alias, 48.

Educational.—Able to read, 211; unable to read, 15; slight knowledge of reading, 17; able to write, 209; unable to write, 14; slight knowledge of writing, 20.

LIBRARY REPORT.

Number of books on hand and drawn from July 1, 1890, to June 30, 1891.—Number of books on hand July 1, 1870, 3,303; June 30, 1891, 3,303. Total number of books drawn from July 1, 1890, to June 30, 1891, 10,665.

Character of books drawn.—Biographical, 429; historical, 555; light literature, 6,710; magazines, 1,078; miscellaneous, 892; religious, 376; scientific, 305; travel, 320—total, 10,665.

Letters mailed in fiscal year beginning July 1, 1890, and ending June 30, 1891.

Month.	Domestic.	Foreign.	Total.
July, 1890.....	530	23	553
August, 1890.....	504	12	516
September, 1890.....	503	17	520
October, 1890.....	512	15	527
November, 1890.....	491	13	504
December, 1890.....	534	20	554
January, 1891.....	557	12	569
February, 1891.....	491	12	503
March, 1891.....	455	13	468
April, 1891.....	555	12	567
May, 1891.....	541	20	561
June, 1891.....	526	10	535

SCHOOL REPORT.

The prison school was opened November 18, 1888.

There are three grades—primary, elementary, and advanced—subdivided into four primary, three elementary, and three advanced classes. The strength of each class and average attendance are as follows:

Month.	P. I.	P. II.	P. III.	P. IV.	E. I.	E. II.	E. III.	A. I.	A. II.	A. III.	Total.
July, 1890.....	9	9	7	9	8	9	8	8	8	6	81
August, 1890.....	9	8	9	9	8	9	7	8	8	6	81
September, 1890.....	10	9	8	8	8	8	8	8	8	5	80
October, 1890.....	10	10	8	9	9	9	9	5	7	7	83
November, 1890.....	9	10	9	8	10	10	9	8	9	8	90
December, 1890.....	9	10	9	7	10	9	9	7	9	9	88
January, 1891.....	9	10	9	7	10	9	9	7	9	9	88
February, 1891.....	8	9	9	9	9	8	8	9	8	10	87
March, 1891.....	5	6	8	7	8	8	7	6	8	8	71
April, 1891.....	10	6	10	10	9	10	10	9	8	8	90
May, 1891.....	9	6	9	7	6	9	9	7	8	9	79
June, 1891.....	10	7	7	9	10	9	8	8	8	9	85

Average attendance, 83 $\frac{1}{2}$.

Number of pupils completing the prescribed course, 51.

OFFICE OF THE EXECUTIVE OFFICER U. S. MILITARY PRISON,
Fort Leavenworth, Kans., July 7, 1891.

SIR: I have the honor to submit the following report for the year ending June 30, 1891:

The discipline of the prison as a rule has continued good; at times, however, due no doubt to the anticipation that many sentences would be remitted or cut down to conform with General Orders, No. 21, A. G. O., series 1891, considerable restlessness was observed, which was manifested by a great many violations of prison rules; since the sentences have been adjusted to conform with that order an improvement in discipline has been noted.

The serious infractions of prison rules have been confined as usual to a few bad characters upon whom authorized punishments have no permanent effect. There is a class of men in the prison whose aim seems to be to avoid serving the "hard-labor" part of their sentence; they will not do a fair amount of work, and loss of time by being marked "0" has no effect on them. If put in a place where the work is hard they shirk and refuse to work, repeating the operation after punishment. I would suggest that for such men a task be assigned; for instance, breaking such an amount of stone as would be a fair day's work, with the understanding that if the half-day's task is not completed at noon bell they go without their dinner, and supper if the remainder is not completed by afternoon bell.

No attempts at escape from the prison proper have been detected. The police of the prison grounds and buildings has been excellent. The members of the provost guard are well instructed in their duties, are well disciplined, and arms and clothing are in good condition. Their behavior on and off duty, as a rule, is excellent. Several men who were not up to the standard have been discharged or transferred, and the men who have joined during the past year have been as a rule of excellent character, resulting in an improvement of the personnel of the guard as a body.

The civilian foremen and employés have been prompt and attentive to their duties.

As a more direct means of arriving at the truth when prisoners are reported for violations of prison rules, when it is deemed expedient to refer the case to a court-martial, I would suggest that legislation be asked for to extend the jurisdiction of the summary court to military convicts. It is hard to get at the truth when the witnesses are not under oath, and the proceedings of a garrison court-martial are apt to be protracted and cumbersome.

Very respectfully, your obedient servant,

B. H. GILMAN,
Captain, Thirteenth Infantry, Executive Officer.

The PRISON ADJUTANT.

—
ACTING ASSISTANT QUARTERMASTER'S OFFICE,
QUARTERMASTER'S DEPARTMENT OF THE U. S. MILITARY PRISON,
Fort Leavenworth, Kans., June 30, 1891.

SIR: I have the honor to submit the following report of the work of this office during the fiscal year ending June 30, 1891.

I was assigned to duty as acting assistant quartermaster by Orders No. 28, dated U. S. Military Prison, Fort Leavenworth, Kans., March 31, 1891, relieving First Lieutenant William E. Almy, Fifth Cavalry.

SHOE SHOP.

There are employed in this shop one inspector, at \$116.66 per month, and three foremen, at \$100 per month each. Prisoners varying from 42 to 45, amounting to 14,636½ days' labor, at 50 cents per day; total value of labor \$7,318.25.

Manufactured during the year 3,413 pairs sewed cavalry boots, 129 pairs brass-screwed boots, 24,561 pairs of sewed campaign shoes, 1 pair of brass-screwed shoes, old style, 25 pairs sewed calf post shoes, 25 pairs brass-screwed calf post shoes, 151 pairs sewed viscolized kip campaign shoes, 49 pairs officers' boots, and 50 pairs officers' shoes.

The average cost of the above boots and shoes is as follows, viz: Officers' boots, \$6.15 per pair; officers' shoes, \$3.10 per pair; sewed cavalry boots, \$3.48 per pair; brass-screwed boots, old style, \$3.06 per pair; sewed campaign shoes, \$2.08 per pair; brass-screwed shoes, old style, \$1.86 per pair; sewed calf post shoes, \$2.50 per pair; brass-screwed calf post shoes, \$2.18 per pair; sewed viscolized kip cavalry boots, \$3.69 per pair; sewed viscolized kip campaign shoes, \$2.39 per pair.

No changes in the system of manufacture have taken place. All the machinery in the shop has performed its task satisfactorily and no delays have occurred.

The experiments conducted with the viscolized leather leave no doubt of its superiority over leather treated in the ordinary way as a material for military boots and

shoes. The viscol with which the leather is stuffed after it leaves the carrier's hands keeps it soft and pliable for many months, and on this account tends to lengthen its wearing qualities. The leather does not crack as soon as the wax upper now in use. What effect the viscol oil would have on shoes stored for reserve use can only be determined by experiment. The boots and shoes experimented with were made of viscolized kip, which may be found equally as serviceable as cow-skin, but it is more expensive.

The ordinary wax upper leather can be viscolized in the same way as described above at a very small increase in cost.

The following recommendations are offered to improve the boot and shoe made at this prison, viz: The tongue and vamp of the shoe to be made of one piece. Wax upper leather to be viscolized, and steel slugs to take the place of soft iron nails in the heels, the latter to improve wearing qualities of the heels. No recommendations are made for the post shoe until those shipped for trial to the various posts have been reported upon. Officers' boots and shoes have been manufactured since December, using only such material as was on hand or such as was supplied by purchase on private account.

The Goodyear Shoe Machinery Company sent an agent here in May to illustrate the working of their new welt machine. The work done by this machine is favorably considered by the trade generally, and if any considerable number of shoes are to be manufactured here in the future, it might be well to make a test of its merits as applied to military footgear. Such a test need not involve the Government in any unnecessary expense.

CARPENTER SHOP.

In this shop 4 to 13 prisoners have been employed in the manufacture of Army stores. Total number of days 2,897, at 50 cents per day, \$1,448.50.

The following articles were manufactured at average cost set opposite each article, viz: 2,529 barrack chairs, vulcanized seats, at \$1.26 each; 2,487 barrack chairs, perforated seats, at 90 cents each; 347 mess tables, at \$5.20 each; 110 mess benches, at \$1.91 each; 1,978 mess stools, at 31 cents each; 48 company field desks, at \$7.05 each; 59 wire-woven bunk bottom protectors, at \$1.11 each; 400 stable brooms, at 31 cents each.

All articles made in this shop seem to give satisfaction except the chairs. It is hoped that the experiment of attaching the iron side braces will be successful. The fifty chairs made for the prison guard's quarters last July and supplied with this side brace are apparently as strong to-day as when they left the shop. But one chair was returned to the shop for repair, and this consisted simply in gluing in one slat.

HARNESS SHOP.

Employed in this shop are one foreman, at \$100 per month, and from 5 to 18 prisoners, or 3,191 days' labor, at 50 cents per day; total value, \$1,595.75.

Manufactured during the year: 260 single sets harness, ambulance wheel, at \$16.49 each; 213 single sets harness, ambulance lead, at \$14.50 each; 367 single sets harness, wagon wheel, at \$15.12 each; 668 single sets harness, wagon lead, at \$10.21 each; 50 sets harness, cart, at \$14.48 each; 24 traces, ambulance, at \$1.44 each; 78 breast straps, at 54 cents each; 691 halter straps, at 31 cents each; 388 hame straps, at 10 cents each; 24 hame-strings, wagon harness, at 6 cents each; 53 bridles, ambulance, at \$1.70 each; 6 breechings, ambulance, at \$1.44 each; 16 back bands, ambulance, at 67 cents each; 3 travois harness pads, at \$2.11 each; 34 lines, two-horse, at \$1.54 each; 31 lines, four-horse, at \$2.20 each; 12 lines, six-horse, at \$2.27 each; 6 lines, lead, six-mule wagon, at \$1.42 each; 13 lines, cart, at \$1.05 each; 12 head halters and straps, at \$1.29 each; 6 breech straps, wagon, at 51 cents each; 24 lead line straps, wagon, at 12 cents each; 12 coupling straps, wagon, at 14 cents each; 12 cross straps, at 24 cents each; 12 side straps, at 18 cents each; 12 ring (line) straps, wagon, at 9 cents each; 6 choke straps, wagon, at 43 cents each; 6 shaft girths, cart, at 74 cents each; 4 hip straps and turnbacks, ambulance, at 54 cents each; 6 belly bands and billets, ambulance, at 36 cents each; 30 belly bands, long wagon, at 35 cents each; 60 belly bands, short wagon, at 17 cents each; 4 quillors complete, wagon, at 70 cents each; 4 hip straps and cruppers, wagon, at \$1.05 each; 6 back bands, wagon, at 52 cents each; 12 martingales, wagon, at 32 cents each; 12 stay pieces, wagon, at 20 cents each; 12 checks for lead lines, wagon, at 38 cents each; 12 fronts (bridle), wagon, at 5 cents each; 12 blind stays and checks, wagon, at 12 cents each; 12 cruppers for aparejos, at \$7.94 each; 12 savin-hammers aparejos, at \$3.29 each; 6 coronas aparejos, at \$5.17 each; 24 tie straps, wagon, at 2 cents each; 6 straps, at 9 cents each; 22 pole straps, at \$1.92 each.

No complaints have reached this office of the quality of the stores manufactured.

TIN SHOP.

There are employed in this shop one foreman, at \$100 per month, and 4 to 9 prisoners, or 2,055 days' labor, at 50 cents per day; total value, \$1,027.50.

Manufactured during the year the following articles, at average cost set opposite each article, viz: 1,161 tin wash boilers (A. R.), at \$1.31 each; 427 tin coffee boilers (A. R.), at 66 cents each; 718 tin tea kettles (A. R.), at 65 cents each; 216 tin steamers (A. R.), at 30 cents each; 84 tin pot covers (A. R.), at 6 cents each; 513 sheet-iron bake pans (A. R.), large, at 43 cents each; 520 sheet-iron bake pans (A. R.), small, at 29 cents each; 1 copper boiler, square, at \$4.68; 788 tin boilers, square, at \$1.59 each; 156 tin boilers, square, with faucets, at \$2.41 each; 137 tin boilers, round, at \$1.25 each; 181 tin boilers, round, with faucets, at \$2.03 each; 295 tin coffee-pots, at 37 cents each; 30 tin dish pans, at \$1.19 each; 25 tin sauce pans, at 37 cents each; 12 tin steamer-lids, at 6 cents each; 129 tin dippers, at 18 cents each; 48 tin coffee urns, at \$2.11 each; 29 tin steamers, at 71 cents each; 6 tin strainers for coffee boilers, at 13 cents each; 29 tin teapots, at 42 cents each; 24 tin cooking vessels, at \$1.15 each; 4 tin stew pans, at 40 cents each; 24 tin pots, at 57 cents each; 546 sheet-iron bake pans, assorted, at 42 cents each; 18 tin bake pans, at 17 cents each; 12,373 joints stovepipe, common, at 11 cents per joint; 3,411 joints elbows stovepipe, common, at 13 cents per joint; 90 joints elbows stovepipe, Russia, at 22 cents per joint; 2 T-joints, common, at 23 cents per joint; 60 flue stoppers, assorted, at 9 cents each; 312 tin stovepipe collars, assorted, at 3 cents each; 12 sheet-iron stove drums, at \$1.27 each; 3 sheet-iron Buzzacott ovens, at \$6.47 each.

It has been observed that the square and round tin boilers wear or rust out more rapidly at the base near the joint made by the bottom with the sides; it is therefore recommended that a few boilers be made as an experiment with a strip of planished copper inserted to extend from the bottom 3 or 4 inches up the sides. It is thought that such an arrangement, though slightly adding to their cost, will materially increase their serviceability and help them to retain a better appearance.

BROOM SHOP.

There were employed in this shop 2 to 7 prisoners. Total number of days' labor, 1,521½, at 50 cents per day, \$760.75.

Manufactured during the year: 13,981 corn brooms, at an average cost of 14 cents each; 10,686 whisk brooms, at an average cost of 5 cents each; 152 rope mats, at an average cost of 72 cents each.

BLACKSMITH SHOP.

Employment of prisoners for 488½ days, at 50 cents per day, \$244.37.

Manufactured during the year 5,016 sets bolts for barrack chairs, 48 sets irons for company field desks, 347 mess-table legs, 110 mess-bench legs, 1,978 iron rods for mess-stools.

TAILOR SHOP.

Employment of prisoners for 67 days, at 50 cents per day, amounting to \$33.50, in manufacturing the following articles for prisoners at Alcatraz, Cal., viz: 140 coats, at \$1.99 each; 177 trousers, at \$1.56 each; 170 shirts, at \$1.41 each; 154 drawers, at 31 cents each; 100 overalls, at 43 cents each; 300 stockings, at 40 cents per pair.

The following labor was performed by prisoners for the post quartermaster, Fort Leavenworth, Kans.:

1,119½ days' skilled labor, at 50 cents per day.....	\$559.75
19,389½ days' unskilled labor, at 35 cents per day	6,786.41

Total	7,346.16
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TOTAL LABOR.

The total amount of skilled labor employed by the Quartermaster's Department is 25,976½ days, at 50 cents a day.....	\$12,988.37
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The total amount of unskilled labor, consisting of that done by prisoners turned over as laborers to the post quartermaster, is 19,389½ days, at 35 cents a day.....	6,786.41
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Total	19,774.78
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RECEIPTS.

Sales to officers of fuel, forage, and mineral oil.....	\$732.75
Sales to officers of boots and shoes.....	399.75
Sales to officers of miscellaneous clothing and equipage.....	457.91
Sales to officers of miscellaneous quartermaster's stores.....	20.32
Sale of scrap leather.....	} 1,424.49
Sale of sacks with scrap leather.....	
Sales of condemned property, quartermaster's stores.....	10.55
Sales of condemned property, clothing and equipage.....	9.65
Receipts from miscellaneous prison labor.....	154.61
Total.....	3,210.03

EXPENDITURES.

The disbursements of the Quartermaster's Department made during the fiscal year are as follows:

Regular supplies (tinware, etc.).....	\$7,180.90
Incidental expenses (clerical service, etc.).....	2,024.50
Transportation of the Army (harness, field-desks, etc.).....	24,776.59
Clothing and equipage (boots, shoes, chairs, etc.).....	63,950.79
Total.....	97,932.78

Of the above there was paid out of appropriation for fiscal year 1889-'90, on account of clothing and equipage, \$446.61; on account of regular supplies, \$1,032.23; total, \$1,478.84.

There have been transported from this prison to general depots of the Quartermaster's Department and to various posts 500,671 pounds of freight on 922 bills of lading.

There have been 444 transportation requests issued, covering the transportation of 558 persons, prisoners returning to last place of enlistment, and escorts returning to their proper stations.

Very respectfully, your obedient servant,

F. VON SCHRADER,

First Lieutenant, Twelfth Infantry, A. A. Q. M.

The ADJUTANT, U. S. MILITARY PRISON.

OFFICE OF ACTING COMMISSARY OF SUBSISTENCE,
U. S. MILITARY PRISON, *Fort Leavenworth, Kans.*, July 7, 1891.

SIR: I have the honor to submit the following report as prison acting commissary of subsistence for the past year, being still on duty in that capacity under Orders No. 21, U. S. Military Prison, *Fort Leavenworth, Kans.*, May 1, 1888.

The subsistence supplies (articles of the ration) purchased by me for the use of the prison have been (with the exception of fresh beef) purchased from the Subsistence Department, under authority conferred by the honorable Secretary of War, in a letter from the Commissary-General of Subsistence dated September 13, 1876, and have been in excellent condition and of the best quality; the flour is of good quality and makes excellent bread.

G. Samisch, of *Leavenworth, Kans.*, was contractor for the supply of fresh beef, and gave satisfaction.

The number of rations issued during the year were as follows, viz: To prisoners, 152,740; to civilian employes, 2,555; total number of rations issued, 155,295. Daily average number of prisoners, 418 $\frac{1}{2}$; daily average number of civilian employes, 7; average cost per ration, 11.6663-cents; total cost of rations, \$18,117.21.

The ration in bulk is as follows, viz: Pork, 38,550 pounds; rice, 6,040 pounds; flour, 207,667 pounds; tea, 1,176 pounds; vinegar, 1,554 gallons; soap, 6,212 pounds; pepper, 388 pounds; fresh beef, 130,263 pounds; beans, 14,234 pounds; coffee, 9,647 pounds; sugar, 23,299 pounds; candles, 38 pounds; salt, 6,212 pounds.

Purchases of corned beef, mutton, dried pease, hominy, barley, potatoes, and other articles were made from the mess-fund.

A large variety of vegetables raised on the prison farm were served in season. Cabbage, parsnips, carrots, and potatoes were preserved through the winter and served to the prisoners; beets, turnips, and sauerkraut lasted until spring; potatoes and onions were had continuously the entire year. Green tomatoes, peppers, and cucumbers were pickled for winter use.

Hogs raised and fattened in the prison pens were killed from time to time and served fresh in part and the remainder corned.

Special effort is made to give as much variety and change at dinner as is consistent, and no day has gone by during the year without having a plentiful supply of vegetables and as much food to each man as he desired to eat.

The order relative to food served to prisoners on restricted diet has been carefully complied with, and none has ever been served that has not been carefully weighed. The service in the prison kitchen and mess-hall is excellent, and the food is well and carefully cooked and served cleanly and impartially to all. Each meal throughout the year has been ready and served on time. Twenty-five minutes are allowed for each meal except supper, when prisoners are dismissed by order of the acting commissary of subsistence.

The prison commissary, the commissary sergeant, and four privates of the provost guard are present at each meal to maintain good order and discipline. The subsistence store-room, prison kitchen, mess-hall, bakery, and butcher-shop are inspected by the commandant, attended by the officers of the prison, every Sunday morning, and at other times by him unattended. The executive officer makes a daily inspection. Under existing regulations I am required to be present at all meals. I make a daily inspection of my department and invariably find it cleanly and in order.

I have at the close of each month made a correct and careful inventory of subsistence stores on hand as required by paragraph 1352, Army Regulations.

The kitchen utensils and mess kit are all good and well kept and cared for.

Tobacco furnished the commandant for distribution to prisoners engaged in special or excessive hard labor was 841½ pounds, and the cost thereof was \$300.

Commissary Sergeant T. H. Forsyth has been on duty since May 27, 1891, has given entire satisfaction, and has performed the various duties under the detail zealously and efficiently.

Following is a statement of the prison mess-fund, of which I was appointed treasurer under Orders No. 56, dated U. S. Military Prison, Fort Leavenworth, Kans.; July 1, 1890: Received from Capt. J. W. Pope, June 30, 1890, \$2,330.61; received during the year, \$5,036.94; expended during the year, \$5,104.78; balance on hand June 30, 1891, \$2,262.77.

Expenditures include 1 pipe-organ for prison chapel, \$700; garden seeds, \$550.26; 30 head heifers, \$312.45; 2 mules, \$245.

Respectfully submitted.

C. W. MASON,

First Lieutenant Fourth Infantry, A. C. S.

THE ADJUTANT, U. S. MILITARY PRISON.

OFFICE OF COMMANDING OFFICER PROVOST GUARD,
U. S. MILITARY PRISON, *Fort Leavenworth, Kans., July 12, 1891.*

SIR: I have the honor to submit the following report for that portion of the year ending June 30, 1891, that I have been in command of the provost guard, viz: May 12, 1891, to June 30, 1891:

During this time I have made daily inspections of the guard in charge of the different working parties and have paid particular attention to the manner in which the noncommissioned officers and privates of the guard have performed the duties required of them. I have found them attentive to their duties and performing them in the proper manner. No serious violation of the rules and regulations for the government of the U. S. Military Prison, by members of the guard, have been brought to my notice. The guard is a well-disciplined body of men and thoroughly instructed in their duties. The present mode of enlistment, by voluntary transfer of soldiers of the line who have served one enlistment with character "excellent" and who possess the qualifications necessary for the duties required of them, I believe to be the best.

The guard's amusement room is a source of great pleasure and comfort to them. It is nicely fitted up with a billiard-table and pool-table, a good stock of cigars, tobacco, pipes, blacking, matches, brushes, soaps, &c., but no liquors or beverages of any kind are sold in the amusement room. Quite a number of papers and magazines are subscribed for, consisting of eleven monthly magazines and fifteen weekly and six daily papers. The profits derived from the amusement room are used for improving the guard's mess, and this, together with the savings on the rations and the quantities of vegetables and fruits from the prison garden, enables them to live well. The guard has now a mess-fund of \$193.31 and an amusement room fund of \$244.50.

The armament of the guard with shotguns and revolvers I believe can not be improved, but there should be some uniformity in the arms used. At present there are three different kinds of shotguns in the hands of the guards, viz, double barreled English, double-barreled Parker, and Spencer. I would strongly recommend that

the double-barreled English and double-barreled Parker be replaced by the Spencer repeating shotguns.

Very respectfully, your obedient servant,

FREDERICK PERKINS,

First Lieutenant, Sixteenth Infantry, Commanding Provost Guard.

The ADJUTANT, U. S. MILITARY PRISON.

U. S. MILITARY PRISON,
Fort Leavenworth, Kans., July 20, 1891.

The following statement showing the number of prisoners in confinement in the U. S. Military Prison, Fort Leavenworth, Kans., on the 30th day of June, 1891, received from different organizations of the Army, the department from which sentenced, and terms of sentences, together with their ages, nativities, and occupations, is respectfully submitted.

J. W. POPE,

Captain and A. Q. M., U. S. A., Commandant.

Number of prisoners in confinement on the 30th day of June, 1891, 378.

Of the number of prisoners confined, there were sentenced from the different regiments as follows: First Cavalry, 16; Second Cavalry, 22; Third Cavalry, 17; Fourth Cavalry, 2; Fifth Cavalry, 15; Sixth Cavalry, 12; Seventh Cavalry, 14; Eighth Cavalry, 11; Ninth Cavalry, 16—making a total from the cavalry arm of 105. First Artillery, 3; Second Artillery, 8; Third Artillery, 8; Fourth Artillery, 10; Fifth Artillery, 8—making a total from the artillery arm of 37. First Infantry, 2; Second Infantry, 8; Third Infantry, 6; Fourth Infantry, 1; Fifth Infantry, 4; Sixth Infantry, 9; Seventh Infantry, 10; Eighth Infantry, 4; Ninth Infantry, 3; Tenth Infantry, 13; Eleventh Infantry, 4; Twelfth Infantry, 14; Thirteenth Infantry, 8; Fourteenth Infantry, 3; Fifteenth Infantry, 14; Sixteenth Infantry, 5; Seventeenth Infantry, 5; Eighteenth Infantry, 6; Nineteenth Infantry, 3; Twentieth Infantry, 11; Twenty-first Infantry, 6; Twenty-second Infantry, 10; Twenty-third Infantry, 8; Twenty-fifth Infantry, 8—making a total from the infantry arm of 168. Battalion of Engineers, 7; Hospital Corps, 1; Provost Guard, 1; Hospital Stewards, U. S. A., 1; U. S. Military Academy Cavalry Detachment, 1; Recruits Mounted Service, 28; Recruits General Service 29—the whole making the grand total of 378.

Of the number of prisoners confined there were sent from the different departments as follows: War, 70; Platte, 50; Dakota, 55; Atlantic, 97; Missouri, 76; Texas, 28; Columbia, 2—total, 378.

The following represents the various charges upon which the prisoners were tried and sentenced: Desertion, 265; desertion and desertion, 6; desertion and desertion and violation of fiftieth Article of War, 1; desertion and desertion and violation sixteenth Article of War, 2; desertion and violation seventeenth Article of War, 18; desertion and violation thirty-second Article of War, 1; desertion and violation seventeenth and thirty-eighth Articles of War, 1; desertion and violation seventeenth and sixty-second Articles of War, 12; desertion and violation seventeenth, fortieth, and sixty-second Articles of War, 3; desertion and violation seventeenth and sixtieth Articles of War, 2; desertion and violation of twenty-first and sixty-second Articles of War, 1; desertion and violation thirty-ninth and sixtieth Articles of War, 1; desertion and violation of fortieth and sixtieth Articles of War, 1; desertion and violation fiftieth Article of War, 5; desertion and violation sixtieth Article of War, 3; desertion and violation sixty-second Article of War, 15; desertion and violation sixty-second, seventeenth, and sixty-second Articles of War, 1; desertion and theft, 2; violation seventeenth and thirty-second Articles of War, 1; violation twentieth and twenty-first Articles of War, 2; violation twenty-first and sixty-second Articles of War, 1; violation twenty-first, twenty-fourth, and sixty-second Articles of War, 1; violation thirty-second and sixty-second Articles of War, 1; violation thirty-second, sixty-second, and seventeenth Articles of War, 1; violation thirty-eighth Article of War, 1; violation thirty-eighth and sixty-second Articles of War, 2; violation thirty-second and sixtieth Articles of War, 1; violation sixtieth Article of War, 2; violation sixtieth and sixty-second Articles of War, 2; violation sixty-second Article of War, 14; violation sixty-second and seventeenth Articles of War, 1; violation sixty-second and twentieth Articles of War, 1; violation sixty-second and twenty-first Articles of War, 1; violation sixty-second and thirty-second Articles of War, 2; violation sixty-second, thirty-third, and thirty-second Articles of War, 1; violation sixty-second and sixty-second Article of War, 1; theft, 2—total, 378.

The following are the terms of sentences and number of prisoners undergoing confinement under each term: 9 months, 1; 10 months, 2; 1 year, 39; 1 year and 1 month, 1; 1 year and 6 months, 49; 1 year and 7 months, 2; 1 year and 8 months, 2; 2 years,

70; 2 years and 16 days, 2; 2 years and 3 months, 1; 2 years and 4 months, 2; 2 years and 6 months, 107; 2 years and 7 months, 3; 2 years and 8 months, 5; 2 years and 10 months, 1; 2 years, 11 months, and 15 days, 1; 3 years, 56; 3 years and 2 months, 1; 3 years and 3 months, 1; 3 years, 3 months, and 16 days, 1; 3 years and 6 months, 5; 4 years, 11; 4 years and 10 days, 1; 4 years and 4 months, 1; 4 years and 6 months, 3; 4 years and 9 months, 1; 5 years, 8; 10 years, 1—total, 378.

The approximate ages of the prisoners confined in the prison are shown by the following: Between 18 and 21 years, 6; between 21 and 25 years, 169; between 25 and 30 years, 152; between 30 and 35 years, 41; between 35 and 40 years, 9; between 40 and 45 years, 1—total, 378.

Of the prisoners here confined, the nativity as claimed by them is as follows:

Austria, 1; Canada, 10; England, 9; Germany, 22; Ireland, 36; Nova Scotia, 1; Prussia, 3; Scotland, 3; Sweden, 2; Switzerland, 3; United States, 287; Wales, 1—total, 378.

The following occupations are represented: Bakers, 3; barbers, 19; basket-makers, 1; bar-tenders, 1; bolt-cutters, 1; bricklayers, 3; blacksmiths, 13; boiler-makers, 2; brass-finishers, 1; broom-makers, 1; butchers, 4; carpenters, 18; clerks, 23; coopers, 1; cooks, 9; caachmen, 1; comb-makers, 1; electricians, 2; engineers, 3; firemen, 16; farmers, 16; file-cutters, 1; glass-workers, 2; hostlers, 1; harness-makers, 3; hat-finishers, 1; iron-molders, 7; japanners, 1; jewelers, 1; laborers, 86; machinists, 4; miners, 2; musicians, 4; nail-feeders, 1; nickel-platers, 2; printers, 10; painters, 23; paper-hangers, 1; physicians, 1; plasterers, 3; plumbers, 5; porters, 1; puddlers, 1; rope-makers, 1; railroad-men, 10; sailors, 7; sawyers, 1; salesmen, 3; school-teachers, 1; shoemakers, 16; stone-cutters, 7; stone-masons, 1; soldiers, 1; tailors, 4; tank-builders, 1; tinsmiths, 3; teamsters, 16; telegraph-operators, 3; waiters, 2; wood-turners, 1; total, 378.

Annual report of alterations in prisoners and prison labor performed at the U. S. Military Prison, Fort Leavenworth, Kans., during the fiscal year ending June 30, 1891.

Date.	In prison.		Gain.			Loss.								Sentences mitigated.	
	Aggregate.	Aggregate last report.	By transfer.	From escape.	Aggregate.	Discharged.			Transferred.		Died.	Escaped.	Aggregate.		
						Expiration of sen- tence.	By order.	On surgeon's cer- tificate.	To penitentiary.	To insane asylum.					
July 31, 1890	474	456	23	....	23	18	11						1	30	24
August 31, 1890	450	483	17	....	17	23	17	1						41	27
September 30, 1890	441	499	18	....	18	20	7							27	38
October 31, 1890	421	516	3		3	20	3							23	8
November 30, 1890	419	517	23		23	15	9	1						25	11
December 31, 1890	400	538	2	1	3	17	2		1			2		22	1
January 31, 1891	410	556	31		31	17	3	1						21	13
February 28, 1891	417	569	20		20	12	1							13	8
March 31, 1891	390	550	12	1	13	34	6							40	46
April 30, 1891	385	540	48		48	29	24							53	47
May 31, 1891	379	523	28		28	30	3	1						34	18
June 30, 1891	378	481	18		18	16	3							19	9
Total	4,964	6,228	243	*2	245	251	89	4	1			3		348	250

* One man now serving sentence in prison, recognized as an escaped prisoner, not included as received "From escape" in above report.

RECAPITULATION.

In prison June 30, 1890	481	726
Received since	245	
LOSS.		
Discharged:		
Expiration of sentence	251	
By order	89	
On surgeon's certificate	4	
Escaped	3	
Transferred to penitentiary	1	
	348	
Remaining in prison June 30, 1891	378	

Prison labor performed.

During—	Number of working days.	For Quartermaster's Department.								
		For depot and post quartermasters.		Manufacturing department.						
		Skilled.	Unskilled.	Shoe shop.	Harness shop.	Tin shop.	Broom shop.	Carpenter shop.	Tailor shop.	Blacksmith shop.
		<i>Days.</i>	<i>Days.</i>	<i>Days.</i>	<i>Days.</i>	<i>Days.</i>	<i>Days.</i>	<i>Days.</i>	<i>Days.</i>	<i>Days.</i>
July, 1890.....	26	25	2,034½	1,224	139	207	45	128	67	12
August, 1890.....	26	21	2,213½	1,231½	178	228½	162	141	.....	8
September, 1890.....	26	31	2,141	1,149½	208	197½	229	146½	.....	.....
October, 1890.....	27	27	2,046	1,318½	229	206½	166	255½	.....	79½
November, 1890.....	24	354½	1,886½	1,189½	242	163	144	245½	.....	62
December, 1890.....	26	17	1,622½	1,222	410	131½	97	292	.....	47
January, 1891.....	26	152½	1,385	1,204½	492	176	102	335	.....	56
February, 1891.....	23	35	1,023	1,156½	378	150	92	314	.....	74
March, 1891.....	26	52	1,375½	1,146½	366	197	107	351½	.....	50
April, 1891.....	26	75	1,271	1,226	185½	155	120	318	.....	55
May, 1891.....	25	193	1,128½	1,264	193	71	119	234	.....	20
June, 1891.....	26	136½	1,263	1,310	171	172	138½	136	.....	25
Total.....	307	1,119½	19,389½	14,636½	3,191½	2,055	1,521½	2,897	67	488½

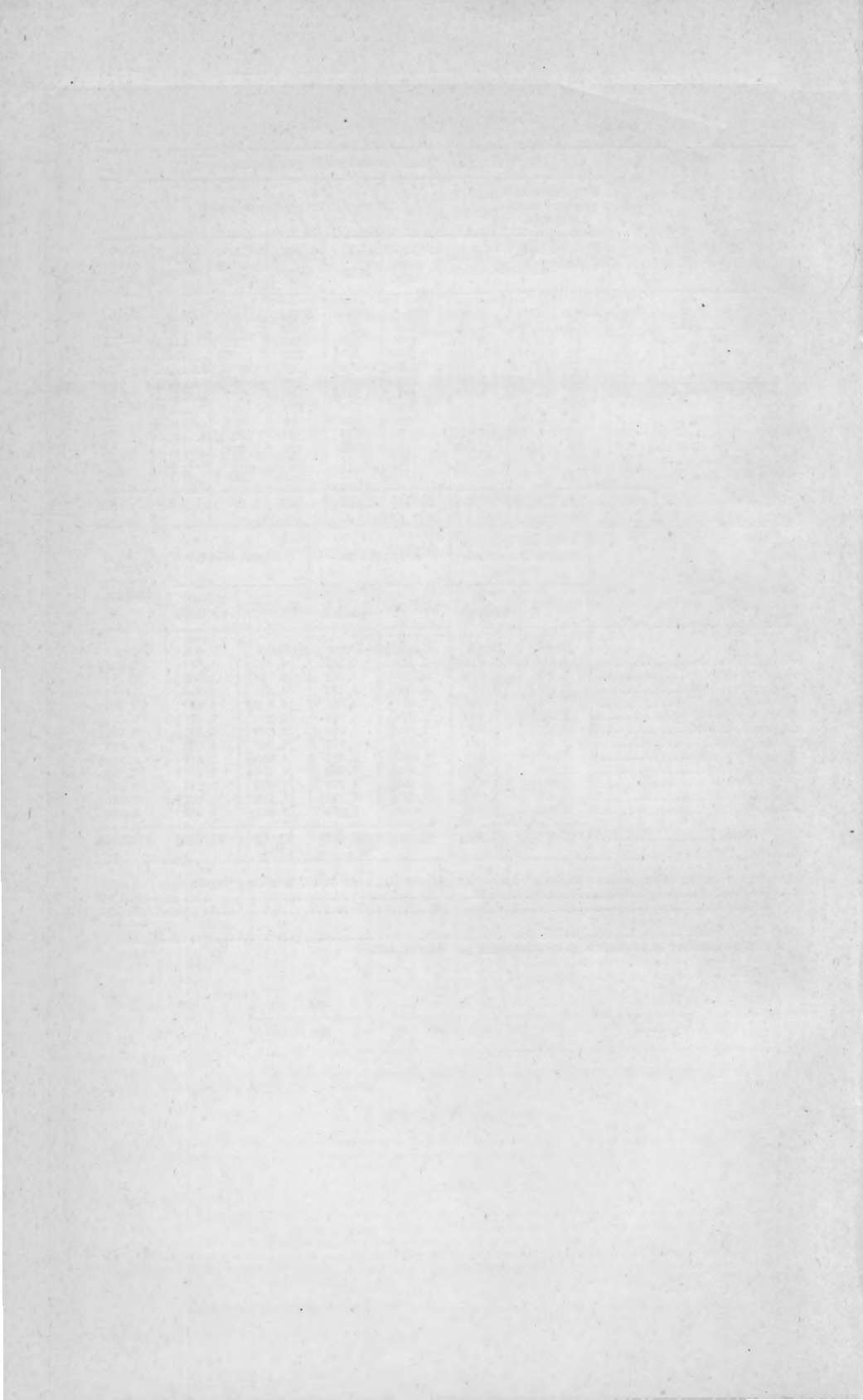
During—	Total for Quartermaster's Department.		For prison.		Total labor.		Aggregate labor.
	Skilled.	Unskilled.	Skilled.	Unskilled.	Skilled.	Unskilled.	
	<i>Days.</i>	<i>Days.</i>	<i>Days.</i>	<i>Days.</i>	<i>Days.</i>	<i>Days.</i>	<i>Days.</i>
July, 1890.....	1,847	2,034½	2,243	6,500	4,090	8,534½	12,624½
August, 1890.....	1,970	2,213½	2,288½	5,742	4,258½	7,955½	12,214
September, 1890.....	1,961½	2,141	2,389½	4,707	4,351	6,848	11,199
October, 1890.....	2,282½	2,046	2,341½	4,595	4,623½	6,641	11,264½
November, 1890.....	2,394½	1,886½	1,818½	4,590	4,213	6,476½	10,689½
December, 1890.....	2,216½	1,622½	1,332½	4,891	3,549	6,513½	10,062½
January, 1891.....	2,518	1,385	2,182	4,817	4,700	6,202	10,902
February, 1891.....	2,199½	1,023	1,849	4,317	4,048½	5,340	9,388½
March, 1891.....	2,270	1,375½	1,980½	5,098	4,250½	6,478½	10,724
April, 1891.....	2,134½	1,271	1,932½	4,976	4,067	6,247	10,314
May, 1891.....	2,094	1,128½	1,886	4,553½	3,980	5,681½	9,661½
June, 1891.....	2,089	1,263	1,848	4,696	3,937	5,959	9,896
Total.....	25,976½	19,389½	24,091½	59,482½	50,068	78,872½	128,940½

Average number of prisoners employed daily throughout the year of 307 working days:

Mechanics..... 163.09
 Laborers..... 256.91

Total..... 420.00

Average number of prisoners in confinement per month 418.



B.—Position and distribution of troops by Departments, taken from

POSTS	SITUATIONS.	COMMANDING OFFICER.	GARRISONS.	PRESENT.				
				Number of companies.	Regiments.	General officers.	Military secretary.	Adjutant-General's Department.
						Aides-de-camp.	Inspectors-General.	Bureau of Military Justice.
DEPARTMENT OF THE EAST.								
Headquarters	Governors Island, N. Y.	Maj. Gen. O. O. Howard ..	Department staff	1	2d Art	1	2	1 1 1
Fort Preble, Me.....	Portland.....	Capt. R. M. Rogers, 2d Art.	1	2d Art				
Fort Warren, Mass ..	Boston Harbor.....	Maj. Wm. Sinclair, 2d Art.	2	2d Art.....				
Fort Adams, R. I. . .	Near Newport.....	Col. J. Mendenhall, 2d Art.	4	2d and 4th Art.				
Fort Trumbull, Conn.	New London.....	Capt. H. G. Litchfield, 2d Art.	1	2d Art.....				
Fort Columbus, N. Y.	Governors Island...	Maj. W. L. Haskin, 1st Art.	3	1st Art				
Fort Hamilton, N. Y. .	New York Harbor..	Col. L. L. Langdon, 1st Art.	4	1st Art				
Fort Niagara, N. Y....	Youngstown.....	Lieut. Col. E. G. Bush, 11th Inf.	2	11th Inf.....				
Fort Ontario, N. Y....	Oswego.....	Capt. J. W. Powell, jr., 6th Inf.	1	6th Inf.....				
Fort Porter, N. Y.	Buffalo	Maj. W. J. Lyster, 6th Inf.	2	6th Inf.....				
Fort Schuyler, N. Y. .	Throgs Neck	Maj. C. B. Throokmorton, 2d Art.	2	2d Art.....				
Fort Wadsworth, N. Y.	New York Harbor..	Lieut. Col. R. Lodor, 1st Art.	3	1st Art				
Fort Wood, N. Y.	Bedloe's Island	Capt. A. M. Wetherill, 6th Inf.	1	6th Inf.....				
Madison Barracks, N. Y.	Sacketts Harbor....	Col. I. D. De Russy, 11th Inf.	6	11th Inf.....				
Plattsburg Barracks, N. Y.	Plattsburg.....	Capt. J. P. Schindei, 6th Inf.	1	6th Inf.....				
Fort McHenry, Md...	Baltimore.....	Lieut. Col. E. C. Bainbridge, 3d Art.	3	3d Art.....				
Washington Barracks, D. C.	Washington	Col. L. L. Livingston, 3d Art.	6	3d Art.....				
Fort Monroe, Va.....	.....	Lieut. Col. R. T. Frank, 2d Art.	6	1st, 2d, 3d, 4th, and 5th Art.				
Fort Myer, Va.....	Near Washington, D. C.	Maj. G. V. Henry, 9th Cav.	3	1st, 8th, and 9th Cav.				
Fort Barrancas, Fla ..	Pensacola.....	Maj. H. C. Hasbrouck, 4th Art.	2	4th Art.....				
St. Francis Barracks, Fla.	St. Augustine.....	Col. N. W. Osborne, 5th Inf.	2	5th Inf.....				
Fort McPherson, Ga..	Atlanta.....	Col. H. W. Closson, 4th Art.	7	4th Art.....				
Jackson Barracks, La.	New Orleans.....	Lieut. Col. W. L. Kellogg, 5th Inf.	2	5th Inf.....				
Mount Vernon Barracks, Ala.	Mount Vernon.....	Maj. E. C. Woodruff, 5th Inf.	3	5th and 12th Inf.				
Newport Barracks, Ky.	Newport.....	Maj. W. M. Wherry, 21st Inf.	1	6th Inf.....				
Fort Thomas, Ky.....	Near Newport.....	Col. M. A. Cochran, 6th Inf.	2	6th Inf.....				
Total Department of the East.....			70			1	2	1 1 1

the latest returns on file in the Adjutant-General's Office, 1891.

PRESENT.															ABSENT.							AGGREGATE.						
Quartermaster's Department.	Subsistence Department.	Medical Department.	Pay Department.	Corps of Engineers.	Ordnance Department.	Post chaplains.	Military storekeepers.	Colonels.	Lieutenant-colonels.	Majors.	Captains.	Regimental chaplains.	Regimental adjutants.	Regimental quartermasters.	Subalterns.	Enlisted men.	Total commissioned.	Aggregate.	General and staff officers.	Field and regimental staff officers.	Captains.	Subalterns.	Enlisted men.	Total commissioned.	Aggregate.	Commissioned officers.	Enlisted men.	Aggregate.
6	3	2	7							1	2					16	27	43	1					1	1	28	16	44
		1									1				2	64	4	68				1		1	1	5	64	69
		1								1	2				3	105	7	112				3		3	3	10	105	115
		2					1			4		1	1	10	240	19	259				2		2	2	21	240	261	
		1								1					3	65	5	70	1				1	1	6	65	71	
1		2								1	2				4	164	10	174		1	5		6	6	16	164	180	
		2					1			1	3		1	1	7	250	16	266		1	5		6	6	22	250	272	
		2						1		2					2	118	7	125				2		2	2	9	118	127
		1								1					1	59	3	62				1		1	1	4	59	63
		1								1	2				3	114	7	121				1		1	1	8	114	122
		1								1	2				3	94	7	101				3		3	3	10	94	104
		1						1		3					4	174	9	183				5		5	5	14	174	188
										1					2	57	3	60								3	57	60
		1					1			1	5		1	1	10	348	20	368		1	2		3	3	23	348	371	
		1								1					2	63	4	67								4	63	67
		1								3					5	172	10	182				4		4	4	14	172	186
		2					1			1	6		1	1	11	370	23	393				7		7	7	30	370	400
1	1	2							1	2	6				16	339	29	368				2		2	2	31	339	370
		1								1	3				6	203	11	214								11	203	214
		1			1					1					4	125	7	132		2	2		4	4	11	125	136	
		1					1						1	1	3	120	7	127		2	1		3	3	10	120	130	
		2					1	1	1	1	7		1	1	10	409	24	433				11		11	11	35	409	444
		1							1		2				2	92	6	98				2		2	2	8	92	100
		1								1	2				4	185	8	193		1	2		3	3	11	185	196	
											1				2	59	4	63								4	59	63
		1					1			2			1	1	2	129	8	137				2		2	2	10	129	139
8	4	32	7		1		7	6	15	64			7	7	121	4,134	285	4,419	1	1	8	63		73	73	358	4,134	4,492

B.—Position and distribution of troops by Departments, taken from the

POSTS.	SITUATIONS.	COMMANDING OFFICER.	GARRISONS.		PRESENT.					
			Number of companies.	Regiments.	General officers.	Military secretary.	Aides-de-camp.	Adjutant-General's Department.	Inspectors-General.	Bureau of Military Justice.
DEPARTMENT OF THE MISSOURI.										
Headquarters	Chicago, Ill	Maj. Gen. N. A. Miles...		Department staff.	1		2	2	2	
Fort Sheridan, Ill	Highwood	Col. R. E. Crofton, 15th Inf.	8	15th Inf.						
Fort Brady, Mich	Sault Ste. Marie	Capt. G. F. Towle, 19th Inf.	2	19th Inf.						
Fort Mackinac, Mich ..	Michilimackinac Island.	Maj. E. M. Coates, 19th Inf.	2	19th Inf.						
Fort Wayne, Mich ...	Detroit	Col. C. H. Smith, 19th Inf.	4	19th Inf.						
Fort Leavenworth, Kans.	.....	Col. E. F. Townsend, 12th Inf.	12	1st, 2d, 5th, and 9th Cav.; 2d Art.; 7th, 10th, 12th, 13th, and 14th Inf.						
Fort Riley, Kans	Junction City	Col. J. W. Forsyth, 7th Cav.	11	7th Cav.; 1st, 2d, and 4th Art.						
Fort Supply, Ind. T.	16 miles from Woodward.	Col. M. Bryant, 13th Inf.	6	5th Cav. and 13th Inf.						
Fort Reno, Okla.	Near Cheyenne Agency.	Col. J. F. Wade, 5th Cav.	6	5th Cav. and 13th Inf.						
Fort Sill, Okla.	65 miles north of Henrietta, Tex.	Lieut. Col. C. H. Carlton, 7th Cav.	9	5th and 7th Cav. and 7th and 13th Inf.						
Camp at Oklahoma, Okla.	.....	Capt. D. F. Stiles, 10th Inf.	1	10th Inf.						
Total Department of the Missouri			61		1		2	2	2	
DEPARTMENT OF TEXAS.										
Headquarters	San Antonio, Tex.	Brig. Gen. D. S. Stanley ..		Department staff.	1		2	1		
Fort Bliss, Tex	El Paso	Maj. James Henton, 23d Inf.	2	23d Inf.						
Fort Brown, Tex	Brownsville	Capt. J. B. Johnson, 3d Cav.	1	3d Cav.						
Fort Clark, Tex'	Brackettville	Col. H. M. Lazelle, 18th Inf.	10	3d Cav. and 18th Inf.						
Fort Hancock, Tex.	Hancock	Capt. G. A. Dodd, 3d Cav.	1	3d Cav.						
Fort McIntosh, Tex. ...	Laredo	Col. A. P. Morrow, 3d Cav.	3	3d Cav. and 23d Inf.						
Fort Ringgold, Tex. ...	Rio Grande City	Capt. J. G. Bourke, 3d Cav.	2	3d Cav. and 5th Inf.						
Fort Sam Houston, Tex.	San Antonio	Col. J. J. Coppinger, 23d Inf.	11	3d Cav., 3d Art., 5th and 23d Inf.						
Camp Pena Colorado, Tex.	Near Marathon.	1st Lieut. T. R. Rivers, 3d Cav.	1	3d Cav.						
Total Department of Texas			31		1		2	1		

latest returns on file in the Adjutant-General's Office, 1891—Continued.

PRESENT.																ABSENT.								AGGREGATE.				
Quartermaster's Department. Subsistence Department. Medical Department. Pay Department. Corps of Engineers. Ordnance Department. Post chaplains. Military storekeepers. Colonels. Lieutenant-colonels. Majors. Captains. Regimental chaplains. Regimental adjutants. Regimental quartermasters. Subalterns.																General and staff officers. Field and regimental staff officers. Captains. Subalterns. Enlisted men. Total commissioned. Aggregate.								Commissioned officers. Enlisted men. Aggregate.				
2	2	3	5	1							2					16	22	38								22	16	38
		1					1	1	1	10		1	1	15	385	31	416				5		5	5	36	385	421	
		1									2			4	117	7	124							7	117	124		
		1							1	2				4	110	8	118							8	110	118		
		1						1		5		1	1	8	254	17	271	1	1	1	4		7	7	24	254	278	
1		3					1		2	11		1	1	27	682	47	729			2	10		12	12	59	682	741	
1		2			1	1		2	9			1	1	19	621	37	658			3	5		8	8	45	621	666	
		2					1		5			1	1	9	265	19	284		1	2	3		6	6	25	265	290	
		1			1	1	1	1	6			1	1	7	353	19	372			2	7		9	9	28	353	381	
		2			1		1	2	5					12	354	23	377			4	6		10	10	33	354	387	
									1					2	49	3	52								3	49	52	
4	2	17	5	1	3	6	2	9	58		6	6	107	3,206	233	3,439	1	2	14	40		57	57	290	3,206	3,496		
3	2	1	3	1				1					2	15	17	32									17	15	32	
		1						1	2				2	88	6	94			2		2	2	8	88	96			
		1						1					2	63	4	67		1				1	1	5	63	68		
		2		1	1	1	2	7		1	1	13	424	28	452		4	8		12	12	40	424	464				
								1					2	58	3	61							3	58	61			
		1				1		2		1	1	5	164	11	175	1	3	5		9	9	20	164	184				
		1						2				2	102	5	107			2		2	2	7	102	109				
		2				1	1	10		1	1	20	574	36	610		2	2	4		8	8	44	574	618			
													2	66	2	68			1			1	1	3	66	69		
3	2	9	3	1	1	3	5	25		3	3	50	1,554	112	1,666	1	3	10	21		35	35	147	1,554	1,701			

B.—Position and distribution of troops by Departments, taken from the

POSTS.	SITUATIONS.	COMMANDING OFFICER.	GARRISONS.		PRESENT.				
			Number of companies.	Regiments.	General officers.	Military secretary.	Aides-de-camp.	Adjutant General's Department.	Inspectors-general.	Bureau of Military Justice.
DEPARTMENT OF CALIFORNIA.									
Headquarters	San Francisco, Cal.	Brig. Gen. T. H. Ruger ..		Department staff.	1	1	1	1	1
Fort Gaston, Cal	Hoopa Valley.....	Capt. F. H. Edmunds, 1st Inf.	1	1st Inf.....					
Fort Mason, Cal	San Francisco	Capt. S. A. Day, 5th Art.	1	5th Art.....					
Alcatraz Island, Cal.	San Francisco Harbor.	Maj. A. C. Wildrick, 5th Art.	2	5th Art.....					
Angel Island, Cal.	do.	Col. W. R. Sheafter, 1st Inf.	5	1st Inf.....					
Benicia Barracks, Cal.	Benicia	Lieut. Col. J. S. Casey, 1st Inf.	2	1st Inf.....					
Presidio, Cal	San Francisco	Col. W. M. Graham, 5th Art.	7	4th Cav. and 5th Art.					
Sequoia National Park, Cal.	.....	Capt. J. H. Dorst, 4th Cav.	1	4th Cav.....					
Yosemite National Park, Cal.	.....	Capt. A. E. Wood, 4th Cav.	1	4th Cav.....					
Total Department of California .....	.....	.....	20	.....	1	1	1	1	1
DEPARTMENT OF DAKOTA.									
Headquarters	St. Paul, Minn	Brig. Gen. Wesley Merritt.		Department staff.	1	2	1		1
Fort Snelling, Minn	Near St. Paul.....	Col. E. C. Mason, 3d Inf.	8	3d Inf.....					
Fort Buford, N. Dak. ....	.....	Lieut. Col. J. N. Andrews, 25th Inf.	2	25th Inf.....					
Fort Yates, N. Dak.	60 miles from Bismarck.	Lieut. Col. W. F. Drum, 12th Inf.	5	8th Cav., 12th and 22d Inf.					
Fort Bennett, S. Dak.	28 miles from Pierre.	Capt. J. H. Hurst, 12th Inf.	2	3d Cav. and 12th Inf.					
Fort Meade, S. Dak.	Near Sturgis	Lieut. Col. E. V. Sumner, 8th Cav.	6	8th Cav.....					
Fort Sully, S. Dak.	25 miles from Pierre.	Maj. J. A. P. Hampson, 12th Inf.	4	3d and 12th Inf.					
Fort Yellowstone, Wyo.	Yellowstone Park ..	Capt. G. S. Anderson, 6th Cav.	1	6th Cav.....					
Fort Assinniboine, Mont. ....	.....	Lieut. Col. J. C. Bates, 20th Inf.	9	1st Cav. and 20th Inf.					
Fort Custer, Mont.	31 miles from Custer Station.	Col. A. K. Arnold, 1st Cav.	7	1st Cav.....					
Fort Keogh, Mont.	Near Miles City	Col. P. T. Swaine, 22d Inf.	10	1st and 8th Cav. and 22d Inf.					
Fort Missoula, Mont.	Missoula.....	Col. G. L. Andrews, 25th Inf.	3	25th Inf.....					
Camp Poplar River, Mont.	Poplar River Station	Capt. L. Wheaton, 20th Inf.	3	20th and 25th Inf.					
Total Department of Dakota .....	.....	.....	60	.....	1	2	1		1

latest returns on file in the Adjutant-General's Office, 1891—Continued.

PRESENT.																	ABSENT.						AGGREGATE.		
Quartermaster's Department.																	General and staff officers.						Commissioned officers.		
Sub-istence Department.																	Field and regimental staff officers.						Enlisted men.		
Medical Department.																	Captains.						Aggregate.		
Pay Department.																	Subalterns.						Total commissioned.		
Corps of Engineers.																	Enlisted men.						Aggregate.		
Ordnance Department.																	Total commissioned.						Aggregate.		
Post chaplains.																	Commissioned officers.						Enlisted men.		
Military storekeepers.																	Aggregate.						Aggregate.		
Colonels.																	Commissioned officers.						Enlisted men.		
Lieutenant-colonels.																	Aggregate.						Aggregate.		
Majors.																	Commissioned officers.						Enlisted men.		
Captains.																	Aggregate.						Aggregate.		
Regimental chaplains.																	Commissioned officers.						Enlisted men.		
Regimental adjutants.																	Aggregate.						Aggregate.		
Regimental quartermasters.																	Commissioned officers.						Enlisted men.		
Subalterns.																	Aggregate.						Aggregate.		
Enlisted men.																	Commissioned officers.						Enlisted men.		
Total commissioned.																	Aggregate.						Aggregate.		
Aggregate.																	Commissioned officers.						Enlisted men.		
General and staff officers.																	Field and regimental staff officers.						Commissioned officers.		
Field and regimental staff officers.																	Enlisted men.						Aggregate.		
Captains.																	Subalterns.						Total commissioned.		
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Commissioned officers.																	Aggregate.						Aggregate.		
Enlisted men.																	Commissioned officers.						Enlisted men.		
Aggregate.																	Commissioned officers.						Enlisted men.		
Commissioned officers.																	Aggregate.						Aggregate.		
Enlisted men.																	Commissioned officers.						Enlisted men.		
Aggregate.																	Commissioned officers.						Enlisted men.		
Commissioned officers.																	Aggregate.						Aggregate.		

B.—Position and distribution of troops by Departments, taken from the

POSTS.	SITUATIONS.	COMMANDING OFFICER.	GARRISONS.	PRESENT.				
			Number of companies.	Regiments.	General officers.	Military secretary.	Aide-de-camp.	Adjutant-General's Department.
					Inspectors-general.			Bureau of Military Justice.
DEPARTMENT OF THE PLATTE.								
Headquarters	Omaha, Nebr	Brig. Gen. J. R. Brooke ..	..	Department staff.	1	..	2	1
Fort Niobrara, Nebr.	Near Valentine	Lieut. Col. S. S. Sumner, 6th Cav.	8	6th Cav. and 8th Inf.	..	..	..	..
Fort Omaha, Nebr.	Near Omaha	Col. Frank Wheaton, 2d Inf.	8	2d Inf.	..	..	..	..
Fort Robinson, Nebr. ....	.....	Lieut. Col. A. T. Smith, 8th Inf.	8	8th Cav. and 8th Inf.	..	..	..	..
Fort Sidney, Nebr.	Sidney Station	Col. J. S. Conrad, 21st Inf.	3	21st Inf.	..	..	..	..
Fort Lewis, Colo.	12 miles from Durango.	Capt. S. H. Lincoln, 10th Inf.	1	10th Inf.	..	..	..	..
Fort Logan, Colo.	Denver	Col. H. C. Merriam, 7th Inf.	6	7th Inf.	..	..	..	..
Fort Randall, S. Dak.	24 miles from Armour.	Capt. W. H. Boyle, 21st Inf.	1	21st Inf.	..	..	..	..
Fort Douglas, Utah ..	Near Salt Lake City.	Col. M. M. Blunt, 16th Inf.	10	16th and 21st Inf.	..	..	..	..
Fort Du Chesne, Utah ..	Near Uintah Agency	Maj. J. F. Randlett, 9th Cav.	5	9th Cav. and 10th Inf.	..	..	..	..
Fort D. A. Russell, Wyo.	Cheyenne	Lieut. Col. G. K. Brady, 17th Inf.	8	17th Inf.	..	..	..	..
Fort McKinney, Wyo ..	On Clear Fork Creek	Col. J. J. Van Horn, 8th Inf.	6	6th Cav. and 8th Inf.	..	..	..	..
Fort Washakie, Wyo.	Near Shoshone Agency.	Maj. E. R. Kellogg, 8th Inf.	3	6th Cav. and 8th Inf.	..	..	..	..
Camp Pilot Butte, Wyo.	Rock Springs	Lieut. Col. A. S. Burt, 7th Inf.	1	7th Inf.	..	..	..	..
Total Department of the Platte			68	.....	1	..	2	1
DEPARTMENT OF ARIZONA.								
Headquarters	Los Angeles, Cal.	Brig. Gen. A. McD. Cook.	..	Department staff.	1	..	2	1
Fort Apache, Ariz.	90 miles from Holbrook.	Lieut. Col. David Perry, 10th Cav.	5	10th Cav. and 10th Inf.	..	..	..	..
Fort Bowie, Ariz.	Bowie Station	Maj. T. McGregor, 2d Cav.	2	2d Cav.	..	..	..	..
Fort Grant, Ariz.	27 miles from Willcox.	Col. J. K. Mizner, 10th Cav.	5	10th Cav. and 24th Inf.	..	..	..	..
Fort Huachuca, Ariz.	Huachuca Station ..	Lieut. Col. D. S. Gordon, 2d Cav.	4	2d Cav. and 9th Inf.	..	..	..	..
San Carlos, Ariz. ....	.....	Capt. L. Johnson, 24th Inf.	6	2d and 10th Cav. and 24th Inf.	..	..	..	..
Whipple Barracks, Ariz.	Prescott	Col. C. G. Bartlett, 9th Inf.	6	9th Inf.	..	..	..	..
San Diego Barracks, Cal.	San Diego	Lieut. Col. G. M. Brayton, 9th Inf.	1	9th Inf.	..	..	..	..
Fort Bayard, N. Mex.	Near Silver City	Col. Z. R. Bliss, 24th Inf.	6	10th Cav. and 24th Inf.	..	..	..	..
Fort Stanton, N. Mex.	9 miles from Lincoln	Col. R. H. Olney, 10th Inf.	2	2d Cav. and 10th Inf.	..	..	..	..
Fort Wingate, N. Mex.	Wingate Station	Col. G. G. Hunt, 2d Cav.	7	2d Cav. and 10th Inf.	..	..	..	..
Total Department of Arizona			44	.....	1	..	2	1

latest returns on file in the Adjutant-General's Office, 1891—Continued.

PRESENT.															ABSENT.						AGGREGATE.					
Quartermaster's Department. Subsistence Department. Medical Department. Pay Department. Corps of Engineers. Ordnance Department. Post chaplains. Military storekeepers. Colonels. Lieutenant-colonels. Majors. Captains. Regimental chaplains. Regimental adjutants. Regimental quartermasters. Subalterns. Enlisted men. Total commissioned.															Aggregate. General and staff officers. Field and regimental staff officers. Captains. Subalterns. Enlisted men. Total commissioned. Aggregate. Commissioned officers. Enlisted men. Aggregate.											
4	3	1	5	1					2					2	16	22	38							22	16	38
		3				1		1	1	4		1	1	10	486	22	508	2	4	6		12	12	34	486	520
		2					1	1	1	7		1	1	12	484	26	510		3	8		11	11	37	484	521
		2						1	1	8	1	1	1	12	520	27	547	2	2	4		8	8	35	520	555
		1						1	1			1	1	6	164	12	176		4	3		7	7	19	164	183
		1								1				2	54	4	58							4	54	58
		3			1	1				4		1	1	10	283	21	304		2	2		4	4	25	283	308
		2								1				2	55	5	60							5	55	60
		2					1			9		1	1	13	468	27	495	2	1	6		9	9	36	468	504
		1			1				1	5				8	260	16	276			2		2	2	18	260	278
		2					1	1	8		1	1	1	15	424	29	453	1	2	5		8	8	37	424	461
		2					1		6		1	1	1	11	311	23	334		1	3		4	4	27	311	338
		1							1	3				3	167	8	175			3		3	3	11	167	178
		1					1		1					2	58	5	63							5	58	63
4	3	24	5	1	3		5	6	9	58	1	8	8	108	3,750	247	3,997	7	19	42		68	68	315	3,750	4,065
2	1	1	4						1					4	15	17	32							17	15	32
		1			1		1	1	3					7	274	14	288		2	3		5	5	19	274	293
		1			1				1	1				3	117	7	124		1	1		2	2	9	117	126
		2					1	1	1	5	1	1	1	10	322	23	345		2	3		5	5	28	322	350
		2			1		1	1	4					6	208	15	223		2			2	2	17	208	225
		1							4					5	256	10	266	1	2	5		8	8	18	256	274
		2				1		1	3		1	1	1	7	329	16	345		4	4		8	8	24	329	353
		1					1		1					1	58	4	62			1		1	1	5	58	63
		2				1		1	6	1	1	1	1	9	363	22	385		2	5		7	7	29	363	392
		1				1			2		1	1	1	4	131	10	141		1	2		3	3	13	131	144
		1			1	1		2	6		1	1	1	11	368	24	392		2	5		7	7	31	368	399
2	1	15	4		4		5	4	9	35	2	5	5	67	2,441	162	2,603	1	16	31		48	48	210	2,441	2,651

B.—Position and distribution of troops by Departments, taken from the

POSTS.	SITUATIONS.	COMMANDING OFFICER.	GARRISONS.	PRESENT.				
			Number of companies.	Regiments.	General officers.	Military secretary.	Aides-de-camp.	Adjutant-General's Department.
								Inspectors-general.
								Bureau of Military Justice.
DEPARTMENT OF THE COLUMBIA.								
Headquarters	Vancouver Barracks, Wash.	Brig. Gen. A. V. Kautz..	..	Department staff.	1	..	2	1
Fort Sherman, Idaho.	Cœur d'Alene	Col. W. P. Carlin, 4th Inf.	6	4th Cav. and 4th Inf.	..	..	..	..
Boisé Barracks, Idaho	Boisé City	Capt. J. Keefe, 4th Inf..	2	4th Cav. and 4th Inf.	..	..	..	..
Fort Canby, Wash ...	Mouth of Columbia River.	Capt. B. K. Roberts, 5th Art.	2	5th Art.	..	..	..	..
Fort Spokane, Wash .	Near Spokane Falls.	Lieut. Col. F. Mears, 4th Inf.	4	4th Inf.	..	..	..	..
Fort Townsend, Wash	Port Townsend	Capt. A. H. Bainbridge, 14th Inf.	1	14th Inf.	..	..	..	..
Fort Walla - Walla, Wash.	Walla-Walla	Maj. M. Cooney, 4th Cav.	4	4th Cav.	..	..	..	..
Vancouver Barracks, Wash.	Vancouver	Col. T. M. Anderson, 14th Inf.	8	4th Cav. and 14th Inf.	..	..	..	..
Total Department of the Columbia...			27	.....	1	..	2	1

C.—*Military commands and posts, with post offices, telegraph stations, and nearest railroad stations or boat landings.*

ARMY OF THE UNITED STATES.—Headquarters, Washington, D. C.—Maj. Gen. JOHN M. SCHOFIELD, commanding.

DEPARTMENT OF THE EAST.

Maj. Gen. OLIVER O. HOWARD, comdg.—Hdqrs. Governors Island, New York Harbor.

Geographical limits.—The New England States, States of New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Louisiana, Mississippi, Alabama, Kentucky, Tennessee, Ohio, and the District of Columbia.

DEPARTMENT OF THE MISSOURI.

Maj. Gen. NELSON A. MILES, comdg.—Hdqrs. Chicago, Ill.

Geographical limits.—States of Michigan, Wisconsin, Indiana, Illinois, Missouri, Kansas, and Arkansas, Indian and Oklahoma Territories.

DEPARTMENT OF TEXAS.

Brig. Gen. DAVID S. STANLEY, comdg.—Hdqrs. San Antonio, Tex.

Geographical limits.—State of Texas.

DEPARTMENT OF CALIFORNIA.

Brig. Gen. THOMAS H. RUGER, comdg.—Hdqrs. San Francisco, Cal.

Geographical limits.—States of California (excepting that portion south of the 35th parallel) and Nevada.

DEPARTMENT OF DAKOTA.

Brig. Gen. WESLEY MERRITT, comdg.—Hdqrs. St. Paul, Minn.

Geographical limits.—States of Minnesota, South Dakota (excepting so much as lies south of the 44th parallel), North Dakota, and Montana, and the post of Camp Sheridan, Wyo.

DEPARTMENT OF THE PLATTE.

Brig. Gen. JOHN R. BROOKE, comdg.—Hdqrs. Omaha, Nebr.

Geographical limits.—States of Iowa, Nebraska, Colorado, and Wyoming (excepting the post of Fort Yellowstone, Wyo.); Territory of Utah, so much of Idaho as lies east of a line formed by the extension of the western boundary of Utah to the north-eastern boundary of Idaho, and so much of South Dakota as lies south of the 44th parallel.

DEPARTMENT OF ARIZONA.

Brig. Gen. ALEXANDER McD. MCCOOK, comdg.—Hdqrs. Los Angeles, Cal.

Geographical limits.—Territories of Arizona and New Mexico and that portion of California south of the 35th parallel.

DEPARTMENT OF THE COLUMBIA.

Brig. Gen. AUGUST V. KAUTZ, comdg.—Hdqrs. Vancouver Barracks, Wash.

Geographical limits.—States of Oregon, Washington, and Idaho, and Alaska Territory, excepting so much of Idaho as is embraced in the Department of the Platte,

POSTS.

[Those not garrisoned are indicated thus *.]

- Adams, Fort, R. I.* (Dept. East.)—P. O., R. R. and tel. stn. Newport, R. I.; boat from Newport, dist. 3 m.
- Alcatraz Island, Cal.* (Dept. Cal.)—P. O. same; R. R. stn. San Francisco, Cal., dist. 4 m.; Govt. steamer daily (except Sunday) to post.
- Angel Island, Cal.* (Dept. Cal.)—P. O. and tel. stn. same; R. R. stn. San Francisco, Cal., dist. 7 m.; Govt. steamer daily (except Sunday) to post.
- Apache, Fort, Ariz.* (Dept. Ariz.)—P. O. and tel. stn. same; buckboard daily (except Sunday) from Holbrook, on A. and P. R. R., dist. 90 m.
- Assiniboine, Fort, Mont.* (Dept. Dak.)—P. O., tel., and R. R. (G. N.) stn. same.
- Barrancas, Fort, Fla.* (Dept. East.)—P. O. Warrington, Fla.; tel. stn. Pensacola Navy Yard, Fla.; R. R. stn. at Pensacola, Fla., dist. 9 m.; special boat to post.
- Bayard, Fort, N. Mex.* (Dept. Ariz.)—P. O. same; tel. and R. R. (A. T. and S. F.) stn. Silver City, dist. 9 m.; stage daily (except Sunday) from Silver City; Govt. tel. to post.
- Benicia Barracks, Cal.* (Dept. Cal.)—P. O., tel. stn., and boat landing Benicia, Cal., dist. 1 m.; R. R. (C. P.) stn. Army Point, dist. $\frac{1}{2}$ m.
- Bennett, Fort, S. Dak.* (Dept. Dak.)—P. O. same; tel. stn. Fort Sully, S. Dak., dist. 7 m.; stage daily (except Sunday) from Pierre, S. Dak., on C. and N. W. R. R. dist. 30 m.
- Bidwell, Fort, Cal.* (Dept. Cal.)—P. O. same; tel. stn. Alturas, Cal.; daily stage from R. R. stn. Amedee, Cal., dist. 135 m.
- Bliss, Fort, Tex.* (Dept. Tex.)—P. O., tel. and R. R. stn. El Paso, Tex., dist. $1\frac{1}{2}$ m.
- Boise Barracks, Idaho* (Dept. Columbia.)—P. O., tel. and R. R. (O. S. L.) stn. Boise City, Idaho, dist. 2 m.
- Bowie, Fort, Ariz.* (Dept. Ariz.)—P. O. and tel. stn. same; daily buckboard from Bowie Station, Ariz., on S. P. R. R., dist. 13 m.
- Brady, Fort, Mich.* (Dept. Mo.)—P. O., tel. and R. R. stn. Sault Ste. Marie, Mich; boats land at post in summer.
- Brown, Fort, Tex.* (Dept. Tex.)—P. O., tel. and R. R. (R. G.) stn. Brownsville, Tex.
- Buford, Fort, N. Dak.* (Dept. Dak.)—P. O., tel. and R. R. (G. N.) stn. same.
- Canby, Fort, Wash.* (Dept. Columbia.)—P. O. and tel. stn. at post; daily steamer from R. R. stn., Portland, Oreg., to Astoria, dist. 98 m., and thence by steam tug daily to post, dist. 14 m.
- * *Carroll, Fort, Md.*—P. O. and tel. stn. Baltimore, Md., dist. $6\frac{1}{2}$ m. by water from Light st. wharf.
- * *Caswell, Fort, N. C.*—P. O. and tel. stn. Southport, N. C., dist. 2 m.; steamer daily from Wilmington to Southport, dist. 22 m.
- Clark, Fort, Tex.* (Dept. Tex.)—P. O. Brackettville, Tex.; tel. stn., Fort Clark, via Spofford Junction, Tex.; daily stage from Spofford Junction, on S. P. R. R., dist. 9 m.
- * *Clark's Point, Mass.*, Fort at.—P. O. and tel. stn. New Bedford, Mass., dist. 4 m.
- * *Clinch, Fort, Fla.*—P. O., tel. and R. R. stn. Fernandina, Fla., dist. 3 m.
- Columbus Barracks, Ohio.* (See Recruiting Depots.)
- Columbus, Fort, N. Y. H.* (Dept. East.)—P. O. New York City: tel. stn. Governor's Island, N. Y.; Govt. steamer from New York City, dist. $1\frac{1}{2}$ m.
- * *Constitution, Fort, N. H.*—P. O. New Castle, N. H.; tel. and R. R. stn. Portsmouth, N. H.; stage or steamer from Portsmouth, dist. 3 m.
- Custer, Fort, Mont.* (Dept. Dak.)—P. O. and tel. stn. same; daily stage from Custer Station, on N. P. R. R., dist. 32 m.
- D. A. Russell, Fort, Wyo.* (Dept. Platte.)—P. O. and tel. stn. Fort Russell, Wyo.; R. R. (U. P.) stn. Cheyenne, Wyo., dist. 3 m.
- Devide Island, N. Y.* (See Recruiting Depots.)
- * *Delaware, Fort, Del.*—P. O. and tel. stn. Delaware City, Del.; daily steamer from Philadelphia to Delaware City, dist. $1\frac{1}{2}$ m. from post.
- Douglas, Fort, Utah.* (Dept. Platte.)—P. O., tel. and R. R. stn. Salt Lake City, Utah, dist. 3 m.
- Du Chesne, Fort, Utah* (Dept. Platte.)—P. O. and tel. stn. same; R. R. (D. and R. G. W.) stn. Price Station, dist. 88 m.; stage line to post.
- * *Dutch Island, R. I., Fort on.*—P. O. Jamestown, R. I.; tel. stn. Newport, R. I.; steam ferry from Newport to Jamestown, dist. 4 m., and private boat thence to post, dist. 1 m.
- * *Finn's Point, N. J., Battery at.*—P. O., R. R. and tel. stn. Salem, N. J., dist. 6 m.
- * *Foot, Fort, Md.*—P. O. same; tel. stn. Alexandria, Va.; steamer from Washington, D. C., dist. 9 m.

- Gaines, Fort, Ala.*—P. O., tel. and R. R. stn. Mobile, Ala.; boat from Mobile, dist. 30 m.
- Gaston, Fort, Cal.* (Dept. Cal.)—P. O. Hoopa Valley, Cal.; tel. stn. Eureka, Cal.; bi-weekly steamers from San Francisco to Arcata, dist. 284 m.; thence by wagon road via Willow Creek, dist. 53 m.
- * *Gorges, Fort, Me.*—P. O., R. R. and tel. stn. Portland, Me., dist. 2 m.
- Grant, Fort, Ariz.* (Dept. Ariz.)—P. O. and tel. stn. same; daily stage (except Sunday) from Wilcox, on S. P. R. R., dist. 27 m.
- * *Griswold, Fort, Conn.*—P. O. Groton, Conn.; tel. and R. R. stn. New London; ferry from New London, dist. 1 m.
- Hamilton, Fort, N. Y.* (Dept. East.)—P. O. and tel. stn. same; city railroad from Brooklyn, dist. 6 m.
- Hancock, Fort, Tex.* (Dept. Tex.)—P. O. same; tel. and R. R. (S. and T. P.) stn. Fort Hancock Station, dist. 1½ m.
- Huachuca, Fort, Ariz.* (Dept. Ariz.)—P. O. and tel. stn. same; daily buckboard from Huachuca Siding, on N. Mex. and A. R. R., dist. 7 m.
- * *Independence, Fort, Mass.*—P. O. and tel. stn. Boston, Mass.; Govt. tug. from Boston, dist. 3 m.
- Jackson Barracks, La.* (Dept. East.)—P. O. and R. R. stn. New Orleans, La., dist. 6 m.; street cars from New Orleans pass the post; tel. stn. Slaughter House, St. Bernard Parish, La.
- * *Jackson Fort, La.*—P. O. Neptune, La.; tel. stn. Quarantine, La.; steamer tri-weekly from New Orleans, dist. 73 m.
- Jefferson Barracks, Mo.*—(See Recruiting Depots.)
- * *Jefferson, Fort, Fla.*—P. O. and tel. stn. Key West, Fla.; boat from Key West, dist. 71 m.
- * *Johnston, Fort, N. C.*—P. O. and tel. stn. Southport, N. C.; steamer daily from Wilmington, N. C., dist. 26 m.
- Keogh, Fort, Mont.* (Dept. Dak.)—P. O., tel. and R. R. (N. P.) stn. same.
- * *Key West Barracks, Fla.* (Dept. East.)—P. O., tel. stn. and boat ldg. Key West, Fla.
- * *Knox, Fort, Me.*—P. O. Prospect Ferry, Me.; tel. and R. R. stn. Bucksport, Me.; ferry from Bucksport, dist. ¼ m.
- * *Lafayette, Fort, N. Y. H.*—P. O. and tel. stn. Fort Hamilton, N. Y.; city railroad from Brooklyn, dist. 6 m.
- Leavenworth, Fort, Kans.* (Dept. Mo.)—P. O., tel. and R. R. stn. same.
- Leavenworth Military Prison, Kans.*—P. O., tel. and R. R. stn. same as Fort Leavenworth.
- * *Livingston, Fort, La.*—P. O. Grand Isle, La.; tel. stn. New Orleans, La.; steamer weekly from New Orleans, dist. 95 m.
- Logan, Fort, Colo.* (Dept. Platte.)—P. O., tel. and R. R. (D. and R. G.) stn. same.
- Mackinac, Fort, Mich.* (Dept. Mo.)—P. O. and tel. stn. Mackinac Island, Mich.; boat from Mackinaw City, dist. 11 m., and from St. Ignace, Mich., dist. 5 m.; steamboats from Chicago, Detroit, and other lake ports arrive daily.
- * *Macon, Fort, N. C.*—P. O. Beaufort, N. C.; tel. and R. R. stn. Morehead City, N. C., dist. 2 m.
- Madison Barracks, N. Y.* (Dept. East.)—P. O., tel. and R. R. stn. Sacketts Harbor, N. Y.
- * *Marion, Fort, Fla.* (Dept. East.)—P. O., tel. and R. R. stn. St. Augustine, Fla.
- Mason, Fort, Cal.* (Dept. Cal.)—P. O. Station A, San Francisco, Cal.; R. R. stn. San Francisco, Cal., dist. 3 m.; street cars to post; tel. stn. at post.
- * *McClary, Fort, Me.*—P. O., tel. and R. R. stn. Kittery Point, Me.
- McHenry, Fort, Md.* (Dept. East.)—P. O., tel. and R. R. stn. Baltimore, Md.
- McIntosh, Fort, Tex.* (Dept. Tex.)—P. O., tel. and R. R. stn. Laredo, Tex., dist. ¼ m.
- McKinney, Fort, Wyo.* (Dept. Platte.)—P. O., and tel. stn. same; daily stage from Douglas, on F. E. and M. V. R. R., dist. 148 m., from Custer Station, Mont., on N. P. R. R., dist. 160 m., and from Moorcroft, Wyo., on B. and M. R. R., dist. 90 m.
- McPherson, Fort, Ga.* (Dept. East.)—P. O., tel. and R. R. stn. Atlanta, Ga., dist. 4 m.
- Meade, Fort, S. Dak.* (Dept. Dak.)—P. O. same; tel. and R. R. (F. E. and M. V.) stn. Sturgis City, dist. 3 m.
- * *Mifflin, Fort, Pa.*—P. O., R. R. and tel. stn. Philadelphia, Pa., dist. 5 m.
- Missoula, Fort, Mont.* (Dept. Dak.)—P. O. same; tel. and R. R. (N. P.) stn. Missoula, Mont., dist. 4 m.
- Monroe, Fort, Va.* (Dept. East.)—P. O. and tel. stn. same; steamers daily from Baltimore, Washington, Norfolk, and New York, and railroad (C. and O.) from Richmond, Va.
- * *Montgomery, Fort, N. Y.*—P. O., tel. and R. R. stn. Rouse's Point, N. Y., dist. 1½ m.
- * *Morgan, Fort, Ala.*—P. O. Herndon, Ala.; tel. stn. at post; steamer from Mobile, dist. 30 m.
- Moultrie, Fort, S. C.*—P. O. Moultrieville, S. C.; tel. and R. R. stn. Charleston, S. C., dist. 5 m.

- Mount Vernon Barracks, Ala.* (Dept. East).—P. O., tel. and R. R. stn. Mount Vernon, Ala., dist. $\frac{1}{2}$ m.
- Myer, Fort, Va.* (Dept. East).—P. O. and R. R. stn. Washington, D. C.; telephone to post.
- Newport Barracks, Ky.* (Dept. East).—P. O., tel. and R. R. stn. Newport, Ky.
- Niagara, Fort, N. Y.* (Dept. East).—P. O. Youngstown, N. Y.; tel. and R. R. stn. Lewiston, N. Y., dist. 7 m.
- Niobrara, Fort, Nebr.* (Dept. Platte).—P. O. and tel. stn. same; R. R. (F. E. and M. V.) stn. Valentine, Nebr., dist. $4\frac{1}{2}$ m.
- * *Oglethorpe, Fort, Ga.*—P. O., tel. and R. R. stn. Savannah, Ga.; dist. 3 m.
- Oklahoma, Camp at, Okh. T.* (Dept. Mo.).—P. O., tel. and R. R. stn. Oklahoma City, Okla.
- Omaha, Fort, Nebr.* (Dept. Platte).—P. O. same; tel. (telephone to post) and R. R. stn. Omaha, dist. 4 m.
- Ontario, Fort, N. Y.* (Dept. East). P. O., tel. and R. R. stn. Oswego, N. Y.
- Pembina, Fort, N. Dak.* (Dept. Dak.).—P. O., R. R. and tel. stn. Pembina, N. Dak., dist. 2 m.
- Pena Colorado, Camp, Tex.* (Dept. Tex.).—P. O., tel. and R. R. (G. H. and S. A.) stn. Marathon, Tex., dist. 4 m.
- * *Phoenix, Fort, Mass.*—P. O., R. R. and tel. stn. Fairhaven, Mass.
- * *Pickens, Fort, Fla.*—P. O. Warrington, Fla.; tel. stn. Pensacola Navy-Yard; R. R. stn. at Pensacola, Fla., dist. 10 m.
- Pilot Butte, Camp, Wyo.* (Dept. Platte).—P. O., tel. and R. R. (U. P.) stn. Rock Springs, Wyo.
- Plattsburg Barracks, N. Y.* (Dept. East).—P. O., tel. and R. R. stn. Plattsburg, N. Y.
- * *Popham, Fort, Me.*—P. O. Popham Beach, Me.; tel. and R. R. stn. Bath, Me., dist. 12 m. by water, 15 m. by land.
- Poplar River, Camp, Mont.* (Dept. Dak.).—P. O., tel. and R. R. (St. P., M. and M.) stn. Poplar River Station.
- Porter, Fort, N. Y.* (Dept. East).—P. O., tel. and R. R. stn. Buffalo, N. Y.
- Preble, Fort, Me.* (Dept. East).—P. O., tel. and R. R. stn. Portland, Me., dist. $2\frac{1}{2}$ m.
- Presidio of San Francisco, Cal.* (Dept. Cal.).—P. O. and tel. stn. same; R. R. stn. San Francisco, Cal., dist. $4\frac{1}{2}$ m.; city railway to post.
- * *Pulaski, Fort, Ga.*—P. O., R. R. and tel. stn. Savannah, Ga., dist. 14 m.
- Randall, Fort, S. Dak.* (Dept. Platte).—P. O. same; tel. and R. R. stn. Armour, S. Dak., dist. 24 m.; buckboard daily (except Sunday) and triweekly stage from Springfield, S. Dak., on C. M. and St. P. R. R., dist. 45 m.
- Reno, Fort, Okh. T.* (Dept. Me.).—P. O. and tel. stn. same; stage daily from El Reno, Okh. T., on C. R. and P. R. R., dist. $5\frac{1}{2}$ m.
- Riley, Fort, Kans.* (Dept. Mo.).—P. O., tel. and R. R. stn. same.
- Ringgold, Fort, Tex.* (Dept. Tex.).—P. O. Rio Grande City, Tex.; tel. stn. at post; stage from Brownsville, Tex., dist. 117 m., and from Pena, on T. M. R. R., dist. 76 m., and from San Miguel, Mex., on Mex. N. R. R., dist. 23 m.
- Robinson, Fort, Nebr.* (Dept. Platte).—P. O., tel. and R. R. (F. E. and M. V.) stn. same.
- San Houston, Fort, Tex.* (Dept. Tex.).—P. O., tel. and R. R. stn. San Antonio, Tex.
- San Carlos, Ariz.* (Dept. Ariz.).—P. O. and tel. stn. same; daily stage (except Sunday) from Bowie, on S. P. R. R. (via Fort Thomas), dist. 102 m., and triweekly from Willcox, via Forts Grant and Thomas, dist. 106 m.; regular stage to post.
- San Diego Barracks, Cal.* (Dept. Ariz.).—P. O., tel. and R. R. (C. S.) stn. and boat ldg. San Diego, Cal.
- * *Sandy Hook, N. J., Fort at.*—P. O. New York City; tel., R. R. stn. and submt. ldg. Sandy Hook, N. J., dist. 2 m.
- * *Scammel, Fort, Me.*—P. O., tel. and R. R. stn. Portland, Me., dist. 2 m.
- Schuyler, Fort, N. Y.* (Dept. East).—P. O., tel. and R. R. stn. West Chester, N. Y., dist. $3\frac{1}{2}$ m.
- Sequoia National Park., Cal.* (Camp at Mineral King.) (Dept. Cal.).—P. O. Three Rivers, Cal.; tel. stn. Visalia, Cal.; Exeter Station (on S. P. R. R.), dist. 48 m.; private conveyance to camp.
- * *Sewall, Fort, Mass.*—P. O., tel. and R. R. stn. Marblehead, Mass., dist. $1\frac{1}{2}$ m.
- Sheridan, Fort, Ill.* (Dept. Mo.).—P. O., R. R. and tel. stn. same.
- Sherman, Fort, Idaho.* (Dept. Columbia).—P. O. Sherman; tel. and R. R. stn. Cœur d'Alène, Idaho (on branch N. P. R. R.), dist. $\frac{1}{2}$ m.
- * *Ship Island, Miss., Fort at.*—P. O., tel. and R. R. (N. O. and M.) stn. Biloxi, Miss., dist. 15 m.; special boat to post.
- Sidney, Fort, Nebr.* (Dept. Platte).—P. O., tel. and R. R. (U. P.) stn. Sidney, Nebr.
- Sill, Fort, Okh. T.* (Dept. Mo.).—P. O. and tel. stn. same; stage daily (except Sunday) from Henrietta, Tex., on Ft. W. and D. R. R., dist. 65 m., and from Minco, (on C. R. I. and P. R. R.) Okh. T., dist. 57 m.
- Snelling, Fort, Minn.* (Dept. Dak.).—P. O. same; tel. and R. R. stn. St. Paul, Minn.

- Spokane, Fort, Wash.* (Dept. Columbia).—P. O. and tel. stn. Miles, Wash.; daily stage (except Sunday) from Davenport, on N. P. R. R., dist. 25 m.
- Stanton, Fort, N. Mex.* (Dept. Ariz.).—P. O. and tel. stn. same; stage daily from Carthage, N. Mex., on A., T. and S. F. R. R., dist. 100 m.
- **Stevens, Fort, Oreg.*—P. O. and tel. stn. (telephone to post) Astoria, Oreg.; steamer daily from R. R. stn. Portland, Oreg., to Astoria, dist. 98 m.; from thence by steam tug daily (except Sunday) to post, dist. 7 m.
- St. Francis Barracks, Fla.* (Dept. East).—P. O., tel. and R. R. stn. St. Augustine, Fla.
- **St. Phillip, Fort, La.*—P. O. and tel. stn. Neptune, La.; steamer triweekly from New Orleans, dist. 73 m., and from Bohemia, on S. B. and G. R. R., dist. 25 m.
- Sully, Fort, S. Dak.* (Dept. Dak.).—P. O. and tel. stn. same; R. R. (C. and N. W.) stn. Pierre, S. Dak., dist. 23 m.
- **Sumter, Fort, S. C.*—P. O. Moultrieville, S. C. tel. and R. R. stn. Charleston, S. C., dist. 5 m.
- Supply, Fort, Ind. T.* (Dept. Mo.).—P. O. and tel. stn. same; R. R. stn. Woodward, Ind. T., on A., T. and S. F. R. R., dist. 15 m.; daily stage to post.
- **Taylor, Fort, Fla.*—P. O., tel. stn. and boat landing Key West, Fla.
- Thomas, Fort, Ky.* (Dept. East).—P. O., tel. and R. R. stn. Newport, Ky., dist. 3 m.
- Townsend, Fort, Wash.* (Dept. Columbia).—P. O. and tel. stn. Port Townsend, Wash., dist. 3 m.
- Trumbull, Fort, Conn.* (Dept. East).—P. O., tel. and R. R. stn. New London, Conn., dist. 1 m.
- Vancouver Barracks, Wash.* (Dept. Columbia).—P. O. and boat ldg. Vancouver, Wash.; tel. stn. Vancouver Barracks, Wash.; boat from Portland, Oreg., daily (except Sunday), dist. 18 m.
- Wadsworth Fort, N. Y.* (Dept. East).—P. O. Rosebank, Staten Island, N. Y.; tel. stn. Quarantine, Clifton, Staten Island, N. Y.
- Walla-Walla, Fort, Wash.* (Dept. Columbia).—P. O., tel. and R. R. (N. P.) stn. Walla-Walla, Wash., dist. 1 m.
- Warren, Fort, Mass.* (Dept. East).—P. O. and tel. stn. Boston, Mass.; steamer from Boston, dist. 7 m.
- Washakie, Fort, Wyo.* (Dept. Platte).—P. O. and tel. stn. same; daily stage from Rawlins, Wyo., on U. P. R. R., dist. 147 m.
- Washington Barracks, D. C.* (Dept. East).—P. O., tel. and R. R. stn. Washington, D. C.
- **Washington, Fort, Md.*—P. O. same; tel. stn. Alexandria, Va.; stmbt. from Washington, D. C., dist. 13 m.
- Wayne, Fort, Mich.* (Dept. Mo.).—P. O. and tel. stn. Detroit, Mich.; city railway from Detroit, dist. 4 m.
- West Point, N. Y.* (U. S. Mil. Acad.).—P. O., tel. and R. R. stn. same.
- Whipple Barracks, Ariz.* (Dept. Ariz.).—P. O. Whipple; tel. and R. R. stn. Prescott, Ariz.
- Willets Point, N. Y.* (Engineer School of Application).—P. O. and tel. stn. same; R. R. stn. Whitestone, N. Y., dist. 2½ m. (See Engineer Depot.)
- **Winfield Scott, Fort, Cal.* (Dept. Cal.).—P. O. and R. R. stn. San Francisco, Cal.; tel. stn. Presidio of San Francisco, Cal.
- Wingate, Fort, N. Mex.* (Dept. Ariz.).—P. O. and tel. stn. same; R. R. (A. and P.) stn. Wingate, dist. 3 m.
- **Winthrop, Fort, Mass.*—P. O. and tel. stn. Boston, Mass., steamboat from Boston, dist. 2 m.
- Wood, Fort, Bedloe's Island, N. Y. H.* (Dept. East).—P. O., tel. and R. R. stn. N. Y. City.
- Yates, Fort, N. Dak.* (Dept. Dak.).—P. O. and tel. stn. same; stage daily, except Sunday, from Bismarck, on N. P. R. R. dist. 60 m.
- Yellowstone, Fort, Wyo.* (Dept. Dak.).—P. O. and tel. stn. Mammoth Hot Springs, Wyo.; R. R. stn. Cinnabar, Mont., via Livingston, on N. P. R. R., dist. 8 m.
- Yosemite National Park, Cal.* (Camp in), (Dept. Cal.).—P. O. and tel. stn. Wawona, Cal.; R. R. stn. Raymond, via Barends Station, on S. P. R. R., dist. 40 m.; tri-weekly stage to camp.

ARMORIES, ARSENALS, AND DEPOTS.

ARMORIES, ARSENALS, AND ORDNANCE DEPOTS.

- Allegheny Arsenal, Pa.*—P. O., tel. and R. R. stn. Pittsburg, Pa; Maj. F. H. Phipps, comdg.
- Augusta Arsenal, Ga.*—P. O., tel. and R. R. stn. Augusta, Ga., dist. 3 m.; Maj. J. G. Butler, comdg.
- Benicia Arsenal, Cal.*—P. O., tel. and R. R. stn. Benicia, Cal., dist. 1 m.; Lieut. Col. L. S. Babbitt, comdg.

Columbia Arsenal, Tenn.—P. O., tel. and R. R. stn. Columbia, Tenn.; Maj. Isaac Arnold, jr., comdg.

Fort Monroe Arsenal, Va.—P. O. and tel. stn. Fort Monroe, Va.; stmbts. daily from New York, Baltimore, Washington, and Norfolk, and railroad (C. and O.) from Richmond, Va.; Maj. J. R. Maginness, comdg.

Fort Snelling Ordnance Depot, Minn.—P. O. same; tel. and R. R. stn. St. Paul, Minn.; Capt. William Gerlach, 3d Inf., comdg.

Frankford Arsenal, Pa.—P. O. (Station F) and tel. stn. (telephone to post) Philadelphia, Pa.; Maj. G. W. McKee, comdg.

Indianapolis Arsenal, Ind.—P. O., tel. and R. R. stn. Indianapolis, Ind.; Maj. Clifton Comly, comdg.

Kennebec Arsenal, Me.—P. O., tel. and R. R. stn. Augusta Me.; Maj. Cullen Bryant, comdg.

National Armory Mass.—P. O., tel. and R. R. stn. Springfield, Mass.; Col. A. R. Buffington, comdg.

New York Arsenal, N. Y.—P. O. New York City; tel. stn. Governor's Island, N. Y.; Govt. steamer from New York City, dist. 1½ m.; Col. Alfred Mordecai, comdg.

Omaha Ordnance Depot, Nebr.—P. O., tel. and R. R. stn. Omaha, Nebr.; Capt. J. C. Ayres, comdg.

Rock Island Arsenal, Ill.—P. O. and tel. stn. Rock Island, Ill.; special conveyance from R. R. stns. and boat lds. in Rock Island, Ill., and Davenport, Iowa, dist. 2 m.; Capt. M. W. Lyon, comdg.

St. Louis Powder Depot, Mo.—P. O., tel. and R. R. stn. Jefferson Barracks, Mo.; Maj. J. A. Kress, comdg.

San Antonio Arsenal, Tex.—P. O., tel. and R. R. stn. San Antonio, Tex.; Maj. C. E. Dutton, comdg.

U. S. Powder Depot, N. J.—P. O., tel. (telephone to post) and R. R. stn. Dover, N. J., dist. 4½ m.; Maj. J. W. Reilly, comdg.

Vancouver Barracks Ordnance Depot, Wash.—P. O. and boat ldg. Vancouver, Wash.; tel. stn. Vancouver Barracks, Wash.; boat from Portland, Oreg., daily; Capt. C. H. Clark, comdg.

Watertown Arsenal, Mass.—P. O., tel. and R. R. stn. Watertown, Mass.; Capt. A. L. Varney, comdg.

Watervliet Arsenal, N. Y.—P. O. and tel. stn. (telephone to post) West Troy, N. Y.; R. R. stn. East Troy, N. Y., dist. 1 m.; Lt. Col. F. H. Parker, comdg.

RECRUITING DEPOT.

Columbus Barracks, Ohio.—P. O. and R. R. stn. Columbus, Ohio; tel. stn. at post; Lieut. Col. Simon Snyder, 10th Inf., comdg.

David's Island, N. Y.—P. O. same; tel. stn. New Rochelle, N. Y.; horse-car and boat from New Rochelle, dist. 3 m.; Lieut. Col. A. T. Smith, 8th Inf., comdg.

Jefferson Barracks, Mo.—P. O., tel. and R. R. stn. same; Maj. S. B. M. Young, 3d Cav., comdg.

ENGINEER DEPOT.

Willets Point, N. Y.—P. O. and R. R. stn. Whitestone, Queens County, N. Y., dist. 2½ m.; tel. stn. Willets Point; Lt. Col. W. R. King, comdg.

HEADQUARTERS OF REGIMENTS.

CAVALRY.

1. Fort Custer, Mont.
2. Fort Wingate, Ariz.
3. Fort McIntosh, Tex.
4. Fort Walla Walla, Wash.
5. Fort Reno, Okh. T.

6. Fort Niobrara, Nebr.
7. Fort Riley, Kans.
8. Fort Meade, S. Dak.
9. Fort Robinson, Nebr.
10. Fort Grant, Ariz.

ARTILLERY.

1. Fort Hamilton, N. Y.
2. Fort Adams, R. I.
3. Washington Barracks, D. C.

4. Fort McPherson, Ga.
5. Presidio of San Francisco, Cal.

INFANTRY.

1. Angel Island, Cal.	14. Vancouver Barracks, Wash.
2. Fort Omaha, Nebr.	15. Fort Sheridan, Ill.
3. Fort Snelling, Minn.	16. Fort Douglas, Utah.
4. Fort Sherman, Idaho.	17. Fort D. A. Russell, Wyo.
5. St. Francis Barracks, Fla.	18. Fort Clark, Tex.
6. Fort Thomas, Ky.	19. Fort Wayne, Mich.
7. Fort Logan, Colo.	20. Fort Assiniboine, Mont.
8. Fort McKinney, Wyo.	21. Fort Sidney, Nebr.
9. Whipple Barracks, Ariz.	22. Fort Keogh, Mont.
10. Fort Stanton, N. Mex.	23. Fort Sam Houston, Tex.
11. Madison Barracks, N. Y.	24. Fort Bayard, N. Mex.
12. Fort Leavenworth, Kans.	25. Fort Missoula, Mont.
13. Fort Supply, Ind. T.	

ADJUTANT-GENERAL'S OFFICE,
Washington, D. C., September 1, 1891.

D.—Statement showing gain and loss in the enlisted strength of the Army during the fiscal year ended June 30, 1891.

GAIN.	
Enlisted	6,710
Reënlisted	2,593
From desertion	503
Total	9,806
LOSS.	
Expiration of service	3,880
For disability	591
By purchase	718
For fraudulent enlistment	349
By favor	124
As veterans	324
For minority	132
Under G. O. No. 80, of 1890*	939
By sentence of G. C. M	557
Other causes†	1,016
By promotion	5
Killed in action	28
Died of wounds	11
Died of disease, etc	210
Retired	217
Deserted	1,503
Total	10,604
Enlisted strength, June 30, 1890	24,921
Gain	9,806
	34,727
Loss	10,604
Enlisted strength June 30, 1891	24,123
NOTE.—There were in the Army (included in the strength) on June 30, 1891:	
Hospital Corps	725
Signal Corps	28
General-service clerks and messengers	145
Total	898
Indians belonging to the line of the Army	417
Indian scouts	237

* Out of a total of 3,217 men entitled to claim discharge under G. O. No. 80, of 1890.

† The number of men discharged for "other causes" embraces 234 men of the Signal Corps and about 400 Indian scouts, discharged before expiration of term of service.

E.—List of garrisoned posts, with strength and number of desertions therefrom, during the fiscal year ending June 30, 1891.

Post.	Percentage of desertions.	Average strength.	Desertions.
Fort Abraham Lincoln, N. Dak	2	61	10
Fort Adams, R. I.	16	209	33
Alcatraz Island, Cal.	1	100	1
Angel Island, Cal.	3	220	7
Fort Apache, Ariz.	1	305	2
Fort Assiniboine, Mont.	13	404	54
Fort Barrancas, Fla.	4	91	4
Fort Bayard, N. Mex.	1	338	5
Benicia Barracks, Cal.	5	85	4
Fort Bennett, S. Dak.	6	66	4
Fort Bliss, Tex.	7	124	9
Boisé Barracks, Idaho.	7	122	9
Fort Bowie, Ariz.	4	139	6
Fort Brady, Mich.	3	114	4
Fort Brown, Tex.	1	102	1
Fort Buford, N. Dak.	7	174	12
Fort Canby, Wash.	7	86	6
Fort Clark, Tex.	4	484	18
Columbus Barracks, Ohio.	4	*2, 207	87
Fort Columbus, N. Y.	10	129	13
Fort Custer, Mont.	1	496	5
Fort D. A. Russell, Wyo.	8	370	28
Dayids Island, N. Y.	2	*1, 683	40
Fort Douglas, Utah.	6	447	27
Fort Du Chesne, Utah.	3	264	4
Fort Gaston, Cal.	2	49	1
Fort Grant, Ariz.	1	342	3
Camp at Guthrie, Okh. Ter.	9	45	4
Fort Hamilton, N. Y.	12	219	27
Fort Hancock, Tex.	13	48	6
Fort Huachuca, Ariz.	6	271	15
Jackson Barracks, La.	12	97	12
Jefferson Barracks, Mo.	3	*1, 950	68
Fort Keogh, Mont.	5	464	23
Fort Leavenworth, Kans.	6	580	33
Fort Leavenworth Military Prison, Kans.	2	107	2
Fort Lewis, Colo.	11	99	11
Fort Logan, Colo.	7	310	23
Fort Lowell, Ariz.	3	153	5
Fort Mackinac, Mich.	3	102	3
Madison Barracks, N. Y.	3	315	9
Fort Marcy, N. Mex.	4	94	4
Fort Mason, Cal.	2	55	1
Fort McHenry, Md.	3	125	4
Fort McIntosh, Tex.	9	151	13
Fort McKinney, Wyo.	4	216	8
Fort McPherson, Ga.	10	245	23
Fort Meade, S. Dak.	5	420	23
Fort Missoula, Mont.	1	196	2
Fort Monroe, Va.	4	342	15
Mt. Vernon Barracks, Ala.	8	121	10
Fort Myer, Va.	6	148	9
Newport Barracks, Ky.	5	62	3
Fort Niagara, N. Y.	6	125	8
Fort Niobrara, Nebr.	3	418	11
Oklahoma, Okh. Ter.	8	61	5
Fort Omaha, Nebr.	6	486	27
Fort Ontario, N. Y.	2	54	1
Fort Pembina, N. Dak.	8	55	4
Camp Pena Colorado, Tex.		59	
Camp Pilot Butte, Wyo.	10	60	6
Plattsburg Barracks, N. Y.	2	57	1
Camp Poplar River, Mont.	3	89	3
Fort Porter, N. Y.	11	99	11
Fort Preble, Me.	6	67	4
Presidio San Francisco, Cal.	8	499	42
Fort Randall, S. Dak.	13	53	7
Fort Reno, Okh. Ter.	7	421	30
Fort Riley, Kans.	6	685	39
Fort Ringgold, Tex.	13	116	15
Fort Robinson, Nebr.	4	461	20
San Antonio, Tex.	11	534	58
San Carlos, Ariz.	1	327	2
San Diego Barracks, Cal.		58	
Fort Schuyler, N. Y.	11	82	9

* This includes the total number stationed at the post during the year.

E.—List of garrisoned posts, with strength and number of desertions therefrom, during the fiscal year ending June 30 1891—Continued.

Post.	Percentage of desertions.	Average strength.	Desertions.
Fort Shaw, Mont	6	147	8
Camp Sheridan, Wyo	3	85	2
Fort Sheridan, Ill	5	167	9
Fort Sherman, Idaho	6	300	18
Fort Sidney, Nebr	7	213	14
Fort Sill, Okh. Ter	3	421	8
Fort Snelling, Minn	5	300	16
Fort Spokane, Wash	2	186	3
Fort Stanton, N. Mex	3	117	4
St. Francis Barracks, Fla	3	72	2
Fort Sully, S. Dak	11	173	19
Fort Supply, Ind. Ter	4	235	10
Fort Townsend, Wash	5	59	3
Fort Trumbull, Conn	8	62	5
Fort Union, N. Mex	3	144	5
Vancouver Barracks, Wash	5	413	20
Camp Wade, Okh. Ter	11	57	4
Fort Wadsworth, N. Y	11	136	15
Fort Walla-Walla, Wash	10	301	29
Fort Warren, Mass	4	91	4
Fort Washakie, Wyo	2	134	2
Washington Barracks, D. C.	7	308	21
Fort Wayne, Mich	5	247	14
West Point, N. Y	2	334	8
Whipple Barracks, Ariz	9	252	23
Willetts Point, N. Y	4	366	15
Fort Wingate, N. Mex	5	374	19
Fort Wood, N. Y. H	4	55	2
Fort Yates, N. Dak	8	262	22
Ordinance Department	2	421	8
Fort Thomas, Ky	10	115	12

REPORT OF MAJ. GEN. HOWARD.

HEADQUARTERS DEPARTMENT OF THE EAST,
Governors Island, N. Y., September 10, 1891.

SIR: I have the honor to submit, for the information of the Major-General Commanding the Army, the following annual report:

CHANGE OF DIVISION TO DEPARTMENT.

In compliance with General Orders, No. 57, Adjutant-General's Office, dated July 3, 1891, the States of Michigan and Indiana were transferred to the Department of the Missouri. This carried the Nineteenth Infantry entire to that department. In other respects the Department of the East has the same territory as had the late Division of the Atlantic. The division then (July 3) ceased to exist.

CHANGE OF STATION OF TROOPS.

The artillery has remained substantially the same throughout the department excepting that three batteries were added to Fort McPherson, Ga., on the arrival of the Fifth Infantry from the Department of Texas.

The headquarters and two companies of the Fifth Infantry went to St. Francis Barracks, Fla.; two companies to Mount Vernon Barracks, Ala., and two companies to Jackson Barracks, La. There is room enough for a third company at Jackson Barracks when it shall be relieved from duty in the Department of Texas.

Three troops of cavalry, one each from the First, Eighth, and Ninth Regiments, have replaced the former garrison at Fort Myer, Va. (For detailed account of movements of troops, see Assistant Adjutant-General's report.)

INSTRUCTION OF TROOPS.

The instruction of troops in their drill and other military duty, so far as we are permitted to go, is thoroughly satisfactory. The new artillery material, affording an opportunity for more extended practice, is supplied but slowly. As to the infantry, their new drill regulations are anxiously waited for, and much interest is felt in the selection of a new infantry small arm by the Board now having the matter under consideration. The new arm is expected to give at practicable ranges a better trajectory and as great rapidity of fire as the strength and reasonable simplicity of mechanism will allow.

The employment of soldiers at other than strictly military duty has, it is believed, already been reduced to a minimum.

Light Battery B, Fourth Artillery, Capt. H. C. Cushing commanding, made its practice march from Fort Adams, R. I., to Bennington, Vt., and was present at the centennial celebration held there the 19th of August; and Light Battery C, Third Artillery, Capt. J. M. Lancas-

ter commanding, made its march from Washington, D. C., to Winchester, Va., and back.

COAST DEFENSE.

The policy inaugurated by the Board of Fortifications in its report of 1885, and which has been generally in vogue since and is now being followed by the Government, has been to fortify (1) New York, (2) San Francisco, (3) Boston.

For these cities the Ordnance Department is now making the new guns and mortars needed, and the Engineer Department is at work upon the epaulements, magazines, and bomb-proof spaces. Many fixed torpedoes or submarine mines have already been constructed and stored ready for use.

The next recommendation of the Board was for (4) the lake posts, but the expense and the defenseless state of our neighbor, the Dominion of Canada, has caused the indefinite postponement of this project.

Our coast defense towards the high seas being more needed and in a state much further advanced, it would be absurd to fortify where war is least likely to occur.

The point next recommended by the Board in 1885 was (5) *Hampton Roads* with (8) *Washington* to follow after two other cities. Later, however, the defense of Hampton Roads has been combined with that of Washington, so that by 1893 some of the new guns, it is hoped, will be ready for mounting, and the epaulements for them constructed both at Hampton Roads and on the Potomac below Washington.

The original recommendation of the Board then continued, (6) New Orleans, (7) Philadelphia, (9) Baltimore, (10) Portland, Me., (11) Rhode Island ports in Narragansett Bay.

To render New Orleans secure from attack by reason of its surrounding lakes, long reach of river from the jetties, and lack of firm ground upon which to build fortifications, the problem is peculiar. Light-draft coast-defense gunboats, torpedo boats, and submarine mines, protected by the boats as well as by the guns on shore where possible, seem to furnish the direction in which its defense should be undertaken.

Philadelphia, Baltimore, Portland, and Rhode Island ports will doubtless be reached in due time if Congress continues its yearly appropriations.

I wish, however, in this report to ask attention particularly to the use of *fortified points* as the bases of a proper defense of our national interests in neighboring seas as well as simply a guard to the cities behind them. And I think the point of plan and work has been reached where this should be considered, our chief cities and the capital being in the way of a proper provision.

Since the commencement of the construction of our new navy Great Britain, for the purpose of preserving her influence in American waters, has strengthened her fleet on our side of the Atlantic by the substitution of vessels of greater power as each change of ships on this station is made.

She has now four harbors, Halifax, Bermuda, Kingston, and St. Lucia, well fortified or being strengthened, well garrisoned, and being interconnected by telegraphic cable. These are so situated along our Atlantic seaboard as to give convenient coaling stations for fleets operating in the north Atlantic and particularly in the West India waters. In case of war these fortified places would give bases from which to operate against the United States.

Besides our own self-protection we have duties to humanity to perform in seeing that civilized government is maintained in certain West Indian islands; or, if not, it is our duty to stand aside, give up the principles of the Monroe doctrine, and permit European powers to do what is necessary. No American desires the latter. We also have the investments of our people in countries with unstable governments to guard from injury. To do this we should be as strong in the neighboring seas as any other power; even as well prepared as England.

To be thus strong in a military way we need not only the ships and foreign coaling stations but fortified harbors at convenient intervals along our entire coast.

In the northern part of my department there has been provided, to be completed according to annual appropriations, such fortified points, viz, Boston, New York, and Hampton Roads.

The next point to receive attention, recommended by the Board of Fortification, is, as we have said, New Orleans, where at Algiers, on the opposite side of the river, there is to be established a dry dock and naval repair station. New Orleans, properly fortified, gives us one strong point on the Gulf of Mexico.

At least one more such fortified port will eventually be necessary on the Gulf, and probably two, say Galveston and Tampa Bay. The building of the dry dock elsewhere will eventually diminish the military importance of Pensacola. These secondary places, however, can wait until more important points are made secure.

But on the Atlantic, south of Hampton Roads, we are now actually defenseless. There are too many cities on this part of the coast to expect to fortify them all; but as far south as possible we should fortify a good harbor, the deepest we can find, to be a refuge for commerce endangered, and to constitute a naval coaling and repair station.

Key West is too isolated, and the communication with it will always be too precarious to make it anything but a secondary outlying point. There is no harbor of any depth on the East Florida coast. The St. Johns River, which is the best, is not likely to be dredged and maintained at sufficient depth to be suitable.

Therefore I recommend the complete defense of the combined harbors of Tybee Roads (Savannah) and Port Royal Sound (Broad River) by works on Tybee, Hilton Head, Parry, and St. Helena islands, with fixed torpedoes, light-draft gunboats, and torpedo boats as accessories.

This would at once protect the most prosperous city in our eastern quarter and render safe the best harbor south of Hampton Roads, and furnish the naval base desired. The Naval Department has already begun the construction of a dry dock opposite Port Royal on Parry Island.

Having this object in view, I recommend that the necessary land be obtained; and, further, that steel guns be mounted as soon as practicable, in order that the artillery forces stationed in the South may have a practice ground better than that furnished by the obsolete material at Barrancas.

As soon as this harbor begins to be properly fortified the artillery regiment stationed in the South can be gradually transferred to permanent quarters on Parry Island, and Fort McPherson be partially garrisoned by infantry, and so held for refuge for all troops on the Gulf of the South Atlantic coast in time of epidemics.

With the present limited number of artillery troops I believe the manning of the defenses of New Orleans, Port Royal, and Tybee Roads to be all that the Army can properly provide in the South.

CONSTRUCTION AT POSTS.

Preparations have been made for carrying on the work of construction at Plattsburg Barracks for eight companies. At Fort Niagara the new hospital is completed, and the barracks are in process of erection, so that when completed this post will accommodate four companies. At Forts Warren, Columbus, and Wood additional officers' quarters have been provided. At Fort Myer, Va., barracks and quarters have been finished for a third troop of cavalry. At Fort Thomas, Ky., additional accommodations for two companies are nearly ready. At Fort McPherson the barrack room has been increased to accommodate eight batteries, and the corresponding officers' quarters are approaching completion.

The immediate needs are barrack constructions at all garrisoned posts where troops are in casemates, to secure their removal from these unhealthy quarters as soon as practicable; and also the construction at St. Augustine, Fla., of a four-company post, including a regimental headquarters.

INDIAN PRISONERS AT MOUNT VERNON BARRACKS.

During the year embraced in my last annual report Lieut. Wotherpoon had been given immediate charge of the Apache Indian prisoners. The checking of the excessive death rate, then reported, has been permanent; a new village has been constructed, a complete Indian hospital equipped, and some ground prepared for cultivation. Savings have also been made in the amount of clothing and fuel issued to them, by reason of much being purchased from their earnings or obtained by their own labor. They are now a contented community.

The problem, however, has taken a somewhat different form from that anticipated. Forty-six of the best men have been allowed to enlist in Company I, Twelfth Infantry. They, with 31 other Indians and 4 white sergeants, have formed a company of 81 enlisted strength. They learned their drill without arms in about the same time it takes other recruits. Since arms have been put in their hands they participate with the other troops in post ceremonies. They have been drilled entirely without the use of an interpreter, and the promise is that they will make good soldiers.

This withdraws the best material from among the prisoners, so that the others will probably not as readily get work away from Mount Vernon as those did who have now become soldiers. Still, it is hoped a little progress will be made each year in getting individuals places where they can earn a livelihood.

RESULT OF LEGISLATION AND CHANGES OF REGULATIONS, WHICH HAVE BEEN IN EFFECT ABOUT ONE YEAR.

Lineal promotion of second lieutenants in arm of service gives to them certainty and fairness of promotion. I recommend that the first lieutenants be not excepted from the same system of promotion, for their promotion regimentally is producing greater and greater irregularity. While some are promoted to be captains within fifteen years' service, others in the same arm are twenty-five years or more in reaching the same grade.

Examinations for promotion have induced among officers an increased feeling of personal responsibility for professional efficiency. Unless,

however, the records of officers, showing how they have performed the duties of the positions already held, are referred to and considered by the board, the good effects of examinations will not be lasting. An officer who may have been neglectful and careless, if he is intelligent, can now, as the time of his promotion approaches, change his habits, study up the subjects of examination, and make a good showing. Therefore the past record laid before the board will be a wholesome check.

I recommend that the several examinations for promotion, first, from second lieutenant to first lieutenant; next, first lieutenant to captain, and then captain to major, be, for obvious reasons, made to differ distinctly.

The duties of the grade in which the officer—a captain, for example—has long been serving, naturally fixes in his mind, by constant contact, certain facts which to a second lieutenant can only be known by a study of the files of orders to which oftentimes he has not had previous recourse. To remedy this, in view of the requirements of the examinations, let every commissioned officer be furnished with a file of General Orders.

The work of an examining board might be more systematized. Officers to be examined being taken in lots of the same grade, anticipating, if necessary, the advancement sufficiently to order at least four to six before the board for the same examination at one time; thus affording, if desired, an opportunity for comparison. The board could examine second lieutenants, first lieutenants, and captains at the same time, each grade with its own questions, and finish as soon as now with a single man.

Any question of character involving fitness for promotion on that account should be sent to the board by the convening authority and evidence furnished. The members of the examining board ought not to be expected to let personal knowledge of a candidate influence them, or to act as a detective body, or as a court of inquiry, unless the officer's record be furnished.

The omission of tattoo roll call has worked well. Heretofore the requirement that soldiers be present at their quarters at about 9 o'clock in the evening had the effect of depriving them of associating with their friends during the part of the evening given to social enjoyment by respectable people, except when they could get passes. The result was that they were accustomed to get passes for all night, and remained away for that period more frequently or went out of the barracks after taps, when only the lower places of amusement were open. Now, however, the soldier reasonably and properly has his evening, as a general rule, to himself.

The summary court has proved beneficial. Though there have been more offenses tried by it during this year than last by garrison courts, probably more discipline, especially in small things, has been enforced by it and less by the company commander cutting off privileges. No complaint has reached me from enlisted men in reference to the summary court.

In the interest of the service, and to prevent unnecessarily applying to the War Department, post commanders or department commanders should, in my judgment, be authorized to release from confinement or otherwise mitigate sentences by summary courts if a prisoner's behavior should warrant it.

A table of punishments to be used by courts martial is useful, and the table established gives satisfaction. I think deserters usually should be sentenced to longer periods of confinement than are allowed

in the table, the period to be reduced only upon recommendation of the officer in charge of the military prison or other place of confinement.

Regulations for post guard-house discipline could well be formulated under which prisoners would have some incentive to do better work, so that, instead of being relieved as now to a certain extent from the regularity of company life, the conforming to which always requires the soldier's personal attention, and also, instead of missing the marches in cadence and rigid drill, he would find these things accentuated as part of the guard-house routine. I recommend that all prisoners, wherever confined, sentenced to dishonorable discharge, be uniformed as those at Leavenworth Military Prison, or in other colors than the Army blue.

Discharges by order under General Orders, Nos. 80 and 81, of 1890, have had a most gratifying effect on the feelings of the enlisted men towards the service. In my department there have been 143 discharges of men upon the completion of three years' service among an average of about 4,000 enlisted men in this department during the year in which the law has been in operation. There have been 70 discharges for purchase, and 43 discharges by way of favor after ten years' service. These regulations under recent legislation have to a great extent supplied the needs urged by me in my previous reports.

In my judgment, the subject for legislation now needing speedy attention is the increase of pay of noncommissioned officers of the line to that of equal grades in the staff corps. Surely high-priced men are as essential to superintend in battle in the dispersed order which throws so much responsibility upon the noncommissioned officers as for sergeants in the supply departments. The new seacoast rifles are important pieces of machinery, which require for their effectiveness noncommissioned officers of much intelligence. These men can best be obtained by offering adequate wages. The enlisted men fit for sergeants can now get better pay by the extra-duty system.

DESERTIONS.

The privilege of discharge, the increase to \$60 of the reward for apprehending a deserter, the cards of identification, and the increase of the soldier's daily ration by 1 pound of vegetables, have materially reduced the number of desertions.

The main causes of desertion, ascertained by careful examination at each post, are of a nature to be remedied only by bringing better men than such deserters into the service. The most of them deserted because they were too drunken or too vile to remain with the present enlisted men. A few, of course, yielded to some family claim or hardship which can never be foreseen or remedied.

CANTEENS.

Canteens have been an improvement on post trader's stores, and useful except where the canteen saloon has been placed too near the men's quarters. In this case, the constant presence of beer appears to have tempted otherwise very good noncommissioned officers and men to an excessive indulgence; not to intoxication, perhaps, but to loss of activity and vigor in the discharge of their duties.

The beneficial effect of the canteen at small posts is doubtful. From consultation with officers in charge of these canteens, I am of the impression that the evil that the sale of beer engenders in making it creditable for recruits to drink, more than counterbalances the re-

straining effect it exercises on the habitual drinkers and confirmed drunkards.

The benefits, however, of the canteen system to large garrisons are numerous. It can be made an excellent market and purchasing agent of perishable and dainty articles for sale and distribution to officers and men which can not be supplied by the commissary.

I decidedly recommend that no soldier, either private or noncommissioned officer, be placed behind the bar to deal out drinks to his comrades. It certainly is demoralizing to have a military subject acting as a barkeeper. It is better in my judgment that the sale be discontinued where it is necessary to so use enlisted men. Of course it is well known that the canteen does not necessarily supply intoxicating drinks.

SKELETON COMPANIES.

The transfer of enlisted men from two companies of each regiment seems to have worked well in infantry and cavalry, giving needed officers for special duties without crippling the organizations to which they belong.

The artillery would be better organized if the recommendation of last year of the Major-General commanding the Army could be carried out, that the five artillery regiments be organized into seven with one first lieutenant to each battery, instead of two as at present.

I again recommend that infantry regiments be organized by law into regiments of three battalions of four companies each, instead of consisting of one battalion of ten companies as at present, an organization no longer capable of being used in that form in battle by reason of the tactical conditions necessary to meet modern arms.

EXTRA MEN FOR RECRUITING RENDEZVOUS.

I renew my recommendation of last year that the number of enlisted men allowed for the Army, including recruits, be raised to 35,000. This is requisite to supply the 25,000 effectives contemplated by our military laws. This is so because the vacancies can not at present be filled until after they occur; then a man is for a long time a recruit undergoing instruction, and there are a number of old men allowed to re-enlist when too old for effective work, that they may complete the thirty years necessary for retirement. These causes, with discharges for various reasons, including desertions, keep our organizations always far below the maximum.

INSPECTIONS.

Too much work has been given the department inspector which does not belong to the inspection of troops and posts of the department—too much to allow the department commander to make proper use of his services in the administration of the department command. In fact, the tendency seems to be to make him the representative of the inspector-general's division of the War Department at each headquarters, only incidentally informing the department commander of matters needing remedy in his command.

I would prefer to have the department inspector more entirely my staff officer to aid me in keeping my department in order; but if the Department of the East, as a whole, is to be inspected by him for the information of the inspector-general, together with the various ar-

senals, public works, accounts, and schools within its limits, some new arrangement is plainly demanded.

Notwithstanding the outside calls, Col. Hughes, by extraordinary diligence, has himself thoroughly inspected all the garrisons and made his reports. The aid sought to be rendered by a special detail of Capt. Fessenden was made almost nugatory by the senior Inspector-general at Washington. His schedule of work and instructions so restricted me in my use of Capt. Fessenden as an inspector, that little or no duty could be found for him.

ARTILLERY PRACTICE.

The artillery troops are now engaged in the annual target practice. They evince the greatest interest, and officers and men are doing good work. The inspector of artillery reports the mammoth powder, which has been in store since 1864, to be utterly worthless in obtaining uniform results. I recommend that this powder be used only for salutes.

ORDNANCE.

In the supply of ordnance and ordnance stores, for which requisitions are made, I recommend that notice of action taken upon them by the Ordnance Department be sent by it through these headquarters, so that the acting ordnance officer of this department may have the information needed in considering subsequent questions requiring my approval. As it is now it is impossible to determine what stores are on hand and what are in transit.

SMALL ARMS PRACTICE.

The interest in rifle practice has not abated. By the exclusion of artillery and the loss of an infantry regiment by the diminution of the department, the annual rifle competition has been reduced somewhat in size. Since the artillery is still armed with the infantry rifle, and, therefore, interest in its use must be encouraged, I think it might safely be made permissive for representatives from batteries to be sent to the annual competition, when it does not interfere with heavy gun practice.

It is expected that by another year the department will be furnished with all the ranges for small arms which are necessary.

POST SCHOOLS.

A year ago I said: "The post school system has not yet obtained a proper status, though a distinct advance has been made." On examining the adjutant-general's report for the department, forwarded herewith, I see no reason to change the above expression. At many posts there is a fair percentage of attendance; at other posts so small a proportion of the garrison attends that I doubt whether or not the progress and interest desired have been reached. It is possible that those who do not attend are by previous education already sufficiently instructed, and that, as is known in some cases, the smaller numbers have been brought up to the standard required. There has been a better supply of books and school furniture than heretofore, but still it is difficult to secure by detail competent and willing teachers.

I call attention to the more elaborate * reports of the several members of the permanent staff :

- (1) The Adjutant General's, Col. George D. Ruggles, A. A. G.
- (2) The Inspector General's, Col. R. P. Hughes, I. G.
- (3) The Judge Advocate's, Lieut. Col. Thomas F. Barr, D. J. A. G.
- (4) The Chief Quartermaster's, Col. Charles H. Tompkins, A. Q. M. G.
- (5) The Chief Commissary of Subsistence, Lieut. Col. M. P. Small, A. C. G. of Sub.
- (6) The Medical Director, Col. Charles Page, A. S. G.
- (7) The Chief Paymaster, Col. Rodney Smith, A. P. M. G.
- (8) The Inspector of Artillery, Maj. W. F. Randolph, 3d Artillery.
- (9) The Inspector of Small Arms Practice, Capt. H. P. Kingsbury, 6th Cavalry.

To these officers and to the aides on my personal staff, Lieuts. Guy Howard and Charles G. Treat, I am indebted for diligent and effective work in conducting the affairs of the Division and Department.

OLIVER O. HOWARD,

Major-General, U. S. Army, Commanding.

The ADJUTANT-GENERAL U. S. ARMY,

Washington, D. C.

Memorandum showing, in detail, the causes of the several desertions reported on the accompanying consolidated report as obtained from the subreports of post commanders.

No cause for desertion known	158
Was in debt.....	28
Escaped while under charges and in confinement.....	12
Was dissatisfied with the service.....	13
Complained of overwork.....	2
Supposed to have been homesick.....	5
Had been in the hands of civil authorities when deserted	2
Complained of insufficiency of food.....	2
Had previously deserted.....	12
Deserted on account of a woman	7
Deserted for fear of punishment for wrongdoing	8
Desertion due to his marriage in the Army	1
Had bad habits and was shunned by his comrades.....	3
Was disliked by most all of his comrades.....	2
Had requested his discharge, but was refused.....	2
Complained of insufficient pay	2
Enlisted fraudulently and deserted for fear of consequences.....	1
Was a thief	5
Supposed to have been demented when deserted	1
Was a drunkard	2
Enlisted for temporary support	3
Was dissatisfied in not getting transferred.....	1
Deserted with a prisoner while on guard over him	2
Supposed to have met with foul play.....	1
Had the money to purchase his discharge, but spent it	1
Expected to be ordered against the Sioux and did not like to go.....	1
Feared ridicule of his comrades on account of his bodily ailment.....	1
Complained of too much school duty	1
Believed to have been a military convict	1
Total.....	280

* Omitted.

REPORT OF MAJOR GENERAL MILES.

HEADQUARTERS DEPARTMENT OF THE MISSOURI,
Chicago, Ill., September 14, 1891.

SIR: I have the honor to submit the following annual report of military events and recommendations.

On the 1st day of September, 1890, in accordance with the provisions of General Orders, No. 84, Headquarters of the Army, 1890, conveying the President's orders, I relinquished command of the Division of the Pacific to assume the command of the Division of the Missouri, with headquarters at Chicago, Ill., which was done on the 15th day of September, 1890. The division, by the changes incident to the general order above mentioned, was limited to the Departments of the Platte and Dakota. This was again changed by executive order, contained in General Orders, No. 57, dated Headquarters of the Army, July 3, 1891, abolishing the divisions and assigning me to the command of the Department of the Missouri, which embraces the States of Michigan, Wisconsin, Indiana, Illinois, Missouri, Kansas, and Arkansas, and Oklahoma, and the Indian Territories, with headquarters at Chicago, Ill.

The military events and changes have been so important and unusual since assuming command of the Division of the Missouri that a review of them is herewith submitted. Before arriving in the division I was apprised of the communications going on between the different tribes of Indians in the Western States and Territories, embracing those tribes as far south as the Indian Territory, and west as far as western Nevada, and was also made aware of the threatening condition of affairs then existing.

CONDITION OF THE CHEYENNE INDIANS IN MONTANA.

While en route to the division headquarters at Chicago I received information at Fort Keogh, Mont., from Cheyenne Indians I had known for many years, of the distressed condition they were in, particularly the tribe of Northern Cheyennes; their suffering for want of food, their being compelled to kill cattle belonging to the white people to sustain life, and the disaffection then existing, as well as the alarm prevailing among the citizens of that State.

To relieve their immediate wants I sent a telegram to the Adjutant-General at Washington stating that the principal trouble with the Cheyenne Indians, whose reservation was south of Fort Keogh, was the result of the Government's failure to provide sufficient food and the means to render them self-supporting; saying when I left there, ten years previous, they had a herd of cattle and were at the time largely self-supporting; that they had been obliged to kill their cattle for food; that they had been on the verge of starvation and were at that time very little better; that when without food, or the means of providing for it, they had been obliged to kill cattle belonging to white men; that there was not the least difficulty in controlling them, but ample means should be appropriated at once to supply them with food and the means to render them self-supporting. At the same time I recommended that funds should also be appropriated to reimburse the white citizens who had been obliged to supply them with food. This

telegram resulted in their being granted an additional appropriation of twenty-five thousand dollars, and reasonable appropriations for their necessities.

CAUSE OF INDIAN DISAFFECTION.

The causes that led to the serious disturbance of the peace in the Northwest last autumn and winter were so remarkable that an explanation of them is necessary in order to comprehend the seriousness of the situation. The Indians assuming the most threatening attitude of hostility were the Cheyennes and Sioux. Their condition may be stated as follows: For several years following their subjugation in 1877, 1878, and 1879 the most dangerous element of the Cheyennes and the Sioux were under military control. Many of them were disarmed and dismounted; their war ponies were sold and the proceeds returned to them in domestic stock, farming utensils, wagons, etc. Many of the Cheyennes, under the charge of military officers, were located on land in accordance with the laws of Congress, but after they were turned over to civil agents, and the vast herds of buffalo and large game had been destroyed, their supplies were insufficient and they were forced to kill cattle belonging to white people to sustain life.

INSUFFICIENT FOOD.

The fact that they had not received sufficient food is admitted by the agents and the officers of the Government who have had opportunities of knowing. The majority of the Sioux were under the charge of civil agents, frequently changed and often inexperienced. Many of the tribes became rearmed and remounted. They claimed that the Government had not fulfilled its treaties and had failed to make large enough appropriations for their support; that they had suffered for want of food, and the evidence of this is beyond question and sufficient to satisfy any unprejudiced, intelligent mind. The statements of officers, inspectors, both of the military and the Interior Departments, of agents, of missionaries, and civilians familiar with their condition, leave no room for reasonable doubt that this was one of the principal causes. While statements may be made as to the amount of money that has been expended by the Government to feed the different tribes, the manner of distributing those appropriations will furnish one reason for the deficit.

FAILURE OF CROPS.

The unfortunate failure of the crops in the plains country during the years of 1889 and 1890 added to the distress and suffering of the Indians, and it was possible for them to raise but very little from the ground for self-support; in fact, white settlers have been most unfortunate, and their losses have been serious and universal throughout a large section of that country. They have struggled on from year to year; occasionally they would raise good crops, which they were compelled to sell at low prices, while in the season of drought their labor was almost entirely lost. So serious have been their misfortunes that thousands have left that country within the last few years, passing over the mountains to the Pacific slope or returning to the east of the Missouri and the Mississippi.

The Indians, however, could not migrate from one part of the United States to another; neither could they obtain employment as readily as white people, either upon or beyond the Indian reservations. They

must remain in comparative idleness and accept the results of the drought—an insufficient supply of food. This created a feeling of discontent even among the loyal and well-disposed and added to the feeling of hostility of the element opposed to every process of civilization.

DISAFFECTION AT STANDING ROCK AGENCY.

Reports forwarded by Brig. Gen. Ruger, commanding Department of Dakota, contain the following:

The commanding officer at Fort Yates, N. Dak., under date of December 7, 1890, at the time the Messiah delusion was approaching a climax says, in reference to the disaffection of the Sioux Indians at Standing Rock Agency, that it is due to the following causes:

(1) Failure of the Government to establish an equitable southern boundary for the Standing Rock Agency Reservation.

(2) Failure of the Government to expend a just proportion of the money received from the Chicago, Milwaukee and St. Paul Railroad Company for right of way privileges, for the benefit of the Indians of said agency. (Official notice was received October 18, 1881, by the Indian Agent at the Standing Rock Agency, that the said railroad company had paid the Government, under its agreement with the Sioux Indians, for right of way privileges, the sum of \$13,911. What additional payments, if any, have been made, by the said railroad company, and what payments have been made by the Dakota Central Railroad Company, the records of the agency do not show. In 1883, and again in 1885, the agent, upon complaints made by the Indians, wrote the Commissioner of Indian Affairs, making certain recommendations as regards the expenditure of the money received from the said railroad company, but was in each instance informed that until Congress took action with respect to the funds referred to nothing could be done. No portion of the money had been expended up to that time (December, 1890) for the benefit of the Indians of the agency, and frequent complaints had been made to the agent by the Indians because they had received no benefits from their concessions to the said railroad companies).

(3) Failure of the Government to issue the certificates of title to allotments, as required by Article 6 of the treaty of 1868.

(4) Failure of the Government to provide the full allowance of seeds and agricultural implements to Indians engaged in farming, as required in Article 8, treaty of 1868.

(5) Failure of the Government to issue to such Indians the full number of cows and oxen provided in Article 10, treaty of 1868.

(6) Failure of the Government to provide comfortable dwelling houses for the Indians, as required in Article 6, treaty of 1876.

(7) Failure of the Government to issue to the Indians the full ration stipulated in Article 5, treaty of 1876. (For the fiscal year beginning July 1, 1890, the following shortage in the rations were found to exist: 485,275 pounds of beef [gross], 761,212 pounds of corn, 11,937 pounds of coffee, 281,712 pounds of flour, 26,234 pounds of sugar, and 39,852 pounds of beans. Although the obligations of the Government extend no further than furnishing so much of the ration prescribed in Article 5 as may be necessary for the support of the Indians, it would seem that, owing to the almost total failure of crops upon the Standing Rock Reservation for the past four years and the absence of game, the necessity for the issue of the full ration to the Indians here was never greater than at the present time, December, 1890.)

(8) Failure of the Government to issue to the Indians the full amount of annuity supplies to which they are entitled under the provisions of article 10, treaty of 1868.

(9) Failure of the Government to have the clothing and other annuity supplies ready for issue on the first day of August of each year. Such supplies have not been ready for issue to the Indians, as a rule, until the winter season is well advanced. (After careful examination at this agency, the commanding officer is convinced that not more than two-thirds of the supplies, provided in Article 10 have been issued there, and the Government has never complied with that provision of Article 10 which requires the supplies enumerated in paragraphs 2, 3, and 4 of said article to be delivered on or before the first day of August of each year. Such supplies for the present fiscal year, beginning July 1, 1890, had not yet reached (December, 1890) the nearest railway station, about 60 miles distant, from which point they must, at this season of the year, be freighted to this agency in wagons. It is now certain that the winter will be well advanced before the Indians at this agency receive their annual allowance of clothing and other annuity supplies.)

(10) Failure of the Government to appropriate money for the payment of the Indians for the ponies taken from them, by the authority of the Government, in 1876.

In conclusion, the commanding officer says :

It, however, appears from the foregoing that the Government has failed to fulfill its obligations, and in order to render the Indians law-abiding, peaceful, contented, and prosperous it is strongly recommended that the treaties be promptly and fully carried out, and that the promises made by the Commission in 1889 be faithfully kept."

DISAFFECTION AT PINE RIDGE AGENCY.

Under date of November 30, 1890, Gen. John R. Brooke, commanding Department of the Platte, after having investigated the cause of disaffection among the Indians, says of those at the Pine Ridge Agency that—

The act of Congress approved February 28, 1877, provides for a ration whose proportion of different articles of food are fixed for these Indians, and the act directs that such ration shall be continued to them, or so much of said ration as may be necessary, until the Indians are able to support themselves. In 1888 the annual beef issue authorized by the Commissioner of Indian Affairs was 5,000,000 pounds. In 1889 the issue was 4,000,000 pounds. There was no decrease in the number of Indians in that one year to account for this reduction of 1,000,000 pounds of beef. The attention of the Sioux Commission was called to this fact by the agent here, and they promised him to reestablish the amount of 5,000,000 pounds. On the strength of this promise the agent issued on the basis of 5,000,000 pounds. The promise was not redeemed, and the inevitable deficiency resulted.

In a letter of April 12, 1890, of Mr. Gallagher, agent here, to the Commissioner of Indian Affairs, he states that the monthly issue of beef at that time is 205,000 pounds, whereas by the treaty the ration would be 470,400 pounds, a deficiency per month of 265,400 pounds in that called for by the treaty, or a reduction of more than one-half the proper treaty allowance. The following is an extract from the reply to this letter, which is dated April 21, 1890: "It is better to issue half rations all the time than to give them three-fourths or full rations during two months and none for the balance of the year." The Commissioner further states in the same letter that the Interior Department is able to furnish such articles as shoes, shawls, blankets, ticking, gingham, etc., as an equivalent, in lieu of subsistence, or in lieu of parts of the ration as fixed by the treaty referred to. The act of Congress fixing the rations says, "and for every 100 rations 4 pounds of coffee, 8 pounds sugar, and 3 pounds of beans, or in lieu of said articles, the equivalent thereof, in the discretion of the Commissioner of Indian Affairs, such rations, or so much thereof as may be necessary, shall be continued." It is thought that when the Commissioner interprets the words (when the ration only is spoken of) 'or in lieu of said articles the equivalent thereof, to mean shoes, shawls, blankets, etc., that the Commissioner is in error, and that the

resultant reduction in food is in violation of the act of Congress. The enormous reduction in the beef issue at this agency, which is the principal supply of food, is shown by the following figures:

In the year 1886 the annual authorized issue was 8,125,000 pounds; in 1889 it was 4,000,000 pounds, a reduction of 4,125,000 in three years, or an average annual reduction of 1,378,333 pounds; or in other words, in that space of time, the beef issue has been reduced largely over one-half, and it is known that there has been no such corresponding reduction in the number of Indians, or advancement in their ability to support themselves, as the land in the vicinity of this agency and adjacent to it is not sufficiently good for agricultural purposes, except by irrigation. I do not consider, however, that these reductions in subsistence are sufficient grounds for the attitude recently assumed by large numbers of these Indians. A part of them who are subject to the same conditions in this respect are not in anywise disaffected, though they deplore the inadequacy of the food supply. The disaffected are those who are under the influence of Kicking Bear and his supporters. The ghost dance appears to be a means to an end, viz, to draw under the influence of Kicking Bear and his lieutenants such of the young men as can be won over by means of the excitement of this dance.

In regard to complaints of broken promises, Gen. Brooke invites attention to the following statement of American Horse, speaking for himself and voicing the sentiment of four other chiefs present, as embodied in a letter of Indian Agent Royer to the Acting Commissioner of Indian Affairs, dated November 17, 1890, in which the Indian says:

I was speaker for the whole tribe. In a general council I signed the bill (the late Sioux bill) and 580 signed with me, the other members of my band drew out, and ever since these two parties have been divided. The nonprogressive started the ghost dance to draw from us. We were made many promises, but have never heard of them since. The Great Father says if we do what he directs it will be to our benefit, but instead of this they are every year cutting down our rations and we do not get enough to keep us from suffering. * * * After we signed the bill they took our land and cut down our allowances of food. The commissioners made us believe that we would get full sacks if we signed the bill, but instead of that our sacks are empty. Our chickens were all stolen; our cattle, some of them were killed. Our crops were entirely lost by being here with the Sioux Commission, and we have never been benefited one bit by the bill, and, in fact, we are worse off than we were before we signed the bill.

We are told if we do as white men we will be better off, but we are getting worse off every year. The commissioners promised the Indians living on Black Pipe and Pass creeks, that if they signed the bill they could remain where they were and draw their rations at this agency, showing them on the map the line, and our people want them here, but they have been ordered to move back to Rosebud Agency. This is one of the broken promises. The Commission promised to survey the boundary line and appropriate funds for the purpose, but it has not been done. When we were at Washington, the President, the Secretary of the Interior, and the Commissioner, all promised us that we would get the million pounds of beef taken from us, and I heard the bill appropriating the money passed Congress but we never got the beef. The Commissioner refused to give it to us. American Horse, Fast Thunder, and Spotted Horse, were all promised a spring wagon each, but they have never heard anything of it; this is another broken promise.

In reference to the above remarks by American Horse, Gen. Brooke says: "If these promises were made, and I have no reason to doubt it, there are reasonable grounds for complaint," and—

It is a notable feature that in the division of these Indians into well-disposed and disaffected, the former are those called "progressive" and favored the Sioux bill, and the latter are "nonprogressive" and were the opponents of the bill. It is impracticable to reduce the complaints of the Indians to details at this time. The records of the Indian Bureau, I believe, from what I hear at this agency, must contain all this matter; more frequent issues, however, should be made, as too long a time elapses from issue to issue, and an Indian does not, or will not, understand the necessity for care in the use of his food; he always eats up his two weeks' supply in ten days or less, and, as a consequence, goes hungry the rest of the time, and it should be noted that by irrigation it is always possible to raise a crop in this section, whereas without irrigation it is almost an impossibility.

In addition to disarming the Indians, I would recommend that the broken or deferred promises be made good, that the food of those living in regions where the white man's crops have failed, with its consequent impoverishment, be increased,

that this may in time render the Indians "law abiding and peaceable" and ultimately, I hope, "contented and prosperous." These general remarks apply equally to the Indians of the Rosebud Agency. It must be borne in mind that the Interior Department in making its issue of beef makes no allowance for loss in weight, an animal weighing 1,000 pounds at date of purchase, is issued at that weight, regardless of the actual weight, no estimated or actual loss is considered. During the winter months there is a large shrinkage in the amount of meat which comes from the edible part of the animal.

DISAFFECTION AT ROSEBUD AGENCY.

The officer, in compliance with instructions to report upon the status of the Indians at the Rosebud Agency, November 27, 1890, stated that—

Under treaty the United States Government agree to supply the Rosebud Indians with 3 pounds of fresh beef per day (gross weight) for each person. These cattle are usually delivered at the agency in the month of October, the season of the year when cattle are in the best condition. A calculation is then made, averaging the cattle for the year's issue. The loss in weight in these cattle from October to February is about 35 per cent, or a beef weighing 1,000 pounds in October will weigh but 700 gross in February, and dress, possibly, 300 pounds. Two issues are made during the month of one beef to every thirty people, or about 10 ounces per man per day.

In October last 3,499,810 pounds of beef were delivered at the agency with instruction that this supply must be made to last until June 30, 1891, whereas the actual quantity these Indians are entitled to for this period is 4,384,926 pounds. I have also learned there has been quite a heavy reduction in the allowance of sugar and coffee for the year. Up to the time of the taking of the census, 2,700 rations in excess of the actual number of Indians was delivered at the agency for issue, so it is presumed they were well fed up to that time. The total number of Indians belonging to the agency is 5,354. Two Strike, Crow Dog, White Horse, Short Bull, and Lance are the leaders of these Indians. They have always been more or less troublesome and in my opinion should be arrested and sent to some military post.

The officer further said :

I have obtained information from a reliable source that the Indians at Rosebud do not now, nor never have received the full treaty ration. The ration of beef issued early in the fall, just after the delivery of cattle, comes nearer the full ration than at any other season of the year. The average ration of beef for the year will not exceed 8 ounces per capita.

Another officer reports, under date of November 29, 1890, that the beef ration was cut down ten years ago, that it was again reduced last year, and the allowance has been reduced for the period from October 1, 1890, to June 30, 1891, 900,000 pounds. He further says that Hollow-horn-bear (a prominent Indian) has stated it as his belief that the ghost dance, which is popular because it is a *feast* to which the hungry and starving Indians are attracted, and where they are fed, would cease if the people received sufficient rations to live upon. The Indian mentioned asserts, from experience under civil and military administrations at Indian agencies, that if an army officer was appointed agent at Rosebud and Pine Ridge agencies and supplied with the treaty allowances of food and goods, the trouble would end in a few days. The last Commission promised to see that these Indians were supplied with cows, that they themselves might go into the cattle business, but none have been furnished. Their crops have failed utterly; few receive any money with which to supply the deficiency in food; the cattle are poor and short in weight; the issue by weight is in some cases impracticable, for the camps are more or less remote; but an ingenious mind ought to devise a system by which, even in these cases, a sufficient allowance of beef could be secured in the winter months.

I believe in the canteen or coöperative system, and know of no reason why the Interior Department should not establish stores, supplies, etc., to be sold to the Indians at reasonable prices on an improved army commissary system. We know how even intelligent men allowed themselves to be imposed upon by post traders, and I know

of cases where the imposition of Indian traders upon starving Indians was impossible of definition; i. e., where a trader charged and received one dollar in good and lawful money for one dozen "hard tack" crackers. I find that cord wood here is bought from Indians at six dollars a cord, one by one as it happens to come in, but the Indian is paid on an order out of the trader's store—at trader's prices.

DISAFFECTION AT CHEYENNE RIVER AGENCY.

The commanding officer at Fort Bennet, S. Dak., reports two classes of Indians, one of which is opposed to everything civilized, giving vent to their grievances at every meeting of the Indians on ration day; the other class, comprising a large majority of the Indians of the reservation, have accepted the situation forced upon them, and have been for years bravely struggling in the effort to reconcile themselves to the ways of civilization and moral progress, with a gratifying degree of success. It is this class whose complaints and grievances demand considerate attention. They claim, in true Indian style, that they only have kept faith in all treaties made with them, and that somehow the treaties when they appeared in print were not in many respects the treaties which they signed.

They complain principally: (1) That the boundaries of the reservation in treaty of 1877 are not what they agreed to and thought they were signing on the paper, and they specially emphasize the point that the line of the western boundary should be a straight line at the Black Hills, instead of as it appears on the maps; (2) that they have never received full recompense for the ponies taken from them in 1876; (3) that the game has been destroyed and driven out of the country by the white people; (4) that their children are taken from them to Eastern schools and kept for years, *instead of being educated among them*; (5) that when these Eastern graduates return to them with civilized habits, education, and trades, there is no provision made on the reservation for their employment and improvement, to the benefit of themselves and their people; (6) that the agents and employes sent out to them have not all been "good men" and considerate of their (the Indians) interests and welfare; (7) that the issue of their annuity goods is delayed so late in the winter as to cause them much suffering; (8) that they are expected to plow the land and raise grain when the climate will not permit them to reap a crop. They think cattle should be issued to them for breeding purposes, instead of farming implements for useless labor; (9) that the rations issued to them are insufficient in quantity, and frequently (beef and flour) very poor in quality.

Complaints 2, 3, 4, 5, 7, 8, and 9 are well founded and are justified by the facts in each case, No. 9 specially so, and this through no fault or negligence of the agent. The agent makes his annual estimate for sustenance in kind for the number of people borne on his rolls, based on the stipulated ration in treaty of 1877. This estimate is modified or cut down in the Indian Commissioner's office to meet the requirements of a limited or reduced Congressional appropriation, and when it returns to the agent's hands *approved* he finds that he has just so many pounds of beef and flour, etc., placed to his credit for the year, without regard to whether they constitute the full number of treaty rations or not. There is no allowance given him for loss by shrinkage, wastage, or other unavoidable loss, and with the very best efforts and care in the distribution throughout the year of this usually reduced allowance, there can not be issued to each Indian his treaty ration, nor enough to properly sustain life.

As a general thing the Indians of this reservation have been com-

pelled to purchase food, according to their means, between ration issues; those having no means of purchase have suffered. The half pound of flour called for by the treaty ration could not be issued in full, and the half pound of corn required has never been issued, nor anything in lieu of it. In the item of beef but 1 pound was issued instead of the pound and a half called for in the treaty, and during the early spring months, when the cattle on the range are thin and poor, the pound of beef issued to the Indians is but a fraction of the pound issued to him on the agent's return, and under the system of purchase in practice the present fiscal year must necessarily be so. The agent's purchase of beef supply on the hoof for the year, under contract, is closed in the month of November, from which time he has to herd them the balance of the year as best he can. He is responsible for the weight they show on the scale when *fat and in prime condition*, so that a steer weighing 1,200 pounds in the fall must represent 1,200 pounds in April, while in fact it may be but skin, horns, and bones, and weigh scarcely 600 pounds, while he has done his best to care for them during the severity of a Dakota winter. The Indians do not understand why they should be made to suffer all this shrinkage and loss, and it is a useless and humiliating attempt to explain. The agent is not to blame. The Department of Indian Affairs can do only the best it can with a limited and tardy appropriation.

The remedy in the matter of food supply seems to be a sufficient and early appropriation of funds. All contracts for the beef supply should call for delivery when required by the agent. The agent should be allowed a percentage of wastage to cover unavoidable loss in issue by shrinkage and wastage. The Government should bear the loss and not the Indians. In conclusion, the commanding officer remarks that—

This reservation is not agricultural land. The climate makes it a grazing country. The Indians now can raise cattle successfully and care for them in winter. All attempts at general farming must result in failure on account of climatic conditions.

DISAFFECTION OF YANKTONNAIS.

Under date of December 6, 1890, the commanding officer at Fort Randall, S. Dak., reports that he witnessed the issue of rations at the Yanktonnais Indian Agency, and that it has been gradually reduced, forcing the Indians to become self-sustaining to some extent. He said they suffered very much the past season on account of drought, failure of crops, etc., and if something is not speedily done these Indians will perish from famine.

The rations issued for seven days were barely enough for two days, and within his knowledge, during eight years service at the post, Indians have been saved from suffering by eating refuse from soldiers' tables. They can get but little from this source now, as there is but one company at the post. The Indians claim that funds received for right of way of crossing at Pipestone (\$17,000) have not been divided, and that balance of pay due Sully's scouts has not been paid; that the flour mill at the agency has not been used for two years, being out of repair. Gen. Ruger, in forwarding this report, says that suffering will befall these Indians unless increase of allowance is provided, and states that these Indians are most worthy.

The commanding officer at Fort Washakie, Wyo., under date of November 28, 1890, states that the rations given the Shoshones is insufficient, it consisting only of a half pound of flour, about 14 ounces of beef, yeast powder, salt, and a small quantity of soap.

REPORTS OF INDIAN INSPECTORS.

An Indian inspector, in reporting to the Secretary of the Interior, under date of April 7, 1890, gives it as his opinion that it is a bad plan and a great injustice to receive beef in October at its full weight and issue it on that basis in January following, the Indians thereby losing over one-third, for which their money has been paid. He calls attention to the fact that the whites are now occupying Sioux lands secured under treaty made by the commissioners of 1849, and that the Indians do not get as much as they did before the land was taken.

Under date of November 2, 1890, Special United States Indian Agent E. B. Reynolds calls attention of the Commissioner of Indian Affairs to the extremely disaffected and troublesome state of a portion of the Indians on the Rosebud and other Sioux agencies. He says:

The coming new order of things, as preached to this people during the past seven months, is the return to earth of their forefathers, the buffalo, elk, and all other game, the complete restoration of their ancient habits, customs, and power, and the annihilation of the white man. This movement, which some three weeks ago it was supposed had been completely abandoned, while not so openly indulged in, is continually gaining new adherents, and they are daily becoming more threatening and defiant of the authorities. This latter phase of the case may in a measure be attributed to the scant supply of rations, to which my attention has been almost daily called by the Indians and especially to the reduction in the quantity of beef, as compared to the issues of former years. They kill cows and oxen issued to them for breeding and working purposes, making no secret of doing so, and openly defy arrest. They said that the cattle were issued to them by the "Great Father," and that it is their right to do as they please with them. This evil is increasing daily, and if not checked there will be but very few of this class of stock left on the reservation by spring.

During the past week it was reported to me that two Indians in the Red Leaf camp, on Black Pipe Creek, had killed their cows for a feast at the ghost dance. I sent a policeman to bring them in; they refused to come. The following day I sent two officers and eight policemen and they returned without the men, reporting that after they arrived at the camp they were surrounded by seventy-five or more Indians, well armed and with plenty of ammunition, and they unanimously agreed that an attempt to arrest the offenders would have resulted in death to the entire posse. On Friday I sent the chief of police, with an interpreter, to explain matters and endeavor to bring the men in. They positively refused to come, and the chief of police reports that the matter is beyond the control of the police. This is one case, which could be repeated indefinitely by attempting the arrest of parties guilty of the same offense.

The religious excitement, aggravated by almost starvation, is bearing fruits in this state of insubordination. Indians say they had better die fighting than to die a slow death of starvation, and as the new religion promises their return to earth, at the coming of the millenium, they have no great fear of death. To one not accustomed to Indians it is a hard matter to believe the confident assurance with which they look forward to the fulfillment of the prophet's promises. The time first set for the inauguration of the new era was next spring, but I am reliably informed that it has since, and only lately, been advanced to the new moon after the next one, or about December 11. The indications are unmistakable; these Indians have within the past three weeks traded horses and everything else they could trade for arms and ammunition, and all the cash they become possessed of is spent in the same way. One of the traders here reports that Indians within the last two days, have come into his store and offered to sell receipts for wood delivered at the agency, and for which no funds are on hand to pay them, for one-third of their value in cash. When asked what urgent necessity there was for such sacrifice of receipts for less than their face value, they answered that they wanted the cash to buy ammunition.

These are some of the signs of the times, and strongly indicate the working of the Indian mind. To me there appears to be but one remedy (and all here agree with me) unless the old order of things (the Indians controlling the agency) is to be re-established, and that is a sufficient force of troops to prevent the outbreak which is imminent, and which any one of a dozen unforeseen causes may precipitate.

THE MESSIAH DELUSION.

In this condition of affairs, the Indians, realizing the inevitable, and seeing their numbers gradually diminishing, their strength and power

weakening, very naturally prayed to their God for some supernatural power to aid them in the restoration of their former independence and the destruction of their enemies. It was at this stage of affairs, when driven to desperation, they were willing to entertain the pretensions or superstitions of deluded, fanatical people living on the western slope of the Rocky Mountains, whose emissaries first secretly appeared among the Indians prior to 1889. It was not, however, until the autumn of that year that the widespread conspiracy assumed serious character. They first aroused the curiosity of the Indians by some secret method scarcely realized by the savages themselves and persuaded delegations from different tribes of Indians to leave their reservations in November, 1889.

It is remarkable that by concerted action the delegations from the different tribes secretly left the various reservations, some starting from points a thousand miles apart from others, and some traveling 1,400 miles into a country entirely unknown to them, and in which they had never been before. The delegations from the Sioux, Cheyennes, and other tribes, secretly leaving their reservations, met at and traveled through the Arapahoe and Shoshone Reservations in Wyoming, and thence via the Union Pacific they passed into Utah, and were joined by Gros Ventres, Utes, Snakes, Piegans, Bannocks, Pi-Utes, and others, until they came to a large conclave of whites and Indians, near Pyramid Lake in Nevada, where not less than sixteen prominent tribes of Indians were represented. These delegates were then told that "those present were all believers in a new religion," that "they were all oppressed people," that "the whites and Indians were all the same, and that "the Messiah had returned to them." So well was this deception played by men masquerading and personating the Christ that they made these superstitious savages believe that the so-called Christ could speak all languages, that the whites who were not of their faith were to be destroyed, and that all who had faith in the "new religion" would occupy the earth; that the Messiah would cover the earth with dust and would then "renew everything as it used to be and make it better." He told them also that all of their dead would be resurrected; that they were all to come back to earth again, and that as the earth was too small for them and us he would do away with Heaven and make the earth large enough to contain all of them, and that they must tell all the people they meet about those things. He (or they who were personating one being) spoke to them about fighting, and said that was bad and that they must keep from it, that the earth was to be all good hereafter, and they must all be friends to one another. He said that "in the fall of the year (1890) the youth of all the good people would be renewed so that nobody would be more than 40 years old," and that "if they behaved themselves well after this, the youth of every one would be renewed in the spring." He said "if they were all good he would send people among them who could cure all their wounds and sickness by mere touch and that they would live forever." He told them "not to quarrel, nor fight, nor strike each other, nor shoot one another; that the whites and Indians *there* were to be all one people." He said "if any man disobeyed what he ordered his tribe would be wiped from the face of the earth; that they must believe everything he said, and must not doubt him or say he lied;" that "if they did he would know it; that he would know their thoughts and actions in no matter what part of the world they might be." Indian delegates who have seen the Messiah describe him in different ways,

some as an Indian, others as a white man. There were, undoubtedly, several masquerading in the same robes and disguise as one person. They state that the Messiah is the one who taught them various religious ceremonies and to dance what has been termed the "ghost dance" or a sacred dance, clothed in a light garment like a shirt or hunter's frock, which, after being sanctified, was believed to be bullet proof.

It has been learned that delegates from the different tribes were all present when the Messiah appeared or was seen by them at different times, and these all returned to their various reservations, announcing to their relatives and friends what they had learned, fully convinced themselves, and convincing others that what they had seen and heard was true. These talks lasted sometimes for four or five days, and the warriors were initiated in the mysteries of the new faith as taught by the so-called Messiah. The Indians received the words of prophecy from the Messiah with intense enthusiasm, thinking that after years of distress and discouragement their prayers had been heard and that they were about to enter into a life of happiness for which they believed nature had originally intended them. The fanaticism and superstition of these people were taken advantage of by their disaffected and designing leaders to encourage them to assume hostilities toward the Government and white people.

OUTBREAK PRECIPITATED.

Short Bull, one of the Indians who had made the pilgrimage to Nevada, and who had become one of the acknowledged leaders of the hostile element, in a public harangue announced that he would shorten the time for a general uprising, and called upon all the warriors to assemble in what is known as the Mauvaises Terres or Bad Lands, on the White River, southwest of South Dakota, in November, 1890. Short Bull's speech, interpreted, was as follows:

My friends and relatives: I will soon start this thing in running order. I have told you that this would come to pass in two seasons, but since the whites are interfering so much, I will advance the time from what my Father above told me to do so. The time will be shorter. Therefore you must not be afraid of anything. Some of my relations have no ears, so I will have them blown away. Now there will be a tree sprout up, and there all the members of our religion and the tribe must gather together. That will be the place where we will see our relations. But, before this time, we must dance the balance of this moon, at the end of which time the earth will shiver very hard. Whenever this thing occurs I will start the wind to blow. We are the ones who will then see our fathers, mothers, and everybody. We the tribe of Indians, are the ones who are living a sacred life. God, our Father, himself has told and commanded and shown me to do these things. Our Father in Heaven has placed a mark at each point of the four winds; first, a clay pipe, which lies at the setting of the sun and represents the Sioux tribe; second there is a holy arrow lying at the north, which represents the Cheyenne tribe; third, at the rising of the sun there lies hail, representing the Arrapahoe tribe; and fourth, there lies a pipe and nice feather at the south, which represents the Crow tribe. My Father has shown me these things, therefore we must continue this dance. There may be soldiers surround you, but pay no attention to them, continue the dance. If the soldiers surround you four deep, three of you on whom I have put holy shirts will sing a song, which I have taught you, around them, when some of them will drop dead, then the rest will start to run, but their horses will sink into the earth; the riders will jump from their horses, but they will sink into the earth also; then you can do as you desire with them. Now you must know this, that all the soldiers and that race will be dead; there will be only five thousand of them left living on the earth. My friends and relations, this is straight and true. Now we must gather at Pass Creek, where the tree is sprouting. There we will go among our dead relations. You must not take any earthly things with you. Then the men must take off all their clothing, and the women must do the same. No one shall be ashamed of exposing

their persons. My Father above has told us to do this, and we must do as he says. You must not be afraid of anything. The guns are the only things we are afraid of but they belong to our Father in Heaven. He will see that they do no harm. What, ever white men may tell you, do not listen to them. My relations, this is all. I will now raise my hand up to my Father and close what he has said to you through me.

This harangue was followed by the movement of some three thousand Indians from the Rosebud and Pine Ridge reservations, to that rough, broken country of high buttes, ravines, and impassable gulches. The hostile element on the Cheyenne and Standing Rock agencies were prepared to join them. As the following of Short Bull and Kicking Bear moved to the bad lands they looted the homes of hundreds of Indians who had been trying for years to farm and in part support themselves, and carried with them many Indians who were peaceably disposed. This would have been the case on other reservations had not protection been given to the loyally disposed and decided measures been taken to suppress the hostile element.

THREATENED HOSTILITIES.

The leaders who have been constantly and persistently hostile to every measure of civilization proclaimed there could be no better way of helping the prophesy and hastening the coming of the Messiah than by aiding in the removal of the white people, and to such disaffected, turbulent, hostile spirits as Sitting Bull, Kicking Bear, Short Bull, and others, this was the time for action. Nothing could be more gratifying to them, and the false prophets and medicine men immediately took advantage of the wretched condition of the Indians to spread disaffection among the different tribes.

The runners of Sitting Bull, who for years had been the great war chief and the head center of the hostile element, traveled in various directions, but more especially to the tribes in the Northwest, carrying his messages to get ready for war and to get all the arms and ammunition possible, and for all the warriors to meet near the Black Hills in the spring of 1891. He even sent emissaries beyond the boundary line of the United States to the Indian tribes in the British Possessions, and promises of support were returned. The first serious disturbance of any kind was to be signal for the gathering of all the warriors from the different tribes.

The Indians had, in the interim of peace, succeeded in getting together a large amount of ammunition and arms, particularly their favorite weapon, the Winchester rifle. They were, consequently, far better prepared to wage a war than at any previous time in their history. As some of the delegates to the conclave in Nevada were not imbued with the peaceful teachings of the "Messiah," but were, on the contrary, disappointed, inasmuch as they had hoped to hear him teach some incendiary doctrine, the disaffection spread by Sitting Bull and other like spirits received their hearty support, and they disseminated knowledge to the Indians not strictly conforming to the Messiah's teachings, but more to their own, and the Indians were wrought up to a frenzy of wild excitement.

The above information and much more was gained from various sources chiefly while the division commander was engaged with the Northern Cheyenne Commission, visiting the various Indian reservations during the latter part of October and the early part of November, 1890, and through the department commanders and staff officers ordered to investigate the subject. As the control of Indian affairs

was in the hands of Indian agents the military could not and did not take action until the conspiracy had spread over a vast extent of country, and the most serious Indian war of our history was imminent. In fact, the peace of an area of country equal to an empire was in peril. The States of Nebraska, the two Dakotas, Montana, Wyoming, Colorado, Idaho, and Nevada, and the Territory of Utah, were liable to be overrun by a hungry, wild, mad horde of savages. The old theory that the destruction of a vast herds of buffalo had ended Indian wars, is not well-founded. The same country is now covered with domestic cattle and horses and the Indians would have, in what they believed to be a righteous crusade, looted the scattered homes and lived and traveled upon the domestic stock of the settlers. Pillage would have been followed by rapine and devastation.

So general was the alarm of the citizens, the officials of the General Government, the governors of the States, and the press of that part of the country, that all earnestly appealed for aid and protection for the settlements.

APPEALS FOR TROOPS.

In a letter dated October 29, 1890, from P. P. Palmer, Indian agent, Cheyenne River Agency, to the Interior Department, he says of Hump and his following that the best means of preventing an outbreak among the Indians would be to take these leaders entirely out of the reach of their followers.

In a letter dated October 30, 1890, D. F. Royer, Indian agent at Pine Ridge Agency, informs the Commissioner of Indian Affairs that—

Some of the disadvantages originating from this ghost dance is the believers in it defy the law, threaten the police, take their children out of school, and if the police are sent after the children, they simply stand ready to fight before they will give them up. When an Indian violates any law the first thing they do is to join the ghost dance, and then they feel safe to defy the police, the law, and the agent.

And further—

I have carefully studied the matter for nearly six weeks and have brought all the persuasion through the chiefs to bear on the leaders that was possible, but without effect, and the only remedy for this matter is the use of military, and until this is done, you need not expect any progress from these people; on the other hand, you will be made to realize that they are tearing down more in a day than the Government can build up in a month.

In transmitting the reports of Agents Palmer and Royer, the Secretary of the Interior says:

It may be best to have a force of soldiers sufficient to arrest and watch these Indians for a time, but if it is attempted, it should be done with firmness and power so great as would overwhelm the Indians from the beginning.

Under date of November 12, 1890, the Acting Commissioner of Indian Affairs, upon receipt of additional reports from the Indian agents, says that the agent at Pine Ridge reports "that the craze has steadily increased until now it has assumed such proportions both in the number and spirit of adherents that it is entirely beyond the control of the agent and police force, who are openly defied by the dancers," and as a means of stopping the dances, the agent suggests sending a body of troops sufficient to arrest the leaders therein and imprison them and disarm the balance of the reservation. And on the 13th he transmits a telegram from Agent Royer, showing that two hundred participants in the ghost dance, all armed and ready to fight, had overpowered the

Indian police, and that the agency is at the mercy of these "crazy dancers," and says:

I deem the situation at said agency arising from the ghost dance as very critical, and believe that an outbreak may occur at any time, and it does not seem to me to be safe to longer withhold troops from the agency. I therefore respectfully recommend that the matter be submitted to the honorable Secretary of War with the request that such instructions as may be necessary be given to the proper military authorities to take such prompt action as the emergency may be found by them to demand, to the end that any outbreak on the part of the Indians may be averted and the Indians be shown that the authority of this Department and its agent must be respected and obeyed by them.

Not until the civil agents had lost control of the Indians and declared themselves powerless to preserve peace, and the Indians were in armed hostility and defiant of the civil authorities was a single soldier moved from his garrison to suppress the general revolt. To prevent the threatened murder of the civil agents and employes at the Rosebud and Pine Ridge Agencies and the destruction of the public property at those places, as well as to give protection to and encourage the loyal and peaceful Indians, troops were ordered to those points under command of General Brooke, commanding the Department of the Platte, on November 17, 1890.

CONDITION OF THE TROOPS.

A period of several years of peace and inactivity from serious field service had created a feeling of security on the part of the settlers and a degree of confidence on the part of the troops not warranted by the real condition of affairs. It was found that this period of peace had, to some extent, impaired the efficiency of the troops. This was noticeable in the want of proper equipment for field operations, especially in transportation. There was a reasonable amount of transportation for the ordinary post or garrison service, but it was entirely inadequate for field operations. The time to prepare them for active campaigning was so short that they were hardly equipped before their services were required in the field. While the danger and alarm was general throughout the settlements and thousands of unfortunate people, whose homes were scattered throughout that vast territory, were sacrificing what little property they had to obtain transportation to move their families out of the country, leaving much of their property uncared for and unprotected, the hostile element of the different tribes was gathering strength and hastening the time for a general outbreak. With as little delay as possible troops were being properly prepared for field service and concentrated where their services would be available.

It was the design of the division commander to *anticipate the movements of the hostile Indians and arrest or overpower them in detail before they had time to concentrate in one large body*, and it was deemed advisable to secure, if possible, the principal leaders and organizers, namely, Sitting Bull, and others, and remove them for a time from that country. To this end authority was given on November 25, 1890, to William F. Cody, a reliable frontiersman, who has had much experience as chief of scouts, and who knew Sitting Bull very well, and had perhaps as much influence over him as any living man, to proceed to the Standing Rock Agency to induce Sitting Bull to come in with him, making such terms as he (Cody) might deem necessary, and if unsuccessful in this, to arrest him quietly and to remove him quickly from his camp to the nearest military station. He was authorized to take a few trusty men with him for that purpose. He proceeded to Fort Yates on the Stand-

ing Rock Reservation and received from Lieut. Col. Drum, commanding, the necessary assistance, but his mission was either suspected or made known to the friends of Sitting Bull, who deceived him as to his whereabouts. This had the effect of delaying the arrest for a time.

At this time the division commander proceeded to Washington for the purpose of laying before the authorities the plans and measures to be taken to suppress the hostilities should they commence, and to supply the necessary food to keep the Indians from suffering. Authority was given to supply the necessary additional food out of the Army appropriations, as a military necessity, and the Secretary of the Interior also gave authority to issue the rations authorized by treaty of 1889. In addition, orders were given directing all the Sioux agencies to be placed practically under the control of the military, especially so far as related to the police and management of the Indians, and the civil agents were directed to comply with the orders received from the military authorities. Complying with the terms of the treaty so far as the ration was concerned went far to retaining the loyalty of a good percentage of the Indians who might otherwise have become involved. This much having been accomplished active measures were then taken to suppress the hostile element who were upon the verge of a general outbreak.

ARREST AND DEATH OF SITTING BULL.

The first measure for the arrest of Sitting Bull having failed orders were given on December 10, 1890, directing the commanding officer, Fort Yates, to make it his personal duty to secure the arrest of Sitting Bull without delay. Accordingly the commanding officer, Fort Yates, directed that certain troops of his command under Capt. Fenché go to Sitting Bull's camp and the remainder of the troops be held in readiness for service. Mr. McLaughlin, the Indian agent, selected a body of police (composed of Indians in whom he had confidence), who were ordered to the camp of Sitting Bull to make the arrest, to be followed and supported by the troops under Capt. Fenché. Had Sitting Bull submitted to the arrest by the lawful authorities of the Government he would have been unharmed and probably alive to-day. Although urged to submit quietly by the men of his own race, clothed with the authority of the Government, acting as police, he resisted, and made a determined effort to avoid going with them. In fact, he raised the cry of revolt, which gathered around him a strong force of his followers, numbering something like seventy-five warriors, who opened fire upon the police, and a desperate fight ensued, in which Sitting Bull and seven of his warriors were killed and many wounded; not, however, without serious loss to the brave Indian policemen carrying out the orders of their agent and the officers of the Government. Six of their number were killed and others seriously wounded. In fact, the whole number would have been massacred had it not been for the timely arrival of Capt. Fenché, who quickly made proper disposition of his force, and with his mounted men and one Hotchkiss gun, drove back the warriors surrounding the police and pursued them through the wooded country for several miles. The action of Capt. Fenché was gallant, judicious, and praiseworthy, and it had the effect of striking the first and most serious blow to the hostile element, and of totally destroying it on that reservation.

Regarding the death of Sitting Bull, his tragic fate was but the ending of a tragic life. Since the days of Pontiac, Tecumseh, and Red Jacket no Indian has had the power of drawing to him so large a fol-

lowing of his race, and molding and wielding it against the authority of the United States, or of inspiring it with greater animosity against the white race and civilization. In his earlier years he had gained a reputation by constantly organizing and leading war and raiding parties; and, although not a hereditary chief, was the recognized head of the disaffected element when the Sioux were at war, and in his person was the exponent of the hostile element around which gathered the young, ambitious warriors of the different tribes, and his death, for which he alone was responsible, was a great relief to the country in which he had been the terror for many years.

His followers who were not killed were pursued by the troops, a portion surrendered at the Standing Rock Agency, the others with the exception of thirty went to the reservation to the south, where they were intercepted and surrendering their arms were taken to Forts Bennett and Sully, where they were kept for several months under military surveillance.

REMOVAL OF HUMP.

The next important event was the removal of Hump, who had become disaffected on the Cheyenne River Reservation, which was accomplished without violence. For seven years Capt. Ewers, Fifth U. S. Infantry, had had charge of this chief and his followers, and had gained their confidence and respect. At the request of the division commander, Capt. Ewers was ordered from Texas to South Dakota, and directed to put himself in communication with Hump. Hump was regarded as one of the most dangerous Indians in that part of the country. In fact, so formidable was he considered that the civil agents did not think it possible for Capt. Ewers to communicate with him. Capt. Ewers promptly acted upon his instructions, proceeded to Fort Bennett, and thence, with Lieut. Hale, without troops, 60 miles into the country to Hump's camp. Hump at the time was 20 miles away, and a runner was sent for him. Immediately upon hearing that Capt. Ewers was in the vicinity, he came to him, and was told that the division commander desired him to take his people away from the hostiles, and bring them to the nearest military post. He replied that "if Gen. Miles sent for him, he would do whatever was desired." He immediately brought his people into Fort Bennett, and complied with all the orders and instructions given him, and subsequently rendered valuable service for peace. Thus an element regarded as among the most dangerous was removed. All except thirty of Hump's following returned with him and Capt. Ewers to Fort Bennett. The remaining thirty broke away and joined Big Foot's band, which with the addition of twenty or thirty that had escaped from Sitting Bull's camp at Standing Rock Agency, increased his following to one hundred and sixteen warriors. Orders were then given for the arrest of this band under Big Foot, which was accomplished by the troops under Lieut. Col. Sumner on the 22d of December, 1890. Under the pretense that they (the Indians) would go to their agency at the mouth of the Cheyenne River, they, on the night of the 23d of December, eluded the troops and started south toward the Indian rendezvous in the Bad Lands, near White River, about 40 miles west of Pine Ridge Agency.

DISPOSITION OF TROOPS.

While this was being done, seven companies of the Seventh Infantry, under Col. Merriam, were placed along the Cheyenne River to restrain

the Indians of that reservation and intercept those from Standing Rock, which had a very salutary effect upon the Indians of both reservations. In the mean time, a strong force had been gathered at the Rosebud and Pine Ridge Agencies. Those at the Rosebud were under the command of Lieut. Col. Poland, composed of two troops of the Ninth Cavalry and battalions of the Eighth and Twenty-first Infantry; Col. Shafter, with seven companies of the First Infantry controlled the country to the south and west of the Rosebud Agency, with station at Fort Niobrara; those at Pine Ridge Agency, under the immediate command of Gen. Brooke, were eight troops of the Seventh Cavalry, under Col. Forsyth, a battalion of the Ninth Cavalry, under Maj. Henry, a battery of the First Artillery under Capt. Capron, a company of the Eighth Infantry, and eight companies of the Second Infantry under Col. Wheaton. West from Pine Ridge Agency was stationed a garrison of two companies under Col. Tilford of the Ninth Cavalry; north of that with headquarters at Oelrichs was stationed Lieut. Col. Sanford of the Ninth Cavalry, with three troops, one each from the First, Second and Ninth Cavalry; north of that on the line of the railroad at Buffalo Gap Capt. Wells, with two troops of the Eighth Cavalry and one troop of the Fifth Cavalry was stationed; north of that on the same railroad at Rapid City Col. Carr of the Sixth Cavalry, with six troops was in command; along the south fork of the Cheyenne River Lieut. Col. Offley, and seven companies of the Seventeenth Infantry was stationed, and to the east of the latter command, Lieut. Col. Sumner, with three troops of the Eighth Cavalry, two companies of the Third Infantry, and Lieut. Robinson's company of scouts was stationed. Small garrisons were also stationed at Forts Meade, Bennett, and Sully. Most of the force was placed in position between the large hostile camp in the Bad Lands, which had gathered under Short Bull and Kicking Bear, and the scattered settlers endangered by their presence. As the line under Col. Carr was considered the most liable to be brought in contact with the hostile force, the division commander established his temporary headquarters at Rapid City, S. Dak., where this force was in close communication, and from which their movements could be directed with the least delay.

EFFORTS FOR PEACE.

Every effort was made by Gen. Brooke in command at Pine Ridge and Rosebud to create dissension in the hostile camp and to induce as many Indians as possible to return to their proper reservations. At the same time, the troops to the west formed a strong cordon which had the effect to gradually force the Indians back to the agency; the object being, if possible, to avoid conflict, although at any time from the 17th day of December, 1890, to the 15th day of January 1891, the troops could have engaged the Indians and a serious engagement would have been fought. The effect would have been to kill a large number of the Indians, costing the lives of many officers and men, and unless complete annihilation resulted, those who escaped would have preyed upon the settlements, and the result might have been a prolonged Indian war.

The fact that the Indians had lost confidence in the Government was a serious embarrassment to the military. They claimed that their lands had been taken and were then occupied by white settlers, which is true; and that they had received no positive guaranty that the terms of the treaty they had made would be carried out. In order to enable the

military to win the confidence of the hostiles, the division commander sent the following telegrams:

RAPID CITY, S. DAK., December 19, 1890.

Senator DAWES,
Washington D. C.:

You may be assured of the following facts that can not be gainsaid:

First. The forcing process of attempting to make large bodies of Indians self-sustaining when the Government was cutting down their rations and their crops almost a failure is one cause of the difficulty.

Second. While the Indians were urged and almost forced to sign a treaty presented to them by the commission authorized by Congress, in which they gave up a valuable portion of their reservation which is now occupied by white people, the Government has failed to fulfill its part of the compact, and instead of an increase, or even a reasonable supply for their support, they have been compelled to live on half and two-third rations and received nothing for the surrender of their lands, neither has the Government given any positive assurance that they intend to do any differently with them in the future.

Congress has been in session several weeks, and could if it were disposed in a few hours confirm the treaties that its commissioners have made with these Indians, and appropriate the necessary funds for its fulfillment and thereby give an earnest of their good faith or intention to fulfill their part of the compact.

Such action, in my judgment, is essential to restore confidence with the Indians and give peace and protection to the settlements. If this be done, and the President authorized to place the turbulent and dangerous tribes of Indians under the control of the military, Congress need not enter into details but can safely trust the military authorities to subjugate and govern and in the near future make self-sustaining any or all of the Indian tribes of this country.

RAPID CITY, S. DAK., Dec. 19, 1890.

Gen. JOHN M. SCHOFIELD,
Commanding the Army, Washington, D. C.:

Replying to your long telegram, one point is of vital importance: the difficult Indian problem can not be solved permanently at this end of the line. It requires the fulfillment by Congress of the treaty obligations in which the Indians were entreated and coerced into signing. They signed away a valuable portion of their reservation, and it is now occupied by white people, for which they have received nothing. They understood that ample provision would be made for their support; instead, their supplies have been reduced and much of the time they have been living on half and two-thirds rations. Their crops, as well as the crops of white people, for two years have been almost a total failure. The disaffection is widespread, especially among the Sioux, while the Cheyennes have been on the verge of starvation and were forced to commit depredations to sustain life.

These facts are beyond question, and the evidence is positive and sustained by thousands of witnesses. Serious difficulty has been gathering for years. Congress has been in session several weeks and could in a single hour confirm the treaties and appropriate the necessary funds for their fulfillment, which their commissioners and the highest officials of the Government have guaranteed to these people, and unless the officers of the Army can give some positive assurance that the Government intends to act in good faith with these people the loyal element will be diminished and the hostile element increased. If the Government will give some positive assurance that it will fulfill its part of the understanding with these 20,000 Sioux Indians they can safely trust the military authorities to subjugate, control, and govern these turbulent people, and I hope that you will ask the Secretary of War and the Chief Executive to bring this matter directly to the attention of Congress.

At the same time the Indians were notified that if they complied with the orders of the military their rights and interests would be protected so far as the military were able to accomplish.

The measures taken were having a most desirable effect upon the hostiles, for it was reported in their camp that Sitting Bull and his immediate following had been killed, that Big Foot had been arrested, and that Hump had returned to his allegiance. This discouraged them, and the presence of a strong cordon of troops, gradually forcing them back to the agency without actually coming in contact with them, and the strong influences brought to bear through the aid of friendly Indians from Pine Ridge, caused them to break camp on December 27,

1890, and leave their stronghold, which was a series of natural fortifications, almost impenetrable, and move toward the agency by slow marches. The troops under Col. Carr and Lieut. Cols. Offley and Sanford were slowly following in communicating and supporting distance. In fact, the fires of the Indians were still burning in their camps behind them when the troops moved in to occupy the same grounds.

WOUNDED KNEE CREEK AFFAIR.

Although the camp of Big Foot had escaped the troops on the Cheyenne River, the troops on the south were moved so as to prevent him joining the hostile element, and orders were given to the troops under Col. Carr and Gen. Brooke not only to intercept the movement of Big Foot and party but to cause their arrest. This was accomplished by Maj. Whitside on the 28th day of December, 1890, who met Big Foot $1\frac{1}{2}$ miles west of Porcupine Creek and demanded his surrender. The band submitted to it without resistance and moved with the troops 7 miles, where they were directed to camp, which they did in such position as the commanding officer directed. In order that no mistake might be made, and to have sufficient troops on the ground in case of resistance, Col. Forsyth was ordered by Gen. Brooke to join Maj. Whitside with four troops of cavalry, which, with the company of scouts under Lieut. Taylor, made up a force of eight troops of cavalry, one company of scouts, and four pieces of light artillery, a force of 470 fighting men as against 106 warriors then present in Big Foot's band. A scouting party of Big Foot's band was out looking for the hostile camp of Short Bull and Kicking Bear, but as they (Short Bull and Kicking Bear) had been started from the Bad Lands and were moving into Pine Ridge Agency they were returning to Big Foot's band when the fight occurred on the morning of the 29th of December, 1890.

It was the intention to order Big Foot's band to the railroad and then send it back to the reservation where it belonged, or out of the country for a time, in order to separate it from the other Indians. As they had not been within a long distance of the hostile camp in the Bad Lands it was deemed advisable to keep them as far away as possible from it.

The unfortunate affair at Wounded Knee Creek December 29, 1890, in which 30 officers and soldiers and 200 Indians (men, women, and children) were killed or mortally wounded, prolonged the disturbance and made a successful termination more difficult.

A number of the Indians that had remained peaceable at the Pine Ridge Agency became greatly alarmed on learning what had befallen the band of Big Foot, and some of the young warriors went to their assistance. These, on returning with the intelligence of what had occurred, caused a general alarm, which resulted in some 3,000 leaving the camps located about the agency to join the hostiles and assume a threatening attitude.

The Indians from the Bad Lands, under Short Bull and Kicking Bear, would have camped that night (December 29) within 4 miles of the agency, but on hearing the news of the Big Foot disaster turned back and assumed a hostile attitude on White Clay Creek about 17 miles from the Pine Ridge Agency. Thus, instead of the hostile camp under Short Bull and Kicking Bear camping within a short distance of the agency, the next day, the 30th of December, found the hostile camp augmented to nearly 4,000, and embracing more than a thousand warriors.

AFFAIR AT THE MISSION.

On December 30 a small band of Indians came near the Catholic Mission, 4 miles from the military camp at Pine Ridge, and set fire to one of the small buildings. Col. Forsyth, with eight troops of the Seventh Cavalry and one piece of artillery, was ordered by Gen. Brooke to go out and drive them away. He moved out, the Indians falling back before his command with some skirmishing between the two parties, until they had proceeded 6 miles from the camp at Pine Ridge. There the command halted without occupying the commanding hills, and was surrounded by the small force of Indians. Skirmishing between the two parties followed. Col. Forsyth sent back three times for reinforcements, and fortunately Maj. Henry, with four troops of the Ninth Cavalry and one Hotchkiss gun, was in the vicinity, and moved at once at the sound of the guns. Upon arriving on the ground he made proper disposition of his troops by occupying the adjacent hills and drove the Indians away without casualty, thereby rescuing the Seventh Cavalry from its perilous position. The Seventh Cavalry lost one officer (Lieut. Mann, mortally wounded) and one private killed and several wounded.

From all information that could be obtained the Indians engaged in this affair did not number more than 60 or 70 young warriors. For his conduct on that day and the previous day Col. Forsyth was relieved from command.

RESULT AND OTHER AFFAIRS.

These two affairs, namely, at Wounded Knee and what is known as the Mission fight, seriously complicated the situation and increased the difficulty of suppressing the outbreak. On the evening of the 28th of December everything indicated a settlement without a serious loss of life. The result may be summed up in the loss of nearly 200 people, delay in bringing the Indians to terms, and caused 3,000 Indians to be thrown into a condition of hostility with a spirit of animosity, hatred, and revenge. The spirit thus engendered made it more difficult to force back, or restore the confidence of the Indians, and for a time it looked as if the difficulty would be insurmountable.

On December 30, 1890, the wagon train of the Ninth Cavalry was attacked by Indians and was repulsed by the troops guarding it. On January 3, 1891, an attack was made upon Capt. Kerr's troop of the Sixth Cavalry, then in position between Col. Carr and Lieut. Col. Offley, and quickly and handsomely repulsed by that officer and his troop, aided by the prompt support of Maj. Tupper's battalion, followed by Col. Carr. These repulses had a tendency to check the westward movements of the Indians and to hold them in position along White Clay Creek until their intense animosity had to some extent subsided.

Realizing the importance of restoring confidence to those who were not disposed to assume hostilities, the division commander changed positions with Gen. Brooke and directed him to assume the immediate command of the troops encircling the hostile camp, and took station at Pine Ridge, where he could not only communicate directly with the camp but exercise a general supervision over all the commands.

Having a personal knowledge extending over many years of those Indians, most of whose prominent leaders, including Broad Trail, Little Hawk, Kicking Bear, and Short Bull, had surrendered to me on the

Yellowstone ten years before, I was enabled to bring them to reason and restore confidence.

Fortunately, Congress appropriated funds necessary for complying with the obligations of the Sioux treaty, and the division commander was enabled to assure the Indians that the Government would respect their rights and necessities.

Messengers were immediately sent representing to them the injudicious policy of contending against the authorities, and assuring them that there was only one safe road, and that was toward the agency, to surrender. They were also advised that the powerful commands were so distributed in the immediate vicinity of their camps and at the most important points as to intercept them should they break through the line, but if they would comply with the directions of the division commander, they would be assured of his support in order to obtain their rights and privileges under their treaties with the Government. They were also informed at the same time that unnecessary acts of violence were disapproved by the authorities; and they must decide whether the military should be their friend or their enemy.

While the troops were exercising the utmost vigilance and constant care in inclosing the large camp of Indians, leaving as far as practicable no outlet for them to escape and steadily pressing them back toward Pine Ridge Agency, every effort was made to restore their confidence and compel them to return to their agencies. Fortunately at that time a change had been made in the administration of their affairs. Their supplies of food had been increased and properly distributed, and officers in whom they had confidence, and whom they had known for years, were placed in charge. Capt. Hurst was given general supervision at the Cheyenne River Agency; Capt. Lee at Rosebud Agency; Capt. Ewers was placed in charge of the Cheyennes, and Capts. Pierce and Dougherty in charge of Pine Ridge. Subsequently, Capt. Penney was appointed as acting Indian agent at Pine Ridge.

THE SURRENDER.

Under these circumstances, with the assurance of good faith at the agencies and from the Government, and held by strong cordon of troops encircling them, they were gradually pressed back to the agency, and on the 15th of January, moved up White Clay Creek and encamped within easy range of the guns of the large command, under Col. Shafter, stationed at Pine Ridge, the troops under Gen. Brooke following immediately behind them, almost pushing them out of their camps. On the next day they moved farther in and encamped under the guns of the entire command and surrendered their entire force of nearly 4,000 people. The troops were moved into three strong camps of easy communication, occupying the three points of a triangle, with the Indian camp in the center in close proximity to the troops.

While in this position they surrendered nearly 200 rifles, and were complying with every order and instruction given them; yet the information that was frequently received at the time of the finding of the bodies of Indians (men, women, and children) scattered over the prairies, and their knowledge of the number in the hospitals, the wounded in the Indian camp, and the other casualties that had occurred to them, caused a feeling of great distress and animosity throughout the Indian camp. Yet sufficient arms had been surrendered to show their good faith. These arms, together with what had been taken at other places, viz, in the Wounded Knee affair and at the Cheyenne and Standing

Rock Reservation, aggregated in all between 600 and 700 guns; more than the Sioux Indians had ever surrendered at any one time before. This was a sufficient guaranty of good faith; but in order to make it doubly sure, and as they had agreed to comply with every direction given them by the division commander, they were informed that he required the persons of Kicking Bear and Short Bull, the two leaders of the hostiles, and at least twenty other warriors of the same class. As they had agreed to comply with every order given them, these men came forward and volunteered to go as hostages for the good faith of their people and as an earnest of their disposition to maintain peace in the future. These men were placed in wagons and sent 26 miles to the railroad, and thence by rail to Fort Sheridan, Ill., where it was the purpose of the division commander to retain them until such time as it might be necessary to guarantee a permanent peace.

Knowing the Indians had well-founded grievances, he requested authority to send 10 men representing the different elements of the Sioux Nation, and chiefly the loyal and well-disposed portion, to Washington, D. C., to enable them to represent their affairs to the authorities, and to tell their own story. This party included some of the best and wisest counselors, the ablest and most loyal friends of the Government living upon the Sioux reservations.

Thus ended what at one time threatened to be a serious Indian war, and the frontier was again assured of peace and safety from Indians who a few weeks prior had been a terror to all persons living in that sparsely populated country. Too much credit cannot be given the troops, who endured the hardships and sustained the honor, character, and integrity of the service, risking their lives in their effort to restore peace and tranquillity, placing themselves between a most threatening body of savages and the unprotected settlements of the frontier in such a way as to avoid the loss of a single life of any of the settlers and establishing peace in that country with the least possible delay. In fact the time consumed in solving the most difficult problem was remarkably brief, it being but fourteen days from the time Sitting Bull was arrested to the time the Indians were moving in to surrender, and would have encamped within 4 miles of the agency had not the disaster at Wounded Knee occurred. Notwithstanding this unfortunate affair, the time occupied was only thirty-two days from the time of the arrest of Sitting Bull until the whole camp of four thousand Indians surrendered at Pine Ridge, S. Dak.

RETURN OF INDIANS TO RESERVATIONS.

The Brulés, the most turbulent of the hostile element, were taken by Capt. Lee (in whom they had great confidence and had great reason to respect on account of his thorough justice in the management of their affairs years previously) across the country to the Rosebud Agency, to which they belonged, without escort and during the most intense cold of the winter.

The Cheyenne Indians, who but a few weeks before were regarded as a most dangerous band, were taken by Capt. Ewers, in whom they had not only confidence and respect, but absolute affection, to the north, on one of the most perilous and difficult journeys ever accomplished in this country, a distance of about 300 miles from Pine Ridge, S. Dak., to the mouth of Tongue River, in Montana, traveling in the intense cold of winter in that desolate country, the ground covered in many places with several feet of snow, and this without an escort of troops.

They finally reached Fort Keogh without a single loss of life or without an Indian committing a single unlawful act during that long and perilous journey.

During the time of intense excitement, when it seemed that a serious outbreak was imminent, the governors of Nebraska and South Dakota placed troops along the line of settlements, which gave confidence to the settlers and additional protection to those exposed positions.

Although the campaign was short, it was not without serious loss. Two excellent officers were killed and one mortally wounded. Capt. George D. Wallace, Seventh Cavalry, was killed at Wounded Knee Creek, December 29, 1890, and First Lieut. Edward W. Casey, Twenty-second Infantry, a gallant young officer of great promise, was killed January 7, 1891, near Pine Ridge, while making a reconnaissance. First Lieut. James D. Mann, Seventh Cavalry, was mortally wounded at White Clay Creek, December 30, 1890; First Lieut. Ernest A. Garlington and John C. Gresham, Seventh Cavalry, and John C. Kinzie, Second Infantry, and Second Lieut. Harry L. Hawthorne, Second Artillery, were wounded at Wounded Knee Creek, December 29, 1890. Twenty-eight gallant soldiers were also killed and 38 wounded in the various skirmishes and affairs, some of whom have since died.

END OF THE CAMPAIGN.

The troops participating in the campaign were immediately returned to their proper stations; the force at Pine Ridge was gradually reduced; Capt. Pierce, the acting Indian agent at Pine Ridge, was relieved on account of sickness by Capt. Dougherty, in turn relieved at his own request and Capt. Penney appointed. The latter has administered the affairs of that agency with great ability. Additional appropriations have been given for the support of the Indians, and they now receive nearly one-half as much more than they received a year ago.

Notwithstanding the fact that the "volcano has cooled down" the fires of discord still remain. Even while the hostages were at Fort Sheridan they received communications from their friends in the Sioux camps stating that they had not given up the conspiracy of one grand uprising of the Indians, and that the Utes were ready to join the Sioux whenever they were ready to resume hostilities. Communications have been discovered going between the different camps inciting the Indians to hostility, and even now, while this communication is being written, there is a delegation from the Indian Territory absent, ostensibly to visit relatives at the Arapahoe and Shoshone reservations in Wyoming. They have, in fact, gone across the mountains, and are now in the abodes of the supporters of the Messiah delusion near Pyramid Lake, in Nevada.

During the months following the serious disturbance of the peace the confidence of all has been restored. Many of the settlers have gone back to their abandoned homes and ranches, and the Indians have resumed their accustomed occupations.

Advantage was taken of the return of troops to locate them in regimental posts, giving regiments to Fort Snelling, Minn.; Fort Keogh, Mont.; Fort Assiniboine, Mont.; Fort Douglas, Utah; Fort Omaha, Nebr.; Fort D. A. Russell, Wyo.; and Fort Sheridan, Ill.; and very strong garrisons of troops at Forts Meade, Niobrara, and Robinson.

Nothing of importance has occurred since the undersigned assumed command of the Department of the Missouri which requires special mention in this report. The affairs of the Indian Territory are gradu-

ally adjusting themselves after being in a state of transition for a long time. The days of large holdings of land by the Indians in common will eventually cease and the Indians take up lands in severalty.

WORLD'S COLUMBIAN EXPOSITION.

As we approach nearer the time of the World's Columbian Exposition, the most important affair of the kind that has ever been held in the world, it would seem advisable to take advantage of the occasion to mobilize or assemble what is known as the national guard or State militia. The Constitution has very judiciously and wisely reserved the control of these forces to the various State governments, but as a means to promote the efficiency of the various organizations, it would be well to assemble them under Congressional enactment, with the approval and authority of the various State governments, in one national encampment at least once in a generation.

As there has been no gathering of that magnitude since the armies were dispersed in 1865, I would respectfully recommend that the militia be brought together at this peace jubilee. Most of the members of the national guard, who are engaged in the great industries of the country, will desire to be present at the exposition at some time during its session, and many of them would prefer to come with their organizations, in order to combine with the encampment the benefits of the exposition. It would also be beneficial to the State organizations to be brought together in one national encampment, where they would have the advantage of meeting troops from other States. For instance, those of New England would be placed alongside of those from the Gulf, and those from the Atlantic and interior meet those from the Pacific slope, making one grand encampment of the citizen soldiery of this country, where patriotism and the spirit of emulation would prompt each organization to attain the highest degree of excellence. Such inspections, parades, and field maneuvers as might be beneficial could be executed.

As the General Government makes yearly appropriations for the equipment of the militia I see no reason why it should not provide transportation for assembling it in the encampment above proposed. The reasonable reduction of rates usual in other countries for such movements of troops, and frequently given in this country, would reduce the aggregate cost, say, for ninety thousand State troops and ten thousand Federal troops to \$850,000, approximately. For that purpose I would respectfully recommend that Congress be asked to make the necessary appropriation to provide transportation for the troops from their various State capitals to the national encampment at or near the World's Columbian Exposition, Chicago, Ill., and return, and provide authority for the movement of such State organizations, the same to be designated and directed by the governors of the various States interested.

I would also renew the recommendations contained in my annual report of 1889, mentioned on pages 8, 9, and 10, under the heads of "Recommendations" and "Promotion of subordinate officers."

Accompanying this report are three maps and the reports* of the staff officers at these headquarters.

I have the honor to remain, very respectfully, your obedient servant,

NELSON A. MILES,
Major-General, Commanding.

The ADJUTANT-GENERAL U. S. ARMY,
Washington, D. C.

* Omitted.

REPORT OF BRIG. GEN. STANLEY.

HEADQUARTERS DEPARTMENT OF TEXAS,
San Antonio, Tex., September 9, 1891.

SIR: Since my last annual report the unity of organization of the regiments serving in this department has been reduced by virtue of General Orders Nos. 76 and 79, series 1890, Headquarters of the Army, Adjutant-General's Office, from ten companies in each regiment of infantry to eight companies, and in cavalry from twelve troops to ten. The numerical force serving in the department has been further reduced by General Orders No. 43, current series, Headquarters of the Army, Adjutant-General's Office, sending the headquarters, field, staff, and band, and six companies of the Fifth Infantry to the Department of the East. This movement made it necessary to replace the entire garrison at Fort Bliss by two companies of the Twenty-third Infantry from Fort Davis, and the two companies of the Fifth Infantry at Fort McIntosh were also replaced by two companies of the Twenty-third Infantry from Fort Davis.

By verbal direction of the honorable Secretary of War, the post of Fort Davis, established in 1854, was abandoned, and the companies of the Twenty-third Infantry above referred to became available for the garrisons at Forts Bliss and McIntosh, with little expense. Fort Davis had outlived its usefulness as a military station, and yet it is to be regretted that it was discontinued, owing to its salubrious climate and its usefulness as a government sanitary hospital, to which enfeebled soldiers could be sent.

It has been deemed advisable to keep the troops of this department in as large bodies as possible, for the sake of discipline and drill, and accordingly the post of Fort Sam Houston at San Antonio has a garrison of four troops of cavalry, one light battery of artillery, and five companies of infantry. Fort Clark has the Eighteenth Infantry intact. This leaves the post on the frontier as follows: Fort Bliss, two companies of the Twenty-third Infantry; Fort Hancock, one troop of cavalry; at Presidio del Norte, two detachments, one near the presidio, fifteen rank and file taken alternately from Fort Hancock and Camp Pena Colorado, and changed every three months; the other detachment at Polvo, 25 miles below Presidio, consisting of the detachment of Seminole negro-Indian scouts. These two detachments live in tents and are under the command of one officer, and are the only conservators of the authority of the United States in a territory as large as the State of Massachusetts, and guard a river boundary of more than 500 miles. Camp Pena Colorado is a cantonment, on a leased site, occupied by one troop of cavalry, which is kept in active employment looking over the large uninhabited country between the Southern Pacific Railroad and the Rio Grande, 150 miles distant. This camp is 3 miles from Marathon, a station on the Southern Pacific Railroad, and now that Fort Davis is abandoned is the only military station on the railroad between San Antonio and Fort Hancock. In view of the long distance this railroad traverses, a thinly settled country near the Mexican border, carrying United States mails and treasure, it is deemed important to keep up this cantonment. The small stations of Langtry and Del Rio, formerly occupied by detachments, have been discontinued. At the Camp at Eagle Pass, which is the old post of Fort Duncan, one troop of cavalry is sta-

tioned. At Fort McIntosh, Laredo, are headquarters Third Cavalry, one troop of the same regiment and two companies of infantry; Fort Ringgold, Rio Grande City, one troop of cavalry and one company of infantry; Fort Brown, at Brownsville, by one troop of cavalry. The small post of Fort Hancock and the post of Fort Bliss complete the border garrisons. They are all small, I think too small. Fort Brown should have three companies, Fort Ringgold the same, camp at Eagle Pass two companies, Camp Pena Colorado two troops of cavalry.

The care of the Mexican border, which in this department is defined by the Rio Grande, is one that requires constant attention. To know just how far this is the duty of the United States, or where exactly the State of Texas comes in, is not always very plain. The only safe rule is to regard all or any person coming from the right bank of the Rio Grande as an idler; with arms in his hand, and no visible means of support, as an intruder. There is no complaint to be entertained of the Mexican Government. Their officers do their duty, but the frontier is 1,000 miles in extent, with long stretches of unsettled wild country, and no police, civil or military, can effectually watch such a border and entirely prevent crime—requiring notice by the United States forces. We find that the very presence of troops serves as a restraining influence. Murders have occurred, and the murderer runs quickly into the wilds of Mexico, and it is plain but for the presence of United States troops, few as they are, revenue regulations would be a dead letter.

As expressed in my former reports, I recommend that the posts upon the Rio Grande, including Fort Brown and camp at Eagle Pass, be kept up to an efficient standard, not less than one company of infantry and one troop of cavalry at each of the posts, and in case of regimental headquarters being established at the post that the force be headquarters, band, and three companies.

The large posts in this department are in good condition. Fort Sam Houston is so nearly finished as to accommodate headquarters, band, and four companies of the Twenty-third Infantry, and one company Fifth Infantry, four troops of the Third Cavalry, and Light Battery F, Third Artillery, fairly well. A guardhouse and four sets of officers' quarters will complete the post. Estimates have been submitted for these buildings. At Fort Clark the entire Eighteenth Infantry is stationed, and it has been satisfactory to have an entire regiment at the same post, a thing rare in our service. The high state of discipline and drill in this regiment and the harmony of their service is a good example of the benefits of large posts.

The condition of the troops in this department is good and efficient, a matter worth mention, as during the long summers of southwestern Texas it requires extra energy to keep troops up to the mark.

The target practice has been faithfully carried out. The report of the inspector of small-arms practice, First Lieut. John E. Myers, Third Artillery, will be forwarded at the close of the practice season. At the post of Fort Sam Houston the excellent range heretofore used had to be abandoned on account of the failure to lease the adjoining land upon which bullets missing the target or ricocheting fell in such numbers as to bring about 100 acres within the danger zone. As no funds were furnished for hire of target ground during the past year, target practice had to go a begging.

Two public-spirited land owners, Mr. J. J. Stevens, of San Antonio, and Mrs. Jennie W. de Ganahl, of Ganahl Station, on the northwestern extension of the San Antonio and Aransas Pass Railway, generously

furnished the necessary ranges on their lands, the former a rifle range at Leon Springs and the latter an excellent artillery range upon her ranch at Ganahl Station. This latter range is now being used by Light Battery F, Third Artillery, in effectual practice with the new breech-loading rifled field gun, upon a 3-mile range, and a most interesting report is forwarded by Capt. J. B. Burbank, commanding Light Battery F, Third Artillery, of exhaustive field practice. A good range both for artillery and rifle practice is essential to this post, and, pending the procurement of the right to use the Government range near Fort Sam Houston, estimates will be forwarded for the lease of the best range that can be secured by advertisement.

The reports of the chiefs of the various staff departments are very complete and leave little for me to add. The recommendations of the chief commissary of subsistence are worthy of attention, and particularly in reference to allowing more liberty in the purchase of fresh vegetables in the summer time when potatoes and onions shipped from distant points are liable to great loss. The money-allowance clause in this report I do not approve.

The report of the acting judge-advocate upon desertion is interesting, and the fact that the number of desertions in the last half of the fiscal year is only one-half as great as the number in the first six months is a hopeful sign. The report illustrates what we knew before, namely, that the causes of desertion can not be classified. My belief is that it is a matter of compensation, and that the plain way to have good soldiers is to pay them the wages of the location they serve in. The pay of a daily laborer at this place is \$1.50 per day. After fully estimating all the advantages of the soldier's emoluments over the compensation of the laborer, still the wages of the laborer are fully 50 per cent above the wages of the soldier.

My recommendations for the purchase of old Fort Duncan as the cheapest and most expeditious way of procuring a military station for two companies at Eagle Pass is hereby renewed.

Governor James S. Hogg, of this State, gave the United States troops a very cordial invitation to join the State guard of Texas in their annual encampment at Austin, July 18 to 25. Owing to the liberality of the International and Great Northern Railroad in carrying the infantry free, we were able to send to the encampment, headquarters, band and four companies of the Twenty-third Infantry, Light Battery F, Third Artillery, and four troops of the Third Cavalry. The cavalry and artillery marched. All the troops were commanded at the camp at Austin by Col. J. J. Coppinger, Twenty-third Infantry.

The association of the regular troops with the volunteer State Guard proved to be a good experience for both. An active and bright young officer, First Lieut. J. T. Dickman, Third Cavalry, was detailed as engineer officer of the camp.

Young officers were detailed as assistants and aides to each of the colonels of regiments. Officers of experience delivered daily lectures on most practical military subjects. These lectures were interesting and well attended. Officers of the Army were detailed to inspect the police of the camp, and the rapid advancement made by these militiamen in a little more than one week, shows how quickly the militiaman may become a soldier in our country.

The importance of good regular troops to take pattern from, and above all a condition of perfect cordiality and polite courtesy between State officials and the officers and men of the U. S. Army can not be overrated. These conditions we had to perfection here with Gov-

ernor Hogg, his adjutant-general, W. H. Mabry, and the officers of rank in the Texas State Guard.

I will call attention to the reduced condition of the transportation of the Army in this department. An organized and trained transportation must furnish the legs of an army, and wagon transportation run down to inefficiency is injurious to the service. In this department the number of mules and wagons is so small that no expedition could now be fitted out to operate any distance from a railroad. This is not the right thing for an efficient force, and may lead to bad results some day.

The small number of officers present with their regiments in this department is a serious drawback to efficiency and requires attention. Of the entire commissioned force doing duty in the department the roster at a recent date showed: Present, 87; absent, 66, *i. e.*, on detached service, 31; on ordinary leave, 19; on sick leave, 10; not yet joined, 6.

Very respectfully, your obedient servant,

D. S. STANLEY,

Brigadier-General, Commanding.

The ADJUTANT-GENERAL U. S. ARMY,
Washington, D. C.

REPORT OF BRIG. GEN. RUGER.

HEADQUARTERS DEPARTMENT OF CALIFORNIA,
San Francisco, Cal., September 8, 1891.

SIR: I have the honor to submit the following report of operations in this department during the past year:

Nothing strictly relating to military operations within the department limits, and of such importance as to require report of details, has occurred. In compliance with instructions of December 3, 1890, from the Headquarters of the Army, the First Infantry, Col. William R. Shafter commanding, with the exception of Company F, at Fort Gaston, and a detachment at Fort Bidwell, Cal., left the posts of Angel Island and Benicia Barracks on December 4 last, for the Division of the Missouri, for duty in the field relative to the Sioux Indian trouble then in progress. Events did not afford opportunity for the regiment to take part in actual conflict, but the general good state of the regiment and assurance of effective performance had occasion offered, are shown by the promptness of its movements and the fact, notwithstanding the severity of the change from stations in a mild climate to the rigors of winter field service in Dakota, that not a desertion occurred during the period of absence of the regiment in December, January, and February last. The regiment returned to this department on March 4 last. For an account of the services of the regiment more in detail, and mention of specially meritorious conduct of individuals, attention is requested to the report of Col. Shafter, which is transmitted herewith.

In compliance with direction of January 16 last, from the Headquarters of the Army, conveying the instructions of the Secretary of War, consequent upon application made by the Secretary of the Interior, that a troop of cavalry might be sent to the Yosemite National Park, California, with orders to prevent trespassing upon or spoliation of the Park, and another troop to the "Sequoia National Park" in California, with like instructions for the protection of this park and the "General Grant National Park" in the vicinity, Troop I, Fourth Cavalry, Capt.

Abram E. Wood commanding, proceeded on the 14th of May last, from the presidio of San Francisco to the Yosemite Park, and Troop K, Fourth Cavalry, Capt. Joseph H. Dorst commanding, to the Sequoia National Park. Constant activity by officers and soldiers has been necessary for the proper performance of the duties required of these troops, which duties have been performed with discretion and by exercise of power within the limit authorized by law. There is not, however, that certainty desirable relative to the functions and powers of the troops charged with the duty of protecting the public lands. In view of the great probability that for convenience, if not from the necessity of the case, troops will for some time to come be employed to protect from damage the large tracts of country, like the national parks, set aside for specific objects, it is desirable that general necessary rules applicable to all the parks should be made, preferably by statute, with suitable penalties for infringements, and that the powers of the troops employed in the enforcement of rules for the protection of the parks be more clearly defined.

Practical instruction at the different posts has been in general satisfactory under circumstances as existing. The regular theoretical instruction contemplated in paragraph 217, Army Regulations, was prevented for the First Infantry during the past winter, by its absence on field service in the Division of the Missouri. It is intended that instruction as prescribed shall be had at all posts in the department during the coming instruction period. It must be admitted, however, that improvement in substance and method in theoretical instruction at the posts in the Army at large is desirable. It would be difficult as a practical matter to prescribe by regulation a full course in detail of theoretical instruction which would fully meet the changing conditions of our garrisons, some comparatively large and composed of companies of different corps of the service, and others of but one company of one corps; but some requirements more explicit than provided in paragraph 217, Army Regulations, seem necessary and practical. I think it would be well, without prescribing text-books other than the Drill Regulations and other books that may be published or sanctioned by the War Department, if the subjects for required theoretical instruction were prescribed, embracing all those a knowledge of the rules and principles of which is essential for the proper performance of duty in garrison and in war; for officers, those subjects especially a successful examination upon which is, under the law, and by rules thereunder adopted, a condition precedent to promotion. In this connection attention is requested to the remarks* of Lieut. Col. George H. Burton, inspector-general, in his report herewith transmitted, upon the present state of the theoretical instruction at posts, not applicable to this department alone.

The effect of recent legislation providing for the trial of minor offenses by the summary court, and for grading within fixed limits punishments not specifically fixed by law, has been decidedly beneficial to discipline.

There has been during the past year a marked decrease in the per cent of desertions in the department, nearly one-half as compared with previous years. No doubt the effect of laws recently enacted giving the soldier election for discharge upon good conduct after three years' service, and the purchase of discharge during the second and third years of a first enlistment, has been very beneficial in diminishing desertions. The means recently put in operation, by regimental recruit

* Omitted.

ing and for assuring as far as practicable recruits of good character, have also had a good effect to the same end. Question has, however, been made whether the effect of permitting soldiers to elect to be discharged after serving part of the term of enlistment, and to purchase discharge after serving a comparatively short time, has not been to lessen the interest of even good soldiers in their duties, and also willingness in performance of duties of an exacting kind in particular. There has not been quite time to fully estimate comparatively all the possible advantages and disadvantages of the laws referred to, but the general result is so far beneficial, and apparently will be in future.

The enlistment of a company of Indian soldiers in this department for the First Infantry has so far not been effected, nor, owing to the special conditions, has progress been made thereto. A special report will be submitted as to this subject.

Our unprepared condition as to seacoast defenses is so well known and for a long time has been, and reported upon comprehensively, particularly in the reports of the Chiefs of Engineers embraced in reports by the Secretary of War to Congress, that I allude to the matter only with purpose, upon coming into command of a department in reference to which the state of the seacoast defenses is of first importance, to add my opinion to that of others that we have not done by effective legislation sufficient to meet necessities, especially with respect to armaments, and in this connection attention is requested to that part in particular of the accompanying report by Major John I. Rogers, First Artillery, inspector of artillery, relating to progress made to this time, and as probable in future from means as now provided for.

Attention is requested, for particulars not herein mentioned, to the reports* of the chiefs of the various staff departments, transmitted herewith, as follows:

Lieut. Col. O. D. Greene, assistant adjutant-general.

Col. Basil Norris, surgeon medical director.

Lieut. Col. John G. Chandler, deputy quartermaster-general, chief quartermaster.

Lieut. Col. George H. Burton, inspector-general.

Lieut. Col. John P. Hawkins, assistant commissary-general of subsistence, chief commissary of subsistence.

Maj. Frank M. Coxe, paymaster, chief paymaster.

Maj. John L. Rogers, First Artillery, inspector of artillery.

Maj. Edward Hunter, judge-advocate.

First Lieut. James E. Runcie, First Artillery, acting engineer officer and acting chief signal officer.

The report by Maj. Edward Moale, First Infantry, inspector of small-arms practice, is not included, owing to the fact that the practice for this year has not been entirely completed in this department. The report will be forwarded as soon as practicable.

I am sir, very respectfully, your obedient servant,

THOS. H. RUGER,

Brigadier-General, Commanding.

The ADJUTANT-GENERAL U. S. ARMY,
Washington, D. C.

* Omitted.

REPORT OF BRIG. GEN. MERRITT.

HEADQUARTERS, DEPARTMENT OF DAKOTA,
St. Paul, Minn., September 1, 1891.

SIR: I have the honor to submit the following report of military affairs in the Department of Dakota from August 1, 1890, to July 31, 1891, inclusive:

I assumed command of the Department of Dakota by virtue of General Orders No. 57, current series, Adjutant-General's Office, on July 16, 1891.

As I am informed that it is the intention of my predecessor in command to make such report of the part taken by the troops of this department in the campaign against the Indians last winter as will be necessary to an understanding of the excellent work done by these troops, I shall content myself with reporting facts relating to the movement of organizations for the year as shown by the records, together with such matters as have come to my notice in the brief period during which I have exercised command.

August 1, 1890.—Troops B and M, First Cavalry, First Lieut. Wm. H. Miller, commanding, left Camp Crook, Mont., and returned to station, Fort Custer. Arrived August 3. Distance marched, 65 miles.

August 1, 1890.—Troop G, First Cavalry, First Lieut. S. C. Robertson, commanding, left Fort Custer and proceeded to Camp Crook, Mont., to join the force under command of Maj. Carroll. Arrived August 3. Distance marched, 65 miles.

August 1, 1890.—Companies A and C, Twenty-second Infantry, Capt. P. M. Thorne, commanding, left Fort Keogh en route to the camp of troops on Tongue River for field duty at that point. Arrived August 5. Distance marched, 73 miles.

August 10, 1890.—Troop K, Eighth Cavalry, Capt. H. W. Sprole commanding, left Fort Keogh for Camp on Tongue River, and arrived August 12. Distance marched 73 miles.

August 13, 1890.—Troop L, Eighth Cavalry, Capt. S. W. Fountain, commanding, left Camp on Tongue River en route to Fort Keogh. Arrived August 15. Distance marched 73 miles.

August 14, 1890.—Company E, Fifteenth Infantry, Capt. H. H. Humphrey, commanding, left Fort Buford en route to new station at Fort Sheridan, Ill.

August 15, 1890.—Companies G and H, Third Infantry, Capt. C. Hobart, commanding, left Fort Snelling and proceeded to Camp Douglas, Wis., for duty in connection with the division and army rifle and carbine competition. Arrived August 15. Distance traveled 191 miles.

August 18, 1890.—Lieut. G. H. Patten, with detachment of 12 enlisted men of company G, Twenty-second Infantry, left Fort Totten, N. Dak., and proceeded to the Turtle Mountain Indian Reservation, for the purpose of preserving order and protecting public property at that place. Arrived August 22. Distance traveled 85 miles.

August 20, 1890.—Capt. A. G. Hennisee, with detachment of 12 enlisted men of Troop I, Eighth Cavalry, left Camp on Cheyenne River, S. Dak., and scouted the country, north, toward Owlfeather and Cherry Creeks. Returned August 24. Distance marched 100 miles.

August 21, 1890.—First Lieut. Q. O'M. Gillmore, with 12 enlisted men of troop C, Eighth Cavalry, left Camp on Cheyenne River, S. Dak., and scouted the country, south, toward Bad River, S. Dak. Returned to camp August 27. Distance marched 142 miles.

August 24, 1890.—Second Lieut. J. C. Byron, with a detachment of 10 enlisted men of Troop M, Eighth Cavalry, left Camp on Cheyenne River, S. Dak., and scouted the country, east, toward Forts Bennett and Sully. Returned August 30. Distance marched 180 miles.

August 24, 1890.—Company H, Fifteenth Infantry, First Lieut. T. F. Davis, commanding, left Fort Randall, S. Dak., en route to take station at Fort Sheridan, Ill.

August 27, 1890.—Company F, Twenty-fifth Infantry, First Lieut. W. S. Scott, commanding, left Fort Shaw and proceeded to Fort Missoula, changing station. Arrived August 28. Distance marched to Cascade, Mont., 18 miles, thence by rail to station. Total distance traveled 212 miles.

August 29, 1890.—Troop K, Eighth Cavalry, Capt. H. W. Sprole, commanding, which left Fort Buford June 12 for temporary duty at Fort Keogh, Mont., was permanently assigned to station at latter post. Distance marched 156 miles.

August —, 1890.—Under the provisions of General Orders, No. 76, Adjutant General's Office, 1890, the enlisted men of companies I and K of infantry regiments serving in the department, were transferred to other companies of their respective regiments during the month.

September 4, 1890.—Company A, Twelfth Infantry, left Fort Sully for station at Fort Bennett, S. Dak. Arrived same day. Distance marched 6 miles.

September 8, 1890.—Headquarters, band, and Companies E, I, and K, Twelfth Infantry, Capt. H. C. Brown, commanding, left Fort Yates, N. Dak., en route to take station at Fort Leavenworth, Kans.

September 13, 1890.—To protect the agent and public property from violence, which was threatened to be inflicted upon the troops or agent by two Cheyenne Indians, the murderers of Hugh Boyle, whose body was discovered by the troops September 9, Troops E and G, First Cavalry, the former under command of First Lieut. John Pitcher and the latter commanded by First Lieut. S. C. Robertson, under instructions from Maj. H. Carroll, First Cavalry, left Camp Crook, Mont., and proceeded to points between where the refugee Indians were reported to be secreted and the Tongue River Indian Agency. About 4 p. m. the Indians emerged from their lurking place, marched against and fired on the troops, and in the skirmish which ensued the two Indians were killed; three horses belonging to Troop E were wounded, one seriously, during the engagement.

September 14, 1890.—Companies G and H, Third Infantry, Capt. C. Hobart, commanding, returned to Fort Snelling from detached service at Camp Douglas, Wis. Distance traveled 191 miles.

September 18, 1890.—Company C, Twentieth Infantry, Second Lieut. H. D. Humphrey, commanding, left Fort Buford, N. Dak., and proceeded to Camp Poplar River, Mont., changing station. Arrived September 21. Distance marched 63 miles.

September 22, 1890.—Headquarters, band, and Companies A, B, D, E, and G, Twentieth Infantry, with one field officer and Troops C, F, and H, First Cavalry, and with detachment of Hospital Corps, under command of Maj. D. D. Van Valzah, Twentieth Infantry, left Fort Assiniboine, Mont., proceeded to and established a camp of instruction on Beaver Creek, Mont. Distance marched 18 miles. September 29, Com-

panies A and B, Twentieth Infantry, and Troops C and F, First Cavalry, Maj. J. M. Hamilton, First Cavalry, commanding, left camp of instruction on Beaver Creek for the purpose of establishing a sub-camp of instruction on Little Box Elder Creek, Montana.

September 25, 1890.—Company G, Twenty-fifth Infantry, Capt. W. I. Sanborn, commanding, left Demersville, Mont., and returned to its station, Fort Missoula. Arrived September 30. Distance traveled 140 miles.

September 28, 1890.—Company C, Twelfth Infantry, Capt. J. L. Viven, commanding, returned to station, Fort Sully, from Lower Brulé Agency, where it had been since April 10. Distance traveled 113 miles.

September 29, 1890.—Companies B and H, Twenty-second Infantry, First Lieut. E. W. Casey, commanding, left Fort Keogh for Camp on Tongue River, Mont., and to relieve Companies A and C, Twenty-second Infantry, on duty at that place.

September —, 1890.—Troops L and M, First Cavalry, were transferred and attached to other troops of the regiment during the month. General Orders, No. 79, A. G. O., 1890.

October 2, 1890.—Companies B and H, Twenty-second Infantry, First Lieut. E. W. Casey, commanding, having left Keogh September 29, reached camp of troops on Tongue River, Mont., and relieved Companies A and C, Twenty-second Infantry. Distance marched 73 miles.

October 2, 1890.—Troop A, First Cavalry, Capt. P. S. Bomus, commanding, left camp on Lower Geyser Basin, Wyo., and marched to Camp Sheridan, Wyo. Arrived October 3. Left Camp Sheridan October 19 en route for station, Fort Custer, Mont. Arrived October 29. Distance marched 261 miles.

October 3, 1890.—Companies A and C, Twenty-second Infantry, Capt. P. M. Thorne, commanding, left Camp on Tongue River and marched to Fort Keogh. Arrived October 6. Distance marched 73 miles.

October 4, 1890.—Headquarters and Companies A, B, D, E, and G, Twentieth Infantry, and Troops C, F, and H, First Cavalry, with detachment of Medical Corps, Maj. D. D. Van Valzah, Twentieth Infantry, commanding, returned to Fort Assiniboine from camp of instruction on Beaver Creek, Mont. Distance marched 18 miles.

October 13, 1890.—Companies C and F, Twentieth Infantry, Capt. L. Wheaton, commanding, performed field exercises in vicinity of post, Camp Poplar River, from October 13 to 24. Distance marched 94 miles.

October 14, 1890.—Headquarters and Companies F, G, and H, Twenty-fifth Infantry, Col. George L. Andrews, commanding, performed field exercises in vicinity of post, Fort Missoula, from October 14 to 24. Distance marched about 75 miles.

October 15, 1890.—Companies C and D, Twelfth Infantry, Capt. A. B. MacGowan, commanding, performed field exercises in vicinity of post, Fort Sully, from October 15 to 25. Distance marched 86 miles.

October 21, 1890.—Headquarters and Companies A, D, E, G, and H, Third Infantry, Col. E. C. Mason, commanding, engaged in a practice march in vicinity of post, Fort Snelling, Minn. Distance marched 15 miles.

October 21, 1890.—Company B, Twelfth Infantry, Capt. Tassin, commanding, returned to station, Fort Sully, from old Fort Pierre, S. Dak. Distance marched 23 miles. The company performed field exercises October 23, 24, and 25. Distance marched 44 miles.

October 24, 1890.—Lieut. George H. Patten, with detachment of enlisted men of Company G, Twenty-second Infantry, returned to station,

Fort Totten, from Turtle Mountain Indian Reservation. Distance traveled 168 miles.

November 2, 1890.—Troop D, First Cavalry, Capt. Forse, commanding, left Camp Crook, Mont., and returned to its station, Fort Custer. Arrived November 3. Distance marched 65 miles.

November 2, 1890.—Troop G, First Cavalry, Lieut. Wainwright, commanding, left Camp Crook, Mont., as escort to Gen. Miles and Indian Commissioners and proceeded to Fort Custer, Mont. Arrived November 3. Distance marched 65 miles.

November 3, 1890.—Troops H and K, Eighth Cavalry, and Companies B and H, Twenty-second Infantry, Capt. Ketchum, commanding, left Camp on Tongue River and returned to their proper station, Fort Keogh, Mont. Arrived November 6. Distance marched 73 miles.

November 7, 1890.—Troop G, First Cavalry, Lieut. Wainwright, commanding, left Fort Custer, Mont., for Tongue River Agency, Mont., and patrolled the Rosebud River and its tributaries, making observations of movements of Indians, who were found quiet and peaceful. Returned to station November 28. Distance marched about 460 miles.

November 8, 1890.—Troop E, First Cavalry, with detachment of Hospital Corps, Maj. Carroll, commanding, left Camp Crook, Mont., en route to proper station, Fort Custer, Mont. Arrived November 10. Distance marched 65 miles.

November 14, 1890.—A detachment of the Third Infantry, consisting of 10 enlisted men under command of Capt. Gerlach, left Fort Snelling, Minn., for temporary duty at Fort Totten, N. Dak., in consequence of the withdrawal of troops from the latter post. Arrived November 16. Distance traveled 435 miles.

November 17, 1890.—Company B, Twelfth Infantry, Lieut. Godfrey, commanding, left Fort Sully for temporary duty at Fort Bennett, S. Dak. Arrived November 17. Distance marched about 7 miles. Capt. Tassin, Twelfth Infantry, joined and assumed command of company November 19.

November 18, 1890.—The post of Fort Totten, N. Dak., having been transferred to the Interior Department, Company G, Twenty-second Infantry, Capt. Miner, commanding, left post en route for station at Fort Yates, N. Dak. Arrived November 23. Distance traveled 244 miles.

November 23, 1890.—First Lieut. E. H. Crowder, with detachment of 4 enlisted men of Troop G, Eighth Cavalry, left Fort Yates, N. Dak., to patrol country on east side of Missouri and investigate matter relative to sale of arms to Indians and reported depredations by them. Returned to post November 26, having carried out the instructions given him, and reported no depredations having been committed by the Indians. Distance marched 140 miles.

November 23, 1890.—Lieut. Wolf, Third Infantry, with detachment of 30 enlisted men, Lieut. Evans, Eighth Cavalry, commanding, left Camp Cheyenne, S. Dak., to scout and take under observation the disposition and attitude of the Indians living in the vicinity of the mouth of Cherry Creek, S. Dak. Returned November 26. Distance marched 82 miles.

November 24, 1890.—Company H, Twenty-second Infantry, Capt. Ketchum, commanding, left Fort Keogh, Mont., en route to Fort Abraham Lincoln, for temporary duty. Arrived November 25. Distance traveled 302 miles.

November 24, 1890.—Troops A, B, and E, First Cavalry, Maj. H. Carroll, commanding, left Fort Custer and went into camp at Custer Station, being held in readiness to board the cars immediately, when

ordered. Distance marched 35 miles. On November 27, two of the troops, A, and E, Maj. Carroll, commanding, left Custer Station en route to Fort Abraham Lincoln, N. Dak., for field duty in connection with anticipated trouble with Indians of the Standing Rock and Cheyenne River reservations. Arrived November 28. Distance traveled 425 miles.

November 27, 1890.—Troop B, First Cavalry, Capt. Adams, commanding, left Custer Station and marched to Fort Keogh, Mont. Arrived November 30. Distance marched 126 miles.

November 27, 1890.—Companies F and H, Twenty-fifth Infantry, Capt. Ritzius, commanding, left Fort Missoula for temporary duty at Fort Keogh, Mont. Arrived November 29. Distance traveled 510 miles.

November 28, 1890.—Companies C and E, Twenty-fifth Infantry, Lieut. Col. J. J. Van Horn, commanding, left Fort Shaw and proceeded to Fort Keogh, Mont., for temporary duty. Arrived November 30. Distance traveled 472.

November 28, 1890.—Light Battery F, Fourth Artillery, Capt. G. B. Rodney, commanding, arrived in department from Fort Riley, Kans., one platoon, under Capt. Rodney, took station at Fort Meade, and the other, under Lieut. Strong, at Fort Snelling, Minn. Distance traveled about 700 miles.

November 30, 1890.—Lieut. Col. E. V. Sumner, Eighth Cavalry, with Troop D, Eighth Cavalry, left Fort Meade to join and take command of forces under Capt. A. G. Hennisee, Eighth Cavalry, on the Cheyenne River for the purpose of keeping Indians in that vicinity under observation and control. Arrived December 3. Distance marched 85 miles.

December 1, 1890.—Headquarters and Troops A, C, D, E, F, G, H, and K, Sixth Cavalry, left the Department of Arizona, and I Troop, the Department of Missouri, on December 2, and proceeded by rail to Rapid City, S. Dak., arriving December 8, for service in the Department of Dakota, under command of Col. E. A. Carr, Sixth Cavalry. The command moved into camp on mouth of Rapid Creek, S. Dak., and was, on the 19th of December, joined by a detachment of Light Battery F, Fourth Artillery, Lieut. Cronkhite, commanding, from Fort Meade, and on December 22 by Company C, Seventeenth Infantry, Capt. J. M. Burns, commanding. The troops during the remainder of the month were engaged in scouting in the valley, or in the vicinity of Cheyenne River, S. Dak., to the north and south of Rapid Creek, and in the valley of White River, particularly in the vicinity of Wounded Knee Creek, since their arrival in the department, being encamped on Wounded Knee Creek, S. Dak., on December 31. Total distance traveled 1,745 miles.

December 1, 1890.—Companies A and D, Twenty-second Infantry, Capt. J. B. Irvine, commanding, arrived at Fort Abraham Lincoln, N. Dak., for field duty, having left Fort Keogh, Mont., November 30. Distance traveled 302 miles.

December 2, 1890.—Troop C and F, First Cavalry, companies G and H, Twentieth Infantry, with a detachment of the Medical Department, Maj. J. M. Hamilton, First Cavalry, commanding, arrived at Fort Keogh, Mont., having left Fort Assiniboine on November 29. Distance traveled 594 miles.

December 6, 1890.—Troops C, D, and I, Eighth Cavalry, and Company F, Third Infantry, Lieut. Col. E. V. Sumner, Eighth Cavalry, commanding, left camp on junction of the Belle Fourche and Cheyenne

rivers, and moved about 4 miles up the Cheyenne River to better keep under surveillance and observation Big Foot's village and country in that vicinity. December 15 the command was joined by Company C, Third Infantry, from Fort Meade, also detachment of enlisted Indian scouts. On the 19th the command marched to Narcelle's ranch, and on the 21st proceeded to Big Foot's camp near the forks of Cheyenne River. December 21 information was received from Col. Sumner, by telegraph, that the Indians of Big Foot's following had all surrendered to him, and he would bring them in the next day. December 23 Lieut. Col. Sumner reported that he did not succeed in getting the Indians to come into his camp, and that they subsequently moved toward the Bad Lands. Scouted country in vicinity by detachments from the command during the month and returned to camp December 30. Distance marched about 104 miles.

December 7, 1890.—Headquarters and Companies B, C, D, E, F, G, and H, of the Seventh Infantry, Col. H. C. Merriam, commanding, arrived in the department, reporting at Fort Sully, and have since performed field service in the region of the Cheyenne River, South Dakota, and garrison duty at Forts Sully and Bennett, S. Dak.

December 9, 1890.—Troops A and B, Eighth Cavalry, Capt. A. B. Wells, commanding, left camp at Oelrichs, S. Dak., marched 23 miles, and established camp at Buffalo Gap, South Dakota. Arrived same day. Left latter camp December 16 and marched to the mouth of French Creek, tributary of the Cheyenne, 32 miles distant, and went into camp. Left that camp on December 31 and marched 27 miles to White River, South Dakota, where a camp was established. Total distance marched 82 miles.

December 12, 1890.—Company C, Third Infantry, Capt. Philip Reade, commanding, left Fort Meade, S. Dak., en route to join command under Lieut. Col. Sumner, Eighth Cavalry, on the Cheyenne River, which was reached on December 15. Distance marched 69 miles.

December 13, 1890.—Troop B, First Cavalry, with troop of Indian scouts under Lieut. Casey, Twenty-Second Infantry, Capt. John Q. Adams, First Cavalry, commanding, left Fort Keogh for region in vicinity of the Little Missouri, for the purpose of intercepting bands of hostile Indians reported to be moving in that direction. Distance marched 110 miles.

December 14, 1890.—Troops F and G, Eighth Cavalry, Capt. E. G. Feché, commanding, left Fort Yates at midnight en route for Sitting Bull's camp on Grand River, to assist, if necessary, the Indian police in effecting the capture or arrest and thereafter in preventing the rescue of Sitting Bull, who was reported about to leave his camp to go to the Pine Ridge Reservation and presumably to join the Sioux assembled in the Bad Lands. By rapid marching the command reached a point within 3 miles of Sitting Bull's camp at daybreak on the 15th. Soon after dawn one of the Indian police reached camp and reported that all the other police had been killed. The command was rapidly moved forward, and shortly after another of the police was met, who reported that Sitting Bull's people had the Indian police penned up in his (Sitting Bull's) house; that they were nearly out of ammunition and could not hold out much longer. The command moved with all possible speed to their rescue. Signals were exchanged between the command and the police, and then parties of Indians were seen leaving the woods, going in the direction of the hills to the south across Grand River. The Hotchkiss gun was then trained in that direction and a few shots fired; this, with some fire from a dismounted line of troops, caused the

hostiles to retreat rapidly. An advance was then made upon the house and was joined in by the Indian police. The hostiles were pursued for a few miles, but escaped to the hills. Upon arrival at Sitting Bull's camp it was learned that a desperate encounter had taken place between the police and Sitting Bull's adherents. Sitting Bull had been arrested by the police and rescue was attempted by his followers, which resulted in an engagement, by which four Indian police were killed and three wounded—one mortally. Sitting Bull and seven of his people, including some of his most prominent supporters, were killed, and several wounded. No casualties among the troops. The command returned to Fort Yates December 16, bringing the body of Sitting Bull and the dead and wounded Indian police. Distance marched 92 miles.

December 14.—Troop H, Eighth Cavalry, with detachment of Company B, Twenty-second Infantry, Capt. S. W. Fountain, Eighth Cavalry, commanding, left Fort Keogh for Dickinson, N. Dak., for the purpose of intercepting hostile Indians who might be crossing country in that vicinity. He left Dickinson on December 29; scouted the Upper Cannon Ball River, and Upper Grand River region and country about Cave Hills, and joined Maj. Carroll's command at New England City, N. Dak., December 30. Distance traveled about 220 miles.

December 16, 1890.—Troops A and E, First Cavalry, and Company D, Twenty-second Infantry, Maj. H. Carroll, First Cavalry, commanding, left Fort Abraham Lincoln, N. Dak., and proceeded to patrol and keep under observation country adjacent to the Cannon Ball River, and to protect settlers in that vicinity; also to open line of communication with Capt. Fountain near Dickinson, N. Dak. On December 23 information was received from the division commander that a troop of cavalry was reported surrounded by hostiles near Cave Hills, to which point, in compliance with instructions of the division commander, Troop A, First Cavalry, Capt. Bomus, commanding, was sent with all possible speed, making a forced march of 167 miles, and arrived December 26. No Indians or troops were found near that place, and the troops returned to New England City, marching a distance of 75 miles. Company D, Twenty-second Infantry, joined the command at Guy's ranch, on Grand River. The command reached New England City, and was joined by Troop H, Eighth Cavalry, Capt. Fountain, commanding, December 30. Distance marched about 400 miles.

December 16, 1890.—Companies A and H, Twenty-second Infantry, Lieut. Col. J. S. Conrad, commanding, left Fort Abraham Lincoln, N. Dak., for the Lower Cannon Ball region, to protect settlers in that vicinity from possible approach of hostile Indians. Arrived same day. Distance marched, 28 miles.

December 17, 1890.—Troop H, First Cavalry, Lieut. Hartman, commanding, left Fort Assiniboine and proceeded by rail to Fort Keogh, Mont., for field service. Arrived December 19. Distance traveled, 594 miles.

December 17, 1890.—Company F, Twenty-second Infantry, Capt. M. Hooton, commanding, left Fort Keogh, and proceeded to Camp Crook, on Lake Deer Creek, Montana, with object to relieve Troop G, First Cavalry. Arrived December 22. Distance marched, 93 miles.

December 19, 1890.—Troop K, First Cavalry, Capt. F. A. Boutelle, commanding, left Camp Sheridan, Wyo., and proceeded by rail to Fort Keogh, Mont. Arrived same day. Distance traveled, 320 miles.

December 21, 1890.—Capt. J. H. Hurst, Second Lieut. H. C. Hale, and Sergt. Phil. Gallagher, Twelfth Infantry, with two enlisted Indian

scouts, left Fort Bennett, S. Dak., and proceeded to the mouth of Cherry Creek, for the purpose of inducing fugitive Uncapapa Indians of Sitting Bull's following from Standing Rock Agency to surrender their arms and come into the Cheyenne River Agency. Arrived at the Indian camp same day, having marched 52 miles. After council with the principal men had been held, the Indians concluded to surrender their arms and agreed to come into the post. On the 22d of December, broke camp and returned to Fort Bennett, S. Dak., with the Indians. Arrived December 24. The Indians consisted of 227 Uncapapas, belonging to the Standing Rock Reservation, and 67 Minneconjou Sioux, belonging to the Cheyenne River Reservation, 148 ponies, and 4 wagons. Distance marched, 104 miles.

December 24, 1890.—Troop E, Eighth Cavalry, Lieut. H. F. Kendall, commanding, left Fort Buford, N. Dak., for the purpose of arresting any Indians found to have left the Popular Creek Reservation without permission, and particularly Medicine Bear and party, supposed to be en route to Williston, N. Dak., on a visit to Crow Fly High's camp. Failed to find any trace of party mentioned, and returned to post December 25. Distance marched, 48 miles.

December 24, 1890.—Company G, Twelfth Infantry, Capt. D. J. Cragie commanding, left Fort Yates, N. Dak., as escort to wagon train with supplies for cavalry in the field. Camped at Cottonwood Creek, en route to the command on Grand River, S. Dak., December 31. Distance marched, 63 miles.

December 24, 1890.—A detachment of Light Battery F, Fourth Artillery, nine enlisted men, under command of Lieut. Gatchell, arrived at Fort Abraham Lincoln from Fort Snelling, Minn., having left latter post December 23. Distance traveled by rail and marching, 478 miles.

December 31, 1890.—Troops C, G, H, and K, First Cavalry, companies G and H, Twentieth Infantry, and a detachment of Light Battery F, Fourth Artillery, under Lieut. Strong, Fourth Artillery (this detachment having arrived on the 24th instant from Fort Snelling, and traveled 753 miles), Lieut. Col. A. K. Arnold, First Cavalry, commanding, left Fort Keogh, Mont., en route to Powderville, on Powder River, Mont., for the purpose of scouting the country of the Little Missouri River and to the east and west, with object to intercept any parties of Indians who might break away from the Pine Ridge Reservation and attempt to go north; and with reference to this object to communicate with the command under Maj. Carroll, First Cavalry, whose command was directed to operate in the Grand River region. The command went into camp at a point on Tongue River, about 14 miles from the post.

December 31, 1890.—The military post of Fort Totten was turned over to the Interior Department, the detachment of Third Infantry having left for Fort Snelling, December 27, Lieut. Mosher, Twenty-second Infantry, and two noncommissioned staff officers remaining at post to complete the shipment of military stores to other points.

OPERATIONS IN THE DEPARTMENT UNDER IMMEDIATE COMMAND OF BRIG. GEN. BROOKE, U. S. ARMY.

November 30, 1890.—Brig. Gen. John R. Brooke, U. S. Army, telegraphed his arrival at Pine Ridge Agency, S. Dak., and that the command there consisted of eight troops Seventh Cavalry, four troops Ninth Cavalry, Capt. Capron's Light Battery E, First Artillery, the Second Infantry, and one company (C) of the Eighth Infantry; and

that at Rosebud Agency, S. Dak., consisted of two troops of the Ninth Cavalry, three companies Eight Infantry, and four companies of the Twenty-first Infantry. These troops have been operating in the field, under the immediate command of Gen. Brooke.

December 4, 1890.—Four troops of Cavalry, I First, F Second, I Fifth and C Ninth, Capt. C. C. Carr, First Cavalry, commanding, arrived in the department from Fort Leavenworth, Kans., and have since performed field service in vicinity of Oelrichs, S. Dak., Lieut. Col. G. B. Sanford, Ninth Cavalry, commanding since December 9.

December 19, 1890.—Headquarters and Companies A, B, C, D, E, G, and H, Seventeenth Infantry, Lieut. Col. R. H. Offley, commanding, arrived in the department, reporting at points as follows: Company E at Oelrichs, B at Buffalo Gap, A and H at Fairburn, D and G at Hermosa, headquarters, and Company C at Rapid City, S. Dak. These troops have since performed field duty on the line of the Cheyenne River and vicinity, South Dakota.

December 26, 1890.—Headquarters and Companies A, B, C, D, E, G, and H, First Infantry, Col. William R. Shafter commanding, arrived in the department, reporting at Hermosa, S. Dak., and performed field duty in the region of the Pine Ridge Agency, and along the boundary line between South Dakota and Nebraska.

December 28, 1890.—Information was received from Gen. Brooke, by telegraph, that Maj. Whitside, Seventh Cavalry, had captured Big Foot and his band, on head of Porcupine Creek, S. Dak., 129 men and 250 women and children, and that he had sent Col. Forsyth with another battalion to make sure.

December 29, 1890.—Information was received by telegraph from Gen. Miles and Gen. Brooke that, while disarming Big Foote's party, a break was made and a fight occurred, in which Capt. Wallace, Seventh Cavalry, and twenty-five enlisted men were killed, and Lieuts. Garlington and Hawthorne and about thirty-five enlisted men were wounded. The number of Indians killed and wounded, not exactly known. Information was received from Gen. Brooke, same date, of an engagement having taken place between Capt. Jackson's troop, Seventh Cavalry, and about one hundred and fifty-three Indians, who had left Pine Ridge on learning of the fight on Wounded Knee Creek. In the engagement twenty-three prisoners, whom Capt. Jackson had gathered up, were rescued from him. Two enlisted men were wounded.

December 30, 1890.—First Lieut. J. D. Mann, Seventh Cavalry, was wounded in a skirmish with hostile Indians on White Clay Creek, tributary of the White River, South Dakota.

January 1, 1891.—Troops A and E, First Cavalry; H, Eighth Cavalry; Company D, and detachment of B, Twenty-second Infantry, Maj. H. Carroll, First Cavalry, commanding, left New England City, N. Dak., and marched to the North Fork of Grand River, Gay's Crossing, from which point Troop H, Eighth Cavalry, and the detachment of Company B, Twenty-second Infantry, Capt. Fountain commanding, were sent on a scout to the South Fork of Grand river, and the main command under Maj. Carroll marched to the forks of Grand River, 50 miles, and went into camp at that point January 4. The command was there joined by Troops F and G, Eighth Cavalry, and Companies G and H, Twelfth Infantry, and was afterwards engaged in scouting and patrolling the country in the Grand River region and between Slim Buttes and Camp Crook, having established a line of communication with Lieut. Col. Arnold's command, which was operating in Little Missouri region, Montana. January 26 Troops F and G, Eighth Cavalry, and

Companies G and H, Twelfth Infantry, were relieved from duty with the command and directed to return to their station, Fort Yates, N. Dak., where they arrived, under command of Capt. Fenché, Eighth Cavalry, January 30 and 31; distance marched, 287 miles. January 26 the main command, under Maj. Carroll, marched to Dickinson, N. Dak., en route to their proper stations. January 29 Troop H, Eighth Cavalry, Company D, and detachment of Company B, Twenty-second Infantry, under command of Capt. Fountain, Eighth Cavalry, left Dickinson en route for Fort Keogh, by rail, and arrived January 30; distance traveled, 450 miles. January 30, Troops A and E, First Cavalry, Maj. Carroll commanding, left Dickinson for Fort Custer, by rail, and arrived at Custer Station, Mont., same day; distance traveled, about 540 miles.

January 1, 1891.—Troops C, G, H, and K, First Cavalry, Companies G and H, Twentieth Infantry, with detachment of Light Battery F, Fourth Artillery, Lieut. Col. A. K. Arnold, First Cavalry, commanding, left camp on Tongue River and marched via Powderville to the Little Missouri, Montana, and established a camp about 12 miles north of Alzada, Mont. January 8, formed line of communication with Maj. Carroll's command on Grand River, through Capt. Adams, commanding Troop B, First Cavalry, and patrolled the country from Alzada to Slim Buttes and Nashville, keeping the country eastward under observation, also sending out patrolling parties south to Gammors, which parties were to return by way of Prairie Creek. January 8, the command was joined by F Troop, First Cavalry, and on the 10th by Troop D, First Cavalry, and Troop of Crow Indian scouts, from Fort Custer, under command of Maj. Charles D. Viele, First Cavalry. January 24, the command left camp on the Little Missouri, Montana, en route for their proper stations. Arrived at Fort Keogh, Mont., January 29, and went into camp temporarily. Distance marched, about 270 miles.

January 4, 1891.—Company H, Twenty-second Infantry, Capt. H. H. Ketchum, commanding, left camp on the Cannon Ball River and marched to Fort Yates, N. Dak., for temporary station. Arrived same day. Distance marched, 25 miles.

January 7, 1891.—First Lieut. E. W. Casey, Twenty-second Infantry, on detached service near Pine Ridge, S. Dak., with his troop of Cheyenne Indian scouts, and while taking observations of the hostile camp, near White River, South Dakota, was murdered by a hostile Sioux Indian (Brulé), who treacherously shot him in the back of the head, killing him instantly.

January 8, 1891.—Second Lieut. Charles W. Farber, Eighth Cavalry, with detachment of Troop E, Eighth Cavalry, left Fort Buford; scouted country on south side of Missouri to Poplar River. Returned to post January 10, having seen no sign of hostile Indians in that vicinity. Distance marched, 77½ miles.

January 9, 1891.—First Lieut. H. F. Kendall, with detachment of troop E, Eighth Cavalry, twenty-seven men, left Fort Buford, en route to Williston, for the purpose of arresting three Indians reported being at that point. Returned to post January 10, having arrested the three Indians about 7 miles from Williston, and turned them over to the officer of the day at Fort Buford, N. Dak. Distance marched, 48 miles. These Indians were, on the 12th of January, turned over to the Indian police from Poplar River, sent for them by the agent, who stated that the Indians had left the agency about five weeks ago, without permission.

January 13, 1891.—Company G, Twenty-second Infantry, Capt. Miner

commanding, left Fort Yates, as escort to supply train for Maj. Carroll's command. Returned to post January 31. Distance marched, 237 miles.

January 19, 1891.—Company A, Twenty-second Infantry, Capt. J. B. Irvine commanding, returned to Fort Abraham Lincoln, N. Dak., for temporary duty, from detached service on Cannon Ball River. Distance marched, 28 miles.

January 22, 1891.—Troops C, D, and I, Eighth Cavalry, and companies C and F, Third Infantry, Lieut. Col. E. V. Sumner, Eighth Cavalry, commanding, returned to Fort Meade, S. Dak., from field duty in vicinity of Cheyenne River, South Dakota. Distance marched, C Troop, Eighth Cavalry, 79 miles; Troop D, including scouting, 321 miles, and I Troop, 85 miles; Companies C and F, Third Infantry, about 80 miles each.

January 26, 1891.—Troops A and B, Eighth Cavalry, Capt. A. B. Wells commanding, returned to station, Fort Meade, from detached service in the field in vicinity of White River, South Dakota. Distance marched, 130 miles.

January 26, 1891.—Lieut. G. W. Gatchell, with detachment of Light Battery F, Fourth Artillery, left Fort Abraham Lincoln, N. Dak., en route to station, Fort Riley, Kans.

January 27, 1891.—Company H, Third Infantry, Capt. C. Hobart commanding, left Fort Snelling, Minn., and proceeded by rail to Fort Sully, S. Dak., for station. Arrived January 29. Distance traveled, about 440 miles.

January 30, 1891.—Company H, Seventh Infantry, Capt. J. M. J. Sanno commanding, left Fort Sully, S. Dak., en route to station, Fort Leavenworth, Kans.

January 31, 1891.—The headquarters of the Fifteenth Infantry left Fort Buford, N. Dak., for station at Fort Sheridan, Ill. The colonel and regimental staff left on the 28th, and the noncommissioned staff and band on January 31.

February 1, 1891.—Company B, Third Infantry, Capt. J. P. Thompson, Third Infantry, commanding, left Fort Meade, S. Dak., en route to Fort Sully, S. Dak., for station. Arrived February 5. Distance traveled, 894 miles.

February 3, 1891.—Troops C, F, and H, First Cavalry, and companies G and H, Twentieth Infantry, Maj. J. M. Hamilton, First Cavalry, commanding, returning from field service, left camp near Fort Keogh, Mont., and proceeded by rail to station, Fort Assinniboine, Mont. Arrived February 6. Distance traveled, 592 miles.

February 3, 1891.—Troops B, D, G, and K, First Cavalry, and Troop B, U. S. Scouts, Department of Dakota, Lieut. Col. A. K. Arnold, First Cavalry, commanding, returning from field service, left camp near Fort Keogh, Mont., en route to station, Fort Custer, Mont. Arrived February 8. Distance marched, 135 miles.

February 4, 1891.—Troops A and E, First Cavalry, Maj. Henry Carroll, First Cavalry, commanding, left camp near Custer Station, Mont., for Fort Custer, Mont., and arrived there same day. Distance marched, 35 miles.

February 4, 1891.—Companies C and E, Twenty-fifth Infantry, Lieut. Col. J. J. Van Horn commanding, left Fort Keogh en route to station, Fort Shaw, Mont., arrived February 6. Distance traveled, 470 miles.

February 4, 1891.—Companies F and H, Twenty-fifth Infantry, Capt. H. P. Ritzius commanding, left Fort Keogh en route to station, Fort Missoula, Mont. Arrived February 9. Distance traveled, 509 miles.

February 6, 1891.—The military post of Fort Randall and all that portion of South Dakota lying south of the forty-fourth parallel of north

latitude was transferred to the Department of the Platte, and command thereof was assumed by Brig. Gen. John R. Brooke, U. S. A. (General Orders No. 9, current series, A. G. O.)

February 16, 1891.—Troop I, Sixth Cavalry, Capt. George S. Anderson commanding, arrived at Camp Sheridan, Wyo., from Pine Ridge, S. Dak., and took station thereat, relieving Troop K, First Cavalry, which took station at Fort Custer, Mont.

March 1, 1891.—Company B, Twelfth Infantry, Capt. D. J. Cragie commanding, left Fort Yates, N. Dak., for station at Fort Leavenworth, Kans.

March 6, 1891.—Troop A, U. S. Scouts, Department of Dakota, returned to station, Fort Keogh, Mont., from field service near Pine Ridge, S. Dak., and on same date Troop C, U. S. Scouts, Department of Dakota, joined station, Fort Keogh, from Pine Ridge, S. Dak., Capt. E. P. Ewers, Fifth Infantry, commanding. Distance marched, about 306 miles.

March 12, 1891.—Company D, Twelfth Infantry, Lieut. E. C. Carnahan commanding, left Fort Bennett to rejoin proper station, Fort Sully, S. Dak. Arrived same day. Distance marched, 8 miles.

March 16, 1891.—The detachment of ordnance stationed at the Fort Snelling Ordnance Depot, Minn., was transferred to Rock Island Arsenal, Ill.

March 26, 1891.—Company C, Third Infantry, Capt. Philip Reade commanding, left Fort Meade, S. Dak., and proceeded by rail to Fort Snelling, Minn., for station. Arrived March 28. Distance traveled, 804 miles.

April 1, 1891.—Under the provisions of General Orders No. 28, current series, A. G. O., the following skeletonized troops and companies in this department are being recruited by the enlistment of Indian soldiers, with stations as follows: Troop L, First Cavalry, Fort Custer, Mont.; Troop L, Eighth Cavalry (Casey's Scouts), Fort Keogh, Mont.; Company I, Third Infantry, Fort Sully, S. Dak.; Company I, Twentieth Infantry, Camp Poplar River, Mont.; Company I, Twenty-second Infantry, Fort Yates, N. Dak.

April 10, 1891.—Company C, Twenty-second Infantry, Capt. P. M. Thorne, commanding, left Fort Keogh, Mont., and proceeded to the Tongue River Indian Agency to relieve Company F, Twenty-second Infantry, from duty at that point. The latter company, on being relieved, returned to its proper station, Fort Keogh, under command of Lieut. Moore, Twenty-second Infantry, and arrived April 21. Distance marched by each company, 190 miles.

May 11, 1891.—The designation of the military post at Mammoth Hot Springs, in the Yellowstone National Park, Wyo., known as Camp Sheridan, was changed to Fort Yellowstone. General Orders, No. 45, current series, A. G. O.

May 16, 1891.—Two hundred and fifty-four Indian prisoners of war left Fort Sully, S. Dak., under charge of First Lieut. H. C. Hale, Eighteenth Infantry, en route to Standing Rock Agency, N. Dak.

May 16, 1891.—Second Lieut. James F. Dean, with detachment Third Infantry, twelve enlisted men, left Fort Snelling, Minn., en route to Fort Pembina, N. Dak., to take temporary charge of the post. Arrived same day. Distance traveled, about 420 miles.

May 17, 1891.—Company H, Third Infantry, Capt. Hobart, commanding, left Fort Sully, S. Dak., en route to Fort Snelling, Minn., changing station. Arrived May 19. Distance traveled, 443 miles.

May 18, 1891.—Troop E, First Cavalry, Capt. Edwards, commanding, left Fort Custer, Mont., en route to Fort Yellowstone, Wyo., for tem-

porary duty in the Yellowstone National Park during the summer months. Arrived May 29. Distance marched, 243 miles.

May 19, 1891.—Company H, Twenty-second Infantry, Capt. Ketchum, commanding, left Fort Yates, N. Dak., en route to its proper station, Fort Keogh, Mont. Arrived May 20. Distance traveled, 392 miles.

May 19, 1891.—Second Lieut. C. C. Walcutt, jr., with fifteen enlisted men of Troop K, Eighth Cavalry, left Fort Keogh for the camp on Tongue River, Mont., and to relieve the detachment of Troop H, Eighth Cavalry, at that point. Arrived May 22. Distance marched, 73 miles.

May 20, 1891.—Troop A, First Cavalry, Capt. P. S. Bomus, commanding, left Fort Custer, Mont., en route to Fort Meyer, Va., changing station. Arrived May 24. Distance traveled, about 2,050 miles.

May 20, 1891.—Company F, Fifteenth Infantry, Capt. A. Hedberg, commanding, left Fort Buford, N. Dak., en route to Fort Sheridan, Ill., changing station.

May 21, 1891.—Company F, Twentieth Infantry, Capt. J. B. Rodman, commanding, left Camp Poplar River, Mont., en route to Fort Buford, N. Dak., changing station. Arrived May 21. Distance traveled, 65 miles.

May 21, 1891.—Company C, Twenty-second Infantry, Capt. P. M. Thorne, commanding, left Tongue River Agency, Mont., the presence of troops at the agency being no longer necessary, and returned to its proper station, Fort Keogh, Mont. Arrived May 26. Distance marched, 90 miles.

May 22, 1891.—Second Lieut. A. H. Sydenham, with 30 enlisted men of troop H, Eighth Cavalry, on being relieved by Lieut. Walcutt, Eighth Cavalry, left Camp on Tongue River and returned to station, Fort Keogh, Mont. Arrived May 23. Distance marched, 73 miles.

May 23, 1891.—Company B, Fifteenth Infantry, Capt. E. S. Chapin, commanding, left Fort Pembina, N. Dak., en route to Fort Sheridan, Ill., changing station.

May 24, 1891.—Company B, Third Infantry, Capt. J. P. Thompson, commanding, left Fort Sully, S. Dak., en route to Fort Snelling, Minn., changing station. Arrived May 26. Distance traveled, 443 miles.

May 26, 1891.—Company B, Twelfth Infantry, Second Lieut. G. J. Godfrey, commanding, left Fort Bennett, S. Dak., and returned to its proper station, Fort Sully, S. Dak. Arrived same day. Distance marched, 6 miles.

June 4, 1891.—Company F, Third Infantry, Capt. Bartlett, commanding, left Fort Meade, S. Dak., en route to Fort Snelling, Minn., changing station. Arrived June 6. Distance traveled, 816 miles.

June 10, 1891.—Troop E, Third Cavalry, without officers, was transferred from the Department of Texas to the Department of Dakota, and stationed at Fort Bennett, S. Dak., to be organized by recruitment of Indians, including Hump and his band.

June 24, 1891.—Troop H, Eighth Cavalry, Capt. Fountain, commanding, left Fort Keogh, Mont., en route to Fort Meyer, Va., changing station.

July 8, 1891.—Headquarters and Companies A, B, C, D, E, F, G, and H, Third Infantry, Col. E. C. Mason, commanding, left Fort Snelling and proceeded to Camp Douglas, Wis., for encampment with the Wisconsin National Guard. Arrived July 24, 1891. Distance marched, 227½ miles.

July 10, 1891.—First Lieut. G. W. Goode, with detachment of fifteen enlisted men of Troop B, First Cavalry, left Fort Custer and proceeded to camp on Tongue River, Montana. Arrived on July 12, 1891, relieving Lieut. Walcutt and detachment of Troop K, Eighth Cavalry, changing station from Fort Keogh to Fort Meade. On July 26 Lieut. Goode

changed camp from Tongue River to the Tongue River Agency, on Lame Deer Creek, Montana. Distance marched, about 140 miles.

July 18, 1891.—Troop D, First Cavalry, Lieut. Backus, commanding, left Fort Custer, Mont., en route to Fort Keogh, Mont., changing station. Arrived July 24, 1891. Distance marched, 135 miles.

July 18, 1891.—Company G, Twenty-second Infantry, Lieut. Phillips, commanding, left Fort Yates, N. Dak., en route to Fort Keogh, Mont., changing station. Arrived July 29, 1891. Distance traveled, 356 miles.

July 19, 1891.—Company F, Twentieth Infantry, Capt. Rodman, commanding, left Fort Buford, N. Dak., and proceeded to Fort Assiniboine, Mont., changing station. Arrived July 20. Distance traveled, 296 miles.

July 20, 1891.—Troop H, First Cavalry, Capt. Hoyle, commanding, left Fort Assiniboine, Mont., and proceeded to Fort Buford, N. Dak., changing station. Arrived August 4. Distance marched, 296 miles.

July 20, 1891.—Companies B and C, Twenty-fifth Infantry, Lieut. Col. J. N. Andrews, commanding, left Fort Shaw, Mont., en route to Fort Buford, N. Dak., changing station. Arrived July 21. Distance traveled, 467 miles.

July 20, 1891.—Company E, Twenty-fifth Infantry, Capt. W. S. Scott, commanding, left Fort Shaw, Mont., en route to Camp Poplar River, Mont., changing station. Arrived July 21. Distance traveled, 390 miles.

July 22, 1891.—Company A, Twenty-second Infantry, Maj. Wm. H. Powell, commanding, left Fort Abraham Lincoln, N. Dak., returning to its proper station, Fort Keogh, Mont. Arrived July 23. Distance traveled, 296 miles.

July 22, 1891.—Troop K, Eighth Cavalry, Capt. Sprole, commanding, left Fort Keogh, Mont., en route to Fort Meade, S. Dak., changing station. Arrived July 31. Distance marched, 225 miles.

July 22, 1891.—Company F, Twelfth Infantry, Capt. Halloran, commanding, left Fort Abraham Lincoln, N. Dak., en route to Fort Yates, N. Dak., changing station. Arrived July 26, 1891. Distance marched, 52 miles.

July 25, 1891.—Company E, Twenty-second Infantry, Capt. Cusick, commanding, left Fort Buford, N. Dak., en route to Fort Keogh, Mont., changing station. Arrived August 5. Distance marched, 163 miles.

July 26, 1891.—Troop D, Eighth Cavalry, Capt. Kendall, commanding, left Fort Buford, N. Dak., en route to Fort Meade, S. Dak., changing station. Arrived August 13, 1891. Distance marched, 375 miles.

The strength of the several garrisons on July 31, 1891, was as follows:

Posts.	Officers.	Enlisted men.	Indian scouts.	Total.
Fort Abraham Lincoln, N. Dak.	.....	3	.....	3
Fort Assiniboine, Mont.	38	427	.....	465
Fort Bennett, S. Dak.	3	79	2	84
Fort Buford, N. Dak.	11	150	2	163
Fort Custer, Mont.	32	393	6	431
Fort Keogh, Mont.	36	440	1	477
Fort Meade, S. Dak.	31	412	.....	443
Fort Missoula, Mont.	19	189	.....	208
Fort Pembina, N. Dak.	1	5	.....	6
Fort Shaw, Mont.	2	7	.....	9
Fort Snelling, Minn.	35	418	.....	453
Fort Sully, S. Dak.	15	128	.....	143
Fort Yates, N. Dak.	16	217	4	237
Fort Yellowstone, Wyo.	3	62	.....	65
Camp Poplar River, Mont.	10	124	2	136
Total	252	3,054	17	3,323

There are 25 enlisted Indian scouts allotted to the Department.

Under General Orders No. 9, Adjutant-General's Office, January 27 1891, that portion of South Dakota lying south of the forty-fourth parallel of north latitude was placed in the Department of the Platte, and at the time of the abolishment of divisions the geographical limits of this Department were further changed by placing the State of Wisconsin in the Department of the Missouri.

There are three troops of cavalry being recruited from the Indians in this Department, L, First, L, Third, and L, Eighth, "Casey's Scouts," and three companies of infantry, I, Third, I, Twentieth, and I, Twenty-second. These organizations are stationed and have enlisted strength as follows:

Troop L, First Cavalry, Fort Custer	52
Troop L, Third Cavalry, Fort Bennett.....	32
Troop L, Eighth Cavalry, "Casey's Scouts," Fort Keogh	17
Company I, Third Infantry, Fort Sully	2
Company I, Twentieth Infantry, Camp Poplar River	31
Company I, Twenty-second Infantry, Fort Yates.....	14
Total.....	148

Company I, Third Infantry, was at first being recruited in vicinity of Fort Sully, and nine recruits for that company were obtained, but when it was decided that a troop of cavalry—L, Third Cavalry—was to be organized at that post those nine Indian recruits requested transfer to the troop. This was authorized, and the attempt is now being made to recruit Company I, Third Infantry, from among the Indians at Lower Brulé, Crow Creek, Sisseton, and other smaller agencies. Only two recruits for this organization have up to this time been obtained.

I am informed that progress in recruiting has been seriously impaired owing to the reduction of rations by the Indian Department, which is said to be in direct violation of the authorized statements made by recruiting officers, *i. e.*, "that the absence of an Indian from his tribe and reservation in consequence of his enlistment under the authority of the Government in its military service is not a severance of his tribal connection, and he would thereby in no sense forfeit his rights to lands, annuities, and benefits granted his tribe by treaty or law."

I earnestly recommend that a reconsideration of this matter be had, and that if possible the Indian recruits may have restored to them the rations from the Department of Indian Affairs that they would receive were they not in the service as soldiers.

As was to be expected there has been a great decrease in the number of desertions from the enlisted strength of the Army in this Department. The records show 213 desertions this year as against 478 last year. In this connection attention is invited to a special report on this subject by the judge-advocate of the department forwarded herewith.

Post canteens are now reported to be in successful operation at all the permanent posts of the department. They are found to be greatly advantageous in every way over the old system of post traders.

The following-named posts have been abandoned during the year and their garrisons have been distributed among other posts in the department: Fort Maginnis, exact date not of record; Fort Totten, December 31, 1890; Fort Shaw, July 21, 1891; Fort Abraham Lincoln, July 22, 1891.

The Indians within the limits of this department are said to be peaceable and well disposed. If there is an exception to this it is among the Northern Cheyennes, who are now living in the vicinity of Fort Keogh. They number about 1,250 souls. Among them there has been much excitement because of the rumored intention to remove

them to the Pine Ridge Agency. They declare that they will fight rather than submit to removal. I believe there is a commission now in session to treat on this subject.

In this connection, I should not omit to mention the matter of the 370 Northern Cheyenne Indians at the Tongue River Agency, now and for some time past in immediate charge of Capt. Ewers, Fifth Infantry. This is said to be a most deserving band of Indians. They have rendered important services to the Government, and have received, so it is said, very little recognition or generous treatment. I have already strongly seconded the request of these Indians and the recommendations of Capt. Ewers and other well-informed officers that these Northern Cheyennes be permitted to remain where they now are. I hope this petition of these Indians can be granted.

Special attention is called to the reports of staff officers on duty at these headquarters. They will be found to contain many details of interest, and recommendations which should receive attention.

It is especially noted that while the troops in the department are in a good state of discipline and fit for any service, the recent reduction in means of transportation leaves each post deficient so far as preparation for active field service is concerned. This fact should not escape attention, for in case of an Indian war the troops on this account are not prepared for efficient service in the field.

Very respectfully, your obedient servant,

W. MERRITT,

Brigadier-General U. S. Army, Commanding Department.

The ADJUTANT-GENERAL U. S. ARMY,
Washington, D. C.

REPORT OF OPERATIONS RELATIVE TO THE SIOUX INDIANS IN 1890 AND 1891.

HEADQUARTERS DEPARTMENT OF CALIFORNIA,
San Francisco, Cal., October 19, 1891.

SIR: I have the honor, in accordance with the telegram of the 19th of September last, from the headquarters of the Army, to submit a report as follows of the part taken by the troops of the Department of Dakota in the Sioux Indian campaign during the latter part of 1890 and the early part of the present year.

The disturbed condition of these Indians, which made action necessary, was due in part to discontent, felt for years by a considerable portion of them and intensified by the reduction in area of the Sioux Reservation, and the division of that remaining into separate reservations, which had been effected shortly before, but more immediately to excitement caused by, and belief by many of the Sioux belonging on the Standing Rock, the Cheyenne River, the Pine Ridge and Rosebud reservations, in the predictions of a pretended prophet and Messiah, which about a year previously had gained currency amongst these Indians and other tribes, particularly the Cheyennes and Arapahoes, to the effect that a great change in the condition of all Indians would soon occur by which they would be freed from the domination of the white man; that game in abundance would again appear in their country, and that all opposed to this transition would disappear. The

state of things was reported upon in a communication submitted by me November 26, 1890, embracing the facts of reports made on November 13 and 16, pursuant to the direction of the President, dated October 31, requiring that an investigation into the condition of the Sioux be made either by the division or department commander, and that a report thereof be submitted, with any recommendations he might have to make. A copy of the report made with recommendations submitted is hereby attached, marked A. The supposed Messiah is a Pah Ute Indian named Quoitze Ow—commonly Jack Wilson, belonging to the Walker Lake Reservation in Nevada. An account of the doings of this Indian, beginning in 1887, is given in a report made in December, 1890, to the commanding general, Division of the Pacific, by Mr. A. I. Chapman, who was sent to investigate the matter, and is hereto attached, marked B. The pretensions of the Indian Jack Wilson were a continuation of those of a former Pah Ute prophet, and his association with the whites and religious instruction received by reservation Indians accounts for his teachings that the Indian ancestors would reappear, that he could cause rain to come, the destruction of the wicked and opposers by water, etc. The fame of this Indian spread from the Indians in the vicinity of Walker Lake to the Indians of the Western Shoshone Reservation, Nevada, and thence to the Shoshones and Banocks of the Fort Hall Reservation, Idaho, and from there to the Arapahoes and Cheyennes of Oklahoma Territory, and to the Cheyennes and Sioux in the Dakotas and Montana, and to other tribes. During the early part of 1890 delegations from all these Indians visited this Indian near Walker Lake, Nevada, and on their return gave versions of what they had seen and heard, varying in some respects, as might be expected, but agreeing in the promise of early freedom of all Indians from dependence on the white man and of a state of plenty without labor. The teachings of these returning Indians found ready credence by a considerable part of the Indians on all the Sioux reservations, particularly the Cheyenne River, Pine Ridge, and Rosebud reservations. Discontented leaders took advantage of the consequent excitement and restlessness and of some causes for fair complaints by the Indians, and endeavored to regain lost influence with their people and to set aside the authority of the Indian agents. To what extent these leaders were influenced by belief in the prophecies of the so-called Messiah, and what their ultimate purposes were, if any definite, are not clear from any trustworthy information so far had, but the result of the excitement was that by the latter part of October last, a substantial part of the Indians belonging on the Cheyenne River, the Pine Ridge, and the Rosebud reservations were openly defiant of the authority of their agents, and a less proportion on the Standing Rock Reservation were in spirit, although more circumspect in conduct.

Interposition by military force was necessary to support the legal authority of the Indian agents and check the disorder to prevent an outbreak otherwise probable.

The state of affairs not improving, orders were received directing the use of military force for the preservation of order and prevention of hostilities.

The general condition about the end of November was as follows: On the Standing Rock Reservation the Indians were at their homes, but the disaffected element, under the leadership of Sitting Bull, had been having the so-called ghost dances; had gained somewhat in numbers, principally by union of members of his tribe, the Uncapapas, and were in frequent communication with the disaffected belonging on the

reservations to the south. The number of Indians on this reservation seriously affected by the prevailing craze was about one-fourth of all, counting by families, including some 300 males from 16 years old and upwards.

On the Cheyenne River Reservation, under the leadership of Chief Hump, who had formerly been captain of the Indian police at the Agency, were congregated in the region of Cherry Creek and vicinity, in the valley of the Cheyenne River, a considerable part of the Minneconjou Sioux who were affected. The people of Big Foot's following located in the vicinity of the junction of the Belle Fourche and Cheyenne Rivers, were also for the most part affected, and had been for sometime inimical to the Agent. The disaffected Indians of this reservation, counting by families, numbered about 1,000 persons, and included about 300 men. They were in a state of open defiance of authority of the Agent, but had not committed depredations of consequence against nor offered violence to any white settlers in the region.

On the Rosebud Reservation the greater part of the Brule Sioux were affected by the excitement, and many had moved to the Pine Ridge Reservation, where not so large a proportion of the Indians, properly belonging, were involved.

The general excitement, however, was highest, and disregard of the authority of the Agent greatest, on the Pine Ridge Reservation, owing to the presence of a large number of turbulent Brule Sioux belonging to the Rosebud Reservation.

To provide for contingencies troops were assembled, by direction of superior authority, from other departments at the Rosebud and Pine Ridge agencies, S. Dak., and other points in the Department of Dakota, as follows:

Troops A and G, Ninth Cavalry, and Companies A, B, and H, Eighth Infantry, Lieut. Col. A. T. Smith, Eighth Infantry, commanding, arrived at the Rosebud Agency November 20.

Lieut. Col. J. S. Poland, Twenty-first Infantry, with Companies A, C, E, and G, Twenty-first Infantry, arrived November 25.

Maj. Edmund Butler, Second Infantry, with Companies A, B, C, and D, Second Infantry, C, Eighth Infantry, and Troops F, I, and K, Ninth Cavalry, arrived at Pine Ridge Agency November 20.

Maj. Guy V. Henry, Ninth Cavalry, with troop D, Ninth Cavalry, and Companies G and H, Second Infantry, on the 25th.

Field, staff, and Troops A, B, C, D, E, G, I, and K, Seventh Cavalry, and Light Battery E, First Artillery, on November 26.

Brig. Gen. John R. Brooke, commanding Department of the Platte, arrived at Pine Ridge Agency on November 20 for immediate command of the troops in the vicinity.

Troop I, First Cavalry, F, Second Cavalry, I, Fifth Cavalry, and C, Ninth Cavalry, Capt. C. O. Carr, First Cavalry, commanding, from Fort Leavenworth, arrived December 4, in the vicinity of Oelrichs, S. Dak.

Lieut. Col. G. B. Sanford, Ninth Cavalry, arrived on December 9. and took command of the battalion.

The headquarters and Companies B, C, D, E, F, G, and H, Seventh Infantry, Col. H. C. Merriam, commanding, arrived at Fort Sully, S. Dak., on December 7.

The headquarters and Troops A, C, D, E, F, G, I, and K, Sixth Cavalry, Col. E. A. Carr, commanding, arrived at Rapid City, S. Dak., December 9.

The headquarters and Companies A, B, C, D, E, G, and H, Seven-

teenth Infantry, Lieut. Col. R. H. Offley, commanding, arrived in the department December 19—the headquarters at Rapid City and the companies at different points from that place south to Oelrichs along the railroad, running from Chadron, Nebr., through Rapid City to the north.

The headquarters and Companies A, B, C, D, E, G, and H, First Infantry, Col. William R. Shafter, commanding, arrived at Hermosa, S. Dak., a place on the railroad referred to, on December 26.

Light Battery F, Fourth Artillery, Capt. G. B. Rodney, arrived in the department November 28—one platoon, Capt. Rodney commanding, being directed to Fort Meade, and the other platoon, First Lieut. Frederick S. Strong, commanding, to Fort Snelling, Minn., for service with troops at the west.

There had been since April, 1890, two troops, A and B of the Eighth Cavalry, from the garrison of Fort Meade, S. Dak., Capt. Almond B. Wells, Eighth Cavalry, commanding, in camp at Oelrichs, S. Dak., a short distance west of the Pine Ridge Reservation, charged with the duty in particular of keeping watch of the Cheyenne Indians of the Pine Ridge Reservation, and preventing them from going to join the Cheyenne Indians on the Tongue River Reservation, Mont. Capt. Wells with his command performed very effective service in this regard, and excellent service in subsequent active operations about and on the reservation.

A force consisting of three troops, C, I, and M, Eighth Cavalry, and Companies F and I, Third Infantry, belonging to the garrison of Fort Meade, under command of Capt. Argalus G. Hennissee, Eighth Cavalry, had since April been encamped near the junction of the Belle Fourche with the Cheyenne River, S. Dak., having for especial duty keeping under restraint the Indians of Big Foot's following, located in the vicinity, and other disaffected Sioux belonging on the Cheyenne River Reservation.

Lieut. Col. E. V. Sumner, Eighth Cavalry, with Troop D of the regiment from Fort Meade, arrived at the camp December 3, 1890, and took command. The force was increased December 12 by Company C, Third Infantry, Capt. Philip Reade, from Fort Meade.

Further movements of troops belonging to the Department of Dakota took place as follows:

The garrison of Fort Bennett, at the Cheyenne River Agency, S. Dak., was increased November 17 by Company B, Twelfth Infantry, Capt. A. G. Tassin, from the garrison of Fort Sully, making the garrison of Fort Bennett two companies of infantry, the garrison remaining at Fort Sully being two companies of infantry.

Company H, Twenty-second Infantry, Capt. Hiram H. Ketchum, from Fort Keogh, arrived at Fort Abraham Lincoln, which before had a garrison of one company Twelfth Infantry, November 25, and Troops A and E of the First Cavalry, belonging at Fort Custer, under command of Maj. Henry Carroll, on November 27, and Companies A and D, Twenty-second Infantry, from Fort Keogh, Capt. J. B. Irvine, commanding, arrived on November 30, for service as might be required, especially in the region of the Standing Rock Reservation.

Companies F and H, Twenty-fifth Infantry, from Fort Missoula, and Companies C and E, from Fort Shaw, under command of then Lieut. Col. J. J. Van Horn, Twenty-fifth Infantry, and Troop B, First Cavalry, Capt. John Q. Adams, from Fort Custer, and Troops C and F First Cavalry, and Companies G and H, Twentieth Infantry, Maj. John M.

Hamilton, First Cavalry, commanding, from Fort Assiniboine, Mont., arrived at Fort Keogh on November 29 and 30.

Troop B, First Cavalry, and Casey's troop of Cheyenne Indian scouts, and a detachment of Company B Twenty-second Infantry, Capt. John Q. Adams, First Cavalry commanding, left Fort Keogh on December 13 for the Little Missouri River to the east to keep that section under observation and intercept any Sioux Indians who might leave their reservations for that region or attempt to pass through to the northward.

Troop H, Eighth Cavalry, with a detachment of Company B, Twenty-second Infantry, Capt. S. W. Fountain, from Fort Keogh, arrived December 13, at Dickinson, N. Dak., a station on the Northern Pacific Railroad east of the Little Missouri River and nearly northwest of the western boundary of the Standing Rock Reservation.

The general disposition of the forces was such that by means of those placed at the Rosebud Agency, the Pine Ridge Agency and along the railroad running northerly from Chadron, Nebr., near and west of the Pine Ridge Reservation, the Sioux Indians of this and the Rosebud reservations could be kept under observation and the regions to the south and the Cheyenne River Valley section to the west be protected and movement of bands to the west or northwest be intercepted, and by means of those assembled under command of Lieut. Col. Sumner, near the junction of the Belle Fourche River with the Cheyenne, and the garrisons with the additional troops collected at Forts Bennett and Sully, Fort Yates at the Standing Rock Agency, Fort Abraham Lincoln, the force at Dickinson, N. Dak., that under Capt. Adams, First Cavalry, en route for the Little Missouri, and that assembled at Fort Keogh, the Indians of the Standing Rock and Cheyenne River reservations were placed under restraint or observation, and any excursions from these reservations could be soon met.

In what follows I do not include the operations of the forces assembled at the Rosebud and Pine Ridge agencies, or those at points to the west of and near the Pine Ridge Reservation, for the reason that Brig. Gen. John R. Brooke, who was in immediate command at Pine Ridge, has, as I am informed, included the services of these forces in his annual report, and I presume that the division commander, Maj. Gen. Nelson A. Miles, who in December took station at Rapid City, S. Dak., and later at Pine Ridge Agency, has also reported more or less specifically upon the operations of all the troops assembled in the vicinity of the Pine Ridge and Rosebud reservations.

I gave such orders, as from time to time seemed best, to the troops from other departments reporting in that section, as well as to those properly belonging in the Department of Dakota; but as it was necessary that care be taken that no confusion should result from conflicting or inconsistent orders, I directed the commanding officers of troops to the west of the Pine Ridge Reservation to obey such orders as Gen. Brooke might give, and refrained, particularly after the arrival of the division commander at Rapid City, from giving orders of detail relative to movements of troops in the immediate region which might not accord with directions otherwise given.

By telegram of December 10 the division commander instructed me to "direct the commanding officer at Fort Yates to consider it his especial duty to secure the person of Sitting Bull, using any practical means. The agent at that post is under his direction, and orders for any purpose of this kind or any purpose affecting the police control and government of these Indians."

I accordingly instructed the commanding officer, Fort Yates, Lieut. Col. William F. Drum, Twelfth Infantry, as follows:

The division commander has directed that you make it your especial duty to secure the person of Sitting Bull. Call on the agent to coöperate and render such assistance as will best promote the purpose in view.

The Indian agent, James McLaughlin, had in conversation informed me, when I visited the agency in November, that he thought it practicable and advisable that the actual arrest of Sitting Bull and other disaffected leaders of that reservation be made by the Indian police, both for certainty of their capture and for the beneficial effects that would result in strengthening the authority of the agent and establishing the proper position of the Indian police.

The commanding officer, as appears from his official report hereto appended, marked C, decided, after consultation with Agent McLaughlin, that it was advisable to make the actual arrest of Sitting Bull by the Indian police, and that the opportune time would be on the 19th or 20th of December, when most of the Indians would be at the agency for the issue of rations; and it was presumed Sitting Bull, who did not come to the agency on the occasion of the preceding issue, would stay at his home on Grand River, some 40 miles distant. But trustworthy information was received on the evening of the 14th that Sitting Bull was preparing to leave the reservation, and it became necessary that no delay be made in effecting the arrest. Col. Drum gave orders accordingly. The Indian police, then about forty strong in the vicinity of Sitting Bull's home, were instructed to make the arrest, and Troops G and H, Eighth Cavalry, under command of Capt. E. G. Fechet, left the post at 12 o'clock that night with orders to prevent a rescue, and, if necessary, to protect the police.

The arrest was effected without difficulty on the morning of the 15th of December, but the followers of Sitting Bull in the immediate vicinity quickly rallied for his rescue and attacked the Indian police, with the result that Sitting Bull and seven of his followers, including a number of his principal supporters, were killed and a number wounded. Of the Indian police four were killed and two mortally wounded.

Capt. Fechet, who had moved his command as near as he thought advisable to avoid discovery and give alarm before the arrest should be attempted, took action, stated in his report as follows:

The command was moved with all speed to a point on the high lands overlooking the valley of Grand River, and immediately opposite Sitting Bull's house and the camp of the ghost dancers, distance some 1,500 yards. A hasty examination showed a party of Indians, apparently 40 or 50, on a high point on our right front, some 900 yards distant, but whether a party of police or friends of Bull's people could not be determined. While trying to make out the position and identity of the two parties, there were a few shots fired by the party on the hill and replied to from Sitting Bull's house; there was also firing from the woods beyond Bull's house, but on whom directed it was impossible to tell. I caused a white flag to be erected on the crest where I was located (a pre-arranged signal between the soldiers and the police) and directed a few shots to be fired from the Hotchkiss into the woods mentioned. In answer, a white flag was displayed from Bull's house, and Indians were seen leaving the woods going in the direction of the hills to the south, across Grand River. The Hotchkiss gun was then turned upon the party on our right front; this with some fire from a dismounted line of F troop caused them to retreat rapidly from their position up the valley of Grand River to the northwest. Lieut. Slocum with his troop dismounted was ordered to advance immediately upon the house. Lieut. Crowder with G troop mounted moved rapidly to the right along the highlands, covering the right flank of the dismounted line. As the dismounted line approached the house the police came out and joined the command. The line was advanced through the timber, dislodging a few hostiles, who disappeared rapidly up the river through the willows. This line after advancing through the willows some 600 yards fell back to the immediate vicinity of Sitting Bull's house, leaving pickets at the farthest point

gained by the advance. Lieut. Crowder in the meantime, observing the Indians gathering at the houses up the river about 2 miles from Bull's camp, moved in pursuit of them. The Indians fell back from every point upon the approach of the troops, not showing any desire to engage in hostile actions against the soldiers. All the houses for a distance of about 2 miles were examined and all were found deserted but showed signs of recent occupation. Failing to come up with the Indians in this direction, G troop fell back and joined the main command at Sitting Bull's lodge. Upon arriving at this place I found evidence of a most desperate encounter between the agency police and Sitting Bull's followers. In the vicinity of the house, within a radius of 50 yards, there were found the dead bodies of 8 hostiles, including Sitting Bull; 2 horses were also killed. Within the house were found 4 dead and three wounded policemen. It was learned through the interpreter that the hostile Indians had carried away with them one of their dead and five or six wounded, making an approximate total of fifteen casualties in Sitting Bull's band. A list of casualties, by name, on both sides, is hereto attached, marked B. From the best evidence obtainable I am led to believe that the police, under the command of Bull Head and Shave Head, about 40 strong, entered Sitting Bull's camp about 5:50 a. m. on the 15th instant, for the purpose of making the arrest of Sitting Bull. Sitting Bull was taken from his house, and while the police were parleying with him, endeavoring to induce him to submit peacefully, Bull Head was shot by Catch the Bear in the leg. Bull Head immediately shot and killed Sitting Bull, when the melee became general, with the results heretofore given. The fight lasted but a few moments, when the police secured the house and stable adjoining, driving Sitting Bull's men from the village to cover in the adjoining woods and hills.

For further particulars attention is requested to the reports of the commanding officer, Fort Yates, Lieut. Col. W. F. Drum and Capt. Fechet, who commanded the troops actually taking part, herewith attached and marked C and D respectively.

The conduct of Col. Drum and other officers concerned and of the soldiers in the whole matter is very commendable.

The Indian police who were anxious to make the arrest of Sitting Bull and thus give evidence that they might be trusted and prove by their conduct the sincerity of their profession in favor of efforts made to civilize their people, exhibited much courage and loyalty under trying conditions.

The fleeing Sitting Bull Indians, to the number of about 400 men, women, and children, including those who joined the fugitives from the vicinity of Sitting Bull's house, kept on west up the Grand River for a distance, when the greater part turned south to the Cheyenne River Reservation, some seeking shelter with the Indians located on the Moreau River and others continuing on to Cherry Creek and the Cheyenne River. Runners were sent out by Agent McLaughlin to assure the fugitives that their agency was the only safe place for them. In a few days 160, including women and children, had surrendered, and two weeks later 88 others who had reached the Moreau River, in the Cheyenne River Reservation, returned and surrendered.

These Indians were disarmed and kept under surveillance of the Indian police.

Of the fugitives who kept on south the greater part stopped on Cherry Creek, a tributary of the Cheyenne River, some reported by Lieut. Col. Sumner as about 38 men, women, and children went to the camp of Big Foot, whilst a few—the exact number was not ascertained, but reported as not exceeding 20—passed on to the Pine Ridge Reservation.

It had not been thought, from reports received of the condition of the Missouri River, practicable to attempt the crossing of Col. Merriam's command of the Seventh Infantry from Fort Sully to Fort Bennett before December 16, on which date orders were given for the command to cross. On the 17th two companies were gotten over and the whole command by the 19th.

On the 18th telegraphic direction was given Col. Merriam to move his command to Cherry Creek or vicinity. and that if in time to stop the Sitting Bull fugitives or young men at Cherry Creek from going to Pine Ridge to do so.

Previously the commanding officers of Forts Sully and Bennett had been instructed to obey the orders of Col. Merriam.

The commanding officer of Fort Bennett, Capt. Joseph H. Hurst, Twelfth Infantry, had also been before instructed to do what was possible to hold the disaffected Indians. He had been informed of the occurrences at the Standing Rock Reservation, and had kept informed of the movement of the Sitting Bull fugitives.

Col. Merriam was authorized to delay his movement to Cherry Creek on the report by him on the 19th, after completing the passage of the river of all his companies, that it was advisable. First Lieut. Harry C. Hale, then second lieutenant Twelfth Infantry, had been sent on the 18th of December, accompanied by Chief Hump, to obtain information and give assurance to the Indians that no harm would befall them if they remained quiet. The Indian Hump, previously in this report named as the leader of the disaffected ghost dancers of the Cheyenne River Reservation, had, since the time referred to, been detached from the disaffected and enlisted as a scout by Capt. Ezra P. Ewers, Fifth Infantry, who, on account of his general fitness and former acquaintance with these Indians, had been detached from his regiment and assigned to duty on the Cheyenne River Reservation. Lieut. Hale, with a courage and wisdom alike commendable, met the Sitting Bull Indians on Cherry Creek on the 20th of December, and induced them to stay until he could bring Capt. Hurst from Fort Bennett. Capt. Hurst arrived with Lieut. Hale at the Indian camp on the afternoon of the next day. The result was that during the night the Sitting Bull fugitives surrendered and delivered up their arms, and also some of the disaffected Cherry Creek Indians of the Cheyenne River Reservation.

The Indian prisoners were started for Fort Bennett December 22, and arrived December 24. They numbered, Standing Rock Indians all told, 138; Cherry Creek Indians, 44; total, 182. These Indians, together with some additions from subsequent surrenders, were afterwards transferred to Fort Sully, and there kept until after the Sioux disturbances were ended.

The statement of the services immediately performed by Capt. Hurst and Lieut. Hale carries with it so evident a suggestion of every meritorious conduct on their part that special remark thereof would seem superfluous. For further particulars attention is requested to the reports of Lieut. Hale, of Capt. Hurst, and of Col. Merriam, forwarded herewith, marked respectively, E, F, and G.

Col. Merriam was directed by me on December 20 to move with his command to the mouth of Cherry Creek to communicate with Col. Sumner, who was watching Big Foot's camp near the forks of the Cheyenne, and to give him assistance or coöperation should he need it.

On December 27 Col. Merriam was directed by telegraphic order from the division commander, sent from Rapid City, S. Dak., to move up the Cheyenne river far enough to communicate with Col. Sumner and assume command of that line, and that Col. Sumner had been directed to report to Col. Merriam.

For further report of the operations of Col. Merriam's command attention is requested to the copy of his report marked Exhibit G. Three companies of the Seventh Infantry, Capt. James M. J. Sanno, Seventh Infantry, commanding, had remained at Fort Bennett by my

direction on account of the presumed necessity for a force larger than the permanent garrison. Capt. Sanno was directed to effect the transfer of the Indian prisoners to Fort Sully with his battalion of the Seventh Infantry, assume command of that post, and remain with his battalion in charge of the prisoners. The battalion remained at Fort Sully until the Seventh Infantry was relieved from duty in the Department of Dakota.

Big Foot and adherents who had joined him, probably becoming alarmed on the movement of Col. Merriam's command from Fort Bennett, and a rumor that Col. Sumner would capture them, eluded Col. Sumner's command and started for the Pine Ridge Reservation on December 23, and went to the place on Wounded Knee Creek, on the Pine Ridge Reservation, where a few days after the conflict with them took place.

These Indians on leaving numbered about 340 all told, and had not much, if any, more than 100 fighting men—a larger proportion to total numbers than usual—but some Cherry Creek young men had joined.

Col. Sumner was charged by me with the duty of keeping these Indians under control.

In response to direction to submit a report of the flight of Big Foot's band and the circumstances connected therewith, Col. Sumner made a report, hereto attached, marked Exhibit H. As will be seen by reference to this report, one reason given by Col. Sumner why immediate pursuit was not made by his command was that, in addition to the orders received from me to keep control of Big Foot's people, he received, shortly before the flight of Big Foot, direction to look out for Indians from the northwest, and that in consequence he could not give undivided attention to Big Foot and people on their flight becoming known. I do not think any remark hereon from me is necessary further than to say that the information or direction relative to Indians at the north was received by Col. Sumner from the division commander, by whom the information, as I infer from dispatches received by me, was considered of such nature as not to be entirely disregarded. The report proved to be unfounded.

Upon report being received of the flight of Sitting Bull's following up the Grand River after the fight with the Indian police, orders were sent to Capt. Fountain, Eighth Cavalry, who had moved south from Dickenson, N. Dak., and to Capt. Adams, who, with his Troop B, First Cavalry, and Casey's company of Cheyenne Indian scouts, had moved from Fort Keogh towards the Little Missouri River, covering the trails usually taken by Indians in going from the Sioux Reservation to the north and west, to intercept any parties of Indians going north or westward.

The commanding officer of Fort Yates was also directed to send the two troops of cavalry at that post up the Grand River, and Maj. Carroll was ordered, December 15, to move from Fort Abraham Lincoln with the two troops of the First Cavalry there and Company D of the Twenty-second Infantry to the vicinity of the northwest corner of the Standing Rock Reservation for the protection of settlers and to prevent the passage of Indians north. The Sitting Bull fugitives, however, turned south, as before stated, and none others of the Standing Rock Indians left their reservation.

On December 22, in consequence of a dispatch received from the division commander at Rapid City, stating in substance that a report had been received, through citizens at Minnecola, that a company was reported surrounded by Indians near Cave Hills, and directing that I send

a command there, I directed the commanding officer, Fort Yates, to send the two troops of the Eighth Cavalry, Capt. Fechet commanding, which had been patrolling along the Grand River with orders to prevent Indians from going north or south, to move rapidly with his troops up Grand River and ascertain the state of the case, informing him that Capt. Fountain's troop of the Eighth Cavalry was the only one then in the region of the reported attack, and also sent similar information to Maj. Carroll, encamped near the northwest corner of the Standing Rock Reservation. The report was without foundation, and doubtless arose from the talk by Indian scouts with Capt. Adams's command, then moving south, that they were going to the assistance of other troops; but the action by the troops directed to move to the rescue was prompt and energetic. A forced march was made by Maj. Carroll's command—Maj. Carroll, with Troop B, First Cavalry, Capt. Bonus commanding the troop, making 100 miles during the first twenty-four hours after leaving camp, and pushing on 50 miles the next day.

Owing to the continuance of the Sioux Indian disturbance nearly all the available force of the posts in the western part of the department had been previously concentrated at Fort Keogh, the post most suitable for the dispatch of forces by rail to the east or west, or for movement by marching in the direction of the Sioux reservations. The conflict with Big Foot's band and those associated with them on Wounded Knee Creek on the 28th of December, of which I received information on the 29th, made it advisable to dispose the forces with a view to intercept any bands of Indians that might break away from the reservations—the Pine Ridge in particular—and in accordance with the general direction received from the division commander to dispose the troops suitably thereto, on December 30 I directed that the available force belonging to Fort Yates, the commands of Maj. Carroll and of Capt. Fountain, assemble on the south fork of Grand River as far up as wood could be found, and to open communication with Col. Arnold's command on the Little Missouri River through Capt. Adams, who was then with his troop at old Camp Crook on the Little Missouri. Maj. Carroll's command arrived on Grand River January 4, 1891, and consisted of Troops A and E, First Cavalry; Troops F, G, and H, Eighth Cavalry; Company G, Twelfth Infantry, Capt. David J. Craigie; a detachment of Company H, Twelfth Infantry; Company D, Twenty-second Infantry, First Lieut. John G. Ballance commanding, and a detachment of Company B, Twenty-second Infantry, and a gun detachment; Assistant Surg. W. W. R. Fisher, Acting Assistant Surg. V. E. Sabin, medical officers, and a detachment of the hospital corps.

Orders were also given for the march, under command of Lieut. Col. A. K. Arnold, First Cavalry, of all the available force assembled at Fort Keogh and in the vicinity, for which the transportation of supplies could be provided, to the Little Missouri River, at a point about 12 miles north of the crossing of that stream by the road from Fort Keogh to Fort Meade, from which position all the country immediately to the north, east, and west of the Black Hills could be quickly reached.

The force consisted of Troops B, C, D, F, G, H, and K, First Cavalry, Majs. John M. Hamilton and Charles D. Viele, First Cavalry, commanding battalions; the company of Fort Custer Crow Indian scouts, First Lieut. Samuel C. Robertson, and Companies G and H, Twentieth Infantry, Capt. Abram A. Harbach, commanding battalion, and a half platoon Light Battery F, Fourth Artillery, First Lieut. F. S. Strong commanding, with three Hotchkiss mountain guns; Assistant Surgs.

Walter Reed, H. S. T. Harris, Paul Shillock, and Acting Assistant Surg. F. H. Holland, medical officers, with a detachment of the hospital corps. The advance reached the ground January 5, 1891, and the whole command shortly after.

On December 18, I directed Capt. Adams, with his troop, First Cavalry, and Casey's Cheyenne scouts, which had been searching the Little Missouri region to the eastward from Fort Keogh, to march south to the camp then near the forks of the Cheyenne, South Dakota, and report for duty with Col. Sumner's command. The company of Indian scouts received orders from the division commander to join the forces in the vicinity of Pine Ridge Reservation, and Capt. Adams's troop was stopped on the Belle Fourche River at a point north of Fort Meade.

I directed Capt. Adams, with his troop and the detachment of infantry with it, to take position near Camp Crook, on the Little Missouri, about 25 miles from the position of Col. Arnold's command, to serve as a connecting force to the commands of Maj. Carroll on the Upper Grand River near the Slim Buttes, and that of Col. Arnold on the Little Missouri, and to report to Col. Arnold. The general instructions to Col. Arnold and Maj. Carroll were to keep the country to the Cheyenne River under observation and to intercept any parties of Indians that might attempt to pass to the north or westward. Courier lines were established from Col. Arnold's command to Fort Keogh to the north and to the nearest telegraphic station to the south for connection with Fort Meade, and a line from Fort Yates to Maj. Carroll's command; a line had been kept between Col. Sumner's command and Fort Meade. The means of information were such that it was improbable any considerable number of Indians could leave the Rosebud or Pine Ridge reservations and escape the troops thereabouts without ample warning of their movement, and the disposition of the forces as above indicated was such that their interception was most probable should they attempt to pass to the west or north of the Cheyenne River. The Sioux of the other reservations were under observation and control and showed no disposition at that time to leave their reservations.

On the 18th of January, 1891, Maj. Gen. Miles, commanding the division, announced from Pine Ridge the cessation of active operations, and soon after authorized me to return the forces in the field to their stations, which was effected during the latter part of January and the first part of February. Attention is requested for details of movements and particulars of services performed to the reports, in addition to those before mentioned, of Maj. Carroll, First Cavalry, Capt. Fountain, Eighth Cavalry, and Col. Arnold, First Cavalry, of which copies are forwarded herewith, marked respectively Exhibits K, I, and L, and the reports accompanying them. As will be seen by reference to these reports and those before in this report referred to, service involving considerable marching was performed by the troops concerned in Montana and the Dakotas during the winter season. Fortunately the winter was less severe than usual for the region, but some trying cold and marching through snow and in storms was experienced by all the commands.

The distances marched by the cavalry with Col. Arnold's command varied by troops from 760 to 270 miles, the average being over 400 miles, and the march of the infantry was 270 miles.

With Maj. Carroll's command the distance marched by the troops of cavalry, including the two belonging at Fort Yates, was about 350 miles for each, and by the companies of infantry from 250 to 300 miles.

Col. Merriam's column marched about 250 miles.

Attached hereto, marked Exhibit M, is a report by First Lieut. Robert N. Getty, Twenty-second Infantry, upon whom the command of the Fort Keogh company of Indian scouts devolved when Lieut. Casey was killed near Pine Ridge, giving an account of the circumstances under which the death of this courageous, capable, and devoted officer occurred.

Lieut. Getty continued in command and guarded with his scouts that portion of the Cheyenne Indians, numbering about 500 people, which was transferred under the conduct of Capt. Ezra P. Ewers, Fifth Infantry, from the Pine Ridge Reservation to Fort Keogh during the latter part of the winter. This service was arduous, both from its nature and the severity of the weather.

Accompanying is an outline map of the general region in which the operations referred to in this report were made.

In the foregoing report I have omitted as far as practicable transcripts of orders received by and given by me, and of the details of execution with relation to attending circumstances, which would have been very voluminous, my purpose principally being to present briefly in narrative form my testimony to the valuable services performed during active operations in 1890 and 1891, relative to the Sioux Indians, by the troops operating in the Department of Dakota, which I then had the honor to command, and supplementary to the more precise and full report made of occurrences by Gen. Merritt, the present department commander.

Events that occurred in the vicinity of Pine Ridge Agency and the reservation gained, from their nature, more publicity, but the troops in the field and at the stations elsewhere within the limits of the department performed very effective and at the same time essential service in restraining and controlling the Sioux Indians of the other reservations.

The general spirit and motive of the commands were excellent, the governing object, as apparent on the part of all concerned, being to do with energy and zeal the duty before them.

I should also in fairness include for like commendation and for effective work the officers on duty under my orders at department headquarters:

Lieut. Col. Merritt Barber, assistant adjutant general; Lieut. Col. Charles H. Alden, medical director; Lieut. Col. Thomas O. Sullivan, chief commissary of subsistence; Maj. Almon F. Rockwell and Maj. John V. Furey, as chief quartermasters; Lieut. Col. Jacob F. Kent, acting inspector-general, who also performed duty in the field under the direction of the division commander at Pine Ridge and elsewhere; Capt. Thomas M. Woodruff, Fifth Infantry, as aide-de-camp and acting assistant adjutant-general, and First Lieut. Haydn S. Cole, Third Infantry, acting engineer officer.

I am, sir, very respectfully, your obedient servant,

THOS. H. RUGER,
Brigadier-General.

The ADJUTANT-GENERAL, U. S. A.,
Washington, D. C.

EXHIBIT A.

HEADQUARTERS DEPARTMENT OF DAKOTA,
St. Paul, Minn., November 26, 1890.

SIR: I have the honor to return herewith the letter from the President, dated October 31 last, addressed to the Secretary of War, directing, among other things, that a personal investigation be made by either the division or the department commander into the actual condition of things among the Sioux, and that he make an early report of his observations and any recommendations he may have to submit, which, with other papers, was referred to me for action by indorsement of November 7 instant. All the papers are herewith returned.

I made reports by telegraph November 13 and 16 from Mandan, N. Dak., and from Pierre, S. Dak., of the condition, essentially, of the state of affairs at those dates on the Standing Rock and Cheyenne River reservations respectively, of which copies are forwarded herewith. The state of case as to each reservation has not since essentially changed, but the excitement on the Standing Rock Reservation has somewhat abated. The proportion actively affected is about one-fourth—men, women, and children included by families—nearly all of whom belong to the Uncappapa band. There has not, I think, been a time since the excitement began that the agent could not (certainly with a slight show of military force to support his Indian police) have made arrests by the latter for any disregard of his orders or the regulations by individual Indians.

On the Cheyenne River Reservation there appears, by the latest report, to be somewhat less excitement relative to the ghost dances. The number affected by the excitement remains about the same as at the date of my telegram, November 16, comprising in all, by families, about one-third of the Indians on the reservation, nearly all of whom belong to the Minneconjou band. The Indian agent would not, I think, by means of his Indian police alone, be able to arrest any of those actively engaged in the dances or in sympathy therewith, provided it was supposed the arrests were attempted for reasons relating to the dances or disregard of the agent's orders to individuals prominent in inducing or keeping up the excitement. The most unfavorable condition on this reservation is the inability of the agent to enforce his authority and the disregard of his orders relative to the dancing.

On both reservations, as might be expected, those most affected are the Indians who have been opposed most to the policy of the Government for the settlement of the Indians and to the disposing of any part of the reservation—those, in general, who have always been discontented. There was no evidence direct nor fact from which inference might be drawn that there was an intent by the Indians concerned in the dances on either reservation to become "hostile," but the opinion of the best and most intelligent Indians was, if the matter should be allowed to go on without check, that trouble would come; also that those concerned in originating the excitement should be arrested.

The view of the better Indians is undoubtedly correct; for although the excitement would probably die down after a time, no outbreak occurring, the disaffected leaders, ambitious to gain following, would revive it from time to time, gain strength, and effect an organization, comprising Indians on all the reservations, that would necessarily lead to hostilities.

With respect to the action required to suppress the present state and prevent a recurrence, reference is necessary to the ground reasons of the excitement and the facts of its development.

Within a few years, comparatively, the whole manner of life and surroundings of the Sioux Indians have been changed by a violent wrench of fortune whereby the individual has been deprived of his former liberty of coming and going at will and subjected to many irksome rules of the reservation, and has had at times, it must be admitted, cause for just complaint, and the leaders have been deprived, in great degree, of their influence and authority. The greater part have accepted, and some of them in good spirit and purpose, the change, but a part, those now most disaffected, have not, further than they felt compelled. These were exactly in the condition of discontent and lack of hope in the future, from their point of view, although savages, in which, for all time, tribes as well as peoples are ready to welcome, if they do not look for, a Moses or Messiah to bring them to a better state, and the leaders, without whose impulsion to the excitement there would have been no strong resistance to the authority of the Indian agent, took advantage of the condition to try and regain control and influence. In the development of the "craze," as it has been called, there have been modifications to suit the locality, the temper and surroundings of Indians immediately concerned, and the objects of the leaders. As originally preached to the western tribes, the coming of the Indian Messiah—doubtful whether white man or Indian—was to be the beginning of a time of peace and good will between the whites and Indians, and all good men were to be happy; but amongst the Sioux the

teaching has been that the whites are to disappear, and all good things to the Indians, in accord with old ways and wishes, are to come.

The proper course to be, in the first instance, taken, it seems to me, is, after the excitement has somewhat subsided, or at least during the winter after the weather becomes severe and there would be less probability of parties scattering from the reservation, that those Indians prominent on the different reservations who have been using their influence in the past to make trouble on the reservations, and who have been active in promoting the present excitement, shall be arrested and removed to a distance and kept there at least until they could no longer influence others for harm; that a force be kept as long as may seem necessary at those Sioux agencies where we have not heretofore had garrisons at hand; that when necessary the authority of the Indian agents be supported by the troops, and that all Indians belonging on the Sioux reservations who may be found off their proper reservations without authority be arrested by the military, and if armed their arms taken and kept.

I think the course indicated, if followed, would restore the authority of the Indian agents, and that the leaders in creating trouble being removed, there would be little probability of trouble hereafter from any cause similar to the present. Any Indians ambitious to gain following against the authority of Indian agents could be easily arrested by the Indian police, whose power, under the direction of the agents, would be much strengthened by the removal of the present influential disaffected leaders.

The question occurs, of course, whether the Sioux Indians shall be disarmed, which I shall not be able to consider in the time remaining since receiving the dispatch of this date, saying the division commander desired my report forwarded by this evening's mail in order that he might receive it before leaving for Washington. Such disarming, if done, could not properly be undertaken for some time, and I will write upon that subject hereafter.

In my telegram of the 16th instant, sent from Pierre, S. Dak., I stated that I would make further report upon my return to St. Paul, but since my return events have somewhat superseded subjects of inquiry, and my time has been necessarily occupied with business requiring immediate attention connected with Indian matters.

Very respectfully, your obedient servant,

THOS. H. RUGER,
Brigadier-General, Commanding.

The ASSISTANT ADJUTANT-GENERAL,
Department of the Missouri, Chicago, Ill.

[Copy of telegram.]

PIERRE, S. DAK., November 16, 1890.

THE ASSISTANT ADJUTANT GENERAL,
Division Missouri, Chicago, Ill.:

From information had by conference with the Indian agent Cheyenne River Agency, the commanding officer Fort Bennett, and otherwise, the condition seems as follows: About 900 persons, mostly Minneconjou Sioux, are affected by the excitement concerning the expected Messiah and the ghost dances; about 200 males, 16 years and upwards, are involved. The dancing began about September 20. The Indian police were at first able to stop the dancing as ordered by the agent, and, had not the excitement been fed by Indians coming from other agencies, Pine Ridge and Rosebud in particular, the agent could probably have controlled matters, but he is not now able to stop the dancing by means of his police, nor would the police be able to make arrests. The police, who are armed with pistols only, have done well. Settlers have reported the killing of a few cattle in the vicinity of the reservation. The agent states that Indian owners of cattle have sold some to whites contrary to orders.

The Indians affected by the craze are nearly all those who did not sign the treaty to cede the lands. Hump is the principal leader. Big Foot also is concerned in dances. There is not likely to be outbreak of these dancing Indians at present nor during winter. They are somewhat sullen, but have made no threats against the agent or employes, and I have directed that a company be sent from Fort Sully to Fort Bennett at the agency. Also shall keep the force from Meade that is camped on the Cheyenne River near southwest corner of reservation in the field. No further action seems immediately called for as to the Cheyenne River Reservation.

With respect to the Pine Ridge Reservation, where there has been no military force at hand, I infer from the reports made by the officer in command of the force at Oelrichs and information otherwise that the proportion of Indians affected by the craze is greater than at Cheyenne River or Standing Rock and the excitement greater, and that the agent is unable to enforce his orders by aid of Indian police. This reservation is the place where principally the excitement started amongst the Sioux, and from which it is fed by emissaries to other reservations. The agent, Royer, by telegram this date asks for a military force; that Indians are crazy with

excitement over the ghost dance; that Commissioner Indian Affairs told him to report state of case to me. I would recommend that a force strong enough to overawe the Pine Ridge Indians be sent as soon as conveniently may be to the vicinity of the Pine Ridge Agency; that such force be taken in preference from elsewhere than this department, both to save time and also because the force still at Fort Meade, the most accessible in this department, should, I think, be kept disposable for the present.

I will be in St. Paul on the 18th; will then make fuller report, embracing the whole subject, with recommendations.

RUGER,
Brigadier-General, Commanding.

EXHIBIT B.

SAN FRANCISCO, CAL., December 6, 1890.

Gen. JOHN GIBBON,

Commanding the Division of the Pacific, San Francisco Cal.:

SIR: In accordance with your instructions of the 28th ultimo to proceed to Walker Lake Indian Reservation, Nev., and elsewhere in that vicinity, and gather certain and all information regarding the Indian who personated Christ at that place a year ago, I have the honor to report that I left this city at 7 o'clock p. m. on the day of receiving my instructions, and arrived at the Walker Lake Indian Reservation on the 30th following at 3 p. m. Here I found quite a number of Indians, including women and children, in groups here and there, sitting on the ground and playing cards. I made myself known to Mr. J. O. Gregory (Indian farmer), who was in charge of the agency, and inquired of him if he knew anything of an Indian in that part of the country by the name of John Johnson. His answer was that he did not, but that there was a very old Indian living near the agency they called old Johnson, and another they called Squire Johnson. I then asked him if either of these Indians claimed to be a prophet or preached to the Indians at any time. He said they did not, but that there was an Indian in the country by the name of Jack Wilson, who claimed to be the new Messiah, and had been preaching for the last two or three years, and of late these ceremonies were becoming more frequent, and had a much larger attendance; that there were a great many strange Indians who attended these dances who he understood had come from a great way off; that these dances were held at intervals of about three months, first at one place and then at another; that this Indian, Jack Wilson, was mostly raised by a white man who lived in Mason Valley, 50 miles from the agency, and that he had understood from the white people in that portion of the country that this new Messiah (Jack Wilson) had a good name for being an honest, hard-working Indian. Mr. Gregory remembers very distinctly the big dance which occurred near the agency, when the Cheyennes, Sioux, Bannocks and other strange Indians were present, that this meeting took place some time in last March. At this time the Indians were gathering around in considerable numbers and Mr. Gregory introduced the captain of the Indian police, Josephus, who he said could tell me more about the new Messiah (Jack Wilson) than he could:

Capt. Josephus, of the Indian police, said: "I am —, a Piute Indian, was born at Carson Sink (sinking of the Carson River). I am now about 48 years old. I am captain of the police and also interpreter for the Government. I am well acquainted with the Jack Wilson—this man who preaches; he is a Piute; his Indian name is Quoitze Ow; he was born here at this place of a poor family, and when quite a large boy he went to live and work for Dave Wilson, a white man, who lives in Mason Valley. When this Jack Wilson grew to be about 20 years old he got married and still lived with Mr. Dave Wilson (the white man) and worked on the farm. About three years ago Jack Wilson took his family and went into the mountains to cut wood for Mr. Dave Wilson. One day while at work he heard a great noise which appeared to be above him on the mountain. He laid down his ax and started to go in the direction of the noise, when he fell down dead, and that God came and took him to heaven and showed him everything there; that it was the most beautiful country you could imagine; that he saw both Indians and whites, who were all young; that God told him that when the people died here on this earth, if they were good, they come to heaven, and he made them young again and they never grew to be old afterwards; that the people up there were dancing, gambling, playing ball and having all kinds of sports; that the country was nice and level and green all the time; that there were no rocks or mountains there, but all kinds of game and fish; that God brought him back and laid him down where he had taken him from. He woke up and went to camp and went to bed. God came to him again that night and told him to tell all the people that they must not fight, there must be peace all over the world; that the people must not steal from one another, but be good to

each other, for they were all brothers, and when he had finished this work God would come after him again. God came and took him to heaven again, and he saw all the Indians and white people who had died heretofore, that they were all young, and having a good time, dancing, etc.; that he saw his own mother; that God had given him great power and authority to do many things; that he could cause it to rain or snow at will, and many other things; that they would learn hereafter that God directed him on his return to say to his people that they must meet often and dance five nights in succession and then stop for three months."

Josephus (captain of the police) said: "At this time I did not believe in the new Messiah and thought I would try his power over the elements, as the country was very much in need of rain; that unless they got rain they would have no crops of any kind, and it looked as though there was going to be great suffering amongst the people."

So Josephus concluded that he would visit the new Messiah and ask him to give them rain, or otherwise they would suffer. He took his horse and rode to the new Messiah's home, arriving there late in the evening, and explained to him the great importance of his mission. He said that Jack Wilson sat with his head bowed but never spoke a word during all this time, but he went off to bed and was up early in the morning. When he came in where Josephus was he said to him: "You can go home and on the morning of the third day you and all the people will have plenty of water." Josephus said that he went home and told not only his people but the white people too, and shortly afterwards it commenced to rain, and on the morning of the third day he got up at daylight to find Walker River out of its banks and all the lowlands overdown. "Now," said Josephus, "I am a strong believer in the unnatural powers of the new Christ."

Ben Ab-he-gan, of the Indian police, was present during all the time that Josephus was making this statement, and corroborated every word he spoke. I will state here that Mr. J. O. Gregory and Mr. Peas, employes of the agency, were both present during this interview with Josephus, and corroborated his statement in regard to the water. In fact, all the white people I talked with about the agency, and in Mason and Smith valleys, admitted that the rain did come, but they can not convince the Indians that Jack Wilson had nothing to do with its coming. Some of the Indians of his own tribe and those of the adjoining tribes were inclined to look upon the new Messiah (Jack Wilson) as an impostor, and he sent them word to come and see him and hear him talk and he would convince them. This invitation has been the cause of many Indians visiting the Plutes and taking part in their dances. Among the tribes that have been represented there, so I was informed by Josephus and Ben Ab-he-gan (both of the police force at Walker Lake) are as follows: Cheyennes, Sioux, Arapahoes, Utes, Navajoes, Shoshones, Bannocks, and a tribe to the south of them that they call the Umapaws. I was told that the Indians numbered about 1,600 at the big dance near Walker Lake, and were fed on pine nuts and fish principally during the meeting. Learning that the new Messiah was at his home at the head of Mason Valley, I took the train and came back on the road as far as Wabuska, where I took the stage for Mason, arriving there at 5 o'clock in the evening. I had not been in the place long before I learned through Ben, the Indian policeman, who had come with me from Walker Lake, that Jack Wilson had gone two days before to Desert Creek Valley, distant 60 miles, and across one range of mountains. I made arrangements for a team the next morning, and taking Indian Ben with me, started at 6 o'clock for Desert Creek Valley. After traveling 30 miles on the Desert Creek road we met some Indians on this road coming up from Bodie, Cal. They told us that they had camped at Desert Creek the night before, and learned that Jack Wilson, the Messiah, had gone to Wellington, on the west fork of Walker River. We changed our course for Wellington, arriving there late in the evening. I sent for Jack Wilson to come down to Mr. Pierce's house, as the weather was not suitable for holding outdoor meetings, it raining and snowing alternately. He put in his appearance and I was introduced to him by Captain Ben, the Indian policeman. We shook hands, Jack Wilson remarking that he was glad to see me. I responded, saying that I surely was glad to meet one of such notoriety, and that I had heard a good deal of him through the newspapers, and would like to ask him a few questions, which I hoped he would answer freely.

Q. What is your name?—A. Jack Wilson.

Q. What is your Indian name?—A. Quoitze Ow.

Q. What tribe of Indians do you belong to?—A. Plutes.

Q. About how old are you?—A. About 30 years old.

Q. Is your father living?—A. Yes.

Q. How many brothers have you?—A. Three; all younger than myself.

Q. Have you ever been away from your own country?—A. No.

Q. Are you a chief?—A. Yes; I am chief of all the Indians who sent representatives to me.

Q. What do you mean by chief of all the Indians? Do you mean that you are head chief?—A. No; I mean that I am council chief.

Q. How many Indians are there in your tribe?—A. I do not know.

Q. When did you commence to preach to the Indians?—A. About three years ago.

Q. What do you preach to the Indians?

He then stated in substance about the same as Josephus, captain of the Indian police at Walker Lake, had told me about going to heaven and seeing all the people who had died here on this earth, and what a nice place it was, the dancing and other sports, etc.; that God had visited him many times since and told him what to do; that he must send out word to all the Indians to come and hear him, and he would convince them that he was preaching the truth; that he must tell the Indians that they must work all the time and not lie down in idleness; that they must not fight the white people or one another; that we were all brothers and must remain in peace; that God gave him the power to cause it to rain or snow at his will; that God told him or gave him the power to destroy this world and all the people in it and to have it made over again; and the people who had been good heretofore were to be made over again and all remain young; that God told him that they must have their dances more often, and dance five nights in succession and then stop. * * * That their dancing would commence again next Saturday. Said he:

"This country was all dry early last spring; there was nothing growing, and the prospects for the future were very discouraging to both the Indians and the whites, and they came to me and asked for rain to make their crops grow. I caused a small cloud to appear in the heavens, which gave rain for all, and they were satisfied. I think that all white men should pay me for things of this kind, some two dollars, others five, ten, twenty-five, and fifty, according to their means. I told all the headmen who came to see me (meaning the representatives of other tribes) that when they went home to say to their people that they must keep the peace; that if they went to fighting that he would help the soldiers to make them stop. That the people (whites) of this country do not treat him and his people right; that they do not give them anything to eat unless they pay for it. If the whites would treat him well he would have it rain in the valley and snow on the mountains during the winter, so that the farmers would have good crops."

Captain Sam and Johnson Sides, two Piute Indians who did not believe in his doctrine, he said, are telling all over the country that the soldiers were coming to take him and put him in a big iron box, and take him out to sea on a big ship and sink him in the ocean; that he wanted them to stop talking to the people in this way and not be afraid but come and talk to him; that he hired out to white men to work all the time; that he liked to work.

Mr. Wilson, I want to ask you one or two more questions and that will be all.

Q. Did you tell the Indians if they got into trouble with the whites that they must not be afraid, that you would protect them against being hurt?—A. That was my dream; it has not come to pass yet.

Q. Did you tell them that you were bullet-proof, and to prove it you spread a blanket on the ground and stood upon it, with nothing on you except a calico shirt, and had your brother shoot at you at a distance of 10 feet, and the ball struck your breast and dropped to the blanket?—A. That was a joke.

He said: "I heard that soldiers were coming up after me. I do not care about that; I would like to see them. That is all I care to talk now. We are going to have a dance next Saturday."

In conclusion, I would say that I saw three of their dance grounds. They had been cleared of sagebrush and grass and made perfectly level, around the outer edge of which the willow sticks were still standing, over which they spread their tenting for shelter during these ceremonies. The cleared ground must have been from 200 to 300 feet in diameter, and only about four places left open to enter the grounds. The Piute Indians, men and women, dress like the white people, and equally as good as the average white man of that country. The men part their hair in the middle and have it cut square off even with the lower part of the ear. The women have their's banded and are exceedingly well dressed for Indian women.

The white people generally throughout the country spoke well of the Putes as an industrious and hard-working people, but preferred to work for the white people than for themselves. Only a few of the white men, Mr. Pierce, of Wellington, particularly, was suspicious of Wilson's doctrine, as it was giving him too much influence, and he feared trouble in the end; that he could see that the Indians were a little more exacting every day. Only recently did one of them, with all his stock, move into a white man's field and would not go out when told to do so. When the white man threatened to come down with his wagon and haul him out if he did not go out himself the Indian said: "You had better bring a big crowd if you attempt it." The Putes are a very numerous and healthy tribe and are increasing very rapidly (so the whites tell me who have been living there for the last thirty or forty years).

After gathering all the information I thought of interest I started on my return, arriving at Reno on the 4th instant, where I had a short interview with Johnson Sides, who appeared to be very much opposed to the doctrine preached by Jack Wilson; that he believed it all to be lies, and that it was only exciting the Indians and was liable to lead to trouble in the end.

In regard to the Cheyenne Indian, Porcupine, who gave an account of his visit to the Piute camp at Walker Lake, I will say that it is wonderfully correct, as far as I am able to learn; that on his visit he first met with the Piutes at Winnemucca, and then at Wadsworth, on the Central Pacific Railroad, where he fell in with Capt. Dave, of the Piutes, who took him and his comrades in a wagon and hauled them to Pyramid Lake Agency, where they remained several days, when Capt. Dave's son took them in wagons and hauled them to Wabuska, where they took the cars for Walker Lake. This was told me by Capt. Ben, one of the Indian police of Walker Lake, and from other information I believe it to be true.

Very respectfully, your obedient servant,

A. I. CHAPMAN.

EXHIBIT C.

FORT YATES, N. DAK., *February 27, 1891.*

THE ASSISTANT ADJUTANT-GENERAL,
Department of Dakota, St. Paul, Minn. :

SIR: I have the honor to submit the following sketch of military operations at and in the vicinity of Fort Yates, N. Dak., from the 12th day of December, 1890, to 31st day of January, 1891.

On the 12th day of last December I received the following telegram from Headquarters Department of Dakota:

The division commander has directed that you make it your especial duty to secure the person of Sitting Bull. Call on Indian agent to coöperate and render such assistance as will best promote the purpose in view. Acknowledge receipt, and if not perfectly clear report back.

By command Gen. Ruger:

M. BARBER,
Assistant Adjutant-General.

On receipt of this order I felt that it was necessary for me to so make my plans that there would be no possibility of Sitting Bull's escape.

My personal preference was to make the arrest with troops, but I could afford to take no chances, and knew that some of Sitting Bull's men were constantly hanging about the agency, ostensibly to have their wagons repaired or some other purpose, but really to keep him informed. This, taken in connection with the fact that Sitting Bull lived 40 miles from the post, and that an Indian on a fleet horse would reach him before a troop of cavalry could possibly get there, caused me to decide in favor of making the arrest with the Indian police. I was also in hopes that they would be able to take him quietly without bloodshed or much excitement among the other Indians. It was, however, necessary to guard against all contingencies. After consultation with Agent McLaughlin, it was determined to increase the number of policemen in Sitting Bull's vicinity, and under the pretense of cutting logs for a building on Oak Creek, but really to watch Sitting Bull and prevent his escape and to arrest him when it could be done with the least excitement or danger of bloodshed. It was also decided that the best time to make the arrest would be when most of the Indians were at the agency drawing rations, on the 19th or 20th of December. But on the evening of Sunday, the 14th of December, reliable information was received that Sitting Bull was making his arrangements to leave the reservation, probably intending to go in the direction of Pine Ridge to join other leaders in the ghost dance. This information made it necessary to arrest him at once. Careful inquiry satisfied me that the police were ready and anxious to make the arrest, and that there were on that day not more than twenty lodges of Sitting Bull people near his house. As soon as it was dark orders were sent, written in both Sioux and English, by two reliable Indians, to be read to Bull Head, the lieutenant of police, by an agency school teacher in that neighborhood. The order specified that Sitting Bull was to be arrested before daylight on the morning of the 15th and brought to the agency, and that troops would be within reach in case a rescue was attempted. Later in the evening an order was issued for Troops F and G, Eighth Cavalry, 6 officers and 100 enlisted men, Capt. E. G. Fechet, Eighth Cavalry, commanding, to

march at 12 o'clock that night in the direction of Sitting Bull's settlement, for the purpose of preventing rescue and, if necessary, assist the police. It was the understanding the police would send a courier to Oak Creek to inform the troops of the situation of affairs as soon after the arrest as possible.

Finding no courier at Oak Creek, and surmising that the police might be in need of assistance, Capt. Fechet pushed on, and at 7 a. m., when about 3 miles from Sitting Bull's house, he met a policeman who informed him that the police and Sitting Bull's followers were fighting and that the police were nearly out of ammunition; that several of the police had been killed or wounded, and a number of the hostiles, including Sitting Bull, were killed. Sending the policeman into the post with the report, Capt. Fechet pushed on at a gallop. The policeman reached the post a few minutes past 12 o'clock on the 15th. Not knowing how serious the situation might be, I ordered Companies G and H, Twelfth Infantry, 4 officers and 72 enlisted men, to move out at 2:30 the same afternoon with ten days' supplies for both cavalry and infantry, myself in command. Being detained by heavily loaded wagons I did not reach Oak Creek, a distance of about 23 miles, until 11:30 p. m., where I found the cavalry in bivouac, and went into camp.

Capt. Fechet informed me that on reaching the bluffs overlooking the Grand River Valley, he pushed forward a skirmish line and fired a few shots from the Hotchkiss gun (see report of the affair forwarded soon afterwards), which dispersed the hostiles, they scattering, most of them fleeing up the river. He found that the police had entered Sitting Bull's house between 5 and 6 o'clock that morning and had arrested Sitting Bull. There was a slight delay to let him put on some clothing, and his friends having been alarmed by the outcries of some of the family, had commenced to assemble. When the police were taking him from the house they were fired upon and a fierce fight ensued. Capt. Fechet found 8 hostiles, including Sitting Bull, dead on the ground, and 4 policemen killed and 3 wounded, two of them mortally, and since dead. The Sitting Bull people did not attempt to fight the troops, but scattered in great alarm.

The object having been the arrest of Sitting Bull and there being no organized band of Indians to follow, Capt. Fechet sent word to the fleeing Indians by squaws he found in some of the houses, to return to their homes. He then withdrew to Oak Creek, which place he reached about 6 p. m., in the belief that it would have a better effect in quieting the Indians than if he remained on Grand River or attempted to follow them.

He had brought with him the dead and wounded police and the body of Sitting Bull, and was accompanied by a number of friendly Indians who wished to move into the agency. He also brought in two prisoners, young men, relatives of Sitting Bull, whom the squaws had secreted in the house.

On the morning of the 16th, after obtaining all information possible from the cavalry officers and Indian police, I concluded, with Capt. Fechet, that it would do no good and possibly much harm, if the troops returned to Grand River, and at 10 o'clock broke camp and returned to Fort Yates, arriving that evening about 5 o'clock.

From what has since transpired, I am convinced that no mistake was made in not following the Indians after the fight at Sitting Bull's house, as many of them who afterwards surrendered on the Cheyenne River would otherwise have been forced into Big Foot's party and commenced active hostilities at once. For particulars of this move to arrest Sitting Bull, see my report made at the time.

If it had been the intention of the police to assassinate Sitting Bull, they could easily have done so before his friends arrived, but while determined that he should not escape, he was not hurt until he commenced struggling to get away and the lieutenant of police had been shot. It is also remarkable that no squaws or children were hurt. The police appeared to have constantly warned the other Indians to keep away, until they were forced to fight in self-defense. It is hardly possible to praise their conduct too highly.

It has since developed that Sitting Bull had a strong guard at his house for his protection for a number of nights prior to his arrest, but on the night of December 14 they had danced until about 2 a. m., and that night he was not guarded.

Three hostiles were known to have been wounded in the fight at Sitting Bull's house, but got away. On the return of the troops the agent immediately sent out messengers to those who had gone, telling them that this agency was the only safe place for them. In a few days they commenced coming in, and soon 160 had surrendered. About two weeks later 88 of those who had reached the Moreau River returned and surrendered, either to the police or to the agent in person. These Indians were disarmed, and have since been kept under the surveillance of the police. There has been no trouble between them and the friendly Indians.

On December 19 authority was received to enlist 20 Indian scouts from among the loyal Indians on the reservation. This was done in a few days, and many more could have been obtained if necessary.

Sufficient time having been allowed for the messengers sent out to reach the hostiles, and in order to guard against a possible movement of hostile Indians to the north, Troops F and G, Eighth Cavalry, Capt. E. G. Fechet, commanding, were ordered to march December 21 to the Grand River and take station in the vicinity of Primeau's and Thunder Hawk's, with orders to scout the country in that vicinity, but, by direction of the department commander, not to scout as far south as the Moreau River until further orders, as it might alarm friendly Indians.

On receipt of information from the department commander that it might be necessary for two troops of cavalry and one full company of infantry to move south to the Cheyenne River, Capt. D. J. Craigie, Twelfth Infantry, was ordered to proceed on the 24th of December with 3 officers and 60 enlisted men of Companies G and H, Twelfth Infantry, to Grand River, and report to Capt. Fechet for duty with his command.

On December 25 I received instructions to keep sufficient supplies with Capt. Fechet's command to enable him to move at any time, with grain and rations for fifteen days.

On December 22 Capt. Fechet was ordered to push up Grand River with both troops of cavalry, to the assistance of a troop of cavalry reported to have been surrounded at or near Cave Hills by a large body of Indians. He moved up the river to near the forks, when, believing that report was untrue, he, by my direction, returned to Primeau's.

On December 30, in accordance with instructions from department headquarters, Capt. Fechet was ordered to move rapidly up to the forks of Grand River with his command and report to Maj. Carroll for duty, to prevent Indians from moving north. I was instructed same day to keep Maj. Carroll's command supplied, and to establish a line of couriers with Fort Yates. All supplies asked for were promptly forwarded, and the courier line established by which dispatches were quickly carried. The Indian scouts appeared to feel much pride in making quick time and performed their duty faithfully.

January 3, Second Lieut. D. J. Baker, jr., Twelfth Infantry, with 12 enlisted men and 1 scout, left post with supply train of 19 wagons for troops in the field. January 6, Serg. Boucher, Company H, Twenty-second Infantry, with 12 enlisted men and 1 scout, left post with supply train of 26 wagons for troops in the field. January 10, Corp. Park, Company G, Twenty-second Infantry, with 3 enlisted men and 1 scout, left post with a supply train of 4 wagons for troops in the field. January 13, Capt. C. W. Miner, Twenty-second Infantry, with 33 enlisted men and 2 scouts, left post with supply train of 72 wagons for troops in the field.

Lieut. Baker, with 12 men, was placed at Bull Head's, and Lieut. Uline, Twelfth Infantry, with 10 men, at Thunder Hawk's, both points on Grand River, for the purpose of keeping up a better line of communication with Maj. Carroll's command in the vicinity of Slim Buttes, part of which was 200 miles from this post.

On January 17 instructions were received to forward no more supplies to troops in the field, and on the 24th telegraphic orders were received for the withdrawal of the troops.

Capt. C. W. Miner, Twenty-second Infantry, being the senior officer in the field from this post, was directed to take command and move troops and property into the post.

On January 30 Capt. Fechet arrived with his troop (G, Eighth Cavalry), having received permission to come in advance of the main column. On the afternoon of January 31 Capt. Miner arrived with his command, except a small detachment under Lieut. Steele, Eighth Cavalry, who had been left to bring property turned over by Maj. Carroll's command.

This last day's march of 23 miles was the coldest experienced by the troops while in the field. There was a high wind, and a number of the officers and men were frost-bitten.

Lieut. Steele arrived with the property left by Maj. Carroll on the afternoon of February 2.

No casualties among the troops.

Number of policemen killed in the fight	4
Number mortally wounded and since dead	2
Number severely wounded	1

Total casualties in police force	7
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Number of hostiles killed, including Sitting Bull	8
Number of hostiles wounded	3
Number of prisoners captured	2

Total	13
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The two prisoners were turned over to the agent. The wounded hostiles were Bull Ghost, Brave Thunder, and Strike the Kettle. The two former are on the reservation and the latter is at Fort Sully.

Number who surrendered to the agent or police after the fight (men, women, and children).....	160
Number of those who, having left the reservation, have since surrendered to the agent or police.....	88
Total surrendered.....	248

These include Sitting Bull's family. Among those who surrendered and are now on the reservation are 38 men who participated with Sitting Bull's party in the fight on the morning of December 15, of whom the following six were the most active and aggressive, viz: Bull Ghost, Crawler, Flying Horse, Circling Hawk, Iron White Man, and Black Dog Man. These 28, with 118 who fled and have not yet returned, together with the 8 killed in the fight, make 164 who are believed to have either been active participants, or were present and in sympathy with Sitting Bull in his stand that morning. No special action has been taken in the cases of the 38 present, except that they are kept under surveillance of the police.

A number of squaws and children were found in the Sitting Bull settlement by the troops, but they were not molested by either troops or police. Thirty-six guns have been surrendered by the Sitting Bull Indians since December 15, and officers report seeing several broken guns on the ground after the fight. One hundred and fifty-seven guns and 10 revolvers have been taken from Indians by the police to that date.

I have the honor to inclose herewith copies of all orders and letters of instructions issued by me during the campaign.

For the details of all movements and marches, attention is invited to reports previously forwarded.

Very respectfully, your obedient servant,

W. F. DRUM,
Lieutenant-Colonel, Twelfth Infantry, Commanding Post.

EXHIBIT D.

FORT YATES, N. DAK., December 17, 1890.

To the POST ADJUTANT,

Fort Yates, N. Dak.:

SIR: For the information of the commanding officer I have the honor to report the operations of the battalion of the Eighth Cavalry under my command for the purpose indicated in Orders, No. 247, of this post (copy attached, marked A).

The command consisted of Troop F, Eighth Cavalry, Lieuts. Slocum and Steele, and 48 enlisted men; Troop G, Eighth Cavalry, Capt. Fehché, Lieuts. E. H. Crowder, and E. C. Brooks, and 51 enlisted men; Capt. A. R. Chapin, medical officer, and Acting Hospital Steward August Nickel; two Indian scouts, Smell the Bear and Iron Dog; Mr. Louis Primeau, Indian department, Standing Rock Agency, guide and interpreter.

One Gatling gun was attached to G Troop and one breech-loading steel Hotchkiss gun attached to Troop F. There were furnished the command 1 four-horse spring wagon, carrying 1 day's cooked rations and 1 day's grain for the whole command, and 1 red cross ambulance.

Commanding officers: Capt. E. Fehché, commanding battalion; Lieut. E. H. Crowder, commanding G Troop; Lieut. S. L'H. Slocum, commanding F Troop; Lieut. E. C. Brooks, commanding field artillery.

The command moved out at midnight, December 14, and by rapid marching was by daylight within 3 miles of Sitting Bull's camp, which is fully from 41 to 42 miles from Fort Yates. After daybreak I expected every minute to meet the Indian police with Sitting Bull their prisoner, it having been arranged by Maj. McLaughlin, Indian agent, that they would make a descent on Bull's camp about daybreak, arresting Bull and delivering him to me for conduct to this post. It will be seen by reference to the first paragraph of the order that the command was to proceed only to the crossing of Oak River, which was 18 miles from Bull's camp. After receiving this order, on consultation with Col. Drum, commanding the post, it was decided that I should move as close to Bull's camp as possible without discovery, and there await the police. A short time after dawn a mounted man was discovered approaching rapidly. This proved to be one of the police, who reported that all the other police had been killed. The substance of his report, with the additional state-

ment that I should move rapidly and endeavor to relieve any of the police who might be alive, I forwarded to the commanding officer.

The command was at once put into condition for immediate action. A light but extended line of skirmishers was thrown in advance; the main body was disposed in 2 columns, in column of 4s, about 300 yards apart, the artillery between the heads of columns. A few minutes after making these dispositions another of the police came in and reported that Bull's people had a number of the police penned up in his house. The command was moved with all speed to a point on the high lands overlooking the valley of Grand River, and immediately opposite Sitting Bull's house and the camp of the ghost dancers, distant some 1,500 yards.

A hasty examination showed a party of Indians, apparently 40 or 50, on a high point on or right front, some 900 yards distant, but whether a party of police and friends or Bull's people could not be determined. While trying to make out the position and identity of the two parties there were a few shots fired by the party on the hill and replied to from Sitting Bull's house. There was also firing from the woods beyond Bull's house, but on whom directed it was impossible to tell. I caused a white flag to be erected on the crest where I was located (a prearranged signal between the soldiers and the police), and directed a few shots to be fired from the Hotchkiss into the woods mentioned. In answer a white flag was displayed from Bull's house, and Indians were seen leaving the woods going in the direction of the hills to the south across Grand River. The Hotchkiss gun was then turned upon the party on our right front; this, with some fire from a dismounted line of F Troop, caused them to retreat rapidly from their position up the valley of Grand River to the northwest.

Lieut. Slocum, with his troop dismounted, was ordered to advance immediately upon the house. Lieut. Crowder, with G Troop mounted, moved rapidly to the right along the highlands, covering the right flank of the dismounted line. As the dismounted line approached the house the police came out and joined the command. The line was advanced through the timber, dislodging a few hostiles, who disappeared rapidly up the river through the willows. This line, after advancing through the willows some 600 yards, fell back to the immediate vicinity of Sitting Bull's house, leaving pickets at the farthest points gained by the advance.

Lieut. Crowder, in the mean time, observing the Indians gathering at houses up the river about two miles from Bull's camp, moved in pursuit of them. The Indians fell back from every point upon the approach of the troops, not showing any desire to engage in hostile actions against the soldiers. All the houses for a distance of about 2 miles were examined, and all were found deserted, but showed signs of recent occupation. Failing to come up with the Indians in this direction, G Troop fell back and joined the main command at Sitting Bull's lodge.

Upon arriving at this place I found evidence of a most desperate encounter between the agency police and Sitting Bull's followers. In the vicinity of the house, within a radius of 50 yards, there were found the dead bodies of 8 hostiles, including Sitting Bull. Two horses were also killed. Within the house were found 4 dead and 3 wounded policemen. It was learned through the interpreter that the hostile Indians had carried away with them 1 of their dead and 5 or 6 wounded, making an approximate total of 15 casualties in Sitting Bull's band. A list of casualties by name on both sides is hereto attached, marked B.

From the best evidence obtainable I am led to believe that the police under the command of Bull Head and Shave Head, about 40 strong, entered Sitting Bull's camp about 5:50 a. m. on the 15th instant for the purpose of making the arrest of Sitting Bull. Sitting Bull was taken from his house, and while the police were parleying with him, endeavoring to induce him to submit peacefully, Bull Head was shot by Catch the Bear in the leg. Bull Head immediately shot and killed Sitting Bull, when the mêlée became general, with the results heretofore given. The fight lasted but a very few moments, when the police secured the house and stable adjoining, driving Sitting Bull's men from the village to cover in the adjoining woods and hills. From these positions the fight was kept up until about 7:30 a. m., when the troops came up. I learn that soon after the occupation of the house and stable by the police volunteers were called for to carry a report of the situation back to the approaching troops. Hawk Man offered to perform the perilous service, and at the imminent risk of his life, assisted by Red Tomahawk, he effected his escape, being shot through his coat and gloves while engaged in the attempt. This was the first scout met by the command.

My orders were explicit as to the arrest of Sitting Bull, but contemplated no pursuit of his band. I therefore did not feel authorized to follow the Indians up the valley, especially as I felt satisfied from the report of Lieut. Crowder that it would only result unnecessarily in frightening peaceful Indians away from their homes, and that the withdrawal of the troops, together with the message I communicated to the Indians that only the capture of Sitting Bull was desired, would tend to reassure those who were loyally disposed toward the agent.

Accordingly I gave orders for the command to withdraw to Oak Creek, of which the commanding officer was informed by courier, with the request that he communicate his further orders to me at that point. Previous to leaving word was sent up and down the valley to the friendly Indians of this movement, in order that they might avail themselves of the protection of the troops in their withdrawal to the agency, which they did in considerable numbers. All the dead Indian police, together with their wounded and the body of Sitting Bull, were brought in by me.

Upon reaching Oak Creek, at 6 p. m., I was met by a courier, who informed me that the commanding officer of Fort Yates, with two companies of infantry and ten days' supplies, would reach Oak Creek some time in the night. Upon their arrival at 12 o'clock I turned over the command.

The attention of the commanding officer is invited to the celerity of this movement. In brief, the command marched from here to Sitting Bull's camp and back to Oak Creek in seventeen hours. This, with the ground covered in getting into position, and the demonstration to the right by Lieut. Crowder, made a total distance of at least 70 miles. It must be taken into consideration that the movement back to Oak Creek, 18 miles, was made very slowly. Thus it will be seen that the march out, including the movements into position, were made at the rate of over 6 miles an hour. During the whole march the column moved steadily, without stretching out or closing up—a most satisfactory commentary upon the drill and discipline of the two troops composing my command. To say less would be a want of appreciation on my part of the command under my orders.

E. G. FECHÉT,
Captain Eighth Cavalry, Commanding.

[Orders, No. 247.]

FORT YATES, N. DAK., *December 14, 1890.*

2. Capt. E. G. Fechét, Eighth Cavalry, will proceed with Troops F and G, Eighth Cavalry, the Hotchkiss gun, and one Gatling gun to the crossing of Oak Creek by the Sitting Bull road, for the purpose of preventing the escape or rescue of Sitting Bull, should the Indian police succeed in arresting him.

The command will move out at 12 o'clock midnight, in light marching order, and will be supplied with 50 rounds of carbine and 12 rounds of revolver ammunition per man, 4,000 rounds of ammunition for Gatling gun, 25 rounds for Hotchkiss gun, cooked rations, and one day's forage.

After receiving the prisoner Capt. Fechét will return with his command to this post, reporting to the commanding officer on arrival.

If, at arrival on Oak Creek, Capt. Fechét learns that the police are fighting or need assistance, he will push on, and, if necessary, follow Sitting Bull as long as possible with his supplies, keeping the post commander informed by courier of his movements.

The march will be so regulated as to reach Oak Creek by 6:30 o'clock a. m., tomorrow, the 15th instant. Should arrest be made, every precaution will be taken to prevent escape or rescue.

Two Indian scouts will accompany the command. Assistant Surg. A. R. Chapin, medical department, will report to Capt. Fechét for duty with the expedition.

First Lieut. S. L'H. Slocum, with Troop F, will report to Capt. Fechét for orders.

Second Lieut. E. C. Brooks, Eighth Cavalry, will also report to Capt. Fechét for duty with the expedition.

One hospital ambulance, with necessary supplies, will accompany the expedition, the quartermaster's department furnishing the necessary team.

By order of Lieut. Col. W. F. Drum:

E. C. BROOKS,
Second Lieutenant Eighth Cavalry, Post Adjutant.

Casualties in the Indian police.—Henry Tataukapah (Bull Head), first lieutenant in command, dangerously wounded; four wounds. Charles Kashlah (Shave Head), first sergeant, mortally wounded; since died. James Wambdichigalah (Little Eagle), fourth sergeant, killed. Alexander Hochokah (Middle), private, painfully wounded. Paul Akichitah (Afraid of Soldier), private, killed. John Armstrong, special police, killed. Hawk Man, special police, killed.

Casualties among hostiles.—Sitting Bull, killed; Black Bird, killed; Catch the Bear, killed; Little Assinniboine, killed; Crow Foot (Sitting Bull's son), killed; Spotted Horn Bull, a chief, killed; Brave Thunder, a chief, killed; Chase Wounded, killed.

EXHIBIT E.

FORT BENNETT, S. DAK., *December 26, 1890.*The Post ADJUTANT,
Fort Bennett, S. Dak.:

SIR: I have the honor to submit the following report of my services during the time that I was absent from this post per Post Orders No. 64, current series.

On the 18th instant I started in company with Post Guide Nolland for vicinity of Cherry Creek. We arrived at Cheyenne City, near the mouth of Cherry Creek, at 6:50 p. m., same date, and found but one white man left there, the others having fled at about 1 o'clock the day previous for fear of their lives, leaving most of their property behind them. I was informed that they left in a panic and the panic was caused by Narcisse Narcelle, half-breed agency farmer, and lately employed in trying to induce Cherry Creek Indians to give up their arms, etc., who rode into town about noon of the 17th instant, and advised all the whites to leave the place immediately. The cause of his fear was the arrival of some runners from Sitting Bull's fugitive band, who had said that a party of warriors would arrive at Cherry Creek that night; that they were all desperate men; that they had sworn to kill the first white man or Indian policeman they should see, etc. He appeared frightened himself, and left Cherry Creek the next morning for Bennett. These facts I learned from the one white man whom I found remaining at Cheyenne City; and since that time his statements to me have been essentially corroborated.

On my arrival at Cheyenne City I sent such Indians as I could pick up out on various duties. One and all having refused to go with me to Cherry Creek, I finally induced one—not a policeman—to go alone with instructions to find out all he could concerning the number of Sitting Bull's band then at that place, etc. Another Indian, a policeman, I sent down the river to bring back Narcisse Narcelle.

The result of my investigations that night are embodied in my report to Capt. J. H. Hurst, Twelfth Infantry, commanding Fort Bennett, S. Dak., appended A. I also reported that night to the commanding officer camp on the Cheyenne by a runner. My report to him was to the effect that the Sitting Bull Indians were well up the Cherry Creek. To this communication I received no answer when the runner returned several days later. My reports (appended B and C) afterwards sent in, carry me up to about noon of the 20th instant. During this period difficulty was experienced at arriving at facts, as I had no interpreter but Mr. Henry Angell, the white man left in Cheyenne City, who had picked up some of the Indian language during his residence among them. Horses were kept saddled and a watch maintained at night as all reports as to the temper of the surrounding Indians were of an alarming nature. About noon of the 20th instant an Indian came in and reported that Cavanaugh's ranch, distant about 10 miles, had been looted that morning and the owners run off. The question arose as to whether this (if true) had been done by the Standing Rock Indians or by disaffected Cherry Creek Indians on their way to join Big Foot. I immediately determined to go up Cherry Creek myself in quest of the camp of Standing Rock Indians, as I had been as yet unable to possibly fix their location. As I was about to start, Hump rode into camp and told me that the Standing Rock Indians were not far distant and approaching in our direction, and that they were armed. Soon I could see them coming down over the hills a mile distant and from the direction of Cavanaugh's ranch. I believed that they were from that place, and decided to ride out and meet them with the view of preventing them, if possible, from doing damage at Cheyenne City. Just then Hump approached me and by signs asked me if I would go with him and meet them. I assented, and we rode over to where they had come in, and in a few moments I found from their manner that they were friendly. I counted forty-six men, many of whom were armed. There were a few women, two or three wagons, and a small herd of ponies near. I appreciated the importance of the situation, but was absolutely powerless to communicate with the Indians. I immediately formed the opinion that they could be easily persuaded to come into the agency if I could but talk with them. While I was trying by signs to make them understand what I wanted, Henry Angell rode into the circle and took his place at my side. This generous man had not liked the idea of my going amongst these Indians, and from a true spirit of chivalry had ridden over to "see it out." By this time I had made up my mind what to do, and by Angell's knowledge of the language I told the Indians that if they would remain where they were for twenty-four hours I would go into the agency and would return to them with the chief and an interpreter and with no soldiers with us in that time. They indicated that they would not move, and having directed Angell to kill a beef and feed them I started for the post, reached there in six and one-half hours, and in company with the post commander, Capt. Hurst, and interpreter, was back the next afternoon. Hump was left in charge during my absence. My fear was that some of Big Foot's men would come down the river amongst Standing Rock Indians during my absence and ruin my plans.

Early on the morning of the 22d instant we started for Fort Bennett with the Indians, camped that night 2 miles above Dupree's ranch. On the morning of the 23d instant I was directed by Capt. Hurst to take charge of the Indians and conduct them on to the post. He then went on to the post alone. Meantime eight box and five spring wagons had arrived from the agency at the request of Capt. Hurst, to convey those who could not walk. The column was started at 1 o'clock p. m., camped that night at Cook's Camp, 23 miles from Fort Bennett. The weather was cold and much suffering was endured by the poorly clad and tired Indians. A beef was purchased, killed, and, together with sugar and coffee, sent from the agency, issued under my direction. Camp was broken at daylight on the 24th, and at 9:30 I drove out in rear of the last wagon full. It was a cold morning and considerable suffering was manifest. The column arrived at Fort Bennett at about 5:30 p. m., same date. On the road I took an accurate count of the number under my charge, and the following was the result:

	Men.	Women and children.	Ponies.
Standing Rock Indians	64	102	138
Cherry Creek Indians	13	42	44
	77	144	182

The Cherry Creek Indians belong to the agency (Hump and family included) and joined the column at Cherry Creek at the start.

Very respectfully, your obedient servant,

H. E. HALE,
Second Lieutenant Twelfth Infantry.

EXHIBIT F.

FORT BENNETT, S. DAK., January 9, 1891.

THE ASSISTANT ADJUTANT-GENERAL,
Department of Dakota, St. Paul, Minn.:

SIR: I have the honor to submit the following report of my action in receiving the surrender of and bringing into this post the Standing Rock Indians now held as military prisoners at Fort Sully, S. Dak.

Believing that affairs at the Indian dancing camp at mouth of Cherry Creek and at Big Foot's camp farther up the Cheyenne River, South Dakota, were assuming an alarming character, I ordered Lieut. Hale, Twelfth Infantry, to proceed on the morning of December 18, 1890, rapidly to mouth of Cherry Creek, and remain there or in that vicinity until further orders, observing, directing, and reporting any movements that might occur. After promptly and frequently reporting the situation as he found it and the result of his observations, he reported to me in person during the night of the 20th ultimo, direct from Cherry Creek, that there was a large party of Sitting Bull's people just arrived on Cherry Creek, many of them armed, but that he thought that they could be induced to surrender and come into the agency here. At daylight next morning I started with him on his return to Cherry Creek, accompanied by Serg. Phillip Gallagher, Company A, Twelfth Infantry, and two enlisted Indian scouts who spoke English and acted as interpreters, for the purpose of disarming these Indians and bringing them into the post.

We arrived at mouth of Cherry Creek at 3:30 p. m. same day; distance from Bennett 52 miles. In a very brief interview with these Indians immediately upon my arrival, I told them what I had come to them for, and that as I was very tired and hungry I would have a council with them after they had a feast, for which I purchased two beeves and turned them over to them.

Upon a hasty and close observation of these Indians I believed I could induce them to come quietly into the post, and apparently paid no attention to them until they indicated that they were ready to talk, which they did at about 8 p. m. At that hour I met their principal men and all in council, for which I had provided a liberal quantity of smoking tobacco. They told me that they had left Standing Rock Indian Agency never to return; that their great chief and friend, Sitting Bull, had been killed without cause, and that they had come down to Cherry Creek to talk with their friends there and had found them suddenly gone, and that they had not fully decided upon their future course. I replied and said that I had come to them as their friend, and that I wanted them to believe and trust me, and that I wanted them to give up

their arms to me that night and return with me to Fort Bennett next morning, where they would be provided for and taken care of; that I could give them no promises as to their future disposition, and could only assure them of present protection if they trusted me; but that if they chose to join Big Foot, who was only 10 miles up the river, the result would be the certain destruction of themselves and probably their families, and that I had nothing more to say to them.

They said they would soon tell me the result of their deliberations, and at midnight they came in a body and delivered up to me all the guns they said they had—seventeen in number—and twelve Winchester cartridges. I told them I was sure they were not acting honestly, and that they were not giving up all their arms, but not being in a position to dictate measures I quietly received such as they gave me. Four guns were found secreted among their baggage on arrival at Bennett, making twenty-one guns taken from them.

Broke camp at daylight on the 22d ultimo, and camped that night at Dupree's ranch, where we found Col. Merriam's command also in camp.

I had sent early in the morning one of the scouts with me to the agency and Fort Bennett, with request to send out to Dupree's ranch that night, to meet us, all the wagons that could be forwarded to aid in getting these people quickly to the post, and at midnight they reported to me. Early next morning (the 23d instant) I received an order from Col. Merriam, Seventh Infantry, to proceed immediately to Fort Bennett, resume command of the post, turning over the Indians to Lieut. Hale. Copy of the order appended, marked A. I appealed in person to Col. Merriam to let me remain with these Indians until their arrival at Bennett, for I feared the result of a sudden scare or panic among them, with Lieut. Hale absolutely alone, as the colonel's order took from him the two enlisted Indian post scouts and the only soldier accompanying us. He considered it more important for me to proceed to the post, where I arrived at 3:30 p. m. same day, having traveled 106 miles since leaving the post.

Next day (the 24th ultimo) Lieut. Hale and the Indians arrived at about 5 p. m., and went immediately into camp by themselves, on the river bottom below the post. The Cherry Creek Indians with them were allowed to go to the camp of their own people next day. The Standing Rock Indians, augmented by some that had joined them here, were transferred to Fort Sully on the 30th ultimo as military prisoners, by orders of the department commander, numbering 227—81 men, 43 boys, 72 women and 31 girls—148 ponies and 4 wagons, for which the commanding officer, Fort Sully, receipted.

Attention is respectfully invited to report of Lieutenant Hale accompanying this and marked E, and to the prompt, efficient, and important service rendered by him in this connection during the period from the 18th to the 24th ultimo, both inclusive.

I desire also to commend the very efficient and zealous service of Serg. Gallagher and the two enlisted scouts, who, with Lieut. Hale and myself, started out on this expedition without the burden of rations or blankets, knowing that whatever success attended it must be accomplished quickly.

Very respectfully, your obedient servant,

J. H. HURST,

Captain, Twelfth Infantry, Commanding Post.

"A."

CAMP AT DUPREE'S, CHEYENNE RIVER, S. DAK.,

10 p. m., December 22, 1890.

Capt. J. H. HURST,

Twelfth Infantry:

SIR: It is important to my movements and I desire that you go through to Bennett to-morrow, 23d, and resume immediate command of your post, leaving Lieut. Hale to follow in charge of the Indian prisoners. I will send to you early in the morning four Indian teams, which I am sending back light to assist Capt. Sanno's battalion. In these you may place the surrendered arms, put your sergeant in charge, and instruct him to follow you and reach the post without camping. Lieut. Hale will continue to purchase beef for the prisoners and reach the post by such shorter marches as may be practicable.

On arriving at Bennett I desire you to give all the possible aid in obtaining teams and forwarding the remainder of the Seventh Infantry under Capt. Sanno. If other teams are not available at once, the agency teams should be used temporarily for that purpose instead of forwarding Indian prisoners, and for which there is now no need of haste.

You will please also send to report to me the Indian scouts attached to your post, to reach my camp on the 24th. They can bring forward letter mail, and their sup-

plies may be brought forward with Sanno's battalion. They will remain on duty with my command until relieved. Any service needed at the post in the meantime to be rendered by Indian police.

Very respectfully, your obedient servant,

H. C. MERRIAM,
Colonel Seventh Infantry, Commanding.

EXHIBIT G.

HEADQUARTERS SEVENTH INFANTRY,
Fort Logan, Colo., January 30, 1891.

The ASSISTANT ADJUTANT GENERAL,
Headquarters Department of Dakota :

SIR: I have the honor to report the services of my regiment in the field during the month of December and January, as follows:

The following telegram was received at 6:20 a. m. December 3, 1890:

HEADQUARTERS DEPARTMENT OF THE MISSOURI,
St. Louis, Mo., December 2, 1890.

The COMMANDING OFFICER SEVENTH INFANTRY,
Fort Logan, Colo. :

Move your command to Omaha, Nebr. reporting en route to General Miles, Chicago, so that further orders may be given before arrival of regiment at Omaha. To-morrow morning will be early enough to start.

MERRITT,
Brigadier-General, Commanding.

Rail transportation was procured at 11:35 a. m., and my command, consisting of, Col. H. C. Merriam, Seventh Infantry, commanding. First Lieut. and Adj. A. B. Johnson, Seventh Infantry, adjutant. First Lieut. and Regimental Quartermaster L. D. Greene, quartermaster. Maj. R. M. O'Reilly, U. S. A., surgeon, and seven enlisted men; Company B, Capt. T. S. Kirkland, First Lieut. Geo. S. Young, Second Lieut. F. H. Sargent, and 43 enlisted men; Company C, Capt. J. T. Van Orsdale, First Lieut. G. W. McIver, Second Lieut. E. Alexander, and 44 enlisted men; Company D, Capt. F. M. H. Kendrick, and 46 enlisted men; Company E, Capt. L. F. Burnett, Second Lieut. H. F. Ferguson, and 46 enlisted men; Company F, First Lieut. D. A. Frederick, Second Lieut. J. R. M. Taylor, and 50 enlisted men; Company G, Capt. William Quintan, First Lieut. D. L. Howell, Second Lieut. A. B. Buffington, and 42 enlisted men. Aggregate, 18 officers and 278 enlisted men; also Red Cross ambulance and team was at once loaded on the train and moved out at 12:05 p. m.

Journey to Omaha was made without incident. At that point Company H, consisting of 3 officers and 48 enlisted men, having arrived from Fort Leavenworth, Kans., reported to me for duty. Having received instructions to proceed to Pierre, S. Dak., and report by telegraph to Brig. Gen. Ruger, commanding Department of Dakota, for duty, journey was continued after a delay of twenty hours for transportation. Arrived at Pierre on the evening of the 6th December, and encamped on the bank of the Missouri in about 1 foot of snow and temperature below zero. Broke camp and marched to Fort Sully, S. Dak., on December 7, temperature at 6 a. m. being 12 degrees below zero. The march was made, however, without serious frostbites. Arrived at 3 p. m.; distance, 24 miles.

Command arrived in excellent condition and nearly prepared for winter field service, except buffalo overcoats and a few fur caps, gauntlets, and arctics, mainly for H company, which were promptly supplied. Only one man, Private Reynolds, Company E, failed to arrive at Fort Sully with the command. He was left accidentally in Iowa and rejoined within a few days.

On the morning of December 16 the following telegram was received:

HEADQUARTERS DEPARTMENT OF DAKOTA,
St. Paul, Minn., December 16, 1890.

Col. H. C. MERRIAM,
Commanding Seventh Infantry, Fort Sully, S. Dak.:

It has been the intention to direct that you proceed with your command across the Missouri River and go into camp near the agency, this for the restraining effect the appearance of the force would have on the disaffected element of the Indians and for any service that might be called for. The state of the river has been such, as reported, that wagons could not be crossed on the ice, and the order has not been given. It is desired that as great a part of your command be crossed to Fort Bennett as may

be practicable before the 22d instant, which is fixed for general issue to the Indians at the agency. If it be not practicable to cross tentage, but men may be, by crossing on the ice or by boats. You may cross with some companies at least provided with proper clothing and ammunition, and temporary shelter may be had in the barracks there and by using all the available tentage.

The report of that post shows eight conical wall and Sibley tents in the hands of the companies in quarters and the post quartermaster. The commanding officer there will be subject to your orders. In case crossing on the ice by men on foot may be made but the ice is not very strong, great care must, of course, be observed and no risk taken.

By command Gen. Ruger.

M. BARBER,
Assistant Adjutant-General.

Two companies, B and D, marched for Fort Bennett at 8 a. m. on the following day, and were successfully crossed over the Missouri with all their supplies and baggage under my personal supervision, and report was sent to department headquarters, in which I stated that I would have my entire command across the river by Saturday, the 20th. The following reply was received during the night of the 17th:

St. Paul, Minn., December 17, 1890.

Col. MERRIAM,
Commanding Fort Sully, S. Dak.:

I am glad to learn you have crossed two companies. Hope state of river will be such that you can cross your whole command. Will telegraph you to-morrow the general situation of other commands.

RUGER,
Brigadier-General, Commanding.

I should say here that the telegram that was to give me general information as to situation of other commands was never received.

Companies C and G and medical officer and hospital corps detachment were safely crossed on the 18th and reported. At 6:45 p. m. the following telegram was received:

HEADQUARTERS DEPARTMENT OF DAKOTA,

St. Paul, Minn., December 18, 1890.

Col. H. C. MERRIAM,
Seventh Infantry, Fort Sully, S. Dak.:

I am glad to learn that wagons and animals can be crossed. The commanding officers Forts Sully and Bennett have been directed to obey your orders. Cross all available or needed Sully transportation for use with that of Bennett and move with your command to Cherry Creek or vicinity. Have officers and others who know Cherry Creek Indians to go with you, too, and give them assurance that they will not be harmed if they stay quietly at home. You may not be in time to stop the Sitting Bull fugitives or even young men at Cherry Creek from going to Pine Ridge, but if you are do so. You will be in position to follow up with Sumner, who has been instructed to intercept them. Sully will be your point of supply, from which stores as required will be sent to Bennett. Give directions accordingly. Transportation for post use at Sully may be hired if necessary as long as so required, or until some shall be sent to that post. You are authorized also to hire transportation, if needed, for the supply of your command, so that your post transportation may be free from movements with troops. Acknowledge receipt and report when you think you will be able to get your command off from Bennett. You are authorized to employ interpreter and guide.

RUGER,
Brigadier-General, Commanding.

To which the following reply was telegraphed:

FORT SULLY, S. DAK., *December 18, 1890—(10 p. m.)*

The ADJUTANT-GENERAL,
St. Paul, Minn.:

Your telegram this date received. I can leave Bennett with seven companies Sunday, 21st, if department commander deems it wise to start before the Indians come in for rations. Having no mounted men, a detachment of scouts would be of great service to me; can enlist them if authorized, and would suggest 25 or more. Shall I take half the garrisons of Sully and Bennett also?

MERRIAM,
Colonel, Seventh Infantry.

Having completed the crossing of my command on the 19th, including one Gatling gun taken from Fort Sully, I sent the following report to department headquarters:

FORT BENNETT, S. DAK., December 19, 1890.

The ADJUTANT-GENERAL,

St. Paul, Minn. :

Just completed crossing my command. Lost a wagon and part of the load, consisting of rations, company equipage, and ammunition and two mules, through the ice this evening. This will delay us, but the situation at Cherry Creek and Big Foot's camp, as reported by Lieut. Hale to-day, appears favorable. Capt. Hurst thinks with me that my march should not begin till after Monday, the 22d; that the Indians who come in will be easier convinced by seeing them here.

MERRIAM,

Colonel, Seventh Infantry.

To which the following reply was made

HEADQUARTERS DEPARTMENT OF DAKOTA,

St. Paul, Minn., December 19, 1890.

Col. MERRIAM,

Seventh Infantry, Fort Bennett, S. Dak. :

You will await further instructions for movement of your regiment from Fort Bennett. Should events, however, make a movement necessary you need not wait for receipt of orders. Has all the available transportation been crossed over the river?

By command of Gen. Ruger :

M. BARBER,

Assistant Adjutant-General.

I should have stated that Lieut. H. C. Hale, Twelfth Infantry, with Hump, chief of a small band of Sioux on the Upper Cheyenne, and recently enlisted as a scout, also White Thunder, an Indian policeman belonging at Cheyenne River Agency, had been sent up to Cherry Creek on the 18th to assure the Indians in advance of my march that no harm would be done to those who remained quietly at their homes, and also to ascertain and report the situation in Big Foot's camp and the Sitting Bull Indians, then beginning to arrive from the stampede at Grand River, caused by the killing of Sitting Bull and the incidents. Lieut. Hale had also been instructed to send, if possible, a scout with information to Lieut. Col. Sumner, Eighth Cavalry, who was supposed to be on or near the Belle Fourche and not far from its mouth, with troops from Fort Meade. On the 19th, White Thunder, who had been hurried forward by Lieut. Hale with a message for Col. Sumner, arrived and reported to that officer having passed through the camp of Big Foot and the fugitive Sitting Bull warriors. All were of course much excited, as the Sitting Bull Indians were friends and relations of the Cherry Creek families and Big Foot and Hump's bands, and the struggle at once began between Big Foot, on the one side, and Hump and Lieut. Hale on the other—Big Foot seeking recruits from the excited Cherry Creek and Sitting Bull people, and even from Hump's own band, for war, and Lieut. Hale and Hump seeking their peaceful surrender and submission to the Government. Late on the night of the 19th I sat with Capt. Hurst and Ewers anxiously awaiting dispatches from Lieut. Hale, which came at last and seemed so favorable for the surrender of the larger portion of the Sitting Bull Indians, that I decided not to move forward on the following morning, as I had prepared to do, for fear it might appear to the excited Indians as a hostile movement and defeat the efforts being so bravely and successfully made by Lieut. Hale.

During the night the following came from Gen. Miles :

RAPID CITY, S. DAK., December 19, 1890.

Col. MERRIAM,

Seventh Infantry, Fort Bennett, S. Dak. :

The following just received from Lieut. Col. Sumner, mouth Belle Fourche: "It is reported to me just now by scouts that Sitting Bull Indians are coming into mouth of Cherry Creek, on the Cheyenne, and that Big Foot's band and Hump's band and all Cheyenne River Indians down as far as Cherry Creek have assembled at Hump's camp to meet the Sitting Bull Indians, and scouts report they are defiant. I send one troop of cavalry in advance at once in that direction and will follow with the other two troops and company of infantry in an hour. Would like to have infantry from Bennett hurry along."

MILES.

Commanding.

To this I replied early next morning as follows:

FORT BENNETT, S. DAK., December 20, 1890.

Gen. MILES,
Rapid City, S. Dak.:

Your telegram received. We are almost in hourly communication with Cherry Creek and Big Foot Indians and the stragglers from Standing Rock. Several wounded. They are hungry and greatly scared. Some have promised to come in and surrender, and we think Col. Sumner's movement will drive them to surrender to him or to come in here for same purpose. Capts. Ewers, Hurst, and myself think it best not to move out from here until the effect of Sumner's move is known. Have had great difficulty crossing river and am very poorly supplied with transportation, but will divide and move rapidly the moment any good result promises. Many Indians now arriving for rations.

MERRIAM,
Colonel Seventh Infantry.

And also to department headquarters as follows:

FORT BENNETT, S. DAK., December 20, 1890—10 a. m.

The ADJUTANT GENERAL,
St. Paul, Minn.:

Your telegram last night received. I am holding my command here ready for immediate advance. Col. Sumner is closing in upon Big Foot and Standing Rock Indians, and it is believed they will surrender to him or come in here for same purpose. They are reported out of food and have wounded with them. Capts. Hurst and Ewers think the chance of surrender would be injured by any immediate move from here, but I will move at once if any good result promises. Cheyenne River Indians now arriving for rations. I have taken all available transportation from Sully and will have to hire ten light Indian wagons.

MERRIAM,
Colonel, Seventh Infantry.

The foregoing was followed at 10 p. m. by this additional telegram:

FORT BENNETT, S. DAK., December 20, 1890—10 p. m.

The ADJUTANT GENERAL,
St. Paul, Minn.:

Lieut. Hale just in from Cherry Creek. Left 50 Standing Rock male Indians there at noon to-day. They offered to give up their arms to him, are without food, and he fed them; left Hump with them. They want to stay there till their families arrive, when they will come into Bennett. I will start out in the morning to meet Col. Sumner with reference to Big Foot's party. Lieut. Hale and Capt. Hurst preceding me to assure Sitting Bull Indians that they will be allowed to give up arms and to come in as they promised. Nothing yet heard of Col. Sumner's movement except a rumor among the Indians that soldiers are coming from the west. Capt. Ewers wires the situation to Gen. Miles. We hope to secure both the Standing Rock and Big Foot Indians. Lieut. Hale and Hump deserve great credit.

MERRIAM,
Commanding.

On the march, at about noon December 21, I met White Thunder returning direct from Col. Sumner's command, but was disappointed to find that he had not even a verbal message from that officer, to whom he had taken such important information. In conversation, however, I got from White Thunder the information communicated to department headquarters in the following telegram:

HEADQUARTERS SEVENTH INFANTRY (ON THE MARCH),
Near Corns, December 21, 1890.

The ADJUTANT GENERAL,
St. Paul, Minn.:

Just met Scout White Thunder, who comes from Sumner's camp. He knows Sumner had an interview with Big Foot yesterday, but does not know the result. The Standing Rock Indians are still awaiting Hale's return to-day at mouth of Plum Creek, which is very near Cherry Creek. I will camp at Corns to-night.

MERRIAM,
Colonel, Seventh Infantry, Commanding.

At 7 p. m., while in camp at Corns, on the Cheyenne, a courier from Bennett brought the following telegram :

HEADQUARTERS DEPARTMENT OF DAKOTA,
St. Paul, Minn., December 20, 1890.

Col. H. C. MERRIAM,

Commanding Seventh Infantry, Fort Bennett, S. Dak. :

Move with your regiment without delay to near mouth of Cherry Creek and communicate with Col. Sumner's command. Should he need your assistance or coöperation at any time you will render it. Capt. Hurst will give assurance to Indians assembled at agency that no harm will happen to those Indians who remain quiet and peaceable on the reservation. The movement is not ordered because of new information ; the presence there of your strong force will be beneficial and the command will be in better place for service in region generally. Make an expeditious march, send daily reports for dispatch from Bennett, communicate frequently with Sumner's command. Capt. Hurst will remain in immediate command of Fort Bennett. You will keep supplied from Fort Bennett. How many days' subsistence will you start with? You will, of course, take a good supply of ammunition.

By command of Gen. Ruger :

M. BARBER,
Assistant Adjutant-General.

I was greatly surprised and puzzled by a portion of the above telegram. However willing I might be to assist Lieut. Col. Sumner, or any junior officer, the one hundred and twenty-second article of war puts certain restrictions upon the method of procedure to that end, which would necessarily govern and reverse the situation.*

During the night a later courier from Fort Bennett brought the following telegram :

HEADQUARTERS DEPARTMENT OF DAKOTA,
St. Paul, Minn., December 21, 1890.

Col. H. C. MERRIAM,

Commanding Seventh Infantry, Fort Bennett, S. Dak. :

Action in respect to Sitting Bull Indians and securing their arms approved. The Big Foot people will not likely be difficult to attend to shortly.

By command Gen. Ruger :

M. BARBER,
Assistant Adjutant-General.

During my march on the 22d from Corn's to Dupree's, I received report from Capt. Hurst that he had succeeded in securing the surrender of 175 Sitting Bull Indians, 61 of whom were men, with all their arms, and would be at Dupree's with them that day, also that he had telegraphed this information to department headquarters. I sent the following at once to Gen. Miles :

HEADQUARTERS SEVENTH INFANTRY (ON THE MARCH),
Near Dupree's, December 22, 1890.

Gen. MILES,

Rapid City, S. Dak. :

One hundred and seventy-five, including 61 men, Sitting Bull's people surrendered to Capt. Hurst last night and will reach my camp to-night. Will send them to Bennett and go on to Big Foot.

MERRIAM,
Col. Seventh Infantry, Commanding.

* I do not see anything that should surprise or puzzle one in the proposition that in case of need assistance should be given by a senior to a junior commander, or that commanders should coöperate in case of need for a common object. Whether at any particular time the senior commander could or should assume command of both commands would of course depend upon the facts, and it would rest with the senior to decide the matter. The instruction to Col. Merriam was, as appears upon its face, given in the general sense, and should be construed in a common-sense way. In the order of the President of October 31, 1890, to the Secretary of War relative to the Sioux trouble, the following is the closing sentence : " In the mean time you will see that all necessary precautions are taken to have the troops in that vicinity to coöperate in the execution of any orders that may be adopted."

THOS. H. RUGER.

Also the following telegrams:

HEADQUARTERS SEVENTH INFANTRY (ON THE MARCH),
Cheyenne River, South Dakota, December 22, 1890.

The ADJUTANT-GENERAL,
St. Paul, Minn.:

Have no scouts or couriers yet and may not be able to communicate with Col. Sumner or send daily report as ordered, but will use every opportunity to gain and impart information. Three companies Seventh Infantry still at Bennett under command of Capt. Sanno awaiting sufficient transportation to follow. Red Skirt and most of his own and a few of Big Foot's people passed towards agency this morning.

MERRIAM,
Colonel Seventh Infantry, Commanding.

HEADQUARTERS SEVENTH INFANTRY (ON THE MARCH),
Cheyenne River, South Dakota, December 22, 1890.

Gen. MILES,
Rapid City:

I am hurrying to Cherry Creek with four companies. Am ordered to make frequent communication with Col. Sumner, but have no scouts or courier, nor any answer to request for scouts, sent to department headquarters. Three companies my regiment still at Bennett awaiting sufficient transportation. Authority to hire obtained and will hurry them forward.

MERRIAM,
Colonel, Commanding.

Meeting Capt. Hurst and Lient. Hale with the Sitting Bull prisoners at Dupree's, I gave him the following letter of instructions:

CAMP DUPREE'S, CHEYENNE RIVER, SOUTH DAKOTA,
December 22, 1890 (11 p. m.).

Capt. J. H. HURST,
Twelfth Infantry:

It is important to my movements and I desire that you go through to Bennett tomorrow and resume immediate command of the post, leaving Lient. Hale to follow in charge of Indian prisoners. I will send to you early in the morning four Indian teams, which I am sending back light, to assist Capt. Sanno's battalion. In these you place the surrendered arms, post your sergeant in charge, and instruct him to follow you and reach the post without camping.

Lient. Hale will continue to purchase beef for the prisoners and reach the post by such shorter marches as may be practicable.

On arrival at Bennett I desire you to give all possible aid in obtaining teams and forwarding the remainder of the Seventh Infantry under Capt. Sanno. If other teams are not available at once the agency teams should be used temporarily for that purpose instead of forwarding prisoners, for which there is now no need of haste.

You will please also send to report to me the Indian scouts attached to your post, to reach my camp on the 24th. They can bring forward letter mail, and their supplies may be brought forward with Sanno's battalion. They will remain on duty with my command until relieved. Any service needed at the post in the meantime to be rendered by the agency police.

H. C. MERRIAM,
Colonel, Commanding.

Continuing my march up Cheyenne River I arrived at the mouth of Cherry Creek on the 24th of December. Learning from the Indians encamped there sufficient to convince me that Col. Sumner had gained possession of Big Foot's village, I telegraphed as follows:

CHEYENNE RIVER, SOUTH DAKOTA (NEAR CHERRY CREEK),
December 24, 1890.

The ADJUTANT GENERAL,
St. Paul, Minn.:

Main Cheyenne is swept clean of Indians.

MERRIAM,
Colonel Seventh Infantry, Commanding.

On December 25 I sent a courier to Col. Sumner with the following letter

CAMP AT MOUTH OF CHERRY CREEK,
December 25, 1890.

Lieut. Col. SUMNER,
*Or other Commander of U. S. Troops,
operating from Fort Meade.*

SIR: I am instructed to communicate with your command and desire to coöperate in any possible way, and to that end will you please inform me of the result of your work so far, and of any further work you have in hand or to suggest in connection with the Indian excitement? I am here with four companies of infantry and one Gatling gun. Have picked up about 200 Standing Rock or Sitting Bull Indians, whom I have sent to Fort Bennett. I find here nine lodges of Cherry Creek Indians; most of them came from Big Foot's camp, but say they will now go to Cheyenne agency for annuities.

Very respectfully, your obedient servant,

H. C. MERRIAM,
Colonel, Seventh Infantry Commanding.

On the same day, December 25, I received by courier from Bennett the following:

ST. PAUL, MINN., December 22, 1890.

Col. H. C. MERRIAM,
Seventh Infantry, Fort Bennett, S. Dak.:

Under the changed condition of affairs the department commander does not think it necessary that the three companies from your regiment still at Bennett should join you at once, and you may direct them to remain at Bennett. Should anything occur to make it advisable they can be sent forward.

M. BARBER,
Assistant Adjutant-General.

To this I replied by telegram as follows:

CAMP NEAR MOUTH OF CHERRY CREEK, S. DAK.,
December 25, 1890.

The ADJUTANT-GENERAL,
St. Paul, Minn.:

Yours of 22d received. I suppose the change refers to capture of Big Foot and his old men, women, and children, which is unofficially reported here. My three companies remain at Bennett as directed. One scout sent me by Capt. Evers is hunting for Col. Sumner's command. Nine lodges Cherry Creek Indians here, most of them from Big Foot's Camp, but say they are now going to agency for annuities. Authority to buy hay, fuel, and fresh beef at Bennett rates is requested.

MERRIAM,
Colonel, Commanding.

In addition to those taken by Capt. Hurst, a number of stragglers of Sitting Bull and Cherry Creek Indians were picked up by me on the march, disarmed whenever arms were found in their possession, and sent back to Bennett to join their friends, until the number of Sitting Bull prisoners was increased to 227. I also arrested the same evening, December 25, an Indian named High Horse, who rode into camp in paint and feathers, and failed to give a satisfactory account of himself. After keeping him in confinement several days he proved to be one of Big Foot's followers, and had evidently been sent to watch my movements, as Big Foot moved southward from the Cheyenne on the evening of the 23d. I turned him over as a prisoner to a sergeant of the agency police on the 29th, to be taken under guard to the Cheyenne River Agency.

A courier from Fort Bennett delivered the following December 25, in the afternoon.

RAPID CITY, S. DAK., December 24, 1890.

The COMMANDING OFFICER,
Fort Bennett, S. Dak.:

Send this dispatch to Col. Merriam with the least possible delay:

"Endeavor to unite your four companies with Col. Sumner's command and arrest Big Foot and his immediate following—the 30 Indians that ran away from Hump's band and the 40 Standing Rock Indians. There are now with Big Foot about 330

Indians; about 100 men. He has been defiant in harboring hostiles and renegades, and should be taken under positive control. They can be disarmed and the men held in their own houses until further orders, or taken to Meade."

MILES,

Major-General, Commanding.

Which was answered at once as follows:

CAMP MOUTH OF CHERRY CREEK, SOUTH DAKOTA,

December 25, 1890.

Gen. MILES,

Rapid City, S. Dak.:

Your telegram yesterday just received. Rumor here that Big Foot surrendered to Col. Sumner on the 21st. I have moved blindfolded for want of scouts or mounted men. Capt. Ewers has furnished me with one scout. He is now hunting for Col. Sumner, and I will hire another man for the same purpose. Three of my companies left at Bennett to follow as soon as teams obtained are now ordered by Gen. Ruger to remain there. If work remains to be done here they should come forward at once.

MERRIAM,

Colonel, Seventh Infantry, Commanding.

At 10 p. m. December 26 my scout returned from Lieut. Col. Sumner, bringing the following dispatch:

CAMP CHEYENNE, S. DAK., *December 26, 1890.*

Col. H. C. MERRIAM,

Commanding Seventh Infantry, Cheyenne River.:

SIR: I am directed by Gen. Miles to hold my present camp and watch all approaches to the Bad Lands south of me, to keep in close communication with Meade. I have sent some Indians down Cheyenne River toward you, but Big Foot's band, rearing both our commands coming together, has stampeded and gone to the Bad Lands. My scouts returning last night report having heard firing in that direction. No doubt the Indians ran into Carr's command. I have not heard of the result. I am camped on the Cheyenne River 4 miles above the junction of the Belle Fourche, and if you continue in this direction and I can be of any assistance please let me know.

Very respectfully, your obedient servant,

E. V. SUMNER,

Lieutenant-Colonel, Eighth Cavalry, Commanding Camp.

CAMP CHEYENNE, *December 26, 1890—10:30 a. m.*

COLONEL: Just as I was about starting the inclosed dispatch to you your courier arrived. There are no Indians now between your command and my own, and there is no further work to be done on the Cheyenne River that I know of. I am now looking out for any break from the Bad Lands in case of a fight there, and unless you have other orders you are now at the right place.

Yours, etc.,

E. V. SUMNER,

Lieutenant-Colonel, Eighth Cavalry.

Early on the 27th I sent telegram to department headquarters as follows:

MOUTH OF CHERRY CREEK, SOUTH DAKOTA,

December 27, 1890.

The ADJUTANT-GENERAL,

St. Paul, Minn.:

Scout returned from Sumner's camp, near forks of Cheyenne. Col. Sumner reports that Big Foot's band stampeded towards Bad Lands on the night of the 23d because of the approach of my command, and that the scouts following report firing up the Cheyenne River on their trail. He thinks they were engaged with Gen. Carr's troops, and he says he is ordered to hold his present camp and keep communication with Meade. I will now turn my attention towards the Bad Lands, via head of Bad River, as well as along the Cheyenne.

MERRIAM,

Colonel, Seventh Infantry, Commanding.

At 1 p. m. the same day, December 27, my second courier arrived from Col. Sumner's camp with the following:

CAMP CHEYENNE, S. DAK., *December 27, 1890.*

COLONEL: I have just received this communication for you and forward it:

"Nothing has occurred since I wrote you yesterday. I received your second note last evening. Big Foot and his band left their village on the night of the 23d and went to the Bad Lands. I had scouts in his camp who came and told me the Indians were

packing up to go to Bennett next morning, and I expected to take them down and turn them over to you. A white man by the name of Dunn, however, got into their camp and told them I was on the road to attack and kill them all, and of your command down the river, so they just stampeded, and like rabbits fled for shelter in the Bad Lands, carrying nothing and traveling so fast I could not overtake them.

Yours, etc.,

E. V. SUMNER,
Lieutenant-Colonel, Eighth Cavalry.

Col. H. C. MERRIAM, *Seventh Infantry.*

[Inclosure.]

CAMP CHEYENNE, S. DAK., *December 26, 1890.*

Col. MERRIAM,
Commanding Seventh Infantry:

SIR: A later dispatch from Gen. Miles, Rapid City, to me reads as follows:

"Hold your command in that vicinity; be in close communication with Fort Meade, and be prepared to intercept any body of Indians that may escape from the troops south. Communicate with Col. Merriam and notify him he is directed to join you.

"MILES,
"Major-General."

Very respectfully, your obedient servant,

E. V. SUMNER,
Lieutenant-Colonel, Eighth Cavalry, Commanding Camp.

At the same hour another courier from Bennett arrived with the following:

HEADQUARTERS DEPARTMENT OF DAKOTA,
St. Paul, Minn., December 26, 1890.

Col. H. C. MERRIAM,
Commanding Seventh Infantry,
(Care commanding officer Fort Bennett, S. Dak.):

If you are not near mouth of Cherry Creek with your four companies return to that vicinity and remain until further orders, unless something should require movement before communication may be had with department headquarters. It is thought possible Big Foot, who eluded capture, may go to the agency at Fort Bennett; in such case he will be arrested; the Sitting Bull people with him kept with the others from Standing Rock and the Cheyenne River Reservation Indians with Big Foot detachment at the agency until further orders. In case Big Foot with his people appear at the agency, it is presumed it will be best that you move with your command without waiting for orders, to see that action as above indicated may be effected without trouble. The commanding officer at Fort Bennett will send you any information had as to Big Foot and people.

The commanding officer Fort Bennett will send to Col. Merriam without delay, and regard so much of the dispatch as concerns commanding officer Fort Bennett as directed to himself.

By command Gen. Ruger:

M. BARBER,
Assistant Adjutant-General.

To the above I replied as follows:

MOUTH OF CHERRY CREEK,
December 27, 1890 (4 p. m.).

The ADJUTANT-GENERAL,
St. Paul, Minn.:

Your telegram of yesterday received. A telegram from Gen. Miles, Rapid City, by courier from Sumner's camp, December 26, requires me to march to join that command at forks of the Cheyenne.

Your telegram appears to be later. I will await orders here, reporting to both. I have discovered no evidence that Big Foot intends going to agency. If I move westward I think my other companies should occupy this point, as most favorable for intercepting fugitives from Bad Lands.

MERRIAM,
Colonel, Commanding.

MOUTH OF CHERRY CREEK, SOUTH DAKOTA,
December 27, 1890 (4 p. m.).

Gen. MILES,
Rapid City, S. Dak. :

Just received notice from Col. Sumner that I am still to join his command to mine at forks of Cheyenne. I have also a later telegram from department commander, directing me to remain here till further orders. Which shall be obeyed?

MERRIAM,
Colonel, Commanding.

In the afternoon of December 28 I received the following from Gen. Miles's headquarters by courier from Bennett :

RAPID CITY, S. DAK., December 27, 1890.

The COMMANDING OFFICER,
Fort Bennett, S. Dak.

(Forward this without delay to Col. Merriam :)

The division commander directs you move up Cheyenne River far enough to communicate with Col. Sumner and assume command of that line. Col. Sumner has been directed to report to you for orders.

The division commander is much embarrassed that Big Foot allowed to escape and directs you to use the force under your command to recapture him. He has his own 60 lodges, 38 men from Standing Rock, and had 30 runaways from Hump's band. It was believed he was near the Bad Lands and not far from Pine Ridge yesterday, but may double back and go near his own village, moving at night and concealing his people in the daytime. You can do the same with your force or take such action as you deem best to accomplish the object.

By command of Maj.-Gen. Miles:

MAUS,
Aid-de-Camp.

And by the same courier the following :

ST. PAUL, MINN., December 26, 1890,

The COMMANDING OFFICER,
Fort Bennett, S. Dak. :

The division commander telegraphs this date as follows from Rapid City :

"Nothing has been heard from Carr or Sumner for 48 hours. Gen. Brooke feels sure that Big Foot's band did not go to the Bad Lands, as his last messenger from there left yesterday morning ; not hearing from their commands would indicate that he had suddenly turned and gone to the Cheyenne Agency ; he was traveling light, with lodge poles and ponies. I hope all of these Standing Rock Indians have been moved from there. The 30 with him should also be arrested and such of Big Foot's following as you think advisable in order to retain and get under control the turbulent element of reservation."

Have the Sitting Bull people who surrendered to you been started for Sully ; and if not, how soon can they be? Tentage has been ordered to Sully, but they may meantime be sheltered at Sully by means at hand at Bennett and there. This dispatch is intended as well for the commanding officer of the battalion Seventh Infantry in connection with former dispatch as to taking Indians to Fort Sully and guarding them there. Fort Sully will be the station of the three companies of the Seventh Infantry for the time, and Capt. Sanno will assume command of the post upon his arrival thereat. Send the following to Col. Merriam without delay :

"It is desired that you move with your command to Fort Bennett, this in view of the probabilities that Big Foot with his following may be on the way to the agency, and of the fact that the three companies of the Seventh Infantry now at Bennett will be needed guarding the Sitting Bull followers to be removed to Fort Sully."

By command of General Ruger :

M. BARBER,
Assistant Adjutant-General.

Official copy furnished Col. Merriam, Seventh Infantry, for his information.

J. H. HURST,
Captain, Twelfth Infantry.

Having obtained information of Big Foot's trail as far as the crossing of White River, I decided to make a concentric march to join my battalion with Sumner's troops as near the head of Bad River as suitable base camp could be found.

Scouts were at once sent out to cover Bad River eastward to Mitchell Creek, with

the object of detecting any movement of Big Foot around my left towards the Cheyenne River Agency.

At 5:30 p. m. a courier was also sent to Col. Sumner with the following:

CAMP MOUTH OF CHERRY CREEK, SOUTH DAKOTA,
December 28, 1890 (5:30 p. m.).

Lieut. Col. E. V. SUMNER,
Eighth Cavalry:

SIR: I have just received instructions from Gen. Miles, dated yesterday, to assume command of all troops operating on this line and to follow up and endeavor to capture Big Foot and his band. I have obtained information that Big Foot and his band passed the head of Bad River and struck White River about the mouth of Eagle's Nest Creek. I decide to move southward to head of Grindstone or Mexican Creek, where I propose to meet your command, which you will please march either on Big Foot's trail or via Smithville and the Territorial road, as may be most practicable. Arrange to have your supplies follow from Meade, and this command will continue for the present to be supplied via Fort Bennett. During your march keep scouts well out on your left flank, in order to detect any attempt of Big Foot to double back to his or other camps on the Cheyenne, which he might attempt in case he has been headed off from the Bad Lands. I have a scout well down the Bad River. I will expect you to reach my camp on Grindstone or Mexican Creek by Wednesday, December 31, unless delayed by unavoidable causes.

Very respectfully, your obedient servant,

H. C. MERRIAM,
Colonel, Seventh Infantry, Commanding.

The following was also sent to Gen. Miles, via Fort Bennett:

CAMP MOUTH OF CHERRY CREEK, SOUTH DAKOTA,
December 28, 1890 (7 p. m.).

Gen. MILES,
Rapid City, S. Dak.:

Your telegram yesterday just received. I have assumed command as directed. Big Foot has been trailed to White River, opposite Eagle's Nest Creek. I move to Grindstone or Mexican Creek, a tributary of Bad River, where a fair base camp is reported. Col. Sumner to join me there by way of Smithville or Big Foot's trails. He will continue to draw supplies from Meade and I draw from Bennett.

The line of the Cheyenne River above this camp is almost impracticable for wagons, and the entire river being passable for Indians is therefore not favorable for intercepting fugitives, while the scarcity of water on upper Bad River limits the routes. I regret detention of Sanno's battalion at Fort Sully. It would be more useful at this point in my judgment.

MERRIAM,
Colonel, Commanding.

The difficulties of the Cheyenne River route were mainly due to the frequent crossings of the river, which were only partly frozen over or so weakly as to require clearing of ice before wagons could be crossed. They were also liable to become unfordable at any moment by ice gorges. During the night the following letter and inclosure arrived from Col. Sumner:

CAMP CHEYENNE, S. DAK., December 28, 1890.

Col. H. C. MERRIAM,
Commanding Seventh Infantry, Cheyenne River, S. Dak.:

COLONEL: In compliance with instructions contained in telegraphic dispatch just received, a copy of which is inclosed herewith, I have the honor to report to you for duty. I have two troops Eighth Cavalry, D and I, in camp, two companies, Third Infantry, C and F, in camp, and two Hotchkiss guns; one troop Eighth Cavalry, C, at Pino's ranch on Pierre road, about 30 miles southeast from my camp; nine Indian scouts, just enlisted and uniformed. The instruction about using scouts has been complied with and information forwarded on the 26th instant.

I am, colonel, very respectfully, etc.,

E. V. SUMNER,
Lieutenant-Colonel Eighth Cavalry.

[Copy of inclosure.]

RAPID CITY, S. DAK., December 27, 1890.

Col. E. V. SUMNER

(Care of Commanding Officer, Fort Meade.):

Report position of your command to Col. Merriam and hereafter act under his orders until you receive further instructions. Use your scouts to ascertain the whereabouts of Big Foot's band.

By command Maj. Gen. Miles:

MAUS,
Aid-de-Camp.

Early on the morning of the 29th December two scouts were started up Plum Creek in advance of my command to examine the route to head of Bad River, to report to commanding officer Troop C, Eighth Cavalry, then one to return to me and the other to meet Col. Sumner.

They took the following letter:

CAMP MOUTH OF CHERRY CREEK,
December 29, 1890 (8 a. m.).

The COMMANDING OFFICER,

Troop C, Eighth Cavalry, Pino's Ranch:

SIR: I am concentrating my battalion, Seventh Infantry, with Col. Sumner's troops to operate against Big Foot. Col. Sumner will march to-morrow morning for head of Bad River, probably via Smithville, and I march from here to-day for the same point. I want the most comfortable base camp possible and am not quite sure of sufficiency of water and fuel for the combined command. I send two scouts to you with this. Please report on the subject to both commands by same scouts at once, giving each a fresh horse if necessary. In case water is manifestly insufficient at your camp and vicinity, Col. Sumner will halt as near as a water supply can be found, possibly Smithville, until further instructions can be sent him. I will be obliged to march through to a camp of some kind. Send east to vicinity of Grindstone Butte and ascertain if I can make camp there, and report result by my scout, who may remain in your camp till to-morrow morning, if necessary to bring this information to me. Of course any other late information on the situation will also be sent by scout in both directions.

Very respectfully,

H. C. MERRIAM,
Colonel Seventh Infantry, Commanding.

Marched to near head of Plum Creek on the 29th, and late in the evening received the following by courier from Fort Bennett:

RAPID CITY, S. DAK., December 28, 1890.

Col. MERRIAM,

Commanding Seventh Infantry

(Care Commanding Officer, Fort Bennett, S. Dak.):

Big Foot with 120 men, 250 women and children, was captured by Maj. Whiteside to-day. You can wait further instructions. Colonel Sumner is ordered to report to you.

By command of General Miles.

MAUS,
Aid-de-Camp.

To which I replied as follows:

CAMP HEAD OF PLUM CREEK, SOUTH DAKOTA,
December 30, 1890.

Gen: MILES,

Rapid City, S. Dak.:

Notice of capture of Big Foot received. This not a good point to delay. Sumner is marching for head of Bad River; may be able to stop him at Smithville. My march might continue and extend to White River, between Brooke and Carr, changing supply line to Pierre or Meade.

MERRIAM,
Colonel, Commanding.

At noon the same day I received the following letter and inclosures from Colonel Sumner:

CAMP CHEYENNE, S. DAK., December 29, 1890.

COLONEL: I have this morning received your letter of the 28th directing me to meet you at Grindstone Butte on the 31st with my command.

In accordance therewith I will march to-morrow to Smithville Crossing of Cheyenne River, and will next day be at Grindstone Butte.

You will of course be informed of Big Foot's route before this reaches you and know of the impossibility of catching him unless he should undertake to return, and he is no more liable to do that than any other of the hostiles, and my communication sent you yesterday, giving position of my command, will inform you that I have occupied that country since the 25th instant. Permit me here to say that as soon as I leave the Cheyenne River to march east to join you I will leave all this country open east of Carr's left and all the settlements on Elk Creek and Bell Fourche exposed. The main trails run north and south through this portion of Cheyenne River Valley, and would certainly be used by any Indians coming from Grand River or west of there. I have had troops and scouts almost constantly in this country east of my camp and as far west as Mitchell's Creek. There is not water enough in the country for a large command of cavalry, and, as I understand it, the only water to be found is on south fork of Bad River. I can find a little water at Pino Springs, but will have to make a dry camp in marching from there to Grindstone, and it will probably be some distance from Grindstone to water. I inclose a communication I sent to Gen. Carr on the 26th instant, and which he received same day, for your information. I have heard nothing from my troops, camped at Pino Springs, and scouting the country east and south, so know that there are no Indians moving near there.

I am, colonel, very respectfully, etc.,

E. V. SUMNER,
Lieutenant-Colonel, Commanding.

Col. H. C. MERRIAM,
Seventh Infantry, Commanding.

[Copy of inclosures.]

CAMP CHEYENNE, S. DAK., December 26, 1890.

Gen. E. A. CARR:

SIR: Big Foot left his camp after dark Tuesday night, 23d, traveling up Deep Creek and passed the Pierre road 2 miles west of Mexican Ed's, then traveled east, passed Bad River, then crossed Bad River, going southeast and the south fork between south and fork. Crossed Chamberlain and Deadwood road, 6 miles above Pass Creek, and crossed White River and entered the Wall at what they call the gate; then traveled west along south side of White River, towards Pine Ridge or the hostile camp, I don't know which. My scouts followed the point where they entered the Wall and have just returned with the information.

Copy.

E. V. SUMNER,
Lieutenant-Colonel Eighth Cavalry.

CAMP CHEYENNE, S. DAK., December 29, 1890.

Col. H. C. MERRIAM,
Commanding:

I inclose a dispatch copy just received from division headquarters. Presumed you have received it, or if not, it will be good news for you. Under the instructions it contains I will remain at my present camp waiting further orders from you. Under the circumstances is your wishes that I shall keep a troop of cavalry at Pino's ranch and further supply them, or shall I withdraw it?

Respectfully, your obedient servant,

E. V. SUMNER,
Lieutenant-Colonel Eighth Cavalry, Commanding.

[Copy of inclosure.]

RAPID CITY, S. DAK., December 28, 1890.

Col. E. V. SUMNER,
(Care Commanding Officer, Fort Meade, S. Dak.):

Maj. Whiteside captured Big Foot, with 120 men, 250 women and children to-day. The division commander directs that you remain in your present position, reporting to Col. Merriam.

By command Gen. Miles:

M. MAUS,
Aid-de-Camp.

Copy.

E. V. SUMNER,
Lieutenant-Colonel Eighth Cavalry.

I have not understood why Col. Sumner did not furnish me with detailed information as to Big Foot's route at the same time he furnished it to Gen. Carr, especially as two couriers came to me from him the same day, December 26. At 1:15 p. m. in the afternoon of the 30th December the following letter and inclosure arrived from Col. Sumner:

CAMP CHEYENNE, S. DAK.,
December 30, 1890. (3 a. m.)

Col. H. C. MERRIAM,

Seventh Infantry, Commanding, near Cherry Creek:

SIR: I inclose dispatches just received which speak for themselves. I will move with my command at once for Smithville Crossing. You know I have a troop at Pino's. I will stay at the crossing on the Cheyenne and look out for any Indians coming from the south.

Very respectfully, your obedient servant,

E. V. SUMNER,
Lieutenant-Colonel Eighth Cavalry, Commanding Camp.

[Inclosure.]

RAPID CITY, S. DAK., 29TH.

Col. H. C. MERRIAM,

(Care Commanding Officer, Fort Meade):

Forsythe reports while disarming Big Foot's band this morning fight occurred. Capt. Wallace and 5 soldiers killed, Lieut. Garlington and 15 wounded. Gen. Brooks reports large numbers of young warriors going in that direction. Your command should be in readiness to intercept anybody that may attempt to move north, as they undoubtedly will should they not be overcome by the troops in that vicinity. Notify the settlers to be on the lookout.

MILES,
Major-General, Commanding.

At 5:20 the following via Fort Bennett:

RAPID CITY, S. DAK., December 29, 1890.

The COMMANDING OFFICER,

Fort Bennett, S. Dak.:

Send forward to Col. Merriam without delay:

Col. Forsythe reports near Wounded Knee while disarming Big Foot's band this morning fight occurred. Capt. Wallace and 5 soldiers killed, Lieut. Garlington and 15 wounded. Large number of Indians killed and wounded. Some escaped west and may go north. Have your command in condition to intercept or pursue. Possibly a large number may break away and go north and west. The main body of your command should be not a great ways from forks of Cheyenne.

By command of Gen. Miles:

MAUS,
Aid-de-Camp.

I made a night march down Plum Creek and on the morning of December 31 sent the following by couriers east and west:

CAMP NEAR MOUTH OF CHERRY CREEK, SOUTH DAKOTA,
December 31, 1890.

Lient. Col. E. V. SUMNER:

SIR: Your letter by Indian scout received about noon yesterday at my camp near head of Plum Creek. I note what you say of the effect of your movement, then contemplated, eastward from Smithville, and of the question of finding water in sufficient quantities, etc. I was fully aware of all these points, but Gen. Miles's orders to me gave us Big Foot as our only objective and my plan was based on that object. I did not, however, intend to lose south with Gen. Carr in any movement made. The late news, of course, upsets all this and returns us to the old relations and duties. I suppose your forward movements, after receiving the news of the unfortunate collision at Wounded Knee, was made for the purpose of withdrawing or supporting C Troop. While that troop was in the best position on account of the limit put upon movements of Indians by scarcity of water, and for other reasons, it is too small a force to act offensively so far from support. Could your force and mine have united there, it would have been a good move, I do not doubt.

After Gen. Miles's dispatch of yesterday, I have no choice but to occupy the old positions and watch for fugitives, using scouts and keeping everything in readiness for rapid movement and effective action whenever opportunity occurs.

This letter, with former instructions, will govern your duties while we are so far separated and until further orders. Three cavalymen who came through last night will return to-day, moving slower and giving their horses a rest at Narceilles. I return from head of Plum Creek by night march.

Very respectfully, your obedient servant,

H. C. MERRIAM,
Colonel Seventh Infantry, Commanding.

MOUTH OF CHERRY CREEK, SOUTH DAKOTA,
December 31, 1890.

Gen. MILES,
Rapid City, S. Dak.:

Your telegram of 29th received. Concentric movement to unite my troops with Col. Sumner's at head of Bad River was discontinued and both commands returned to their former camps. I made a night march from head of Plum Creek and will give protection to settlers assembled here and look for fugitives from the south. Sumner's command at forks of Cheyenne.

MERRIAM,
Colonel, Commanding.

MOUTH OF CHERRY CREEK, SOUTH DAKOTA,
December 31, 1890.

The ADJUTANT-GENERAL,
St. Paul, Minn.:

Concentric march to join my troops with Col. Sumner's to pursue Big Foot was given up yesterday, and both commands returned to former camps, mine by night march from head of Plum Creek. I will now give protection to settlers assembled here and look out for fugitives from the south.

MERRIAM,
Colonel, Commanding.

At 5:30 p. m. the following was received by courier from Col. Sumner:

RAPID CITY, S. DAK., December 29, 1890.

The COMMANDING OFFICER,
Fort Meade, S. Dak.:

Send this to Col. Sumner and Merriam without delay:

These troops along the Cheyenne line need not be moved farther east, as a serious fight has occurred and troops should be held near forks of Cheyenne River to intercept any moving north or to be ready for any orders sent to them.

MILES,
Major-General, Commanding.

And at 8:30 the same evening the following arrived by courier from Fort Bennett:

RAPID CITY, S. DAK., December 30, 1890.

Col. H. C. MERRIAM
(Care Commanding Officer, Fort Sully, S. Dak.):

That fight with Big Foot has resulted in a large number joining the hostiles, probably 500 men in all. Move further west to vicinity of Smithville or at any good position to intercept them, should they move north and west. They may break to the Little Missouri country. Keep up close communication with Fort Meade, and I will keep you fully advised and send you necessary orders. You need not, however, wait for orders in case they should come in your vicinity. Keep me fully advised on any information of importance.

MILES,
Commanding.

Marched at daylight January 1 for forks of Cheyenne River, and at once encountered the greatest difficulties of the campaign, as had been anticipated, so that only 10 miles were accomplished that day, including three very bad crossings. The excessive low temperature, however, gave stronger ice, so that we were able subsequently to find crossings generally strong enough to carry wagons, and in this way good marches were accomplished. In passing Big Foot's village on the 3d of January I observed much abandoned property, such as wagons, harness, agricultural and household implements, etc., and perhaps 100 head of cattle, over which Col. Sumner had placed a small guard of mounted men.

Desiring this detachment for other purposes, I dispatched a courier to Fort Bennett with a report of the situation and a request to the Indian agent that he send a detachment of police to receive and care for this property, which was promptly done.

I arrived at Col. Sumner's camp, 4 miles above the forks of Cheyenne, early January 4, and at once sent the following telegram via Fort Meade:

FORKS OF CHEYENNE RIVER, SOUTH DAKOTA,
January 4, 1891.

Gen. MILES,
Pine Ridge, S. Dak.:

My troops and Sumner's joined to-day. Scouts are covering the east to Mitchell Creek, south to Bad River and Smithville. Understanding Carr to have moved east of White River, I will extend scouting up the Cheyenne to Rapid Creek.

MERRIAM,
Colonel, Commanding.

After full consultation with Lieut. Col. Sumner and others, from which I gained much information of the region, I decided to establish an advance camp under immediate command of Lieut. Col. Sumner, as indicated in the following letter of instruction:

CAMP ON CHEYENNE RIVER, SOUTH DAKOTA,
January 5, 1891.

Lieut. Col. E. V. SUMNER,
Eighth Cavalry:

SIR: In order to put the troops on this line in better position for carrying out the instructions of the division commander, I desire you to establish an advance camp at or near Smithville, consisting of two troops Eighth Cavalry and one company Third Infantry, one Hotchkiss gun, and 12 Indian scouts, all to be selected and commanded by yourself. From that camp you will keep the country eastward to Mitchell Creek and as far southward as possible covered by scouts, to the end that any movement by hostiles from the storm center about Pine Ridge may be discovered at the earliest possible moment. You will at once communicate all information of movements of Indians to me, giving number, etc., as far as possible, and march promptly to intercept them, reporting by rapid courier the direction you take and all changes thereof, to the end that you may be supported by troops from this camp.

You will take with your command its proper proportion of transportation, and keep a supply of not less than ten days in constant readiness for the march, drawing from this as a base camp.

It is also of the utmost importance that your train be not incumbered with heavy and useless baggage, in order that, under escort of your infantry company, it may be kept well up in case of a rapid march.

I desire you to march as early as practicable to-morrow, giving time for careful preparation. You will also take with you one medical officer, the hospital steward and three members of the hospital corps, the red-cross ambulance, and limited medical supplies. You will also please send daily couriers to this camp for mail and dispatches.

Very respectfully, your obedient servant,

H. C. MERRIAM,
Colonel Seventh Infantry, Commanding.

Small detachments of mounted men and Indian scouts were established at Davidson's ranch, 20 miles southeast of main camp; one at Pino Springs, about 6 miles further south; one at Mexican Ed's, on the head of Bad River, each under charge of an experienced noncommissioned officer. These detachments occupied substantially the only watering places between White River and the Cheyenne available in winter. Scouts were kept out east and west from each other, those from the south keeping close watch of all trails crossing White River from the direction of Pine Ridge and the Bad Lands, so that any fugitives northward from the hostile camp, or hostiles moving towards it, would have had three lines of scouts to pass. In addition, the entire route to Fort Meade was covered twice a day by cavalry couriers, and the entire route to Fort Bennett almost daily by scouts.

The country between the Cheyenne and White Rivers, below Bad Lands, consists of a high alluvial plateau, generally level except for the ravines cut by Bad River and its branches, which are generally dry. It is a region, therefore, especially favorable for discovering and intercepting movements of hostiles. To make this plateau accessible by wagons from my main camp a passable road was made directly up the bluffs southeast of camp on the 6th and 7th of January.

The following letters to Gen. Miles and Capt. Hurst on the 11th January are inserted here for the matter they contain:

FORKS OF CHEYENNE RIVER, *January 11, 1891.*

Gen. N. A. MILES,

Pine Ridge Agency:

SIR: In an official letter from Cap. Hurst, commanding Fort Bennett, S. Dak., dated 8th January, and just received, occurs the following:

"Everything quiet here, except intense excitement among Cherry Creek Indians over a letter received by one of them, sister of the writer, an Indian policeman at Pine Ridge. Letter says that Big Foot's people were massacred by the soldiers after quietly giving up their arms, and that but few escaped, and that the loss among the soldiers was caused by themselves shooting into each other. There is intense feeling among the people against the soldiers in consequence of this news."

Capt. Hurst is a cool-headed and careful man, and I am sure he does not exaggerate. I send this to you because it goes to show some difficulty in the work of managing a large body of friendly Indians at that agency, which has resulted from an Indian policeman's account of the affair at Porcupine Creek (Wounded Knee).

Two women and one child picked up on Cheyenne River by one of my scouts, refugees from the Big Foot band, escaped from the battle on Wounded Knee Creek, were sent to the Bennett Agency three days ago. These were all found, so far, but I have heard of two more women coming in this direction, whom I will try to pick up also. These are all the Indians discovered moving north or south within the scope of country covered by my scouts during the past ten days, and I have the country well covered along Bad River to Mitchell Creek and White River.

Very respectfully, your obedient servant,

H. C. MERRIAM,

Colonel Seventh Infantry, Commanding.

HEADQUARTERS LINE OF THE CHEYENNE,

Near Forks, January 11, 1891.

Capt. HURST,

Commanding Fort Bennett:

SIR: Your note with mail received. I am very sorry the accounts of the Porcupine (Wounded Knee) affair are giving you so much trouble. I sent to you by scout Mandan, a few days ago, two squaws and a child picked up below this camp, and undoubtedly refugees from the Big Foot slaughter. I did not have them brought to this camp, because they were destitute and suffering and required to be sent where they could be cared for at once. I wish you would find them out and talk with them on the subject. It is very unfortunate that such an opinion of the action of our troops has been circulated among the friendly Indians at this time, and we can not do too much to allay their excitement by assuring them that the troubles of Big Foot's people, whatever they were, were brought about by their own acts, first by marching in battle array to another agency, where they met strange soldiers, instead of those at home, who were their friends; also, that the fighting at Porcupine was undoubtedly begun by Big Foot's people, even if some of them had given up their arms, and that when shots were fired and some men killed it is not easy to stop their friends from shooting back.

Had Big Foot remained quietly in his camp till I could march to him, I do not doubt that he and his people would be alive and well to-day, like their friends and relations now at Fort Bennett. It is very fortunate that the Sitting Bull Indians and so many of the Cherry Creek and Cheyenne River Indians were kept out of the trouble, and it is not your fault nor mine that any have been killed. Impress all these points upon them, and assure them, if you can, that we sympathize with them and are their friends.

Very respectfully, your obedient servant,

H. C. MERRIAM,

Colonel Seventh Infantry, Commanding.

HEADQUARTERS LINE OF THE CHEYENNE,

Forks of Cheyenne, S. Dak., January 11, 1891.

The ASSISTANT ADJUTANT-GENERAL,

Headquarters Division of the Missouri,

In the field Pine Ridge, S. Dak.:

SIR: Complying with Special Order 8, current series, from your office, I have the honor to inclose herewith sketch of the country contiguous to this camp, noting connections on the official map as furnished from department headquarters, to which I add notes as follows:

Note 1.—The road noted as new wagon road running from this camp to Davidson

has been opened since I came here, to be used in case of need in getting on the high plateau eastward.

Note 2.—Water at Davidson limited to a single ranch well; at Pino Springs, sufficient for one or two troops cavalry: at and near Mexican Ed's, I am informed there is sufficient wood and water for a large camp; a well and abandoned ranch where Big Foot's trail crosses the south fork of Bad River. These are the only reliable water holes known west of Mitchell Creek for winter.

Note 3.—I learn from scouts that there are about five or six points between Black Pipe Creek and Pumpkin Creek where pack animals and cavalry can pass the wall of White River, but no practicable wagon route. I am sorry I am unable to mark definitely the location of these trails. Big Foot's party crossed by one of them December 25, about south of Mexican Ed's.

Very respectfully, your obedient servant,

H. C. MERRIAM,
Colonel Seventh Infantry, Commanding.

THE MURDER OF "FEW TAILS."

About noon on 12th the following report was received:

CAMP AT SMITHVILLE, *January 12, 1891.*

The ACTING ASSISTANT ADJUTANT-GENERAL,
Line of the Cheyenne:

SIR: Everything is clear, so far as I have heard, to the east and south. I have received a report that 20 Crow Indians passed Quinn's ranch yesterday going to Pine Ridge, probably friends of scouts.

Very respectfully, etc.,

E. V. SUMNER,
Lieutenant-Colonel, Eighth Cavalry, Commanding.

As I have no knowledge of any Crow scouts at or near Pine Ridge, as well as for other reasons, I at once ordered Lieut. F. C. Marshall, Eighth Cavalry, with a mounted detachment, to hurry to Quinn's to determine what Indians had passed. As Marshall was leaving camp a courier arrived from Sergt. Frank Smith, Troop I, Eighth Cavalry, the noncommissioned officer in charge of that courier station at Quinn's, bringing a verbal message more in detail, and including the fact that an Indian had been killed. This courier had been out all night on account of the exhaustion of his horse. I instructed Lieut. Marshall to make a thorough investigation of the whole affair and report result. I also sent the following instructions to Col. Sumner:

HEADQUARTERS LINE OF THE CHEYENNE,
Camp Cheyenne, January 12, 1891.

Lieut. Col. E. V. SUMNER,
Eighth Cavalry, Camp Smithville, S. Dak.:

SIR: In view of the passing of Indians from the north towards Pine Ridge, the colonel desires you to establish a small outpost, about 15 mounted men, 2 Indian scouts, under a commissioned officer, either on Elk Creek or Box Elder, as may seem to you best for them.

The courier station at Quinn's has to-day been temporarily reinforced by a lieutenant and 12 mounted men and 2 Indian scouts for the same purpose.

Very respectfully, etc.,

A. B. JOHNSON,
*First Lieutenant, and Adjutant Seventh Infantry,
Acting Assistant Adjutant-General.*

And sent telegram to Gen. Miles as follows:

FORKS OF THE CHEYENNE RIVER, *January 12, 1891.*

Gen. MILES,
Pine Ridge Agency:

About 12 Indians (no women or children) crossed our Meade courier line yesterday going south. The courier detachment and several citizens pursued and skirmished with them, killing 1 Indian and several ponies, capturing 2 wagons. I think they were Northern Cheyennes.

MERRIAM,
Commanding.

The following report resulted:

CAMP AT SMITHVILLE, *January 13, 1891 (6:10 p. m.).*

The ACTING ASSISTANT ADJUTANT-GENERAL,
Line of the Cheyenne :

SIR: Lieut. Evans, Eighth Cavalry, has just returned with detachment from Viewfield and Quinn's ranch. He obtained no additional information.

Lieut. Kalk, with 15 men, went to Viewfield to day, and will be there in camp until further orders. As some of those Indians went down Box Elder Creek, the mouth of which is only 15 miles from my camp, I will send out a detachment tomorrow in that direction, as the Indians may turn back after failing to reach the hostile camp, if that was their intention. I had no scout to send with Lieut. Kalk, as directed, all being out.

Very respectfully, etc.,

E. V. SUMNER,
Lieutenant-Colonel, Eighth Cavalry, Commanding.

CAMP AT QUINN'S RANCH, S. DAK.,
January 13, 1891.

SIR: I left Camp Cheyenne with 12 enlisted men, 3 scouts, and a six-mule wagon at 2:40 p. m. January 12, reaching this ranch at 6:30 p. m.

Soon after Sergt. Frank Smith came in, after having guarded a wagon and the remains of an Indian killed by settlers near the mouth of Alkali Creek, since early in the day. He reported a party of Indians, numbering 18 or 20, having 2 wagons and 10 or such number of ridden ponies, had camped there the second night preceding, and that on the day before this party had a fight with settlers, in which it was broken up, part going north, the rest, in two parties, going south. One of these latter parties was the one pursued by Sergt. Smith and his command on the 11th, as reported to you. Early on the morning of the 13th I left camp and reached Alkali Creek before sunrise, finding everything as it had been left the night before.

The wagon is a light Jackson wagon of the Government issue, nearly new, and loaded with wild meat and 2 tepees, with several blankets. In the front was a dead Indian, said by scouts to be an Ogallala Sioux, shot in the breast and right cheek. He must have died almost immediately after having been shot. Two ponies, shot in the right side, were killed while drawing the wagon.

The Indian was not painted, nor was the wagon, and there was no ammunition in the wagon. The fire by which they had camped the night before had been carefully covered, the tepees taken up and packed on the wagon, and no indications of any disturbance between where the wagon was found and this vacated camp. About 20 yards from the wagon there is a steep, low bank, on the crest of which are a few sage brush. Behind this bank were found in one place 4 United States cartridge shells, in another 2 Winchester (caliber .45), and in a third spot 13 .44 Winchester (short) shells. From the wounds of the Indian and the ponies, the position of this crest and the wagon, I judge the Indians were quietly going along this trail when they were fired on from the ambush described.

The scouts think this was a hunting party returning from their fall hunt to Pine Ridge. Nothing about the outfit leads me to suppose that they were hostiles.

A wagon was abandoned by the party pursued by Sergt. Smith on the 11th on Elk Creek. I have sent a party to seize this wagon and bring it in. This wagon, too, was loaded with wild meat and dried beef. That the party was engaged in stealing horses there seems to be no doubt. In the wagon a branding iron was found, and 1 of the ponies had a fresh brand, evidently made by this iron.

The "Culbertson boys," who have a ranch near the mouth of Alkali Creek, say that the Indians were stealing their horses; that they told them to give them up, but that the Indians refused, and then they fired upon them. I am inclined to doubt the absolute truth of this statement from the reasons stated above. To me it looks very much like murder in cold blood.

Respectfully submitted.

F. C. MARSHALL,
Second Lieutenant, Eighth Cavalry.

CAMP AT QUINN'S RANCH, S. DAK.,
January 13, 1891.

The ACTING ASSISTANT ADJUTANT-GENERAL,
Camp Cheyenne, S. Dak. :

SIR: I have the honor to state that since my report of this afternoon my scouts from the south have come in with the second wagon. This wagon was inspected by a Government inspector at Pine Ridge Agency. The bullet holes in this wagon are

all in the right side, as on the other wagon, the Indian and ponies, and still further convince me that they were all fired on from the ambush described. To-morrow morning I shall take 8 men and follow the trail after a wounded Indian, of which I learn to-day too late to do anything before dark. I am now convinced that this was a small party of Indians returning to Pine Ridge from a hunt, who committed no depredations until fired upon by the Culbertsons and the ranchers with them. There is nothing to indicate a large band.

Very respectfully, your obedient servant,

F. C. MARSHALL,
Second Lieutenant, Eighth Cavalry.

On receipt of the above I telegraphed to Gen. Miles as follows:

HEADQUARTERS LINE OF THE CHEYENNE,
Camp Cheyenne, S. Dak., January 14, 1891.

Gen. MILES,
Pine Ridge Agency, S. Dak. :

Investigation shows that the party of Indians reported 12th were Ogallalas returning from a hunting trip. The attack upon them by citizens appears unprovoked. Report by mail.

MERRIAM,
Colonel, Commanding.

And subsequently made the following report to department headquarters, furnish-
ing copy to Gen. Miles direct:

HEADQUARTERS LINE OF THE CHEYENNE,
Forks of Cheyenne River, South Dakota, January 14, 1891.

The ASSISTANT ADJUTANT-GENERAL,
Headquarters Department of Dakota :

SIR: I have the honor to inclose herewith report of an investigation of the killing of an Indian by citizens near the line of couriers between this camp and Fort Meade on the morning of the 11th of January. In addition to the report I ascertain from Sergt. Frank Smith, Troop I, Eighth Cavalry, who was in charge of the courier station at Quinn's ranch, and only 7 miles from the mouth of Alkali Creek, that he was at the camp of this party of Indians at that point on the evening of the 10th; that the party consisted of 6 men and 2 squaws, with two wagons and about eight or ten ponies. They told him they were Ogallalas, and by signs convinced him that they were a hunting party, and were returning to Pine Ridge.

They were not painted, and he did not even think it his duty to report their presence. I have not yet learned what instructions were given him by Lieut. Col. Sumner, the officer who placed him on duty at Quinn's.

It appears that these Indians spent the night quietly in their camp, and in the morning of the 11th January packed up and started on their journey southward. They had gone but a few hundred yards from camp when they were fired upon from ambush by a party of citizens. One Indian was killed, and it is believed another was wounded. The team of one wagon was also killed and the wagon and body of Indian abandoned.

One of the citizens, known as Culbertson, came to Quinn's ranch at about 8 o'clock in the morning, calling on the detachment of soldiers there to help him and other settlers, claiming they had been fired on by Indians. Sergt. Smith was not present at the time, and the other soldiers at once turned out and joined in the pursuit, which was continued to Elk Creek, where the Indians abandoned their second wagon, and the pursuit was given up. Two of the soldiers who had joined in the pursuit then proceeded to Col. Sumner's outpost camp at Smithville, where they arrived at some hour on the morning of the 12th. Another was sent to this camp with a verbal report by Sergt. Smith. The latter arrived at about 1 p. m. I started Lieut. Marshall out at 2:30 p. m.

Lieut. Marshall's report was written and received on the 13th, and by the same courier came the inclosed petition for protection.

Having made this murderous and unprovoked attack, it is not strange that these parties want protection.

I do not agree with Lieut. Marshall that the presence of a branding iron in their wagon or the fresh brand on the pony is any evidence that these Indians were engaged in stealing horses.

Their quiet manner of going into camp in the vicinity of settlers confirms my belief that they were entirely innocent of any wrong acts or intentions, and unconscious of any hostility on the part of the settlers until the moment of the attack.

I recommend that this outrage be reported to the governor of South Dakota with request that the perpetrator be prosecuted before the criminal courts.

A copy of this report and its inclosures is forwarded direct to Gen. Miles at Pine Ridge Agency.

Very respectfully, etc.,

H. C. MERRIAM,
Colonel Seventh Infantry, Commanding.

I afterwards learned through Sergt. Smith that the perpetrators of this cowardly attack were Andrew Culbertson, Peter Culbertson, Nelson Culbertson, James Joulf, John Netland, and Alva Marvin. The Culbertson brothers are reported to be horse thieves, at least one of them having served out a sentence in prison for that crime.

Under instructions received on the 19th from the department headquarters the command was broken up, outposts recalled, and Lieut. Col. Sumner marched for Fort Meade with the troops belonging to that post on the 20th of January. I marched for Rapid City, via Smithville and Viewfield, on the 21st; arrived at Rapid City at 10:45 a. m. on the 24th, took train and arrived at this post, via Chadron, Donglass, and Cheyenne, at noon January 25. The telegrams for this movement are omitted as not being essential.

The wagon train used by my battalion was returned from Rapid City to Fort Bennett in charge of guides and scouts, who were also instructed to deliver to Indian farmer Narcisse Narcelles, at his own ranch, the Indian wagons, etc., belonging to the party of "Few Tails," which fact I reported to the Indian agent at Pine Ridge.

The distance traveled by rail to Pierre, 1,081 miles, aggregate; distance marched by headquarters and Companies B, C, D, and G, 243 miles; distance by rail returning to Fort Logan, 486 miles.

In the entire operations covered by this report not a single man was lost by desertion or otherwise, not a man was seriously injured, and not even a trivial offense committed by any member of the regiment.

Upon the subject of outfit and equipment of my command I inclose copy of report made in the field to the acting inspector-general, Department of Dakota, at his request.

The blue-print map furnished from headquarters Department of Dakota was found to be substantially correct, and therefore it is not deemed needful to submit one with this report.

Companies E, F, and H are still on duty at Fort Sully, S. Dak.

Very respectfully, your obedient servant,

H. C. MERRIAM,
Colonel Seventh Infantry, Commanding.

EXHIBIT H.

FORT MEADE, S. DAK., February 3, 1891.

The ASSISTANT ADJUTANT-GENERAL,
Department of Dakota:

SIR: I have the honor to acknowledge receipt of your communication directing me to submit a report of the flight of Big Foot's band from Cheyenne River, and all circumstances connected therewith. In compliance therewith I respectfully submit the following statement:

On my arrival on Cheyenne River, December 3, reënforcing the command there under Capt. Hennisse, Eighth Cavalry, with D Troop, Eighth Cavalry, I took command of troops in the field. This command, then, was C, D, and I Troops, Eighth Cavalry, and F Company, Third Infantry (later C Company, Third Infantry), and two Hotchkiss guns. My instructions were set forth in Post Orders No. 254, dated Fort Meade, S. Dak., November 29, and telegraphic instructions from headquarters Department of Dakota, attached copy herewith, marked A. In compliance with these instructions I moved the camp up the Cheyenne River nearer to Smithville, and opened a trail directly east over the hills and established an outpost at Davidson's ranch, 20 miles east of my camp at head of Deep Creek, and on the trail between Big Foot's village and Pine Ridge. This trail was not practicable for wagons, but could have been used by cavalry, and the outpost was established to give information of any Indians passing north or south.

My orders specified protection to settlers on Belle Fourche and vicinity, as well as a watch on Big Foot's camp. A few days after my arrival most of the chiefs and head men called to see me, including Big Foot. They remained two days about my camp, and, without exception, seemed not only willing but anxious to obey my or-

ders to remain quietly at home, and particularly wished me to inform my superiors that they were all on the side of the Government in the trouble then going on. This information was furnished December 8, by letter dated Camp Cheyenne, December 8, copy herewith, marked B; also in letter from same camp, dated December 12, marked C; also in letter from same camp, dated December 16, copy marked D. Frequent communication, and always friendly, was kept up with all these leaders until about December 15, when Big Foot came to my camp to say good-by, as he and all his men, women, and children were going to Bennett for their annuities, again assuring me that none of the Cheyenne River Indians had any intentions or thoughts of joining the hostiles at Pine Ridge.

Notwithstanding this assurance, however, I was at that time impressed with the idea that Big Foot was making an extraordinary effort to keep his followers quiet, and seemed much relieved at having succeeded in getting them to go to Bennett. With this impression on my mind it appeared to me that he required at that time all the support I could give him, and I never failed, in the presence of his own men and others, to show good feeling and the utmost confidence. About this date came the telegram from department headquarters, dated December 16, copy herewith, marked E. Under the circumstances, and owing to the delicate situation of affairs at that moment, as described above, viz, my belief that Big Foot could alone control the young men, and was doing so under my advice and support, I thought it best to allow him to go to Bennett a free man, and so informed division commander by telegraph December 18, copy herewith, marked F; also telegram to department headquarters same date, copy marked G; also telegram to division commander at Rapid City, dated December 19, marked H. I invite special attention to this dispatch as showing that every effort was being made to keep informed, to inform my superiors, and to make the most of my command, and in this connection, see copy of dispatch to Gen. Carr, Sixth Cavalry, dated December 19, marked I; also letter to Mr. Dunn same date, on Belle Fourche, copy marked J. On this day, December 19, later in the day, intelligence reached me from detachment sent down the river to look after Standing Rock Indians, that the Cheyenne River Indians had stopped on their way to Bennett, and had assembled at Hump Camp to meet Sitting Bull Indians. (See dispatch to division and department headquarters, dated December 19, marked L.)

On receiving this information from the officer in advance, Lieut. Duff, Eighth Cavalry, I marched at once down the river with two troops cavalry and one company of infantry, reinforced to fifty men and two Hotchkiss guns, and was soon in support of the troop, Godwin's Eighth Cavalry, near Big Foot's camp. On December 20 reached Narseilles ranch and went into camp, and there received a letter from Big Foot stating that he was my friend and wished to talk. December 21, made an early start to join Godwin's command, and to either fight or capture Big Foot if any resistance was offered. While on the march, and 4 miles east of Narseilles, Big Foot came to me, bringing with him two Standing Rock Indians. He expressed a desire to comply with any orders I had to give, and said all his men would do the same. I asked at once how many Indians were in his camp. He replied 106 of his own and 38 Standing Rock Indians. I asked why he had received the latter, knowing them to be off their reservation and refugees. His reply was certainly human, if not a sufficient excuse, and was to the effect that they were brothers and relations; that they had come to him and his people almost naked, were hungry, footsore, and weary; that he had taken them in, had fed them, and no one with any heart could do any less. The Standing Rock Indians with Big Foot, that is, those whom I saw, answered his description perfectly, and were, in fact, so pitiable a sight that I at once dropped all thought of their being hostile or even worthy of capture. Still my instructions were to take them, and I intended doing so. Since the flight of Big Foot and the fight at Wounded Knee, I believe I was to some extent imposed upon in regard to Standing Rock Indians, and I now think there were perhaps some warriors with them who were kept out of sight, but near enough to get food and to act in support should a fight take place.

However, everything went on quietly and I was not aware of it if any other Indians than those in sight were near us. I directed Capt. Hennisssee, Eighth Cavalry, to go to the Indian camp with Big Foot, get all the Indians and return to my camp at Narseilles ranch, where I encamped on the night of the 21st. Godwin's troop was recalled and at 3 p. m. Hennisssee marched in with 333 Indians, the increase in numbers as given by Big Foot to me on the road being something of a surprise. I arranged my camp accordingly and was fully prepared for anything that might occur. The Indians went into camp as I directed, turned out their ponies and made themselves comfortable while preparing for the feast I had promised. The night passed quietly and on the morning of the 22d we all made an early start for my home camp, Big Foot at the time seeming willing to go there. On the march some of the young bucks undertook to pass the advance guard, and Lieut. Duff, the officer in charge, drove them back, and in so doing deployed a line faced to the rear. This action seemed to frighten some of the Indians, and the squaws in the wagons whipped up,

threw out some of their loads and screamed, and this excitement was soon communicated down the column. I rode at once to the head, found Big Foot, who was driving his wagon, and asked him what this excitement meant. He laughed and in reply said—Nothing the matter, some old women screamed. I told him to have it stopped, and he at once got on his pony, rode about and allayed all confusion, and the march continued to the village.

I will here introduce copies of my dispatches sent to division and department commanders on the 19th, 21st, and 22d December, marked respectively L, M, N, O, P. In that of the 19th, L, I state Indians were reported to me as defiant. That report was false, and I did not find them to be so. In dispatch marked M, I used the term surrender more in anticipation of what might have taken place.

When the meeting took place there seemed to be no occasion for surrender, and in all later dispatches I relate the fact that the Indians "come in," and all statements in those dispatches are based on the supposition that I had only to deal with 138 Indians, whereas the number coming in was 333. Still, as will be observed in dispatch marked O, I hoped to carry out my designs with even that number, but on arrival at the village I saw that Big Foot himself could not control or overcome the desire they all had to go to their homes, and he came frankly to me and said: "I will go with you to your camp, but there will be trouble in trying to force these women and children, cold and hungry as they are, away from their homes." And further said: "This is their home, where the Government has ordered them to stay, and none of my people have committed a single act requiring their removal by force." I concluded that one of two things must happen—I must either consent to their going into their village or bring on a fight; and, if the latter, must be the aggressor, and, if the aggressor, what possible reason could I produce for making an attack on peaceable, quiet Indians on their reservation and at their homes, killing perhaps many of them, and offering, without any justification, the lives of many officers and enlisted men. I confess that my ambition was very great, but it was not sufficient to justify me in making an unprovoked attack on those Indians at that time, and even if an attack had been made to enforce my wishes, the result would have only been to have driven the Indians out of the country sooner than they did go. I was prepared to fight at any moment should provocation be afforded, but with my small force I could not have surrounded the Indians, nor could I have prevented their fleeing from me and going to the Bad Lands, or even to the hostile camp, with a reasonable demand for protection, which, in going as they did, they did not have. Dispatch O indicates the fear I had of a sudden departure of the young men in a stealthy manner. I considered that Big Foot's presence and influence with them would be more powerful to prevent that than anything I could do; he was, as it were, working with me to accomplish my ends, and I had every confidence that he would be able to hold his people on the reservation, and also to deliver the Standing Rock Indians to me as he promised to do, and as I still believed he desired to do. It was not practicable at that moment to select the 38 Standing Rock Indians out of the crowd, as no one but the Indians themselves knew who they were. I therefore, for the reasons stated, left Big Foot with his people, and in connection with such action I believe I was acting in accordance with many precedents of early times of later years, and with those established at Pine Ridge in the present campaign, where, even in the presence of a much larger force proportionately than I had, Indians were frequently allowed to be friendly one day and hostile the next, and then to return to a friendly status. It is fair to presume that those Indians who surrounded and fired upon the Seventh Cavalry December 30 came from the hostile camp and returned to it again. Leaving Big Foot, then, with his people in his village, but taking his promise to see me next day and bring with him the Standing Rock Indians, I returned to my camp, and purposely all the way there, to establish confidence, after the excitement on the march, which might have been continued, or perhaps increased, had I encamped and taken up an offensive position near the village, but which was no doubt allayed by my apparent reliance on the chief, whom I was bound at that time either to support or fight. Up to that time I had no reason to doubt the integrity of the chief; on the other hand, had every reason to believe in the sincerity of his motives. I decided to trust him, and in doing so was wholly unmindful of orders received; and desirous only of accomplishing what I understood to be the wishes of my superiors, especially those of the division commander, believing that his plans were to settle matters, if possible, without bloodshed.

I have already stated what, in my opinion, would have occurred if I had taken the other course. While in my camp on the night of the 22d and 23d, I received the dispatch from Gen. Miles, marked Q. I had no thought of the escape of the Indians as a body, but was only anxious lest a few warriors should run away, and I supposed I had taken the best precautions against that and was therefore obeying orders. The information relative to Indians from the north made me hesitate to leave my camp at all, but I hoped to accomplish matters with Big Foot on the 23d—get him started for Bennett and hurry back to camp, although I marched towards the village

with every soldier I could take, and fully intended to enforce my orders for Bennett and make any refusal sufficient provocation to fight, and in that extremity take the chances on the call to Meade. My anxiety at this time to meet all the calls made upon me is apparent in dispatches to Gen. Miles dated 22d and 23d, and marked R and S. At noon on the 23d December, not hearing anything from Big Foot or from any of my scouts who had been sent to the village, I had ordered the march of my command and was about moving when Mr. Dunn, a citizen living on Belle Fourche and friend of Big Foot's, appeared at my camp. I obtained Mr. Dunn's service to go to the village and see what was going on, and instructed him to take my order to Big Foot to go with his people to Bennett, and also to say to Big Foot that I would enforce the order. What Mr. Dunn said or did is a question—his statement and others are hereto attached. I was at one time inclined to believe that Mr. Dunn had played me false, but he is a man of good reputation, and from his statement and statements of officers who have seen and interviewed him since, I am now sure that I did him an injustice, and I do not believe or claim that Mr. Dunn was in any way responsible for events which afterwards occurred. Mr. Dunn, after seeing Big Foot, met me on the march and informed me that Big Foot and all his people had consented to go to Bennett—that there was a good feeling among them—no desire to fight or in any way to oppose my orders, and that they would move next morning. Big Foot intended to visit my camp that evening. I had no suspicion, nor had anyone else in my command, that anything else would happen. This record shows what confidence I already had in Big Foot, and certainly Mr. Dunn's report was not calculated to weaken it; besides this I had a still later report from my interpreter, Benoit, who left the village after Dunn, that everything was all right and everybody going to Bennett. About 7 p. m. two scouts came in, one stating that he thought the Indians were going south, and the other expressed a belief that although they were going up Deep Creek, he thought they would turn towards Bennett after reaching the divide, and that they did this to escape the soldiers coming up the Cheyenne River from Bennett. On the possibility that they had gone south I sent the dispatch to Col. Carr, Sixth Cavalry, copy herewith, dated 23d, marked T, and also dispatch to Gen. Miles and Ruger, marked U. On the morning of December 24 I received dispatch from Gen. Miles dated 23d, copy herewith, marked K. It will be observed that in this dispatch Big Foot is considered both hostile and defiant by the division commander, and that positive orders were sent me for action against him, but those orders came too late and could not be carried out.

The opinion of the division commander was quite the reverse of my own experience with these Indians and I may therefore be reasonably excused for not anticipating such orders, and with the exception of the dispatch from Gen. Ruger, indicating the desirability of arresting Big Foot, it will be difficult to find in any of my orders or instructions any intimation of hostility on the part of those Indians. On the other hand all anxiety seemed to point to my preventing their becoming hostile. I believe that duty was best performed in the course pursued up to the time they left their reservation, an event I did not look for, could not anticipate, and could not have prevented. Any move on my part to the south of Big Foot's village would have left the settlements unguarded, the citizens unprotected, who were by orders under my protection, and my supply camp on the river at the disposal of the Indians on their way south by that route instead of the one they took. If Big Foot had been hostile and defiant in attitude I was not aware of it until receiving the orders making him so and authorizing his arrest and the arrest of others. My course would have been very plain if I could have received these orders in time, or could have known the wishes of the division commander. The result, however, would probably have been the same, as any display of hostile intent on my part would have caused the Indians to flee, and I could not have interposed any force to prevent. The fact that even in the opinion of my superiors I did not have sufficient force to do that is, I believe, made apparent in several dispatches from department headquarters stating that I would be reinforced first by Wells' command, then by Fehé's command, then by Adams's First Cavalry and Cheyenne scouts, then by Col. Merriam, Seventh Infantry, none of whom ever reached me in time; also in several of my dispatches are reports that I did not have force enough to guard the trails leading south. I did not ask for more troops or for any reinforcements.

I never for a moment considered that my command was not strong enough to meet any force likely to be brought against it, but that is quite a different matter from surrounding and capturing an enemy, especially of the character of the Indian, who considers a surrender merely a halt in the fight to be fed, but had no idea of being disarmed. In the case of Big Foot's band now under consideration no surrender was made, no arms were demanded. The march to the vicinity of Big Foot's camp, situated down the Cheyenne River 22 miles below his village, was for the purpose of arresting any warriors from the Standing Rock Agency who were supposed to have been concerned in the Sitting Bull fight, and who, it was feared, might go further south, to have a check on Big Foot's band and other Cheyenne River Indians. As I

already stated, the mere appearance of the few Standing Rock Indians in sight, as reported, precluded anything like the use of military force against them. The Big Foot band and other Indians belonging to Cheyenne River were on their reservation and willing to go to their village in compliance with my wishes. This was a complete surrender as far as I was authorized to act; any further demand on my part would have provoked hostilities and would have placed me clearly outside of my orders, and even beyond any excuse for such action. Nor could it be presumed that an attack by my force on Big Foot would have resulted in any other way than that experienced by every commander in our service who has made such an attack. The Modocs were attacked and fled to the lava beds, killing every citizen within reach. The Bannocks were attacked and scattered over the country, killing innocent people and committing depredations. The Nez Percés were attacked by Gen. Howard and led his command and others for thousands of miles, and when finally surrounded and attacked by fresh troops a number succeeded in escaping to Canada. In the '76 campaign on one occasion the Indians were met in hostile array and the troops were withdrawn, and it is supposed the commanders, having discretion, did a wise thing. In the campaign of this year, at Pine Ridge, it is the common rumor, and generally supposed to be true, that Two Strikes' band and other bands of Indians were allowed to pass back and forth between the agency and the hostile camp, always armed and alternately friendly and hostile, at their own will. I do not presume to question the management of these affairs or the wisdom of the policy pursued, but in connection with that management and policy I would like to have my action considered. My orders were positive to prevent the escape of the Indians I had in charge; to prevent any Indians from coming from the south to join those on the Cheyenne River; to protect the settlements in my rear and on the Belle Fourche, and to watch for Indians coming from the northwest (that was in my rear), and to be prepared to march rapidly for Fort Meade. In the face of these several duties, all to be performed by my small command, I could only hope to succeed by using a peaceful policy rather than force.

I hoped to hold Big Foot, and that he would be able to control his men and take them to Bennett, and up to 7 p. m. on the night of the 23d I felt reasonably assured that I would not only succeed in that measure but I would also be prepared for any other demands. So that, instead of being in disobedience of orders, as reported by the division commander, I was, I know, doing my utmost to carry out his orders and even to fulfill what I thought were his wishes. The flight of Big Foot's band, no doubt, interfered with the plans of the campaign; I was prepared to hear that, and further, perhaps, that I had not met with the expectations of the major-general commanding in permitting the Indians to go. I should have regretted even that censure, but to see that I am accused of disobedience of orders is a surprise to me, and, in my opinion, is as unjust as it is unwarranted either by facts, circumstances, or a possibility of intention. My orders from Gen. Miles, after the flight of the Indians for Pine Ridge, were to return to my camp and remain in that vicinity. (See dispatch dated December 24, marked W.)

Since the departure of the Indians I have learned through other Indians that Big Foot was forced to go with his people; that there was probably no intention of hostilities, but rather a desire on the part of all to seek the crowd at Pine Ridge Agency, and being there to get better terms than at Bennett. My opinion is that the advance of Col. Merriam up Cheyenne River and the report that the Standing Rock Indians at Bennett had been disarmed caused a sudden change of plan in Big Foot's village, and that the young men, on account of the situation, were able to overcome all objections to going south. They certainly passed through the country without committing any depredation or harming any one.

They passed near a detachment from my command at Davidson's ranch on head of Deep Creek; passed within sight of citizens at Pinaugh's ranch; at Howard's went through his pasture filled with horses and cattle and it is reported disturbed nothing. They had passed all roads, as I understood it, to the hostile camp, and were met by Maj. Whitside 12 miles from the agency and going in that direction; were willing to surrender to him and did march with him to his camp and remain quietly with him all night. This command having, as was reported, captured Big Foot's band, was as large, if not greater, than mine, and was within supporting distance of other troops. Still Maj. Whitside asked for reinforcements and they were promptly sent, as he reported he had not considered it safe to make the attempt to disarm them with his command. Reinforcements having arrived, this band of Indians was then in the presence of regimental headquarters, eight troops cavalry, and three or four guns with artillery detachments; a fight occurred, the details of which have been published and have no place here except to show that any attack by my command, although without provocation, would, if successful, have driven the Indians out of the country, but could not have held or disarmed them.

It will be observed from the evidence accompanying this report that on the day on which the major-general commanding was writing his dispatch, marked K, December

23, proclaiming Big Foot to be hostile and defiant and ordering his arrest, he (Big Foot) was in reality quietly occupying his village with his people amenable to orders, having given no provocation whatever to my knowledge for attack, and no more deserving punishment than peaceable Indians at any time on their reservation. I was not aware that Big Foot or his people were considered hostile, and am now at a loss to understand why they were so considered, every act of theirs being within my experience directly to the contrary, and reports made by me were to the effect that the Indians were friendly and quiet.

Respectfully submitted.

E. V. SUMNER,
Lieutenant-Colonel Eighth Cavalry.

A.

ST. PAUL, MINN., November 27, 1890.

The COMMANDING OFFICER,
Fort Meade, S. Dak.:

Send Troop D, Eighth Cavalry, Godwin, to join command in the field on Cheyenne River, and direct Col. Sumner to take command of full force. He may move the camp nearer Smithville if he thinks it will be better to enable him to keep the region of the east of between the Cheyenne and White River under observation, keeping at the same time the village of Big Foot under control, and giving assurance of safety to the people in the region about it.

Is probable command of Capt. Wells may be soon spared from its present place of duty, when it is intended to order it to join the command of Col. Sumner and put a stop to the unauthorized going back and forth of parties between the upper and lower Sioux Reservation. Acknowledge receipt.

By command Gen. Ruger.

M. BARBER,
Assistant Adjutant-General.

FORT MEADE, S. DAK., November 27, 1890.

Official copy respectfully furnished Lieut. Col. E. V. Sumner, Eighth Cavalry, for his information and guidance.

By order of Col. Otis:

CHAS. M. O'CONNOR,
First Lieutenant and Adjutant Eighth Cavalry, Post Adjutant.

B.

CAMP CHEYENNE, S. DAK., December 8, 1890.

Gen. MILES:

I have just held a council with all the principal chiefs in this section of the country, and find that they are peaceably disposed and inclined to obey orders; but from their talk, as well as from reports I have received from officers here and others, I believe they are really hungry, and suffering from want of clothing and covering. I advise that 1,000 rations be sent me at once for issue to them, and authority to purchase a certain amount of fresh beef.

Very respectfully, your obedient servant,

E. V. SUMNER,
Lieutenant Colonel Eighth Cavalry, Commanding Camp.

C.

CAMP CHEYENNE, S. DAK., December 12, 1890.

Gen. JNO. R. BROOKE,
Commanding Pine Ridge:

Your dispatch, 11th, received. Have sent a troop of cavalry on Territorial Road, east of Smithville, to Mexican Kid's, at intersection of road from Pine Ridge to Grindstone Buttes. Will catch the Indians if possible, but have not cavalry enough

to cover this country as it should be and watch Indians here. When will the two troops of the Eighth Cavalry report to me from Oelrichs, and what do you wish done with any Indians I may capture? Mail for this camp leaves Rapid City Mondays and Fridays 6 a. m., and daily courier from Meade.

E. V. SUMNER,
Commanding.

D.

CAMP CHEYENNE, S. DAK., December 16, 1890.

The ASSISTANT ADJUTANT-GENERAL,
Department Dakota, St. Paul, Minn.:

On receipt of your dispatch of the 14th, I brought Henisee into Smithville, patrolling the road east only. On 15th we connected with cavalry patrol of Sixth Cavalry from Camp at Box Elder Creek.

Your dispatch of 15th just received. Will withdraw my troops from Smithville to my present camp, patrolling to Smithville, and on all roads east of my camp. I believe Indians on Cheyenne River are under full control. I can get all necessary information through my scouts and others, and will keep you well informed.

E. V. SUMNER,
Commanding.

E.

[Copy telegram.]

HEADQUARTERS DEPARTMENT OF DAKOTA,
St. Paul, Minn., December 16, 1890.

Col. SUMNER,

(Through Commanding Officer, Fort Meade, S. D.):

It is desirable that Big Foot be arrested, and had it been practicable to send you Wells with his two troops, orders would have been given that you try to get him. In case of arrest, he will be sent to Fort Meade to be securely kept prisoner.

By command General Ruger.

M. BARBER,
Assistant Adjutant-General.

Official copy respectfully furnished by mail.

THOS. M. WOODRUFF,
*First Lieutenant Fifth Infantry, Aide De Camp,
Acting Assistant Adjutant-General.*

F.

[Telegram, 10.30 a. m.]

CAMP CHEYENNE, S. DAK., December 18, 1890.

Gen. NELSON A. MILES,
Rapid City, S. Dak.:

Communication from Colonel Carr just received. Have information that Standing Rock Indians from Sitting Bull's camp are coming to Cherry Creek to-day with the intention of getting those Indians to join them to go to Pine Ridge. Will try to prevent their leaving Cherry Creek, but have not force enough to cover all the roads in the country. Ordered by department commander to arrest Big Foot; he has started with Big Foot and other Cheyenne River Indians to Agency for annuities. If he should return I will try and get him; if he does not, he can be arrested at Bennett. Have scouts and policemen in camp on Cherry Creek to give me information. Only heard so far what I have already informed you, and am awaiting news from that point, and have one troop of cavalry near Big Foot's village. Camp on the Cheyenne.

E. V. SUMNER,
Commanding.

G.

[Telegram, 4 p. m.]

CAMP CHEYENNE, S. DAK., December 18, 1890.

The ASSISTANT ADJUTANT-GENERAL,
Department of Dakota, St. Paul, Minn. :

It is reported to me that Standing Rock Indians will be on Cherry Creek to-day with intention of getting Cheyenne River Indians to go to Pine Ridge. Big Foot and his band left for the agency to draw annuities, and is on the way there now. Will know if he returns and advise you, and will learn all I can of the Standing Rock Indians, and what influence they have. Please acknowledge receipt. Sixth Cavalry has withdrawn from Box Elder to Rapid Creek, on Cheyenne River, last accounts.

E. V. SUMNER,
Commanding.

H.

[Telegram.]

CAMP CHEYENNE, S. DAK., December 19, 1890.

Gen. N. A. MILES,
Rapid City, S. Dak.:

Your dispatch received. Latest reports to me from chief of police at Cherry Creek is that all the Indians on Cheyenne River and Cherry Creek have started for Bennett to get their annuities and they are beyond the influence of Standing Rock Indians. Expect to hear positively every hour and will send detachment down to Cherry Creek to-day. If the statement from the police is correct all Indians named are out of the game and might be held at the agency after they arrive.

My main camp is on Cheyenne River and on the main trail traveled by Cheyenne River Indians to Pine Ridge. Another trail east of here, 20 miles, runs from Cherry Creek to Pine Ridge. Another west of here, same distance, is used by Standing Rock and all northern Indians. I am watching all these as closely as possible and can prevent any considerable force from passing over either them. As regards Sitting Bull Indians, so far only one man and woman have arrived on Cheyenne River; quite a number of them, women and children, are west of me on Cherry Creek. The bucks, whom the troops are pursuing, started up Grand River and may circle to join those on Cherry Creek and start for Pine Ridge on the trail west of me, through the settlement. Every citizen in the country, as it were, on outpost duty; they all know where my camp is, and I fear to move with any considerable force north lest the Sitting Bull bucks should pass me on the west. I am also watching to prevent any force from Pine Ridge coming north on trails east of us. A small force of infantry at mouth of Cherry Creek would be in good position.

E. V. SUMNER,
Commanding.

Report to General Ruger, St. Paul.

I.

CAMP CHEYENNE, S. DAK., December 19, 1890.

Col. CARR, *Sixth Cavalry, Commanding:*

MY DEAR GENERAL: Your scout with dispatch reached me safely and in good time. I have given him a good rest, and he starts back to-day. Your letter by mail has also been received, and I sincerely hope we may meet before long, but, as you probably know by this time, this is a big country, and it takes lots of riding to cover it. Gen. Ruger seems to think I ought to know all that is going on or is likely to take place, and still have my troops in camp, which can not be done. I inclose herewith a correct copy of a dispatch received by me last night at 11 o'clock. It strikes me that orders to me and some other commander have become mixed, either at headquarters or in transmission. Perhaps from your orders you will understand the matter better than I do.

The last heard from the Sitting Bull Indians is that families are near head of Cherry Creek, and the bucks may turn south to join them, and then all take old

trails to Pine Ridge, crossing Belle Fourche west of me at Wood's, Elk Creek at Viewfield, and so on south near your command at Rapid.

I am on the lookout for any move of that kind, and will give you due notice. I have cavalry on Cheyenne River as far down as mouth of Cherry Creek, and scouting party between Cherry Creek and Cheyenne River; a detachment at Quinn's ranch, about 25 miles west of my camp and courier line between, to that point. Citizens living on Belle Fourche will give me due notice of Indians in that direction.

If occasion requires, I can supply any detachment of yours in this direction with rations and forage at my home camp, or will send out supplies to them.

Good bye and good luck to you if you meet the enemy.

Yours, very truly,

E. V. SUMNER,

Lieutenant-Colonel Eighth Cavalry, Commanding Camp.

December 19. (10 o'clock p. m.)

P. S.—Since writing above your second courier has reached me with your letter of this date. I believe with Gen. Miles that numbers are exaggerated, and I feel confident of capturing the whole outfit if I can find it, but the trouble is there are so many trails throughout the country that it is almost impossible to watch all of them, and the Indians knowing where the troops are, will avoid them and probably travel by night. My cavalry is on the jump all the time and in every direction, as you know from having seen several detachments, and I will do my utmost to carry out orders and wishes of the authorities. I will send a party to Wood's, on Belle Fourche, this afternoon. I will hold your second courier until to-morrow.

E. V. SUMNER.

J.

CAMP CHEYENNE, S. DAK., December 19, 1890.

MR. DUNN,

On Belle Fourche:

After the killing of Sitting Bull the Indians in his camp left their camp; the bucks, about 100 in number, started up Grand River to westward, and the families came south toward Cherry Creek, and are now there well up on the creek. A force of soldiers is following the bucks, and it is supposed they will scatter and come to their families on Cherry Creek. From there they may attempt to come south, crossing Belle Fourche about Wood's or some other place. I am sending this small party out to watch the crossings on the Belle Fourche and will be glad if you will give the corporal any information you can. Besides this, I wish you and the other citizens on the Belle Fourche would inform me at once if you hear of any Indians approaching your neighborhood.

If you have time I would like to see you in my camp.

Very respectfully,

E. V. SUMNER,

Lieutenant-Colonel Eighth Cavalry, Commanding Camp.

K.

[Corrected copy.]

RAPID CITY, 23D.

To Col. E. V. SUMNER,

Commanding Cheyenne:

(Through commanding officer Fort Meade.)

Report about hostile Indians near Little Missouri not believed. The attitude of Big Foot has been defiant and hostile, and you are authorized to arrest him or any of his people and to take them to Meade or Bennett. There are some 30 young warriors that run away from Hump's camp without authority, and if an opportunity is given they will undoubtedly join those in the Bad Lands. The Standing Rock Indians also have no right to be there and they should be arrested. The division commander directs, therefore, that you secure Big Foot and the 20 Cheyenne River Indians, and the Standing Rock Indians, and if necessary round up the whole camp and disarm them, and take them to Fort Meade or Bennett.

Col. Merriam is moving up the Cheyenne River, and if he joins you turn this order over to him, with instructions to use both commands, and for him to take such force as may be needed to take the Indians to Fort Bennett or Fort Meade. On the completion of this duty your command will move down and extend Col. Carr's line.

By command of Gen. Miles.

MAUS,
Captain and Aid-de-Camp.

L.

CAMP CHEYENNE, S. DAK., December 19, 1890.

Gen. N. A. MILES,
Rapid City, S. Dak.:

It is reported to me just now by scouts that Sitting Bull Indians are coming in to mouth of Cherry Creek, on the Cheyenne, and all the Cheyenne River Indians down as far as Cherry Creek have assembled at Hump's camp to meet the Sitting Bull Indians, and scouts report that they are defiant. I send one troop of cavalry in advance in that direction and will follow with the other two troops and a company of infantry in an hour. Would like to have infantry from Bennett hurry along. (Repeat to Gen. Ruger.)

SUMNER,
Commanding.

M.

CAMP CHEYENNE, S. DAK., December 21, 1890.

Gen. N. A. MILES,
Rapid City, S. Dak.:

Your dispatch received at 12 o'clock last night. Sitting Bull Indians are in Big Foot's camp, 3 or 4 miles in front of my advance. Big Foot sent me word last night that he heard I was coming with all the soldiers and that he wanted to talk. I hope to-day to get the surrender of Big Foot and all the Indians, including the Sitting Bull Indians. All the Indians on Cheyenne River and Cherry Creek have gone to Bennett, I understand. I intend moving on Big Foot's camp immediately, and will let you know the result. If successful, will move back to my supplies in the old camp with the Indians.

SUMNER,
Commanding.

N.

CAMP ON CHEYENNE RIVER, SOUTH DAKOTA,
December 21, 1890.

Gen. N. A. MILES,
Rapid City, S. Dak.:

On the march to Big Foot's camp this morning met him and several Standing Rock Indians. They were willing to do anything I wish. I ordered them back to their camp and sent a troop of cavalry with them to pack up their stuff and to come into my camp at Narseilles's ranch this evening. To-morrow I will take the whole crowd, probably 150, to my home camp, and, unless otherwise ordered, will send them to Fort Meade. One of the stipulations was something to eat, and I have ordered fresh beef and will give them rations. This clears up all Indians on Cheyenne River as far as Cherry Creek, and if any other Standing Rock Indians are out they must be few.

SUMNER,
Commanding.

O.

CAMP AT NARSEILLES'S RANCH, SOUTH DAKOTA,
December 22, 1890.Gen. N. A. MILES,
Rapid City, S. Dak. :

In accordance with agreement which I telegraphed you yesterday, Big Foot, all the Cheyenne River, and Standing Rock Indians came into my camp at 4 p. m. yesterday; they number 333 Indians, 51 wagons, and a herd of ponies. There are 38 Standing Rock Indians in all, and among the Cheyenne River Indians about 30 young warriors, said to be well armed, although I have seen no arms so far. I am holding on to and feeding the crowd, to prevent, if possible, these young men from going south. I will march in a few moments for my home camp with the whole outfit, and expect to reach there this evening. Rations should be supplied me at once if it is expected that I retain these Indians any length of time, and instructions requested as to final disposition. (Repeat to General Ruger.)

SUMNER,
Commanding.

P.

CAMP CHEYENNE, S. DAK., December 22, 1890.

Gen. N. A. MILES,
Rapid City, S. Dak. :

Did not succeed in getting the Indians to come into my camp on account of want of shelter for women and children. Did not feel authorized to compel them by force to leave their reservation.

Standing Rock Indians are at Big Foot's village, with their friends, and Big Foot has agreed to hold them there or bring them here, either. They seem a harmless lot, principally women and children. There is no danger of their going towards the Bad Lands, having very little transportation.

SUMNER,
Commanding.

Q.

[Telegram.]

RAPID CITY, S. DAK., December 22, 1890.

The COMMANDING OFFICER,
Fort Meade :

The following to be sent to Col. Sumner at once, without delay: A report comes from Minnecola that several hundred Indians near Camp Crook, near the Little Missouri, not far from Cave Hills, at head of North Fork of Grand River. The report comes from citizens, who state that 2 scouts with a command in their vicinity moving south had encountered Indians, and that the 2 scouts were notifying citizens. No report has been received of that number of Indians being absent and it does not agree with our official report; still there may be something in it. I think you had better push on rapidly with your prisoners to Meade, and be careful that they do not escape, and look out for other Indians. When will you be at Meade? I will send you orders through that place.

MILES,
Major-General, Commanding.

R.

CAMP CHEYENNE, S. DAK., December 22, 1890.

Gen. N. A. MILES,
Rapid City, S. Dak. :

Have received your dispatch of the 22d. Suppose you have received mine of this date stating the Indians would not be in until to-morrow. In view of the importance of your dispatch, shall I wait for them or march at once for Fort Meade? It would be very hazardous to leave this country unprotected just now. I can reach Fort Meade with my command in thirty hours from here, but will await further orders.

SUMNER,
Commanding.

S.

CAMP CHEYENNE, S. DAK., December 23, 1890.

Gen. N. A. MILES.

Rapid City, S. Dak.:

If the new complication from the north does not amount to anything, and if Big Foot does not keep his promise and come in to-day with those people, I think I will have temporized with him to keep peace long enough, and would like to go down and capture his village. He has heavy log buildings admirably situated for defense, and I would like a couple of guns sent out from Meade for this purpose and Capt. Rodney to take charge of them. Please answer.

SUMNER,
Commanding.

T.

CAMP NEAR BIG FOOT'S VILLAGE, SOUTH DAKOTA,
December 23, 1890 (7 p. m.)

Gen. E. A. CARR,

Commanding Sixth Cavalry:

SIR: Big Foot did not come into my camp to-day as promised, and I started for him this afternoon. His lookouts, of course, let him know that I was on the road. He sent me word by a messenger that he would go to Fort Bennett to-morrow with all his people, but when I approached his village I found it vacant, and my scouts have informed me that he has gone up Deer Creek trail, due south; that he will probably pass Mexican Ed's and head of Bull Creek near the Bad Lands. If you can move out to-morrow morning (a force) you will doubtless intercept him. They had yesterday 100 fighting men, and about 300 altogether, women and children. They started from here in very light order; no wagons; all had ponies, and will travel very fast. For fear they may return here I will stay here to-night, scout up Deer Creek to-morrow, and if I hear nothing, will march for Smithville and go out Bull Creek towards Bad Lands.

Dispatches from Gen. Miles relative to Indians coming from the north and west of me in considerable numbers prevents my following the trail and getting out of reach. I hope you will get this in time and you will head them off.

SUMNER,
Commanding Camp.

U.

CAMP NEAR BIG FOOT'S VILLAGE, SOUTH DAKOTA,
December 23, 1890.

Gen. N. A. MILES,

Rapid City, S. Dak.:

Big Foot sent me word that he would go to Bennett with his people to-morrow. I marched down here to his village and found that he had started south in very light order, with ponies and lodge poles; no wagons. From your last dispatch in regard to going to Fort Meade to meet Indians said to be coming from the north, I feared to leave this vicinity in pursuit of Big Foot, but have sent couriers to Gen. Carr, which ought to reach him by daylight in the morning. If Carr pushes a force from his camp promptly to-morrow eastward he will have plenty of time to intercept him. Besides this, Big Foot might elude me, and return and commit depredations on the Belle Fourche. For reasons given I will remain subject to further information from you, and be ready to march in any direction.

SUMNER,
Commanding.

W.

[Telegram.]

RAPID CITY, S. DAK., December 24, 1890.

Col. E. V. SUMNER,

Commanding Camp Cheyenne:

(Care commanding officer, Fort Meade.)

The reports of Indians up north are false. I can not understand your telegram of 22d, stating that Big Foot's band and Indians to number of 330 had surrendered, and you would march in a few moments with them to your home camp. Col. Merriam

had orders to march up till he joins you, unless he had found you had taken Big Foot's band to Fort Meade. Endeavor to communicate with him at once. You have two Hotchkiss guns and over 200 men, which certainly ought to be enough to handle 100 warriors in any place. Those Standing Rock Indians, the 30 Cheyenne River Indians, and Big Foot and his immediate followers should all be arrested, disarmed, and held until further orders. Big Foot has been defiant both to the troops and to the authorities, and is now harboring outlaws and renegades from other bands. Turn this over to Col. Merriam should he join you.

MILES,
Major-General, Commanding.

RAPID CITY, S. DAK., December 24, 1890.

Col. SUMNER, *Eighth Cavalry*,
(Through Commanding Officer, Fort Meade):

Your orders were positive, and you have missed your opportunity, but such does not often occur. Endeavor to be more successful next time. Hold your command in that vicinity, but in close communication with Fort Meade, and be prepared to intercept any body of Indians that may escape from the troops south. Communicate with Col. Merriam, and notify him he is directed to join you.

MILES,
Major-General.

[Orders No. 254.]

FORT MEADE, S. DAK., November 29, 1890.

3. In compliance with telegraphic instructions from Headquarters Department of Dakota, dated November 27, 1890, Lieut. Col. E. V. Sumner, Eighth Cavalry, with Troop D, Eighth Cavalry, will proceed to-morrow and take command of the troops in camp on Cheyenne River, near Smithville, S. Dak., relieving Capt. A. G. Hennisee, Eighth Cavalry.

The instructions contained in telegram referred to above (copy herewith) will be carried out.

The post quartermaster will provide four army wagons as transportation to accompany the command. On arrival at the camp two army wagons will be returned to the post.

The post quartermaster will provide contract transportation for hauling supplies of rations and forage to the camp for Troop D, to include December 31, 1890.

The troop will be armed and equipped for field service, and will carry rations to include December 10, 1890.

By order of Col. Otis :

CHAS. M. O'CONNOR,
First Lieutenant and Adjutant, Eighth Cavalry, Post Adjutant.

Mr. John Dunn's statement.

I came to Col. Sumner's camp on Tuesday, December 23, 1890, to sell some butter. I went up to Capt. Hennisee to tell him that there was a Corp. Bradley camped upon the creek and wanted to know if he wanted to send him any message. Capt. Hennisee told me that the colonel wanted to see me; the colonel was eating dinner and I waited until he had finished. When the colonel came out he said he wanted to see me for quite awhile, and I told him I had been to the camp on Sunday but he was not there. He told me he would hire me if I wanted to. I told him it was not possible as I could not go, and he said all right. He asked me if I would go down to Big Foot's camp for him. I told him I would not go, as my wife was alone at home and would not know where I was. He asked me if I would not go down, as I was well acquainted with him, and try to get him to go to Fort Bennett. I refused three times before I went, and then consented to go. The colonel told me to ask Big Foot why he had not come to camp that day as he promised, as he thought he was a man of his word. The colonel said he did not know how far he would go down, but he would go four or five miles anyhow.

He told me to tell Big Foot as long as he would not come up that he would send ten or fifteen soldiers with him to Fort Bennett. Felix Benoit, half-breed interpreter, came along with me. Benoit stopped about one-half mile from Big Foot's camp to fix his saddle. I went on up to the village alone. An Indian, called the "Important Man," belonging to Bear Eagle's band, came up and shook hands with me. I asked him where Big Foot's house was. He showed me where the house was, and I tied my horse to a wagon outside Big Foot's house, with some hay and tepee poles on top of the hay. I asked the Important Man where the wagons were going to (there were several with a small quantity of hay and tepee poles on top). He told me they were going to Fort Bennett. I went into Big Foot's house and met his squaw about 4 feet from the door. She shook hands with me and told me to go in. As I went in I saw Big Foot lying on the bed. He got up and shook hands. Several Indians followed me in the house. I told Big Foot I came over to the soldiers' camp to-day between 12 and 1 o'clock to sell some butter. I told him the commanding officer asked me to come down and see him; the commanding officer told me to ask him why he did not come up to his camp to-day as he promised, and that he thought he was a man of his word. He said he had been sick and felt bad all day. I told him as long as he had not come up the commanding officer wanted to know if he would not go down to Fort Bennett. He asked why he had not taken him down there when he had him down near Cherry Creek before. I told him that I did not know; was not there, and I knew nothing about it. I told him that I did not want to see one soldier killed or one Indian killed either. That the soldiers did not want to kill any Indians unless they were compelled to. I told him I had to go about 20 miles, and as it was near sundown I wanted to know what he wanted to say to the colonel, as I was in a hurry. He said that he would go to Fort Bennett in the morning. The colonel said he would send a small detachment of soldiers to escort them along. He told me he did not want to fight. I told him I was very glad to hear him say so, for when fighting commenced there is no telling when it will stop. I asked him if the Indians from Standing Rock were still at his village; that the colonel wanted to know. He said they were. Then Felix Benoit, the interpreter, come in. I told Benoit the Indians seemed all quiet and said they were going to Fort Bennett. I told Benoit to ask the Indians what I had said to them and find out all I had said. Benoit asked me to stop a little longer; but as it was near sundown I told him I could not, as I had left my wife at home alone. I shook hands with Big Foot and a number of other Indians with whom I was acquainted and left, leaving Benoit in the house. I met the colonel at Bear Eagle's village very near sundown. He asked me what success I had and how things were at the village. I said everything looked quiet and I did not think he would have to fire one shot. The colonel asked why he had not come up to-day and I told him he said he had been sick. The colonel asked me if he had agreed to go to Bennett, and I said he had, and that they would all go in the morning. I told the colonel what the colonel had said up at the camp, "that he would send ten or fifteen soldiers with them to Fort Bennett." The colonel said: "They are afraid of me." It was very dark and some of the soldiers asked the colonel if he had seen Bear Eagle. He said he did not, and called me back. He asked me to tell Bear Eagle that he wanted him to get his wagon ready, as he wanted him to start to Fort Bennett with him in the morning. He told me also to tell Bear Eagle that the troops were not there to hurt or kill any Indians. That he had received a letter from the Great Father at Washington that day telling him that all the Indians had to get out of that valley and go to the agency. That there were troops coming up from Cherry Creek and that any Indians found there would be considered hostile. I told Bear Eagle that Big Foot was also going to Fort Bennett with all his band in the morning; that he had just told me that he was. It seemed to surprise him and he looked up and wondered. The colonel took off his glove and shook hands with me, and said he was very thankful to me, and wanted to sign a voucher for me to pay for my trouble, but I refused it, saying that I would do anything to save blood.

Afterwards I met Serg. Moore less than a mile from camp. He asked me how everything was, and I said everything was quiet and that I did not think there would be any trouble whatever. I also told Mr. Frank Cuttle that I did not anticipate any trouble.

I have been among the Sioux for about twenty years, and have lived on the Belle Fourche for nine years. I speak the Sioux language and have known Big Foot for nine years, and until the last two or three months have seen him monthly for eight or nine years. When I went to Col. Sumner's camp on December 23, 1890, to sell butter I had not received any message from Big Foot or any other Indian. When I saw the colonel I told him that I did not think they meant to fight, as I had never known them to fight with the women and children present. I have here stated all to the best of my recollection that took place in my interview with Col. Sumner and with Big Foot. During a portion of the time I was talking to Col. Sumner several other officers were present. I told Col. Sumner that I heard Big Foot say time and again that he would sooner die than leave his village, and he said, "Then die it is."

When I left Big Foot I had not the least doubt but that he would go to Fort Bennett. I had not the least suspicion that he and his band intended going south. My only explanation of his violation of his promise, that he thought he was going into a trap.

The foregoing has been read to me in the presence of Capt. E. A. Godwin, Eighth Cavalry, and Capt. Philip Reade, Third Infantry, by William T. Doyle, private Troop D, Eighth Cavalry, at my home on the Belle Fourche, on north fork of the Cheyenne, which is about 7 miles from Camp Cheyenne, S. Dak., this 17th day of January, 1891, and is wholly correct. The witnesses have also attested to it in my presence and in presence of each other.

JOHN DUNN.

Witnesses:

E. A. GODWIN,
Captain Eighth Cavalry.

PHILIP READE,
Captain Third Infantry.

WILLIAM T. DOYLE,
Private Troop D, Eighth Cavalry.

[Made 18th January, 1891.]

Statement of Felix Benoit, interpreter.

On the 23d of December, 1890, about noon, I was sent by Col. Sumner to Big Foot's camp, in company with Mr. John Dunn. When we got into camp Mr. Dunn was about 200 yards ahead of me. The Indian scouts, who had been sent down that morning to tell Big Foot to come up, were just leaving his camp to return to Col. Sumner's camp. I stopped and talked with them, and that is how Mr. Dunn got ahead of me. I asked the scouts why Big Foot did not come up to camp. They said that Big Foot told them that the Standing Rock Indians who had been with him the day before had gone away, and he did not want to go to Col. Sumner's camp without them. I told them to go back with me to Big Foot's house. When we got there I went inside with one of the scouts (His Horse Looking). When I got in the house was crowded with Big Foot's warriors or men, and John Dunn was standing right beside Big Foot, and Big Foot was calling out loud to the people so they all could hear it, saying, "I am ordered to go down to Bennett to-morrow morning, and," he said, "we must all go to Bennett; if we don't go, John Dunn is sent here to tell me that if we don't go the soldiers will come here in the morning and make us go, and shoot us if they have to." I did not hear John Dunn tell Big Foot this, but he was standing right there and did not deny or dispute it. Then John Dunn came out and came on home, and I stood in there with His Horse Looking, a scout. Big Foot asked me if Col. Dunn had sent John Dunn to tell him this, and I told him yes; the colonel had sent Dunn to tell him that he must go to Bennett. Then His Horse Looking told me that the best way was to go in the morning, and all together, and Big Foot said he would. Then we came out of the camp, and when we were about a half a mile from Big Foot's house we saw the Indians gathering in the ponies, and remarked that they must be going to start for Bennett that night. It was pretty late in the evening for them to start, about half past 3 or 4 o'clock, but they had said they were all going to Bennett. Then we left one scout behind (Charging First) to see if they started that evening, and the rest of us came on to Col. Sumner's camp, which was about 5 miles west of Big Foot's village. About half an hour afterwards Charging First came in saying that the women and children were badly frightened, and he thought they were going to start for Bennett right away that evening. Then Col. Sumner sent three scouts (His Horse Looking, Charging First, and Iron Shield) to the village to tell Big Foot not to leave that evening, but that they must go in the morning, and that he wanted Big Foot to come up and see him next morning before they started. About an hour and a half after they started, two of them (His Horse Looking and Iron Shield) came back and said that a large party of the Indians had already started, and the others were getting ready to go. They had gone up Deep Creek, and the scouts did not know whether they were going to Bennett by the ridge road or going to the south, but Charging First had remained behind to find out which way they were going. The next morning (24th December) Charging First returned about 8 o'clock, and said he had ridden all night: that he had come up with the leading Indians, who were going south, near Davidson's ranch, about 12 o'clock in the night, and stood there with them until they all caught up. Big Foot came up with the squaws. He had a talk with Big Foot there, who sent word by him to Col. Sumner that he (Big Foot) did not want to go south, and wanted to go to Bennett, but that

and his people were afraid that they would get into a trap if they went to Bennett, and that he was compelled to go to Pine Ridge, and he had to go. While he was talking to Big-Foot about fifteen bucks rode up around them and told him (Charging First) that if it was any other scout except him they would kill him.

FELIX BENOIT.

Witness:

E. A. GODWIN,
Captain, Eighth Cavalry.

Signed at Smithville, S. Dak., January 19, 1891.

EXHIBIT I.

Itinerary of march of Capt. Fountain's command from Fort Keogh, Mont., on December 13, 1890.

Saturday, December 13.—Left Fort Keogh by special train, 12 m., under telegraphic orders received at 5 p. m. previous day. Reached Dickinson, N. Dak., at 10:15 p. m., 187 miles east of Fort Keogh. Unloaded horses and mules in stock yards; all in good condition; men remained in cars over night. Weather cold; high wind; no snow.

Sunday, December 14.—Unloaded cars at 7 a. m., and encamped in stock yards. Water good and plenty in Heart River, 100 yards from stock yards. Lignite coal in abundance, and wood obtainable from railroad company. Good hay on contract. People much alarmed over reports that Sioux were marching north. Weather bright, cold; high wind.

Monday, December 15.—Started south over road to New England City with troop and transportation at 9 a. m. Employed Joseph Spence, an old buffalo hunter of this region, as scout and guide. Found roads excellent. Sandy clay; level. Marched 16 miles until 2 p. m. Weather bright, cold, and windy. At 5 p. m. received news that Sitting Bull had been killed and that his band was in retreat up Grand River. Made preparation for an early start south next morning.

Tuesday, December 16.—Left Dickinson at 8:30 a. m., leaving Lieut. Ord with infantry in charge of camp; took two four-mule wagons and one six-mule, ten pack mules, four days' rations, light baggage, no tents. Arrived New England City 3:30 p. m., 30 miles, in good order. No news of hostiles. Citizens entered a storehouse surrounded by earthen wall, on approach of troop, which shows feeling of alarm that prevailed. City consists of a post-office, with five or six families resident. Wood very scarce; lignite coal plenty; some hay and grain purchasable; water excellent and abundant in Cannon Ball River, which runs south of town 60 yards.

Wednesday, December 17.—Marched from 8:30 a. m. to 8:30 p. m., from New England City south of Rainy Buttes, through White Earth Buttes and around their western base to Hannan's ranch on Sand Creek (White Butte Creek); distance traveled, 45 miles. Could not stop until this ranch was reached on account of scarcity of wood. Here found good water plenty; lignite coal; some wood and hay; weather bright and warm; slight wind; no news of Indians.

Thursday, December 18.—Marched to H. T. ranch on Deep Creek (Little Box Alder), 8 miles, and rested all day. Still no news of Indians. Ranch of a large and wealthy Pennsylvania horse company (Little Missouri Horse Company), wood, water, and hay plenty. At 6 p. m. received courier announcing that Lieut. Gaston had started for Dickinson with available portion of the command and twenty days' rations; also directing scout to be made to the forks of Grand River. Returned this night to Hannan's ranch, where we found that one mule had died—a wheeler of the six-mule team.

Friday, December 19.—Returned to New England City by another shorter route, north of White Buttes and Rainey Buttes, 8:30 to 3:30, distance 30 miles. Found Lieut. Gaston with remainder of troop and Lieut. Ord with infantry detachment. Supplies and forage in civilian wagons employed at Dickinson by Lieut. Gaston. Found also Lieut. Traub, First Cavalry, with communication from Maj. Carroll announcing his position on forks of Cannon Ball and intentions of capture of Sitting Bull fugitives. Weather warm and bright.

Saturday, December 20.—Marched south to Harkin's ranch on South Cannon Ball River or Cedar Creek, distance 25 miles, 8:30 to 3:30. Weather as on previous day. Found here some wood, plenty lignite, plenty hay, and good water.

Sunday, December 21.—Marched south to Gay's ranch, crossing of Grand River, 25 miles, 8:30 to 3. Roads excellent. Absolutely no wood; some lignite; no hay; good water. People much alarmed by reports, but could give no news of Indians. Weather clear and cold; much wind.

Monday, December 22.—Marched down Grand River to make the forks, 35 miles distant, and were met about 3 miles above fork by Sioux scout bearing dispatch from commanding officer, Fort Yates, announcing that Sitting Bull Indians had turned south and gone to Cherry Creek Reservation, and ordering return after scouting country in locality where met by courier. No sign of Indians. Found trail made previous day, which proved to be a party from Maj. Carroll seeking us. Weather cold and windy.

Tuesday, December 23.—Returned to Gay's ranch, 32 miles, 8 to 4 o'clock. Weather cold, windy. A fall of snow had covered this ground three weeks previous, and had not disappeared; no tracks were found on it anywhere. A herder from E 6 ranch, on South Grand River, reported no Indians near there. Another from Cove Hills; none seen near there.

Wednesday, December 24.—Returned to Harkin's ranch on Cedar Creek. Weather windy and cold; snow during afternoon and evening. Late this evening (about 10 or 11 o'clock) Lieut. Traub brought news that we reported to be surrounded by Indians at Cave Hills, and that he was marching to our assistance with Lieut. Ballance's company Twenty-second Infantry.

Thursday, December 25.—Reached New England City 12:30 p. m. Sent Lieut. Sydenham and Joseph Spence to Dickerson with dispatches. Met Lieut. Ballance near Rainy Buttes marching south. Weather fair, moderate; very windy. Awaiting orders here.

S. W. FOUNTAIN,
Captain, Eighth Cavalry.

NEW ENGLAND CITY, N. DAK., *December 28, 1890.*

EXHIBIT K.

FORT CUSTER, MONT., *February 6, 1891.*

The ASSISTANT ADJUTANT-GENERAL,

Department of Dakota, St. Paul, Minn. :

SIR: I have the honor to submit herewith the report of the march, change of station, etc., of troops under my command in the field from November 24, 1890, to February 4, 1891.

In compliance with Orders, No. 217, dated Fort Custer, Mont., November 23, 1890, I left this post November 24, 1890, with Troops A, E, and B, First Cavalry, commanded by Capt. Bomus, Lieut. Pitcher, and Capt. Adams; also two Hotchkiss field pieces, commanded by Lieut. Burkhardt, Twenty-fifth Infantry, with 6 six-mule teams, and 20 pack mules—in all, 7 commissioned officers, 154 enlisted men, 165 horses, and 57 mules, also one escort wagon, and marched to Custer Station. November 26, Troop B, Capt. Adams, commanding, was relieved by telegraphic instructions from Headquarters Department of Dakota, dated November 26, and ordered to march to Fort Keogh, Mont., and left Custer Station on the 27th of November. Remainder of battalion left Custer Station November 27 at 5 p. m. on cars, via Northern Pacific Railroad, for Fort Abraham Lincoln, per telegraphic instructions from Headquarters Department of Dakota, dated November 26, 1890. Command arrived at Mandan, N. Dak., at 3:30 p. m. November 28, and marched to Fort Abraham Lincoln, N. Dak., same day, and went into camp.

December 1st, Lieut. Traub, First Cavalry, was ordered to proceed to the vicinity of the northwest corner of the Sioux Reservation on the Cannon Ball River, Cedar Creek, or the North Fork, or between those points, and select a suitable location for a camp for two troops of cavalry and two companies of infantry, in compliance with telegram from department headquarters.

December 16 the battalion left Fort Abraham Lincoln for the Cannon Ball River per Orders, No. 181, dated Fort Abraham Lincoln, N. Dak., December 15, 1890, via the Bismarck and Deadwood trail.

In compliance with verbal instructions of the post commander, Troop E., First Cavalry, made a forced march to the Cannon Ball with pack mules, a distance of 52 miles, and the following day proceeded up the Cannon Ball to Taylor's ranch, 25 miles. The remainder of battalion, including Company D, Twenty-second Infantry, Lieut. Ballance, commanding, camped on Chanta Pita Creek, 22 miles from Fort Abraham Lincoln. December 17 the battalion marched to Cannon Ball River, 30 miles. At this point a telegram from department headquarters was received, ordering me to proceed up the Cannon Ball River to protect settlers, etc. In compliance with above instructions my battalion moved up the Cannon Ball River to Taylor's ranch on the 1st.

Troop E, First Cavalry, was moved over to the Cedar—South Fork—south-south-

west, 25 miles, December 18, and the troop commander was directed to scout southwest towards the Grand River, with a view to intercept parties of Sitting Bull's band of Sioux who might be trying to break away from the reservation, and to communicate with Capt. Fountain, if possible, near White Buttes.

Lieut. Traub was dispatched up the Cannon Ball to open communication with Capt. Fountain, and proceeded to New England City, 75 miles from crossing of the Black Hill trail, and found Capt. Fountain at New England City December 19, and delivered a communication from me, informing Capt. Fountain that the commanding officer Troop E, First Cavalry, on Cedar Creek, had been directed to cooperate with Fountain on the Grand River for the purpose of capturing Sitting Bull's band of Sioux. I also inclosed copy of telegram from department headquarters instructing me to cooperate with Capt. Fountain.

Lieut. Traub returned from New England City with letter from Capt. Fountain, in which he said that he would move to forks of Grand River and communicate with the commanding officer Troop E, First Cavalry, on the Cedar, and would ask him to join his (Fountain's) command, when he would move down the Grand River. This Fountain failed to do. Pitcher, commanding Troop E, sent couriers to Grand River, but did not find Fountain.

December 20 a telegram was received from department headquarters directing my main camp to remain on the Cannon Ball; that Sitting Bull's band had turned south. My battalion was then ready to march south to the Grand River to cooperate with Fountain and Pitcher; but as wood was scarce, I moved 7 miles down the river where wood was plenty, and camped.

On the evening of December 23 a telegram was received from department headquarters by the way of Yates, stating that a report had come from Minnesota from citizens near Cave Hills, near Little Missouri, and head of North Fork of Grand River, reporting that scouts from command moving south stated that one company had been surrounded by Indians, and that they had sent for another company near Camp Crook, 30 miles from Little Missouri, and suggesting that troops should be sent there with as little delay as practicable, signed "Miles," major-general, commanding. On receipt of this telegram, Lieut. Pitcher, commanding Troop E, camping on the Cedar, near northwest corner of the reservation, was ordered to proceed to the Grand River, and thence up that stream to the Cave Hills, to assist any troops that might be surrounded. The troops under my immediate command at the Cannon Ball were ordered to move without tents as soon as possible, the cavalry leaving camp at 6 p. m. with two days' rations in their saddlebags, the pack animals following with five days' rations, the infantry moving with the wagons and rations to include to the end of the month for the battalion; also 2 conical wall tents for the infantry and 3 for the cavalry troop, and 1 wall tent for each troop and company for officers.

I accompanied the cavalry and reached New England City, a distance of 62 miles, at 7:30 a. m. December 24. After feeding the animals the command moved for the Cave Hills by the way of White Buttes, taking a guide from New England City, who claimed to know that country, also one citizen team loaded with grain. When in the vicinity of White Buttes the guide claimed to have lost the road, when the command halted for the night, having marched from New England City, 40 miles. No wood, no water, and one of the most disagreeable nights during the campaign. At daylight the command moved on. After marching 4 or 5 miles a little brush and water was found, sufficient to make coffee, after which the march was again resumed in a southwesterly direction, the trail which we followed winding around the Buttes. About sundown the guide became convinced that the trail we were following led down to the Little Missouri, and insisted on going due east to strike another trail which would lead to Cave Hills, claiming that the country to the south and southeast was bad land and we could not get through. After moving about 10 miles east the direction was changed to the south. After following this direction 8 or 10 miles we struck the North Fork of Grand River and found a road running to the Cave Hills, which we followed for about 5 miles, when the guide again became lost, and the command, at about 11 p. m., halted for the night, having marched that day about 51 miles, but which was estimated as high as 65 miles.

At daylight of the following morning (December 26) we marched through the Cave Hills to the southwest extremity of the hills and camped at the head of the main North Fork of the Grand River at Clifton's ranch. Here the command was joined by Lieut. Traub with the pack train. Lieut. Traub had brought the pack train by the way of the head of Cedar Creek and Gay's ranch, on the North Fork of Grand River. Lieut. Traub had met Capt. Fountain at the head of Cedar Creek, going to New England City, and also had information that Capt. Adams had gone south to the forks of Cheyenne River.

There was no trace of troops or Indians in the Cave Hills, and the command returned December 27 to Gay's ranch, on the North Fork of Grand River. The march across the country from New England City to Cave Hills was very severe on men and horses. We did not find any wood between these points; the men had only the

blankets they carried on their saddles, and two days' bacon and hard bread in their saddlebags. The country having been burned over in the early fall, no grazing for the horses was found.

At Gay's ranch the infantry were met with the wagons with sufficient canvas to cover most of the command. From this point the command returned to New England City by way of Cedar Creek, arriving there December 29. On the morning of December 30 a telegram was received from department headquarters through Capt. Fountain, ordering a concentration of troops at the forks of Grand River, including the troops from Fort Yates, Capt. Fechét's command, Capt. Fountain, and my battalion.

My rations expired on the 31st of December. Captain Fountain, was rationed to include January 13, 1891. I did not know if rations had reached my camp on Cannon Ball, 62 miles below New England City, and the troops under my immediate command not being in fit condition to make another forced march, I ordered Lieut. Gaston, Eighth Cavalry, who was then en route from Dickinson to New England City, to return to Dickinson and purchase thirteen day's rations for my battalion. At the same time Capt. Fountain, with Troop H, Eighth Cavalry, and detachment Company B, Twenty-second Infantry, was ordered to proceed to the forks of Grand River by the way of the head of Cedar Creek and Gay's ranch, to pick up Troop E, First Cavalry, at the Cedar, and to detach one troop at Gay's ranch, which was directed to proceed to the E 6 ranch, on the South Fork of the Grand River, for the purpose of gaining all the information possible regarding country and hostile Indians, thence to proceed down the South Fork and join the command. Capt. Fountain was also directed to furnish Troop E, First Cavalry, rations and forage until necessary supplies would arrive from Dickinson.

A severe blizzard springing up on the 31st of December, Capt. Fountain was held at New England City until January 1, 1891, when the supplies purchased at Dickinson having arrived about daylight, the entire battalion moved for the forks of Grand River, finding Troop E, First Cavalry, camping on the Cedar.

It appears that couriers carrying orders to Lieut. Pitcher, commanding Troop E, to proceed to the Grand River and thence up that stream to the Cave Hills, became lost in a snowstorm and did not reach Lieut. Pitcher's camp, but returned to my camp on the Cannon Ball after wandering around the country about two days, hence the troop did not reach the Cave Hills, but was met on our return and ordered to establish its camp on the head of Cedar Creek.

On reaching Gay's ranch, January 2d, Capt. Fountain, with his Troop H, Eighth Cavalry, detachment Company B, Twenty-second Infantry, and three Cheyenne scouts, numbering 80 men were ordered to the South Fork of Grand River, by the way of E 6 ranch, near Slim Buttes, and thence to proceed down the South Fork of the Grand and join the command. The remainder of the battalion moved down the North Fork of the Grand. Finding the distance from Gay's ranch to the forks about 50 miles, we camped on the North Fork and moved down to the forks January 4, 1891, selecting a camp on the South Fork about 2 miles above the forks.

At this point Capt. Fechét, with Troops F and G, Eighth Cavalry, Company G, Twelfth Infantry, with detachment Company H, 12th Infantry, in all 8 officers and 157 men, with one Hotchkiss and two Gatling guns, reported for duty the same day.

January 5, 1891, a telegram was received from department headquarters through commanding officer Fort Yates, ordering me to proceed as far up the South Fork of the Grand as sufficient wood could be had, and open communication with Col. Arnold's command on Little Missouri through Capt. Adams at Camp Crook, also orders that the command should be supplied from Fort Yates.

Instructions were sent by courier to Capt. Fountain to remain at the E 6 ranch, or return to it if he had left, and to communicate with Capt. Adams at Camp Crook. Instructions were also sent to Lieut. Gaston at Dickinson, and Lieut. Traub at New England City, who were left for the purpose of forwarding supplies, to send the same to E 6 ranch on the South Fork of the Grand and to join the command there without delay.

The condition of the road rendered it necessary to sharp shoe the transportation, and on the morning of the 7th with Capt. Fechét's command I moved up the South Fork and met Capt. Fountain coming down that stream. The rugged nature of the country on both banks compelled us to follow the bed of the stream. We arrived near the Slim Buttes on the 9th.

Capt. Fechét was ordered to move up to the Slim Buttes and establish a camp on the eastern slope on the head of Rabbit Creek.

Fifteen miles below E 6 ranch I met a courier from Capt. Adams, stating that the country was comparatively open between Camp Crook and the E 6 ranch, and about 35 miles distance.

On the 12th I moved up to and camped in the vicinity of E 6 ranch, where the remainder of the battalion joined January 14, 1891, with the rations and forage sent to my camp on the Cannon Ball, also with the camp equipage left there and which had been sent for.

Capt. Fechét was ordered to remain at Slim Buttes and scout the country south and southwest. A scouting party was sent from the E 6 ranch to Camp Crook, from there to Short Pine Hills, and thence back to the camp on the Grand.

Capt. Craigie, commanding, of the supply camp at the forks of the Grand, was ordered to move up to the South Fork, 35 miles, and to establish there his supply camp as well as courier stations.

The location of the troops at the E 6 ranch and Slim Buttes could not, in my opinion, be improved on to accomplish the object in view. A lookout was kept at Slim Buttes, which covered the country as far as the eye could reach east, south, and west, the lookout being near the south end. The camp at E 6 ranch was accessible to trains from all directions, being 90 miles from Minnecola, 35 miles from Camp Crook on the Little Missouri, 94 miles from Dickinson, and 180 miles from Fort Yates, with a good wagon road in each direction. The main objection was the scarcity of wood, which we replaced with a very good specimen of lignite coal. The wood in the immediate vicinity was green cottonwood. The best wood we hauled from the Slim Buttes, a distance of 12 miles.

Courier communication was kept up constantly with Camp Crook up to the 25th day of January.

January 23 I received instructions from the department headquarters, by way of Fort Yates, to proceed to Dickinson with Troops A and E, First Cavalry, Fountain's troop of the Eighth Cavalry, and the infantry belonging to Fort Keogh, to carry as many rations and quantity of forage as could be done with the transportation, to turn over surplus to the commanding officer Yates's column for transportation to that post, and to send dispatch by way of Fort Yates, reporting number of days' supplies of rations carried with command and date of departure from camp on the Grand.

The Yates troops were relieved from duty with the battalion January 26, and proceeded to Fort Yates under command of Capt. Miner, Twenty-second Infantry.

On the morning 26th January the battalion left the camp at the E 6 ranch and reached Dickinson on the 29th, at 2:20 p. m. I reported my arrival to department headquarters at that hour.

Finding a quartermaster's agent there with instructions to furnish transportation by rail, and the cars being ready, I directed the troops to be embarked for their proper stations, presuming that more direct orders would be received that afternoon. The troops belonging to Keogh were placed on one train, the transportation belonging to Fort Abraham Lincoln, consisting of 2 six-mule teams, 1 red-cross ambulance and team, 3 teamsters, and 2 packers, all under charge of Lieut. Schenck, Twelfth Infantry, was placed on another train for Mandan, N. Dak., and the Custer troops also on a separate train. Not receiving further orders, I directed the train to move out at 12:30 a. m., January 30, all being then ready, and left Dickinson myself with troops A and E, First Cavalry, arriving at Custer Station at 4:45 p. m. same day, and went into camp at the cantonment, where we remained till February 4, 1891, when the command marched to this post, in compliance with telegraphic instructions from department headquarters.

The military maps furnished were found inaccurate, and as a guide unreliable. Lieut. E. O. C. Ord, Twenty-second Infantry, is preparing a map of the country passed over and its immediate vicinity, which will be forwarded when completed.

The commissioned officers and enlisted men of the battalion behaved admirably throughout, to whom I extend my thanks for their energetic and zealous support through a Dakota winter campaign against hostile Sioux.

Lieut. E. O. C. Ord, Twenty-second Infantry, has shown most commendable ability in the art of map making; his talent in this direction is undoubted, and he freely made use of it during the present campaign, being very careful in gathering useful information and afterwards in plating same; his services have been valuable, and I feel very much indebted to him.

In closing this report I wish to especially mention First Lieut. J. A. Gaston, Eighth Cavalry, battalion adjutant, and Second Lieut. Peter E. Traub, First Cavalry, battalion quartermaster and acting commissary of subsistence, for the efficient manner in which they performed their duty. To their untiring energy the battalion was much indebted for receiving supplies promptly, and to their forethought many comforts not otherwise obtainable. On several occasions Lieut. Traub rode all night to accomplish these purposes, even volunteering to perform difficult courier duty, for all of which I am much indebted.

Very respectfully, your obedient servant,

HENRY CARROLL,
Major, First Cavalry.

EXHIBIT L.

OFFICE OF THE COMMANDING OFFICER,
Fort Custer, Mont., February 10, 1891.

The ASSISTANT ADJUTANT-GENERAL,
Headquarters Department of Dakota, St. Paul, Minn.:

SIR: I have the honor to submit the following report regarding the operations of my command during the late campaign against the hostile Sioux in North and South Dakota.

On the 16th of October, 1890, I received telegraphic instructions from the department commander to proceed to Fort Keogh, Mont., and assume command of the cavalry assembling there for field service. I arrived at Fort Keogh, Mont., on the morning of the 18th, First Lieut. Albert L. Mills, adjutant First Cavalry, accompanying me, and on the 19th assumed command of Troops C, F, and H, First Cavalry, commanded respectively by First Lieut. William C. Brown, First Cavalry; Capt. Frederick K. Ward, First Cavalry, and First Lieut. George S. Hoyle, First Cavalry; Maj. John M. Hamilton, First Cavalry, commanding battalion. Later on the 20th Troop K, Capt. Frazier A. Boutelle, First Cavalry, commanding, arrived and reported for duty.

On the 25th Troop G, First Cavalry, First Lieut. Robert P. Page Wainright, commanding, from Tongue River, reported for duty. From the 20th to the 30th of December the command remained in camp, performing the various duties incident to camp life, besides breaking in new horses and setting up a number of recruits in mounted exercises, these recruits and horses having joined just before the troops left their stations.

On the 31st of December, 1890, under telegraphic orders from the department commander, I was placed in command of a column destined for field service, consisting of Troops C, H, G, and K, First Cavalry; Companies G (Capt. Abraham A. Harbach, commanding), and H (Capt. John N. Coe, commanding), Twentieth Infantry, and a detachment of the Fourth Artillery for manning the three mountain Hotchkiss guns, being in charge of First Lieut. F. S. Strong, Fourth Artillery, who joined the command December 25, 1890. First Lieut. Frank B. Jones, Twenty-second Infantry, was attached for duty with this detachment of artillery.

Under orders from the department commander to proceed to Powderville, Mont., I left Fort Keogh, Mont., about 11:30 a. m. on the 31st of December, 1890, and after a march of 12 miles up the Tongue River made camp. January 1, 1891, made a march of 16 miles to a point on Pumpkin Creek. January 2, marched to Mizpah Creek, 19 miles. January 3, marched 22 miles to Powder River and camped at a point 2 miles below Powderville.

The object of placing this command on the Powder River being, in the absence of further orders, to cover and scout the country to the east as far as Camp Crook on the Little Missouri River, South Dakota, so as to afford protection to settlers and intercept any bands of hostile Indians that might escape from the Sioux Reservation. The command was also to connect, via Camp Crook, with Major Carroll's column, operating on Grand River, North Dakota. On the 4th I remained in camp, preparing to carry out the above instructions. That night I received instructions to "Push for the Little Missouri," and from there to conduct operations so as to intercept hostiles going north.

Owing to scarcity of wood and water, via the Powderville and Fort Meade road, I marched on the 5th up Timber Creek and made camp near its source, where wood and water were obtained without difficulty—distance, 21 miles. On the 6th, marched to Big Box Elder Creek, making camp about 15 miles below Stage Station, on Powder River Road. Here the command had an abundance of wood and water—distance, 20 miles. On the 7th, marched 25 miles to the Little Missouri, striking it at a point half mile below the site of Camp Alex. Chambers. Here I found wood and water in abundance, and selected this point for a camp to operate from. Grazing was very scarce, and hay, such as it was, hard to obtain. Having been without grain for two days, owing to lack of transportation, I ordered the acting quartermaster, Second Lieut. Godfrey H. McDonald, First Cavalry, to scour the country up and down the river, within a radius of 20 miles, and in this way managed to obtain about 2,000 pounds of oats and sufficient hay to last until forage arrived. On the 8th of January, 1891, Troop F, First Cavalry (Capt. Frederick K. Ward, First Cavalry, commanding), joined the command. On the 10th, Maj. Charles D. Viele, First Cavalry, with Troop D, First Cavalry (First Lieut. George B. Backus, First Cavalry, commanding), and Crow Indian Scout Troop (First Lieut. Samuel C. Robertson, First Cavalry, commanding), reported to me.

Capt. John Q. Adams, First Cavalry, with his command at Camp Crook, consisting of Troop B, First Cavalry, and a detachment of the Twenty-second Infantry, under Second Lieut. William A. Phillips, Twenty-second Infantry, was placed under my command on the 11th, per instructions from the department commander. After the arrival of Maj. Charles D. Viele, First Cavalry, I organized my command as per order

attached, designated First Lieut. and Adj. Albert L. Mills, Second Lieut. Godfrey H. McDonald, and First Lieut. Frederick S. Foltz, First Cavalry, as adjutant, quartermaster, and engineer officer, respectively, of the command. As soon as I had located camp, and upon the arrival of grain, I sent Troop F (Capt. Frederick K. Ward, First Cavalry, commanding, January 14, 1891, to scout the country north and east as far as Camp Crook, there to communicate with Capt. John Q. Adams, First Cavalry, who had been ordered to communicate with Maj. Henry Carroll, First Cavalry, who was supposed to be in the neighborhood of Slim Buttes, S. Dak. Capt. Frederick K. Ward, First Cavalry, returned via Nashville. The reports of these patrols and scouts were forwarded to headquarters of department on return of scouting parties. Other reconnoissances and scouts were projected, but owing to the surrender of the hostiles, and receiving orders to return with my command to Fort Keogh, Mont., they were not put into effect. On the 21st of January, 1891, I was instructed by the department commander to order Capt. John Q. Adams, First Cavalry, to join me, and with my whole command to proceed to Fort Keogh, Mont.

On the 22d the infantry battalion was ordered to march, I waiting for Capt. John Q. Adams, First Cavalry, who joined me on the 23d. On the 24th the remainder of the command took up the line of march, making the same camping grounds on returning, excepting the last one, when the command marched to Fort Keogh, Mont., from camp on Pumpkin Creek, arriving there on the 29th of January.

On the 31st, orders being received from department commander for the troops of this command to proceed to their various stations, Troops B, D, G, and K, First Cavalry, and the troop of Crow scouts under my command, were ordered to proceed by marching to Fort Custer, Mont. Owing to severe cold weather the command did not commence its march until the morning of the 3d of February, 1891. On that day it broke camp at 8 a. m., and marched up the Yellowstone, making camp at a point 18 miles from Fort Keogh. February 4, marched to Burley's Ranch and made camp—distance marched, 28 miles. February 5, marched to Froze-to-death Creek and made camp—distance marched, 27 miles. February 6, marched to Guy's Ranch (Echeta) and made camp—distance marched, 23 miles. February 7, marched to Weldon's Ranch on Big Horn River and made camp—distance marched, 23 miles. February 8, marched to Fort Custer, Mont.—distance marched, 17 miles.

From the time I assumed command of the column to the final arrival of the Custer garrison at its destination, every kind of weather was experienced, namely, from piercing cold to that of warm weather, including wind, snow, and rain storms. The coldest weather experienced during the march was on the day and night of the 31st of December, 1890, when the thermometer registered 9° below zero, with 4 inches of snow on the ground. The march to the Little Missouri was arduous and trying, on account of the snow and frost making the roads difficult for the animals to move on without danger of injuring themselves or their riders. One day no less than six wagons were overthrown on down grades, owing to the slippery nature of the roads. The return march from the Little Missouri was made under the most favorable circumstances, good weather and good roads, the snow having altogether disappeared, and the weather just cold enough for men and animals to enjoy the march, and it was not until we reached Fort Keogh, Mont., and had gotten well under canvas when we experienced a cold wave, the thermometer gradually falling to 36° below zero on the 1st of February. The march up the Yellowstone was made under favorable circumstances until the morning of the 6th, when a snowstorm with a cold blizzard wind was experienced, which made the marching difficult. During the campaign the total distance marched by the different organizations respectively, was as follows:

Troop B, First Cavalry (Capt. John Q. Adams, First Cavalry, commanding), marched 760 miles.

Troop C, First Cavalry (First Lieut. Wm. C. Brown, First Cavalry, commanding), marched 270 miles, and by rail 592 miles.

Troop D, First Cavalry (First Lieut. Geo. B. Backus, First Cavalry, commanding), marched 442 miles, and by rail 95 miles.

Troop F, First Cavalry (Capt. Frederick K. Ward, First Cavalry, commanding), marched 350 miles, and by rail 592 miles.

Troop G, First Cavalry (First Lieut. R. P. Page Wainwright, First Cavalry, commanding), marched 506 miles.

Troop H, First Cavalry (First Lieut. Geo. S. Hoyle, First Cavalry, commanding), marched 270 miles, and by rail 592 miles.

Troop K, First Cavalry (Capt. Frazier A. Boutelle, First Cavalry, commanding), marched 415 miles, and by rail 340 miles.

Troop B, Indian Scouts, D. D. (First Lieut. Samuel C. Robertson, First Cavalry, commanding), marched 442 miles, and by rail 95 miles.

Det. Battery F, Fourth Artillery (First Lieut. F. S. Strong, Fourth Artillery, commanding), marched 270 miles, and by rail 1,184 miles.

Company G, Twentieth Infantry (Capt. Abraham A. Harbach, Twentieth Infantry, commanding), marched 270 miles, and by rail 592 miles.

Company H, Twentieth Infantry (Capt. John N. Coe, Twentieth Infantry, commanding), marched 270 miles, and by rail 592 miles.

I herewith submit the accompanying reports of Maj. John M. Hamilton, First Cavalry, commanding First Battalion First Cavalry; Maj. Charles D. Viele, First Cavalry, commanding Second Battalion, First Cavalry; Capt. Abraham A. Harbach, Twentieth Infantry, commanding Infantry Battalion; First Lieut. F. S. Strong, Fourth Artillery, commanding detachment in charge of Hotchkiss guns; First Lieut. Samuel C. Robertson, First Cavalry, commanding Troop Crow Indian Scouts, and Assistant Surgeon W. Reed, U. S. Army, surgeon in charge, with sketch map prepared by First Lieut. Frederick S. Foltz, First Cavalry, and Second Lieut. William A. Phillips, Twenty-second Infantry, acting engineer officers.

Particular attention is invited to the reports of First Lieut. Samuel C. Robertson, First Cavalry, commanding Troop of Indian Scouts, and Assistant Surgeon W. Reed, U. S. Army, surgeon of the command.

In concluding this report I desire respectfully to call attention of the department commander to the good conduct of the officers and men of my command during their field service. The officers are to be commended for their zeal and cheerful performance of all duties falling to their lot, and the men for their good and soldier-like conduct under the trying circumstances attending a winter campaign.

I am, sir, very respectfully, your obedient servant,

A. K. ARNOLD,
Lieutenant-Colonel First Cavalry.

FORT KEOGH, MONT., *January 31, 1891.*

THE CAMP ADJUTANT,

Battalion First Cavalry, in Camp at Fort Keogh, Mont. :

SIR: I have the honor to submit the following report as medical officer in charge accompanying the battalion of the First Cavalry during its recent march to the Little Missouri River, Montana.

The command, consisting of Troops B, G, H, and K, First Cavalry; Companies G and H, Twentieth Infantry, and a detachment of the Fourth Artillery—19 officers and 296 enlisted men—Lieut. Col. A. K. Arnold, First Cavalry, commanding, left Fort Keogh, Mont., at noon of the 31st day of December, in obedience to telegraphic instructions from department headquarters.

Assistant Surgeon H. S. T. Harris, Hospital Steward John Moser, Acting Hospital Steward Heribert Jaeger, and two privates of the corps, also accompanied the command.

I regret to have to state that the medical department, through no fault on its part, was much hampered as to means of transportation, both for the sick and medical supplies.

Shortly after being notified that I would be assigned to duty with the battalion, I made a request in person to the commanding officer, Fort Keogh, for two ambulances. At that interview I understood that my request would be complied with. Only one ambulance, however, was sent with the command, and this, I may remark, was already with the battalion, having been brought by K Troop (Capt. Boutelle's) from Camp Sheridan, Wyoming. Of the three available ambulances at Fort Keogh, owing to lack of mules, I was unable to obtain the additional ambulance asked for.

I regret, also, to have to report that although I pointed out to the battalion commander the necessity for an escort wagon in which to carry the medical supplies, this wagon was not furnished, although asked for by the battalion commander. As a result of lack of transportation, medical supplies were packed without order or system, as opportunity offered, in various grain wagons. Such articles as could not be squeezed into the tail ends of grain wagons were carried in the ambulance, together with odds and ends, such as bridles and saddles for the hospital corps, bedding for medical officers, etc.

The mounts of the hospital corps, which had been authorized by the department commander, had not been provided, and did not reach the command till the day following its departure from Fort Keogh.

The acting steward and two privates were then mounted, the latter performing duty thereafter as mounted orderlies to the medical officers. It will thus be seen that owing to the reasons above stated, and for which the Quartermaster's Department was wholly responsible, the medical department of the command started out in a very confused and inefficient condition.

This condition became still more apparent to the medical officer in charge, when on the third day of the march, owing to heavy snow and difficult footing the infantry column was left behind between Pumpkin Creek and the Mispah River. It then became necessary to leave with the infantry one medical officer and the only ambu-

lance available. Had an accident happened to any member of the mounted battalion during this or the following day, the medical department would have found its hands completely tied. Fortunately no accident happened, and the command went into camp on Powder River on the afternoon of the 3d of January, with a clean sick report as far as the cavalry was concerned. The infantry rejoined the command on the 4th instant. One man only of the infantry had been excused from marching. The same privilege had been extended to two officers—Capt. J. N. Coe, Twentieth Infantry, and Second Lieut. Charles Gerhardt, Twentieth Infantry. The former officer was so crippled by the first day's march of 12 miles that he was thereafter quite incapacitated from marching.

The command remained in camp on the 4th instant, which gave an opportunity for collecting together and putting into something like effective shape the medical supplies.

I am pleased to state that at this camp an escort wagon was assigned for the transportation of medical supplies.

On the 4th instant a request, approved by the battalion commander, was forwarded to Fort Keogh for a second ambulance for the use of the command.

Camp was broken on the fifth instant, and the march continued during the 5th, 6th, and 7th instant, on which latter date the cavalry arrived at the Little Missouri River, about 12 miles north of the Alzada post-office, and went into permanent camp. The ground selected was elevated some 20 feet above the river level and was convenient to wood and water.

The water supply was, however, of poor quality, being very alkaline. The use of this water for a few days was the occasion of considerable diarrhea, both amongst the officers and enlisted men. The quality of the water soon became threatened from another source, as the men promptly resorted to the sloping banks of the stream as the most convenient place for defecation. The commanding officer's attention was invited to this state of affairs and orders were at once issued for the proper police of the river bank and the construction of suitable sinks for the men.

During the time that camp was continued in this location from the 7th to the 24th instant, the health of the command remained good, except for the presence of diarrhea and a few slight colds.

The battalion having been in the mean time joined by Troops F, D, and B, First Cavalry, and one company of Indian scouts, camp was broken on the 24th instant, the command being under orders to return to Fort Keogh.

The companies of infantry preceded the cavalry, breaking camp on the 22d instant. Assistant Surgeon Harris, one hospital steward and one private of the corps, with one ambulance accompanied the infantry. A second ambulance had been brought from Fort Keogh by Capt. Ward's troop (F) of the First Cavalry in compliance with request of the 4th instant, and was retained for service with the cavalry. Assistant Surgeon Paul Shillock, U. S. Army, and Acting Assistant Surgeon Holland, U. S. Army, joined the command on the 11th and 23d instant, and remained on duty with the cavalry.

The return march was made in six days, the command arriving and going into camp at Fort Keogh on the afternoon of the 24th instant.

During its absence on field service for the period of thirty days the command had been particularly fortunate in experiencing good weather. At no time was the temperature lower than 10° below zero, so that although officers and men were well provided with an abundance of warm clothing, there was no opportunity offered for testing the value of any particular article against extreme temperatures.

The command was well rationed at all times.

In conclusion, I wish to bear testimony to the excellent morale which prevailed during the whole march. As far as I was able to judge the men were cheerful, light-hearted, and ready to perform all duties in a prompt and soldierly manner.

Very respectfully, your obedient servant,

WALTER REED,
Captain and Assistant Surgeon, U. S. Army.

FIRST BATTALION, TROOPS C, H, AND F, FIRST CAVALRY,
In camp at Fort Keogh, Mont., January 31, 1891.

First Lieut. and Adj. MILLS,
First Cavalry, Camp Adjutant:

SIR: I have the honor to submit the following report relative to the movements of this battalion, from November 29, 1890, to date, to wit:

Pursuant to Orders 255, Fort Assiniboine, dated November 29, 1890, I left that post via the Great Northern Railroad, at 4 a. m., November 30, in command of Troops C and F (also Companies G and H, Twentieth Infantry), and arrived at Fort Keogh, Mont., via Northern Pacific Railroad at 7 p. m. December 1st.

Reporting to the commanding officer, I was directed to send the two companies Twentieth Infantry to report to Lieut. Col. Van Horn, Twenty-fifth Infantry, assumed command of B Troop, First Cavalry, which I did December 2, and established the three troops in camp near the railroad station.

December 14, B Troop was detached per orders of the department commander, for field duty southeast of this post. December 18, H Troop joined from Fort Assiniboine, Mont. December 19, Lieut. Col. Arnold, First Cavalry, from Fort Custer, relieved me in command and thereafter I remained on duty with Col. Arnold's command, marching hence December 31, and arriving and going into camp on the Little Missouri, 12 miles north of Alzada, Mont., 135 miles from Keogh, January 7, 1891. January 11, Col. Arnold, commanding camp, organized the 7 troops, First Cavalry in his command into 2 battalions—C, H, and F constituting the first battalion under my command. January 14, F Troop, under command of Capt. Ward, First Cavalry, was detached on scouting duty, going to Camp Crook on the Little Missouri, thence to Nashville, returning on the 18th, having marched about 80 miles. January 24, this battalion forming a part of Col. Arnold's command left camp on the Little Missouri and arrived at Fort Keogh, January 29, distance marched 135 miles.

Total distance marched: C Troop, 270 miles; H Troop, 270 miles; F Troop, 350 miles.

Very respectfully, your obedient servant,

J. M. HAMILTON,

Major First Cavalry, Commanding First Battalion.

—
FORT CUSTER, MONT., *February 14, 1891.*

The POST ADJUTANT,
Fort Custer, Mont.:

SIR: I have the honor to report that, receiving orders on the night of December 31 last, to take the field at once with my troop of Crow scouts at this post, I reported to Maj. Viele, First Cavalry, for this duty, and several hours before daybreak, January 1, left the post under that officer's command for Custer Station, Montana. Troop D, First Cavalry, formed the other troop of the battalion.

I was with this battalion during its movement by rail, its stay at Fort Keogh, Mont., and its subsequent march of six days from Keogh, via Powderville, to the camp of Lieut. Col. Arnold, First Cavalry, on the Little Missouri, near Alzada, Mont. Our battalion reported to Col. Arnold for duty on the 10th of January, and from that date to the day of our return to this post, on the 7th instant, my troop was constantly a part of that officer's command.

While, unfortunately, not allowed the test of actual engagement, yet I consider the opportunities afforded this troop of scouts by the Lieut. Col. commanding, to have been so favorable towards bringing out its best merits and efficiency for field service that it may not be uninteresting to higher authority to learn the results accomplished with these Indians under a brief test of the new system of organization.

The present troop was formed during the past year from a nucleus of six, which had for some years been the maximum allowed this post. In September an order from department headquarters increased this number to thirty. The enlistment of these was completed about October 1. They were at once put to work at—first, troop, then skirmish drill, of which they had at least one hour and a half daily, Saturdays not excepted.

The commands were given in tactical language, first accompanied by signs of the hand invented for each. It was found after a while, however, that the hand motion could be dispensed with for most of the movements, the scouts obeying promptly the English command.

A class of four packers was selected from the best men and put in charge of the post packer, who gave them one hour's exercise with the aparejo and rigging during the same period after the other drill.

A first sergeant, sergeants and corporals in proper proportion, and one trumpeter were appointed—all Crows. The trumpeter, a young boy who had received a smattering of English education from the Catholic mission, was put in the hands of the chief trumpeter of the regiment and practiced an hour daily. Attention was paid to the uniform, and many of the men had their clothes altered by company tailors among the white troops.

Afternoon stables and retreat roll calls were established, and at the latter the simple movements of the manual practiced. Attention to saluting was required, and the scouts made to feel as much as possible that in this and other observances they must emulate with pride the white soldiers.

About this time there was constant courier service in the vicinity of Custer, all of which was performed by these scouts. In the case of a remarkable meritorious ride,

the bearers of the dispatch were usually complimented at "retreat" before the rest of the troop. The spirit of emulation and interest created by these means was soon most strongly marked.

No time was lost in foot drill beyond that necessary to fall in, face, march in column of fours and twos, and deploy on foot on the skirmish line. In about a month after their first drill they were sufficiently practiced to appear at the mounted muster and review of the battalion of this post, at which they received from the commanding officer compliments he can speak of better than I.

On December 8 instructions were received from department headquarters to still further increase the scouts to a maximum of sixty, and get the whole troop ready for immediate field service. Here the old element was of great assistance in bringing in the better element among the young men and in afterwards drilling them. These last thirty were all mustered in by December 15. New noncommissioned officers were made from the old scouts, and two drills were held daily, and every effort made to get the new levy in shape, so that when the troop started on its march January 1 all had received some instructions in all its necessary duties. It must be remembered, though, that it was throughout a troop of recruits, and that most of these young Indians had hitherto not the slightest idea of drill or discipline, or acquaintance with the white man's systems.

The troop, when it took the field, was finely armed and equipped in all respects like a troop of cavalry, save that it was furnished with its own horses, saddles, and bridles, and that instead of one cartridge belt they carried two, the second worn around the shoulder. Each man had two mounts, the spare mounts being driven in herd behind the troop. It was supplied with five light four-horse teams, hired and driven by their own drivers, and twenty-two packs.

One half-breed interpreter and one white chief packer were attached. This allowance of transportation was asked for on the supposition that the campaign against the Sioux might last for many months, during which we might be separated in a region of deep snow for long periods far from any base of supplies. In such snow grain would have been a necessity.

Each man wore the fur cap and glove, moccasins, leggings (regulation infantry), and in very cold weather the Government overshoe. Miles overcoats were carried, the buffalo coat being deemed too cumbersome for the light service contemplated.

The troop was, probably on account of there being but one other troop in the battalion on the march to the Little Missouri, required by the field officer in command to follow the ordinary routine of march, being kept strictly in column, and alternately taking its place ahead and in rear. It was divided into squads of fifteen, each in charge of an Indian noncommissioned officer.

Each squad of fifteen occupied a Sibley wall tent, making four tents in all. These noncommissioned officers were responsible, each for his own tent, for its prompt pegging down on arrival in camp, and its packing in the morning. This fixed responsibility for delay at once. It had an especial advantage also in simplifying details and doing away with rosters. The first sergeant, in making a detail for guard, etc., simply informed the sergeant of each tent what his quota would be, and it was made and kept straight in each tent.

Rations were issued daily by the first sergeant from the ration wagon in bulk for the whole troop. Each tent detailed one cook, and the four thus allowed cooked over a common camp fire. It was a matter of most agreeable surprise to me to find that the food was well cooked, about as well as white men without experience could have done it, and that in no single case were they short on any ten days' supply of food. It must be said, however, that the ration of bacon was supplemented by one beef and a half and some wild game while out, this meat being paid for by surplus bacon actually saved by them. This absence of beef from the field ration of these scouts, fresh meat eaters as they are, is a serious defect in a country so devoid of game, and is the first thing that should be remedied in future field service of Indian scouts.

As soon as the cook announced a meal, each man repaired to the fire with meat can, knife, fork, cup, and spoon, and waited patiently in regular soldier fashion to be served by the cook. The serving of meals at irregular hours was discontinued, and access to the ration wagon forbidden to all but the interpreter and first sergeant, and there was never any trouble on this score. This had been one of the most serious causes of anxiety before the commencement of the march, but I relate in detail my actual experience to show that in this and other things they were as susceptible to such discipline as is necessary for them as white troops are. During a march of twenty days, in but one instance did they fail to pack up and get out of camp well before the rest of a command or from one to six troops of cavalry. The packers' work, however, was but imperfectly done. This duty, probably because an entirely new and confining one, seemed distasteful to the men detailed for it.

As the value of these scouts as flankers, advanced guard, couriers, etc., I need scarcely speak. Had any serious work come to us they would have saved a command

of our size untold hard riding and harassments. They never spare their ponies upon mounted duty, and the 40 cents paid a day by the Government for the services of from 2 to 3 good ponies is a mere trifle compared with the advantages derived from it.

On the march from Little Missouri Col. Arnold used these scouts invariably in the capacity of advanced guards and flankers. They were scattered well over the country, a good portion of them keeping an hour or two ahead in column, and the others subject to easy recall. They were laid under no harassing restraints, and were used, it seemed to me, in a manner calculated to bring out the best qualities of an enterprising and efficient body of our native scouts.

Very respectfully, your obedient servant,

S. C. ROBERTSON,
First Lieutenant, First Cavalry,
Commanding Troop B of Indian Scouts, Department of Dakota.

CAMP BATTALION TWENTIETH INFANTRY,
Near Fort Keogh, Mont., February 2, 1891.

Lient. A. L. MILLS,

Adjutant First Cavalry, Camp Adjutant:

SIR: I have the honor to submit the following report of a march of a battalion of infantry (Companies G and H, Twentieth Infantry) under my command and attached to the First Cavalry, Col. A. K. Arnold commanding, to a point on the Little Missouri River, and return march to this camp.

On December 30, 1890, by direction of the commanding officer, Fort Keogh, Mont., I reported to Col. Arnold, First Cavalry, and was directed to assume command of the infantry battalion and be prepared to march with the column on the following day. On the 31st of December the command moved out and went into camp on Tongue River, about 12 miles from the post. On the following day camp was made on Pumpkin Creek, from which point the cavalry pushed on ahead, leaving the infantry with its train to follow as rapidly as was possible through a country poorly supplied with wood and water for camps. On January 2 camp was made on the divide between Pumpkin and Mizpah creeks, and on the 3d at a point about midway between the Mizpah and Powder River; no water at the last two camps, but an abundance of snow and plenty of wood. On the 4th we rejoined the command on Powder River, and with it moved out the next day for the Little Missouri. Camp on this day, the 5th, was made on Timber Creek at a point about 10 miles from Powder River. On the 6th, between the head of Timber Creek and Big Box Elder; no water. On the 7th, at Box Elder. On the 8th, on Butte Creek—no water—about 6 miles from the Little Missouri, at which point on the morning of the 9th rejoined the command and went into camp.

On the 22d of January I received orders to start ahead of the cavalry on the return march, which was accomplished in eight days, arriving with the command at this camp on January 29, 1891.

No unusual events occurred on the march; the men marched well and cheerfully, and the health of all was excellent.

Very respectfully, your obedient servant,

A. A. HARBACH,
Captain, Twentieth Infantry, Commanding Battalion.

FORT KEOGH, MONT., January 30, 1891.

Lient. Col. A. K. ARNOLD,

First Cavalry, Commanding Expedition to Little Missouri River:

SIR: I have the honor, in compliance with your order, to submit the following report upon the equipment of the battery under my charge which formed a part of your command during the recent expedition to the Little Missouri River:

The battery, turned over to me December 25, 1890, consisted of three Hotchkiss mountain guns, caliber, 1.65, one coming from each of the posts of Fort Keogh, Fort Custer, and Fort Assiniboine. No two of these guns were equipped alike. The Custer gun was provided with shaft, that from Keogh with a limber, and that from Assiniboine with a pole but without limber.

To consider these pieces in order, the Custer gun has the shafts attached to the trail in a simple and effective manner; it is so arranged that no traces are required; the draft being from the saddle. Owing to the lightness of the piece no undue strain is brought upon the horse. This piece was moved by a strong artillery horse with a

driver in the saddle. It can move over most any road that is passable for a column of cavalry in column of twos.

Owing to the narrow gauge of the carriage it takes but little to overturn it, with consequent danger to the driver and horse.

This occurred several times and on one occasion threw the horse upon his rider. The attachment for the draft of this piece showed a weakness in the crossbar at near end of shafts, which was broken in ordinary travel over good roads. With this piece is required one, or better, two, pack animals for ammunition, and three saddle animals for gunner and two cannoneers.

The Keogh gun is provided with a limber and carriage of Gatling pattern (old style). The limber carries 60 rounds of ammunition and the small boxes on axle will carry 10 each, or a total for the piece of 80. The weight of limber, piece and carriage, with ammunition and two cannoneers on chest, is over 1,400 pounds, which is more than one team or pair should draw except on the best of roads. The gunner and one cannoneer rode on the limber chest and the other cannoneer on the off horse. The gauge of this limber and carriage is so wide that they can not follow cavalry except on broad roads.

The Assinniboine gun is mounted by means of a pole attached to the lunette by a pin and key and a splinter bar made fast to the stock. The effect of this is to leave the trail very near the ground and the traces are very oblique to the direction of motion. The pole is so low as to seriously interfere with the horses movements at a trot or gallop. In passing over rough ground as the wheels drop into low places the trail strikes the ground and brings a severe strain upon the pole. The carriage is easily upset. The attachment of the pole was so weak that it broke on ordinary roads and necessitated bringing in the piece in a wagon. The harness provided for the piece was altogether too light and broke in many places. For this piece two pack animals for ammunition and two horses for cannoneers would be required. The gunner would ride on the off horse.

From this it will be seen that the limber can not be used for ordinary mountain service, and as a result pack animals would always be required for ammunition, whichever gun were used. Under such circumstances it would seem wise to retain the pack for gun and carriage as well, the gun, carriage, and wheels on separate animals. Five pack animals and three saddle horses would be required for each piece, but they could move whenever cavalry ventures, always be in time for action, and in no way tied to the wagon train. The saddles now provided are simple and quickly packed and unpacked. The gun is distinctly a mountain piece and should be able to go anywhere. I am convinced, after careful observation and conversation with officers who have had experience with these guns, that nothing will satisfactorily take the place of the pack animals for transporting them. The battery horses under my charge are altogether too heavy for such service. Finally, I would say that had this battery been required to make forced marches over rough country, I do not think these pieces would have been serviceable for forty-eight hours with the present equipment.

If any draft animal is to be used the attachment by means of shafts is far preferable to either of the others.

Very respectfully, your obedient servant,

F. S. STRONG,

First Lieutenant, Fourth Artillery, Commanding Hotchkiss Battery.

EXHIBIT M.

FORT KEOGH, MONT., April 13, 1891.

The ASSISTANT ADJUTANT-GENERAL,

Department of Dakota :

SIR: I have the honor to make the following report of the circumstances attending the death of the late Lieut. Casey:

On December 30, 1890, Lieut. Casey with his command of Cheyenne scouts joined Lieut. Col. G. B. Sanford, Ninth Cavalry, in command of the Fort Leavenworth Battalion, and camped on the left bank of White River opposite the mouth of White Clay Creek. At this time the hostile Sioux were camped at "No Waters," on White Clay Creek, about 8 miles from its mouth. Lieut. Casey employed his scouts until the day of his death, January 7, 1891, in locating and watching this camp of Sioux.

January 6, by Lieut. Casey's invitation, six or seven Sioux entered his camp and had a friendly talk.

January 7, about 9 o'clock a. m., Lieut. Casey left camp with two scouts, telling me he was going out to get a view of the hostile camp. About 1 o'clock p. m. the two scouts returned with Lieut. Casey's horse, and reported he had been killed by the Sioux. By permission of Brig. Gen. Brooke, who had established his headquar-

ters with Col. Sanford, January 5, I took Lieut. Casey's troop of scouts and proceeding up White Clay Creek, found his body on the right bank of the creek within a mile and a half of the Sioux camp. Part of his clothing had been taken but the body was not mutilated. He had been shot through the head, the ball entering at the back and coming out under the right eye, killing him instantly, as I was afterwards told by Assistant Surg. Ten Eyck, to whom I gave the body on returning to camp. The Sioux offered no resistance to the recovery of his body.

"White Moon," one of the scouts with Lieut. Casey, reports as follows (differing somewhat from the report I made at the time to Gen. Brooke): Lieut. Casey proceeded up White Clay Creek on the right bank and a short distance from camp met a Sioux woman with whom he talked in English. He then proceeded on and within a short distance of the Sioux camp came to a small party of Sioux butchering cattle, with whom they shook hands. While "White Moon" was talking to these Indians Lieut. Casey left and had gone some distance towards the camp before "White Moon" noticed his departure. "White Moon" followed him, the other scout, Rock Road, having left and gone back. When he caught up to him he was talking to a half-breed Sioux (Pete Richard). On Pete Richard's right was another Sioux, and to Lieut. Casey's left and rear, Plenty Horses, the murderer. While they were engaged in conversation, Plenty Horses shot Lieut. Casey. "White Moon" rode towards him, hoping to catch him before he fell from his horse, but did not succeed. He caught his horse and brought him back to our camp. Pete Richard followed him in and reported to Gen. Brooke.

I now think Lieut. Casey started out with the intention of penetrating the hostile camp to have a talk with the principal chief, and thought he could accomplish his object by boldness.

Very respectfully, your obedient servant,

ROBERT N. GETTY,

First Lieutenant and Regimental Quartermaster, Twenty-second Infantry.

[First indorsement.]

POST OF FORT KEOGH, MONT., April 14, 1891.

Respectfully forwarded.

P. T. SWAINE,

Colonel Twenty-second Infantry, Commanding.

HEADQUARTERS DEPARTMENT OF CALIFORNIA,

San Francisco, Cal., October 19, 1891.

The foregoing exhibits are official.

L. A. LOVERING,

First Lieutenant, Fourth Infantry, Aide-de-Camp.

REPORT OF BRIG. GEN. BROOKE.

HEADQUARTERS DEPARTMENT OF THE PLATTE,

Omaha, Nebr., September 5, 1891.

SIR: Since the date of my last annual report the limits of the department have been extended by the addition of that part of the State of South Dakota lying south of the forty-fourth parallel, and later by the addition of the State of Colorado, adding Fort Randall, S. Dak., and Forts Logan and Lewis in Colorado to the military strength.

Fort Lewis having been designated for abandonment will be abandoned on or about the 18th of September.

Fort Randall, which had one company of infantry when transferred to this department, has been increased to three companies of infantry.

The garrison of Fort Du Chesne, Utah, has been decreased two companies of infantry.

The garrison of Fort Douglas, Utah, has been decreased one company of infantry, and the entire Sixteenth Infantry is now assembled there.

The garrison of Fort McKinney, Wyo., has been increased by the

headquarters and two companies Eighth Infantry and two troops of the Sixth Cavalry.

Fort Bridger, Wyo., has been abandoned since my last annual report and the garrison and property sent to other posts or sold.

The property at Fort Lewis will be transferred to other posts or sold and the garrison (one company Tenth Infantry) will be sent to Fort Stanton, N. Mex., in accordance with the instructions of the major-general commanding the Army.

There being no general encampment in the autumn of 1890, practice marches were held from the various posts in the Department, all of which were beneficial.

In November the disaffection among the Sioux Indians became so great that it was deemed advisable by the President to use troops in restoring order. This matter was made the subject of a special report at the close of the operations. Since the withdrawal of troops from the Rosebud and Pine Ridge Agencies there has been no evidence of any further disaffection amongst the Indians.

In accordance with General Orders No. 28, current series, Adjutant-General's Office, a troop of cavalry (L, Sixth Cavalry) was enlisted (Brule Sioux) at Rosebud Agency; a company of infantry (I, Eighth Infantry) at Fort Washakie from the Shoshone and Arapahoes. An effort was made to enlist a company for the Second Infantry at the Pine Ridge Agency, which was not successful, but five Indians having been enlisted. The principal objection to the enlistment of Indians at this point came from the chiefs and the fact that they were satisfied with the present condition and having also an objection to serving as foot soldiers.

An effort was also made to recruit a company of Indians from the Uncompahgre and Uintah Utes, which was a failure from the causes which have been reported. An effort is now being made at the Fort Hall and Lemhi reservations, which, from the reports received from the officer in charge, will not be successful at this time. Other efforts to enlist Indians have been suspended for the present.

Changes of troops have occurred as follows:

September 15.—Company H, Seventh Infantry, from Camp Pilot Butte, Wyo., to Fort Leavenworth, Kans.; Troop H, Ninth Cavalry, from Fort McKinney, Wyo., to Fort Du Chesne, Utah; Troop C, Ninth Cavalry, from Fort Du Chesne, Utah, to Fort Leavenworth, Kans.

September 19.—Troop B, Ninth Cavalry, from Fort Robinson, Nebr., to Fort Du Chesne, Utah.

September 20.—Companies D and H, Seventeenth Infantry, from Fort Bridger, Wyo., to Fort D. A. Russell, Wyo.

September 21.—Company F, Eighth Infantry, from Fort Niobrara, Nebr., to Fort Washakie, Wyo.

September 25.—Light Battery E, First Artillery, from Fort Douglas, Utah to Fort Riley, Kans.

October 1.—Companies D, F, and H, Twenty-first Infantry, from Fort Bridger, Wyo., to Fort Douglas, Utah.

November 6.—Fort Bridger, Wyo., finally abandoned.

January 27, 1891.—Sixth Cavalry from Department of Arizona, assigned to stations as follows: Headquarters band, Troops A, E, F, G, and K to Fort Niobrara, Nebr.; Troops C, D, and H to Fort McKinney, Wyo.; Troops A and G, Ninth Cavalry from Fort Niobrara, Nebr., to Fort Robinson, Nebr.; Troop D, Ninth Cavalry, from Fort McKinney, Wyo., to Fort Robinson, Nebr.

February 6.—Fort Randall, S. Dak., transferred to the Department of the Platte.

May 19.—Company G, Twenty-first Infantry, from Fort Sidney, Nebr., to Fort Randall, S. Dak.

May 23.—Company C, Fifteenth Infantry, from Fort Randall, S. Dak., to Fort Sheridan, Ill.; Troop K, Ninth Cavalry, from Fort Robinson, Nebr., to Fort Myer, Va.

June 3.—Troop E, Ninth Cavalry, from Fort Washakie, Wyo., to Fort Robinson, Nebr.

June 12.—Troop B, Sixth Cavalry, from Fort Myer, Va., to Fort Washakie, Wyo.

July 10.—Forts Lewis and Logan, Colo., transferred to Department of the Platte.

August 12.—Company D, Twenty-first Infantry, from Fort Douglas to Fort DuChesne, Utah.

August 13.—Company B, Twenty-first Infantry, from Fort Douglas, Utah, to Fort Sidney, Nebr. Companies F and H, Twenty-first Infantry, from Fort Douglas, Utah, to Fort Randall, S. Dak.

August 25.—Companies A, C, and F, Sixteenth Infantry, from Fort Du Chesne to Fort Douglas, Utah.

Repairs to barracks and quarters have been made as far as the allotments therefor would permit, and other improvements have been made at various posts throughout the Department.

Improvement of the water and sewerage systems at Fort Douglas, Utah, has not yet been made and should not be longer deferred.

The allotment for repairs having been made earlier than usual this year has made it possible to do much before winter sets in. The increased size of infantry companies will make it necessary to increase the size of all barracks in which infantry is quartered. Plans and estimates are being prepared for this purpose.

Instruction in signaling has been had at all posts, and the reports show that progress has been made.

The report of the inspector of small-arms practice gives the details of the rifle practice during the season, and also of the rifle competition and the cavalry competition of the departments of the Atlantic, California, and Platte, which competitions were held at the Bellevue rifle range near this city.

I would recommend that this range be secured for the rifle practice of the troops of Fort Omaha, and for the competitions of next season, and in fact until a new range can be prepared on the site of Fort Crook, Nebr.

From reports received canteens seem to be a success.

From the report of the acting judge-advocate it will be seen that the percentage of trials by courts-martial are practically the same as last year.

The inspection of the posts is now progressing, but will not be completed for some time. The reports of the acting inspector-general, as far as received, show a gratifying condition as regards discipline and efficiency.

There are married soldiers in all our posts for whose families no proper quarters are provided. This matter should be considered in the construction of all our new posts, and such arrangements made as will meet the conditions which prevail by tacit consent of the Government.

Accompanying this are the reports* of the chiefs of the staff depart-

*Omitted.

ments, which exhibit in detail the operations of these several departments.

I take pleasure in commending the manner in which these officers have performed their duties.

Very respectfully, your obedient servant,

JOHN R. BROOKE,

Brigadier-General, Commanding.

The ADJUTANT GENERAL U. S. A.,

Washington, D. C.

REPORT OF BRIGADIER-GENERAL A. McD. McCOOK.

HEADQUARTERS DEPARTMENT OF ARIZONA,
Los Angeles, Cal., September 1, 1891.

SIR: I have the honor to submit for the information of the Major General Commanding the Army, the annual report of the Military Department of Arizona from September 16, 1890, the date of my assuming command.

The Department of Arizona consists of the Territories of Arizona and New Mexico, with that portion of the State of California south of the thirty-fifth parallel. The total area in square miles is 275,010; area of Indian reservations in square miles, 26,303; number of Indians upon reservations, 39,577; population of Arizona, New Mexico, and California, south of the thirty-fifth parallel, 417,017.

There were formerly eighteen military posts in this department. This number has been reduced during the past year by the abandonment of Forts Mojave, McDowell, Verde, Thomas, Selden, Lowell, Marcy, and Union; of the buildings and military reservations upon which these posts were placed, some have been, and the remainder are now ready to be turned over to the Interior Department, being no longer needed for military purposes. It is recommended that the Interior Department be requested to receive the buildings and lands belonging to these abandoned posts, in order that the Army be relieved from the expense and care of them.

There remain still ten military posts in this department occupied by troops; one of these is the post of San Diego. There are no officers' quarters at this post, only barracks for the enlisted men of one company of infantry. The barracks are situated upon a square of land near the docks of the harbor; the stable, corral, etc., upon another square of the city, a short distance removed from the former. The harbor of San Diego is one of the best in the world, carrying 27 feet at high water upon the bar, which rarely breaks, so that vessels can enter with safety day or night, and once inside there is surface and depth of water sufficient to float the navies of the world. This harbor lying, as it does, almost upon the southernmost point of California, is a very important one, and this body of land-locked water, whether or not to become a large port for the world's commerce, should at once be given such protection as to prevent it falling into the hands of the enemy. It is to be hoped that the Nicaragua canal will be finished in the time promised, and should this great work be completed, the harbor of San Diego will then develop into great importance, being the nearest harbor of supply and refuge to the northward of the canal's mouth on the Pacific Ocean, the next harbor being San Francisco, 520 miles north.

The other ports upon the California coast are roadsteads; the extreme high water at San Pedro, the port of Los Angeles, is 14 feet. All these deficiencies will make the harbor of San Diego grow in importance every year.

The growth and progress of Southern California has been phenomenal; it is still forging ahead in population and horticulture, and agriculture, so that in a few years the railways, already heavily taxed, will be unable to carry to market the fruit and vegetable products raised. Should the Nicaragua canal be completed, deflecting, as it will, the routes of commerce, San Diego will be the great port of shipment of these products in refrigerating vessels passing through the canal to the markets of the world, hence it may be seen that soon the port of San Diego must grow to great commercial importance.

The defenseless condition of this magnificent harbor has been, and is now, a disgrace to our country. We need no better illustration of this fact than to refer to the conduct of the steamship *Itata*, a vessel engaged in making war upon a sister republic with whom we were at peace. This vessel came into the harbor of San Diego, was allowed to coal, was provisioned, and later was seized by the United States marshal, and a deputy placed on board to represent the authority of our Government in this seizure. This vessel in broad daylight raised her anchors, sailed out of the harbor, carrying the helpless Government agent along. Finally, just before passing the bar, he was put over the sides of the ship, lowered into a small boat, and told to go about his business, as the vessel was going outside. She did go out, and in our waters received arms and munitions of war.

The history of the chase of the *Charleston* for the *Itata* and her return from Chile to the harbor from which she escaped has often been told. The conduct of this vessel in San Diego Harbor placed an indignity upon every citizen of the United States, and Congress has wisely passed a resolution authorizing and directing the Secretary of War to convene a board of officers of the Army to meet at San Diego to select a site for a military post at or near that port, also for the placement of batteries for the protection of the harbor. This board convened. It has faithfully performed its duty, selecting sites for batteries, also a tract of land fronting San Diego Harbor for the location of a military post. This land and its surroundings are all that could be asked for military purposes, including an excellent target range. The report of the board has been forwarded to the honorable Secretary of War, the requirements of the resolution of Congress being so far complied with. I earnestly recommend that a military post of sufficient size be established upon the site selected by the board to accommodate one regiment of infantry, one battalion of four troops of cavalry, and one light battery of artillery.

The necessity for this military post is obvious to all who are familiar with that country. Located upon this important harbor, about 12 miles from the Mexican frontier of Lower California, troops will be in proximity to prevent in future any violations of the neutrality laws upon the land or in the harbor.

It is recommended that the batteries for the defense of the harbor by placed, one on Point Loma, one on Ballast Point, one on southwest corner of North Island, and one on Sand Spit, southeast corner of Coronada Hotel, at a point known as the Brick Yard.

These numerous batteries become necessary on account of the peculiar situation of the city of San Diego. On account of the trend of harbor, the docks, wharves, etc., of the city are within 2 miles of the

ocean, necessitating the keeping of hostile vessels at sea beyond shell-ing distance.

The climate of San Diego is so equable there is scarcely a day in the year that practical military instruction can not be carried on. By many it is considered the most agreeable and healthful climate, a sanitarium for throat and lung diseases.

FORT HUACHUCA, ARIZ.

This post is located in a canyon of the same name about 14 miles north of the Mexican line, a convenient point for observing and scouting the frontier. It is 9 miles from a station on the Sonora and Guaymas Railroad. There are comfortable quarters here for four troops of cavalry. It is now garrisoned by two troops of the Second Cavalry, and two companies of the Ninth Infantry. This is an important post, should be kept in good repair, and as soon as practicable should have additional quarters built, with an increase of troops.

FORT BOWIE, ARIZ.,

Is a two-company post, located 14 miles south of Bowie Station, on the Southern Pacific Railroad. This post is in the northwest spurs of the Chiricahua Mountains, and is well situated for the work required of it. Isolated but healthful, it is nearly north of the San Bernardino ranch on the Mexican boundary. The mountains about Bowie make it an important heliograph station for the surrounding country. The quarters for officers and enlisted men are set upon the sides of the hills, leaving the small parade ground a severe slope. The drill ground is a mile and a half from the post. Bowie is an important point for obser-vation.

FORT GRANT, ARIZ.

This post is situated at the head of Sulphur Spring Valley and at the foot of Mount Graham. It is garrisoned by the headquarters and three troops of the Tenth Cavalry and two companies of the Twenty-fourth Infantry. Fort Grant will continue to be an important post as long as the San Carlos and White Mountain Indians are held upon their present reservations. The quarters for the enlisted men at this station are of inferior construction, contracted, and uncomfortable. The stables for the cavalry are in bad condition, needing much repair for the proper protection and comfort of the animals occupying them.

Fort Thomas has been abandoned, but is held as an outpost from Fort Grant, and will continue to be so held until the necessity ceases.

SAN CARLOS, ARIZ.,

Is situated on the north bank of the Gila River, at the Apache Indian Agency. It is 77 miles from Fort Grant via Fort Thomas. This is an important post, being at and near the homes of the Apache Indians, and will continue a military station as long as the present system of management of the Indians there is continued. Heretofore the troops have been in camp, but temporary shelter is now being made for the officers and men. San Carlos is the most uncomfortable station in the department, on account of the intense heat of summer and dust storms in the spring and autumn. The usual tour of duty at this post is six months, excepting Company G, Twenty-fourth Infantry, commanded by Capt. Lewis Johnson, who also commands the post.

FORT APACHE, ARIZ.

This post is situated in a picturesque country 97 miles south of Holbrook, a station on the Atlantic and Pacific Railroad, on White Mountain Creek. The post is also in the northern part of the San Carlos Reservation. This portion of the country is the home of the Coyotero or White Mountain Apache.

The garrison consists of four troops of the Tenth Cavalry. This post suffers under great disadvantages on account of its inaccessibility from the railroad at Holbrook during five or six months of the year. During the winter the road is almost impassable for wagons.

There is no grass in this country to make hay sufficient for the use of the public animals. Heretofore a coarse pine grass has been cut and delivered by the Indians. It is not hay; the horses and mules will not eat it. When dry, it is hard and rough and without a particle of nutriment. The consensus of opinion of all the officers is that it is not fit for food, injuring the horses who try to eat it.

In order to reduce the number of animals at that post, the garrison should be changed; two troops of cavalry going from there to Fort Grant and two companies of infantry from Grant to Apache.

WHIPPLE BARRACKS, ARIZ.

This post, formerly the headquarters of the department, adjoins the city limits of Prescott, Ariz. It is garrisoned by the headquarters, band, and five companies of the Ninth Infantry. The quarters for enlisted men are in a wretched condition and are too limited in capacity for the garrison. They are old and worn; some of the buildings now occupied by the troops were not built for quarters, having none of the necessary conveniences about them. Should the contemplated railroad from Ash Fork, on the Atlantic and Pacific Railroad, via Prescott to Phoenix, Ariz., be built, Whipple Barracks would be a good point to hold troops. They could then be made available, by rail, for all parts of the Territory.

FORT BAYARD, N. MEX.

This post is situated at the southern base of the Black Range Mountains, 55 miles northwest from Deming, on the Southern Pacific Railroad. The post is 9 miles from the nearest railroad station at Silver City.

There are at this post the headquarters, band, and four companies of the Twenty-fourth Infantry, and two troops of the Tenth Cavalry. The post is well located for the work it is intended to perform, guarding the western and southern portions of New Mexico.

FORT STANTON, N. MEX.

This post was established in 1854 in a picturesque country, upon the banks of the Bonito Creek, 100 miles east of Carthage, a station upon the Atchison, Topeka and Santa Fé Railroad; it is in the valley between the Sierra Blancas and Capitan Mountains. This port will be a necessity until the Mescalero Apaches become more adapted to ways of civilization. It is garrisoned by the headquarters, band, and one company of the Tenth Infantry and one troop of the Second Cavalry.

FORT WINGATE, N. MEX.

This post is at Bear Spring, 3 miles from a station on the Atlantic and Pacific Railroad, near the southeast corner of the Navajo Reservation and a short distance north of Zuni Reservation. The garrison consists of headquarters, band, three troops of the Second Cavalry, and three companies of the Tenth Infantry. This will always be an important post on account of its vicinage with the Navajo Reservation. The Navajoes would prove a formidable enemy as to numbers and arms in case of war, but are vulnerable on account of their possessing such numerous herds of sheep, upon which they mostly subsist. These herds are so large and great in numbers they can not hide them away. For sustenance they must scatter over great areas of country. The same conditions obtain for their large herds of horses.

On account of the importance of this locality, Fort Wingate should be enlarged by additional buildings and the old quarters and storehouses rebuilt.

The Navajo Indians have been and are now peaceful and industrious in agriculture wherever a locality can be found with water or sufficient moisture in the soil to warrant attempts at this industry.

From the date of our first knowledge of these Indians they have been celebrated for the style and extraordinary good quality of their weaving, their patterns often exceeding in beauty any known to our civilization. These Indians, with their herds of sheep and horses, are self-supporting. They number nearly 18,000. Four thousand dollars has been allotted to this people for the present fiscal year.

The Navajoes are anxious to have schools established at points within their reservation, but seriously object to having their children taken to distant places beyond the reach of the parents who may desire to visit them during the school term.

The Moqui Indians are Pueblos or remnant of the Aztec Indians. They are a peculiar people living in six villages located upon table rocks averaging 600 feet above the plain.

These Indians have been heretofore friendly to the whites, with the exception of the most distant village of the Areibes. The people of this pueblo resisted the census enumerators, and did not desire to have anything to do with the white men, calling them dogs and coyotes. The people of this pueblo refused to furnish their quota of children for the school established by the Commissioner of Indian Affairs at Keam Cañon, Arizona. Lolami, the governor of the village, with a few followers, favored the school, but the medicine man and the majority of the people resisted, became obdurate, arrested the governor and imprisoned him in an estufa.

Upon application of the Interior Department Lolami was released by a detachment of troops under First Lieut. C. H. Grierson, Tenth Cavalry, who was stationed at Keam Cañon from December 18, 1890, to March 22, 1891. Lieut. Grierson performed his duties there with intelligence and good judgment.

In May last the inhabitants of this village again became rebellious, defying the orders of the acting agent, and troops were called for, when First Lieut. L. M. Brett, Second Cavalry, was ordered with 30 enlisted men to proceed at once to the Areibe village with orders to arrest the medicine man and the principal supporters of the rebellion. Lieut. Brett was met near this village by Lolami, the governor, warning him not to enter the village with his small detachment, as most of

the men, under the influence and direction of their medicine man, were in arms and fortified to resist his command, notifying him that should he enter the village he and his men would be killed. Lieut. Brett, with proper foresight, arrested some of the recalcitrants on the plain, at the foot of the mesa, and placing one of these prisoners alongside each of his men ascended the mesa, but soon found himself confronted by at least fifty rifles in the hands of men securely placed behind loop-holed walls.

The medicine man came out dressed for war, telling Lieut. Brett if he did not leave the village he and his men would be killed. Having but ten enlisted men with him, this officer very properly withdrew from the unequal contest and returned to Keam Cañon, near the school located there. He sent dispatches to these headquarters, giving an account of the situation, when orders at once issued for two troops of the Tenth Cavalry from Fort Apache, under Maj. C. B. McLellan, to march at once to Keam Cañon; also two troops of the Second Cavalry, from Fort Wingate, with two Hotchkiss mountain guns, to march upon the same point.

Lieut. Col. H. C. Corbin, assistant adjutant-general of the department, was directed by me to proceed to Keam Cañon, joining the command from Fort Apache at Holbrook, Ariz., marching with these troops to point of concentration.

Lieut. Col. Corbin was charged to deliver in person the commands and instructions of the department commander to Maj. McLellan, Tenth Cavalry, the senior officer in command. The united commands from Forts Apache and Wingate moved upon the Areibe village. The presence of these troops had the desired effect; the arrest of the medicine man with his principal followers was made and they are now prisoners at Fort Wingate, N. Mex. The troops returned to Keam's Cañon, where orders were issued for their return to their stations, leaving Lieut. J. T. Nance, Second Cavalry, with 20 men, to remain as guard to the school. During the march of the troops the heat was intense, water was scarce, and the roads dusty upon both routes, causing suffering to men and animals.

The officers and soldiers composing these expeditions performed their duties with intelligence and cheerfulness. My commendations were expressed to them by telegraph previous to their leaving Keam's Cañon. Lieut. L. M. Brett, Second Cavalry, deserves special mention for his conduct and the good judgment exercised by him in the performance of his duties at the Areibe village on June 21, 1891.

The school established at Keam's Cañon for the education of children from the Moqui villages is in successful operation. I visited there during the day and evening of the 19th of August of this year. I was kindly received by Mr. and Mrs. Collins, who have charge of the school. The children looked neat and clean and are well fed and cared for by the principal and employés of the school. The children are nearly of an age, consequently they will leave the school at the same time, carrying with them an education and habit of life far superior to any they had heretofore enjoyed, and no one can fail to believe, or to hope at least, that the 103 children now present in the school, returning to their home imbued with another and better civilization, will produce much good. To the casual visitor the efforts made by these handsome children to speak our language is pathetic.

Mr. and Mrs. Collins should be encouraged in their good work. The school should be liberally supported by the proper department. The

location is a good one; the parents and relatives can visit the school and meet their children during the term, which is humane and proper. The children take great interest in their work, with their practical lessons as well as with their books.

I have assured Mr. and Mrs. Collins that they have my moral support all the time, and will have physical support when necessary to protect the school from the interference of obdurate Areibes. Nothing but good can come from this school. The dormitories are too small; they are now crowded. The mess room is one-half too small.

If an object lesson is to be learned by these interesting children, the Government should place proper buildings for this purpose. The sooner this is done the better. If there were greater facilities of accommodation, there would be a greater number of children in the school. I am glad to report that 44 of the pupils are from the Areibe village and not the least comely of those gathered there.

The Indians upon the San Carlos Reservation have been peaceful during the past year. One of their number, the Kid, an Apache, is an escaped criminal from the civil authority. Much effort has been made by the troops from time to time to capture this renegade, thus far without success.

Masse, the Chiricahua who escaped from Geronimo's band at Springfield, Mo., when en route to Florida, is also at large in the mountains. The 5 Chiricahuas, 2 men, a boy (now a man), and 2 squaws, who were not captured and sent out of the country with the rest of their people, have their home about 125 miles south of our boundary in Mexico. We have no opportunity to capture them, as they seldom cross the line.

The location of the San Carlos Reservation is the worst piece of land I know of, where so many Indians are concentrated for an attempt at self-support and civilization.

The last year's flood in the Gila River destroyed much of their labor expended during the past eight years, carrying down dams and destroying irrigating ditches.

There is a garrison of 4 companies of troops stationed there. The average temperature during the month of July, last, was 110 in the shade, some days the mercury reaching 118°. It is almost inhuman to expose troops to such discomfort. If these Indians could be located somewhere East, they would soon be absorbed amongst the people, making good tillers of the soil and general laborers.

The officers of the department staff have performed their duties to my complete satisfaction. Inclosed will be found copies of their reports,* which have been prepared with care, and which give a complete history of the transactions in their respective spheres of duty.

My personal aides-de-camp have performed the duties assigned them with industry and intelligence.

Very respectfully, your obedient servant,

A. McD. McCook,
Brigadier-General, Commanding.

The ADJUTANT-GENERAL, U. S. A.,
Washington D. C.

* Omitted.

REPORT OF BRIGADIER-GENERAL AUGUST V. KAUTZ.

HEADQUARTERS DEPARTMENT OF THE COLUMBIA,
Vancouver Barracks, Wash., September 10, 1891.

SIR: I have the honor to submit herewith the usual annual report required of the department commander. But recently assigned to the command of this department, my service in that capacity dates from the 26th of July, on which date I assumed the command. My knowledge of the operations in this command during the past year is therefore mainly confined to what may be obtained from the accompanying reports* of the chiefs of the several branches of these headquarters.

From these reports it does not appear that anything has occurred within the limits of the department that calls for special comment which has not already received the full amount of attention the case demands, except the repeated troubles between Indians and white settlers in the Kootenay River country. The Indians in that section seem to be unprovided with an agent, and have no one to look to for aid or counsel. In the near future a great increase in the number of settlers in that section will precede the building of the Great Northern Railroad, and trouble will follow unless some provision is made in anticipation. Attention is invited to the accompanying report of Lieut. Hardeman, Fourth Cavalry,* who recently visited that section in compliance with instructions issued by the commanding officer of Fort Sherman, Idaho.

The most important event of the past year was the riotous conduct of the troops of the Fourth Cavalry, stationed at Fort Walla Walla, in April last. On the night of the 23d of April a citizen of Walla Walla, Wash., named Hunt, apparently without sufficient cause, shot a soldier of the Fourth Cavalry named Miller, from the effects of which he died within forty-eight hours. Hunt was arrested and in the hands of the sheriff of the county, and there was no reason to suppose that proper and sufficient justice would not be meted out to him. On the night of the 25th of April Hunt was forcibly taken from the sheriff and the jail and shot to death with pistols and carbines, in front of the court-house, by a mob of soldiers. This is believed to be an unparalleled event in our military service, for which there can be no palliation, for the reason that civil law had taken all the necessary steps for the punishment of Hunt's offense.

Lynching, so called, is not infrequent in civil communities where public sentiment rebels against the failure of the law, especially where the forms of law have not been fully organized, or, on the other hand, in older communities where the forms of law have been prevented, but that soldiers, who in times of peace are provided as the last resort for the prosecution of law and order, that they should divert their means and their discipline to the perpetration of an act so manifestly unlawful, has never been seen in our military service.

While the event is so remarkable, yet above any responsibility that attaches to the military or civil officers connected with the case, the moral obliquity of the enlisted men concerned is the most deplorable feature. That no noncommissioned officer or enlisted man can be found to tell what he knows of the crime, and that all should disclaim any knowledge of it or the perpetrators or participants, is a more serious

* Omitted.

matter to the military service than the act itself, which they disclaim individually, but can not deny as a body. Some means should be found to sufficiently redeem the whole affair, to prevent its recurrence. The civil authorities have failed to find any one to punish, and only two soldiers have been convicted of military offenses that indicate complicity with the lynching. It will be unfortunate for the Army if nothing further can be done to condemn such a crime and at the same time such an injury to the military service.

The extraordinary growth and development of the State of Washington and the States adjoining, in the three or four years just past, suggests the necessity of many changes in administrative and defensive measures for this northwest section. I will only urge the earliest attention to the well-known measures that have been set forth by my predecessors and recommended by them.

In order to understand fully the needs and requirements of the military posts in the department I visited them all soon after taking command, and am able to act intelligently on the requisitions that will be made. I was not able to discover any urgent or serious need at any post, and all seemed to be, so far as the ordinary post duties are concerned, in good working order.

I shall in a few months close my duties on the active list, and this is the excuse I have for offering what I consider the most valuable suggestions that my long service in the line of the Army, which began forty-five years ago in the grade of a private, can furnish. I regard as the highest duty of our small Army in time of peace to be the acquisition and dissemination of military knowledge among the people. To this end the Army should become to a certain extent an educational institution, and each post as far as practicable a military school, with the object of qualifying every enlisted man as far as possible to be able to instruct and prepare the citizen who volunteers to serve in time of war. For this purpose the recruits for the Army should be obtained from the young, ambitious, and energetic sons of patriotic citizens, and the Army should cease to be the refuge of the inefficient, indolent, and wandering element of the country. The recruits should be furnished from all parts of the Union in proportion to the population, to serve as a rule only one enlistment, and then be returned to their homes to serve as officers in the event of a war, and as instructors for the State military organizations in time of peace.

Our Army is an expensive and a necessary feature of our Government, and I know of no adequate return for its cost in time of peace that would equal the preparation for war of a corps of officers. In the event of a war the first and most important requisite will be officers to instruct the citizen soldiers, and no higher duty could devolve upon the Army than the preparation of this important requisite for national defense. I believe this can be done to the satisfaction of the country and the elevation of our military service. The commendation with which this proposition has been received as discussed by me in a number of the public prints, extending back several years, has given me confidence that it would receive the support of the nation. If there is any value in the two or three hours' weekly service of officers at present serving as professors of military science on what is known as college details, or in the annual encampments of national guards under the guidance and instruction of an Army officer, these means for the dissemination of military knowledge can bear no comparison with what our Army would accomplish by the enlistment of and instruction of competent young men as herein suggested.

The support of the Government to this end would raise the standing of the enlisted man at once to one of respectability and secure the enlistment of the proper material, which can not now be obtained in view of the low estimation which the average civilian entertains for the soldier in time of peace. It would also give a distinctive and republican character to our Army, which I regard as very essential under our form of government. We can not hope to popularize the Army, so long as we ape the methods and details of European armies, and there is no necessity for doing so. I can not in such a paper as this say all that may be said in favor of the foregoing recommendations, but I expect to give my support to the project until it shall receive a fair trial.

The probable speedy disappearance of danger from Indian wars gives importance to the consideration of other lines of duty for the Army to justify its maintenance.

I am, sir, very respectfully, your obedient servant,

AUGUST V. KAUTZ,
Brigadier-General Commanding.

The ADJUTANT-GENERAL OF THE ARMY,
Washington, D. C.

REPORT OF COL. E. F. TOWNSEND.

UNITED STATES INFANTRY AND CAVALRY SCHOOL,
Fort Leavenworth, Kans., July 1, 1891.

SIR: I have the honor to submit for the information of the Major-General commanding the Army, the annual report of the operations of the United States Infantry and Cavalry School for the year ending June 30, 1891. This period covers the second year of the student class which entered September 1, 1889, and was graduated June 17, 1891.

I was assigned to the command of the United States Infantry and Cavalry School and the post of Fort Leavenworth, Kans., by General Order No. 86, Headquarters of the Army, Adjutant-General's Office, of August 6, 1890. I arrived at this post August 26, and on the 28th assumed command, relieving Brig. Gen. A. McD. McCook, U. S. Army. The work of the school during the months of July and August, previous to my arrival, will be found specified under the heading of "department of engineering" and "department of artillery."

Upon my arrival at the school I was informed by the late commandant that the course of study for the student class during the ensuing year had been arranged by the school staff, and that it was complete. As the course would begin in a few days, and as I was entirely new to the work, I was very glad to have it laid out for me by those whose experience would be a reasonable guaranty of its correctness. At any rate, I was not in a condition to make or suggest any changes even were it not correct. The regular course of study commenced September 1, and continued without interruption until November 22, 1890.

DEPARTMENT OF ENGINEERING.

This department has been subjected to great embarrassment, owing to the numerous changes in the office of "senior instructor."

June 6, 1890, Capt. J. G. D. Knight, Corps of Engineers, the head of the department, being relieved from duty at the school, transferred it

to First Lieut. James A. Irons, Twentieth Infantry, senior assistant instructor. June 30, Capt. C. W. Davis, Fourteenth Infantry, was assigned to duty as instructor, and relieved Lieut. Irons in charge. July 25 Captain Davis was relieved, and again Lieut. Irons assumed the duties of the head of the department. February 4, 1891, Capt. E. E. Steever, Third Cavalry, was ordered to duty as head of this department, and Lieut. Irons was again relieved. In less than two months Capt. Steever was relieved, and Lieut. Irons again became senior instructor.

These constant changes, involving more or less change in the mode of instruction, are not conducive to the best interests of the school or student class. It is desirable that the head of a department should be reasonably permanent, and especially in this course, which is one of the most important taught at the school. At this time the position of senior instructor is vacant, though an application for an officer to fill the vacancy will soon be made. Officers for such places are hard to get, as it is not deemed advisable to detach officers of the Corps of Engineers for such duties, and but comparatively few others have the necessary knowledge and experience to fill such a position.

Lieut. Irons, who has proved himself a most excellent instructor and deserves the highest commendation, has been here four years, and has applied to be relieved from further duty here and return to his regiment. I regret to lose his services, but his wish deserves favorable consideration. The work of this department is substantially as follows: for further details I respectfully refer to the report* of the instructor of engineering, herewith inclosed, and marked I: During the month of July, practical work in signaling and topography, work with the signal field telegraph train, construction of telegraph lines and the use of the heliograph, mounted reconnoissance, with the use of the sketching case. In September and October, field engineering, theoretical and practical, the latter consisting of laying out and constructing shelter trenches, use of intrenching tools, making gabions, fascines, etc., profiling on slopes, constructing floating bridges, etc. April and May, 1891, was devoted to theoretical instruction in building superintendence, Clark's work being used as a text book. This is a new subject of instruction, and is regarded by instructors and students as a very valuable one. This, as yet, has not the specific sanction of the War Department. I recommend that, if it be deemed necessary, it be made part of the course of study by direct order from the War Department. In addition to the above, during this time, instruction was imparted in photography, embracing the reproduction of maps, as well as landscape photography; also a survey of the post.

A few months after my arrival, in examining into the methods of the school and conversing with instructors and students, I became convinced that the cause of most of the failures to graduate at this school was due to deficient knowledge in mathematics before coming here; that is, in algebra, geometry, and trigonometry, the applications of which subjects are required at once in this department. In order to obviate this difficulty in the future as much as possible, as soon as I received last winter the list of the student class for the term 1891-'93 I caused the secretary of the school to write to all the officers named therein who had been appointed from civil life or promoted from the Army, inquiring as to their knowledge of those subjects, stating the difficulties of the course, and asking if they desired six months' preliminary instruction therein.

* Omitted.

Answers were received from about ten, eight of whom it was thought best to ask might be ordered here March 1, 1891, for such instruction. Six of these, viz, Second Lieut. G. W. Ruthers, Eighth Infantry, A. A. Cabaniss, Twentieth Infantry, C. E. Tayman, Twenty-fourth Infantry, H. A. Barber, First Cavalry, W. A. Campbell, Ninth Infantry, and F. S. Wild, Seventeenth Infantry, reported in accordance with orders from the War Department on that date. First Lieut. C. B. Thompson, Fifth Infantry, and Second Lieut. J. M. Sigworth, Tenth Infantry, were delayed by general court-martial duty or blockaded roads, and did not report until some days later. These officers were at once organized as a section in the department of engineering and placed in charge of Second Lieut. J. T. Haines, Fifth Cavalry, as instructor of mathematics. They have already been well instructed in algebra and geometry and will soon take up the subject of trigonometry, which will be completed before the date of beginning the regular course of the class in September.

Many changes have taken place in the list of the class since it was first sent me, and there are many in the list as now constituted who doubtless would be much benefited could they have the instruction imparted to the officers named above. The instructor speaks highly of the results already obtained, and it remains to be seen by comparison of the future progress of the officers who have had the benefit of this preliminary course with that of those who were not so favored whether it will be desirable to continue it hereafter.

The following recommendations of the instructor of engineering are fully concurred in by me:

(1) That a competent draftsman be employed for the work required from the Department.

(2) That the scale used in drawing of redan be changed from 1-1000 to 1-500.

(3) That "building superintendence" be sanctioned by the War Department as a part of the course of study.

I do not think it advisable to take up time in practicing signaling with the flag and torch, as that is required at all posts.

(4) I concur with him that no change should be made in the course of "surveying, military topography, or elementary field engineering," but none has been contemplated.

(5) I agree with him that a number of horses should be sent here for the use of student officers solely in their mounted work. Great difficulty has been found in obtaining suitable mounts for this duty from the cavalry troops. Troop commanders are very loth to give up their horses to inexperienced riders. This matter has already been presented to the attention of the War Department. (See also recommendation on this point of instructor department of cavalry.)

Recommendations concerning other departments and generally concerning the school will be considered later.

DEPARTMENT OF MILITARY ART.

This department is under charge of Maj. Jacob Kline, Twenty-fourth Infantry.

During the past year there were sixty-nine recitations and twenty-three fields exercises in this department, including every month during the year. The theoretical instruction was confined to "Operations

of war," by Hamley, supplemented by the practical exercises mentioned above. These were as follows:

October 24, 1890, field exercise—Advance guard opposed by small rear guard.

November 22, 1890—Attack of a battalion of four companies on an outlined position.

October 29, 1890—Attack and defense of a position—One side marching in advance-guard formation (railroad cut)—Flank attack on same, with frontal attack, etc., to hold force while flanking party works to right and rear.

October 20, 1890—Outposts.

October 23, 1890—Attack formation of a company at war strength. Modern attack formation confined to Upton's tactics. In all these exercises topographical work was required, and all student officers as a rule were employed. The exercise of the 22d November was supplemented by an additional field exercise. The commanding officer was required to make disposition for an attack formation on different ground.

The above were repeated from time to time in order that every member of the class might be enabled to participate therein, making in all twenty-three exercises. Additional exercises were planned, but the absence of the troops owing to Indian disturbances and inclement weather in the early spring prevented their execution. Towards the close of the year each student prepared an essay upon some military subject; two of these essays were selected by the school staff as being well worthy of publication, the first on the subject of "Mounted infantry," by Second Lieut. J. A. Penn., jr., Thirteenth Infantry, and the second upon the subject of "A United States army," by First Lieut. J. B. Batchelor, jr., Twenty-fourth Infantry. These essays were also read before the school upon the graduation of the class June 17, 1891.

DEPARTMENT OF INFANTRY.

This department, like that of military art, is under charge of Maj. Jacob Kline, Twenty-fourth Infantry.

In addition to the school course Maj. Kline has immediate command of the battalion of infantry.

During the year there were seventy-five recitations in the course of infantry, consisting almost wholly of fire tactics. This included every month from September to May inclusive except October.

This subject, which is considered especially valuable, is studied from Mayne's work, which is very voluminous not to say verbose.

It is now being revised and it is hoped that it will be ready in its new form for the use of the next class.

A number of lectures in military geography were given to the class during the year, a new feature which it is intended to elaborate in the near future.

I refer for further details to the report of Maj. Kline, together with the examination papers and general questions herewith inclosed, marked 2.*

DEPARTMENT OF CAVALRY.

This department is under the supervision of Lieut. Col. George B. Sanford, Ninth Cavalry.

Studies in this course began November 10 and continued without interruption until November 21, inclusive. November 22 a telegram was received from headquarters Department of the Missouri directing that

* Omitted.

all the cavalry be put in readiness to take the field against Indians in the Department of Dakota. Orders were at once given and the necessary preparations made. No orders to move were then received. November 24 another telegram was received ordering the entire command to be in readiness to take the field and everything pointed toward a sudden movement. All this created much disturbance among the instructors and students at the school. No orders to move, however, came and matters began to quiet down, when, during the evening of December 1, telegrams from department headquarters arrived ordering the cavalry to Dakota and two companies of infantry to Fort Riley, the latter for temporary garrison duty. This necessitated the departure of all or nearly all of the instructors in the course of cavalry and two of the instructors in military art and law.

It was found necessary to suspend entirely recitations in the cavalry course, and as well as practicable substitute some other study for it. The minds of both instructors and students, more or less excited by the events of the day, were in but slight mood for study, and the results necessarily were not as satisfactory as desirable. All this demonstrates that instructors at the school should be selected from officers not on duty with any of the companies or troops stationed at the post; so that in case of the troops being suddenly called away, the school will not be affected.

The cavalry battalion returned to the post early on the morning of January 26, and the two companies of infantry from Fort Riley on the evening of the same day. In the meantime a new schedule of studies was in operation, and it was not practicable to resume the cavalry course until February 24, which was then continued until the end of March. Notwithstanding these interruptions, the progress of the class was highly commendable, and it is thought that but little of importance was lost.

The subjects studied were horses and stables (Fitzwygram), with lectures by Veterinary Surgeon Hunter, shoeing, care of feet, disease of the foot and legs, lameness and its treatment, treatment of wounds, etc.

I would especially call attention to the recommendation of the instructor of cavalry regarding the use of the troop horses by the student officers, and that a certain number of horses be kept by the Quartermaster Department for their use for mounted duty. This subject is referred to in this report under the department of "engineering."

The instructor also recommends the purchase of a "papier maché model of the horse" for the use of the school, similar to the one now at the Military Academy at West Point. I concur in this recommendation, and request that authority be given to make this purchase.

For further details I refer to the report of Col. Sanford herewith inclosed, marked 3.*

DEPARTMENT OF ARTILLERY.

This department is under charge of Capt. Carle A. Woodruff, Second Artillery.

The course of instruction in artillery is very meager, and occupied only about 15 days during the month of August, 1890. I can see, however, no reason why more time should not have been taken during that month, provided the instructors were present, though I believe some or all of them were on detached service part of the time.

* Omitted.

I am satisfied that even if the course of artillery should be increased no greater time than one month could be devoted to it without encroaching upon the time necessary to studies of more importance to infantry and cavalry officers. I therefore concur in the recommendation of Capt. Woodruff, that the figure of merit of this course be reduced to 75. (See his report herewith, marked 4.*

DEPARTMENT OF LAW.

This department is supervised by Capt. J. M. J. Sanno, Seventh Infantry, and during the past year instruction therein consisted wholly of military and constitutional law, international law having been omitted from the schedule. As stated on page 294 of this report, the schedule of studies was entirely made out before my arrival at the post, and, as stated also, I did not feel competent at that time to direct or suggest any change. Some months later, when my attention was called to the fact that international law had been omitted from the list of studies, the matter was laid before the school staff for further consideration; but it then appeared to be too late to make other changes.

In the new schedule for the coming class care will be taken that this subject has its proper consideration. Report of the instructor inclosed and marked 5.*

Referring to the departure of the troops at this post to take part in the Indian outbreak last winter in Dakota, I will state that in addition to the troops heretofore named as having been ordered away at that time, Company H, Seventh Infantry, Captain Sanno commanding, was on December 3, 1890, ordered into the field and left for Dakota that day. Being the head of the law department, his departure badly crippled it. He did not return until February 1, 1891. During his absence the law course was conducted by First Lieut. E. S. Dudley, Second Artillery, senior assistant instructor. I can not too highly commend his zealous efforts in this department, which were alike satisfactory to the commandant, the staff of the school, and the students under instruction.

DEPARTMENT OF MILITARY HYGIENE.

This course began October 2, 1890, and continued every other day until November 12, twenty lectures or recitations in all, Maj. A. A. Woodhull, M. D., surgeon, U. S. Army, being the instructor therein. Before the close of the course of military hygiene, Maj. Woodhull received orders relieving him from duty at this post, and ordering him to Fort Sherman, Idaho. Though upon application he was authorized to remain until the termination of the course, yet the fact of being so ordered away at that season (November) necessarily hurried him. The examination of the class in this study took place immediately, and Surg. Woodhull left for his new post November 25, 1890. He was relieved by Maj. John Brooke, surgeon, U. S. Army, post surgeon, who has been announced as instructor military hygiene, and will take charge of the instruction of the next class in that course.

It will be noticed that part of this course, viz: "Early aid to the injured," for want of time was not included in the instruction of the class. Measures will be taken by the instructor of this department hereafter to fully cover this part of the course.

I desire to call attention to the recommendations of the instructor of

* Omitted.

military hygiene, in which I fully concur. I regard this study as one of the utmost importance, as it is no doubt the case that the casualties of war by the bullets of the enemy are scarcely 1 to 10 of those by disease. The care of the health of his men is then one of most important of the duties of the officer and should be thoroughly taught him. This department should take a higher stand in the course of study here and be graded much higher. The figure of merit should be raised from 50 to 100. I also recommend that it be made a regular department of the school course and the senior instructor a member of the school staff. For further details in this course reference is made to the report of Surg. Woodhull, herewith inclosed and marked 6.*

GENERAL REMARKS AND RECOMMENDATIONS.

I would respectfully call attention to the fact that the school regulations need revision in several particulars. This revision was made under the supervision of the school staff, and having received the approval of the late commandant, was forwarded to the Adjutant-General for approval. A few months after my arrival the regulations so revised were sent to me to know if the new administration of the school concurred therein. As advised at that time I did so concur, and with a few minor changes which have become desirable since I still advise that revision. No notice has yet been received of the approval of the regulations in its revised form, and I earnestly ask that such approval be given at once, that they may be in operation with the incoming of the next class. Herewith will be found a copy of the regulations as now in force, with amendments desired inserted at their proper places. I would especially recommend that the number of departments be increased from 6 to 7, the department of military hygiene being added thereto, and that the senior in each department be a member of the staff. It is greatly to be desired in my opinion that the United States Infantry and Cavalry School should be recognized by act of Congress and placed upon the same footing as the United States Military Academy at West Point and the Artillery School at Fort Monroe, and be provided for as they are. This school is becoming yearly of greater usefulness to the Army and is now looked upon by all officers of the Army who are ambitious to excel in their profession as a valuable assistance to them in their career. A great need of the school is competent instructors and the retention of them for a reasonable degree of permanence. It is desirable, therefore, that instructors be assigned by orders from the War Department, and not selected from officers casually at the post with troops, and as far as possible they should be from graduates of the school.

I concur in the recommendation of several of the instructors, that at examinations the instructor and assistants in the department be constituted a committee to mark the student upon his recitation, and then that the marks be submitted to the staff for consideration. As it is now, the marks are given by the heads of all departments only, some of whom may be only imperfectly conversant with the subject.

It is further recommended, that there be held a semiannual examination in January of each year upon the studies of past half-yearly course. There are many text-books, and if the examination in all takes place in June, a number would have to be hurriedly reviewed and much time taken up thereby. In connection with this, an officer unable to appear for examination at the time specified on account of illness or other

* Omitted.

necessary cause should be required to stand his examination as soon as he returns to duty. It is further recommended that when an officer is found deficient in his course at any examination, he be reexamined therein within twenty days thereafter, and if again found deficient, he be at once returned to his regiment.

It is recommended that officers detailed for the course of study at the school be taken sufficiently low on the regimental list to insure their completing the course before receiving their promotion to a captaincy. Several in the incoming class will in all probability receive their promotion before completing the course. This will generally have the effect of receiving young men whose minds are still fresh from study and who are better fitted to undergo the mental strain that is imposed upon them during the two years of study. The result will be more satisfactory to the student and the benefit much greater to the Government.

It is thought that 35 years should be the maximum age of an officer detailed for the course of study. If his habits have been studious up to this age he will continue in the same strain and acquire professional knowledge. On the contrary, if he has not kept his mind active with study, it is hardly probable that he will or can keep pace at the school with younger men. Numerous examples at the school have shown this to be a fact.

On October 29, 1890, the building formerly used as headquarters Department of Missouri having been put in condition for the purpose, an order was issued directing that all recitations of the school class beginning November 1 take place therein. It is admirably adapted for the purpose, requiring but the removal of two temporary partitions to make section rooms amply large. The school library was also transferred to this building, as also the offices of the commandant, the secretary of the school, and the heads of the departments of military art and infantry, cavalry, and engineering. There are still other rooms available when required.

The old academic building has been repaired and occupied as the administration building for the post of Fort Leavenworth.

On the 25th of October, 1890, application was made by letter to the late Gen. Sherman to allow the use of his name to designate the new school building. This was thought to be especially appropriate, as it was by Gen. Sherman's order that the United States Infantry and Cavalry School was established in 1881.

Gen. Sherman most cordially consented, provided it met with the approval of the honorable Secretary of War. Such approval, having been given by letter dated November 10, 1890, it was then announced in orders that the official name of the academic building of the United States Infantry and Cavalry School should be thereafter "Sherman Hall."

On June 1 last the Board of Visitors to the school selected by the Major-General Commanding the Army reported in accordance with the order appointing them. It was my intention to tender to the Board the compliment of a review of the entire command, and orders were issued accordingly. A heavy rainstorm, however, necessarily caused the postponement for one week. On the 2d of June the examinations of the class began and continued daily, Sundays excepted, until the 15th. The members of the Board were constant in their attendance upon the examination, and have expressed themselves well pleased with the course and the progress of the student class.

Every member of the class was found proficient; Second Lieut. Willard A. Holbrook, First Cavalry; First Lieut. Charles H. Barth, Twelfth Infantry, and First Lieut. Thomas Cruse, Sixth Cavalry, graduating

numbers 1, 2, and 3 respectively, and are entitled to be carried on the Army Register as honor graduates of the United States Infantry and Cavalry School.

Second Lieut. George A. Detchmندی, Sixth Infantry, and Second Lieut. George E. French, Fourth Infantry, having to be examined in certain studies in which they had been found deficient in June, 1890, were given one week longer for that purpose. They were so examined and were declared by the school staff proficient.

June 17 the student class, together with the Board of Visitors, the commandant, and instructors, also a large audience of ladies and gentlemen, assembled in the post chapel, where, after the reading of professional essays by two of the student officers heretofore referred to and an address to the graduates by the commandant, each student, with the exception of Lieuts. Detchmندی and French, received his diploma. The two latter received their diplomas a few days later upon the termination of their final examination.

I beg leave to call attention to the fact that every member of this class has graduated and received the authorized diploma, the only instance in the history of the school.

In conclusion I desire to add my testimony to that of many others before me, of the inestimable value of this institution to every young officer of the U. S. Army who may be enabled to secure the benefit of its instruction. Every infantry and cavalry officer should pass through its course, and to that end, as soon as quarters can be provided, two from each regiment should be sent here instead of one, as now, and a class graduated every year.

I desire to express here my acknowledgment of the cordial support and assistance rendered me by the heads of departments as well as their assistants, and also to Lieut. Scott, First Cavalry, the secretary of the school, who has been untiring in his exertions to advance the interests of the school.

Very respectfully, your obedient servant,

E. F. TOWNSEND,

Colonel Twelfth Infantry, Commandant.

The ADJUTANT-GENERAL, U. S. A.,
Washington, D. C.

REPORT OF LIEUT. COL. ROYAL T. FRANK.

UNITED STATES ARTILLERY SCHOOL,
Fort Monroe, Va., September 10, 1891.

SIR: I have the honor to transmit the following report of the United States Artillery School and Post of Fort Monroe, Va., for the year ending September 1, 1891.

The following officers reported to the commandant on the 1st of September, 1890, and constitute the present class of student officers:

1st Lieut. James E. Eastman, 2nd Art.
1st Lieut. Ramsey D. Potts, 3rd Art.
1st Lieut. Charles Humphreys, 3rd Art.
1st Lieut. William P. Duvall, 5th Art.
1st Lieut. Charles D. Parkhurst, 4th Art.
1st Lieut. Adam Slaker, 1st Art.
1st Lieut. Clarence Deems, 4th Art.
1st Lieut. Samuel E. Allen, 5th Art.
1st Lieut. Edwin St. J. Greble, 2nd Art.
1st Lieut. George W. Van Deusen, 1st Art.
2nd Lieut. Henry C. Davis, 3rd Art.

2nd Lieut. John W. Ruckman, 5th Art.
2nd Lieut. Cornelis De W. Willcox, 2nd Art.
2nd Lieut. Arthur F. Curtis, 2nd Art.
2nd Lieut. John D. Barrette, 3rd Art.
2nd Lieut. Lucien G. Berry, 4th Art.
2nd Lieut. George F. Landers, 4th Art.
2nd Lieut. Charles B. Wheeler, 5th Art.
2nd Lieut. Oscar I. Straub, 1st Art.
2nd Lieut. Fremont P. Peck, 1st Art.

Of the above, Lieuts. Wheeler and Peck have since been transferred to the Ordnance Department, Lieut. Potts has been relieved from the course of study with the class on account of sickness, and Lieut. Barrette, who was prevented from pursuing his studies in the course of ballistics on account of sickness, is now on sick leave of absence.

In accordance with the regulations and programme of the school, theoretical instruction during the past year embraced the subjects of military engineering, artillery, and ballistics; elementary and practical instruction in photography, telegraphy, and cordage was also given. Practical military exercises included drills in the service of seacoast, siege, field, and machine guns, the various machines and appliances for mounting and moving heavy guns and artillery material, firing at stationary and moving targets with seacoast guns, and target firing with field and machine guns and small arms.

THEORETICAL INSTRUCTION.

The course in military engineering included topography, military communications, military bridges, field works, and reconnoissance; that in artillery, the general subject including strength of guns, armor, and metallurgy; that in ballistics, both exterior and interior ballistics. The labor of student officers in their study of these subjects has been greatly simplified by the work of instructors in bringing within an available compass and a convenient form the essential principles and latest information on the several branches under their charge. Toward the close of the artillery course the class, under the direction of the instructor, visited the ordnance works at the Washington navy-yard, permission to do so having been previously obtained from the Navy Department. As on former occasions, every facility was afforded by the naval authorities to examine the equipment of the shops and to observe the operations in gun construction going on there. Three days were devoted to these observations, and were of great interest and profit to the class.

PRACTICAL INSTRUCTION.

While the theoretical instruction of the school is fully abreast with the progress of the times, practical exercises in artillery are still limited to guns and material of old patterns, with the exception of field and machine guns. Drills during the year covered about two thirds of the maneuvers prescribed for the entire course.

Practice in tracking vessels, as a preparatory exercise to artillery target firing, was taken up June 15th, under the immediate charge of Capt. S. M. Mills, Fifth Artillery, and continued until June 24. The object of this practice was to familiarize officers and men with the instruments and methods used in artillery firing and to practice them also in judging distances and the speed of moving vessels, by comparing their estimates with the plotted results.

Target firing with seacoast guns, under charge of the same officer, was commenced June 25th and terminated August 10. While the practice this year was more especially for the instruction of student officers much care was taken to make it as profitable as possible to enlisted men. The guns used were the 10 and 15 inch smoothbore, 8-inch converted rifle, and 13-inch seacoast mortars. The last two days of the firing was at moving targets, towed by a tug at a distance of about 1,500 to 2,200 yards in front of the battery. The firing was as good as that of former years, that at the moving target much better, the target,

which was the same as that for fixed ranges, being struck three times and destroyed once during the two afternoons given to the practice. Target firing with field and machine guns is progressing and will continue through the present month.

SMALL ARMS.

Target firing with the Springfield rifle took place during the month of May and was limited to the 200 and 300 yard ranges. The total number of shots fired was 35,560, and the average number of hours practice per battery was fifteen, from six to eight targets being used at a time. Nineteen rifles were temporarily disabled during the firing by breaking the shell extractor.

NONCOMMISSIONED OFFICERS' SCHOOL.

The noncommissioned officers' division of the artillery school is under the immediate charge of First Lieut. E. A. Millar, Second Artillery. Nineteen noncommissioned officers were under instruction during the past year, of whom 13 completed the entire two years' course, and, after an examination by a committee of the staff, were given diplomas. Instruction was given on the following subjects: Gunnery, signaling, physics, surveying, field fortifications, electricity, and high explosives.

ARTILLERY SCHOOL BUILDING.

Since my last report the entire ordnance building has been transferred to the artillery school, with the exception of the attic, and has been fitted up in a very thorough manner for school purposes. All departments now find ample and suitable accommodations there, and are in a condition to afford student officers facilities for pursuing their studies to great advantage. As the feasibility of extending the benefits of the school and more perfectly adapting the instruction to the wants of students of varying tastes, degrees of preparation, and abilities has frequently been discussed, and as the school is now thought to offer exceptional advantages, the following plan is suggested as the most practicable method of meeting these conditions, should it accord with the policy of the War Department:

The present curriculum of the school presupposes some scientific attainments, a knowledge of higher mathematics, and habits of study. With such slight modifications as the staff may make from time to time it is believed to be a profitable and necessary course for artillery officers, and proficiency in the entire curriculum course should be required to entitle an officer to a diploma. Only those who have the requisite preparation and are of an age suited to study should be detailed for this course, and they should constitute the regular class. As the entire period of two years is required for the accomplishment of this course, if a student officer desires to pursue any special study to the exclusion of others he should be permitted to remain at the school after the completion of the regular course, to pursue such study under the direction and with the assistance of the instructor to whose department it pertains. Officers of any branch of the service who are making a study of any special subject for which the Artillery School affords facilities might be permitted to pursue their study here under the same conditions.

Should it be the policy of the War Department to send officers here

who have not kept up their mathematical studies, a special or graded course might be arranged, embracing all or any number of the subjects contained in the curriculum of the school, by omitting such abstract and purely scientific parts as require higher mathematical and scientific knowledge.

Finally, as several new subjects have recently been added to the course, former graduates and other officers who desire to take one or more of such courses might be permitted to do so by joining the regular class while going over such subjects or by forming a separate class at a different time; all officers except those belonging to the regular class to be considered as temporarily at the post, and not permitted to disturb the permanent class in their quarters.

The chief obstacle to thus enlarging the school is one of quarters, which might be met by allowing commutation to officers temporarily here, or, to a limited extent, by assigning them to quarters in casemates which are now gradually being vacated, as quarters outside are built. Casemates, though objectionable as permanent quarters, are comfortable and healthful for short periods, especially in winter.

LIBRARY.

Additions of recent literature and military works, as far as funds would permit, have been added to the library during the past year.

PRINTING OFFICE AND BINDERY.

The printing office and bookbindery, lately in charge of Capt. Louis V. Caziarc, Second Artillery, is now in charge of Lieut. Edward Davis, Third Artillery, who succeeded Capt. Caziarc as adjutant and secretary of the staff. In addition to a large amount of current work in printing orders, circulars, instruction notes, pamphlets, etc., the following works have been issued :

- Role and Organization of Seacoast Batteries, Lieut. Weaver, 62 pages, 500 copies.
- Elements of Elastic Strength in Guns, Capt. Story, 62 pages, 500 copies.
- Duplicates in Artillery School library, Capt. Kobbé, 16 pages, 150 copies.
- Notes on Steam and Mechanism, Lieut. Homer, 120 pages, 250 copies.
- Interior Ballistics, Capt. Ingalls, 120 pages, 600 copies.
- Lectures on Explosives and Chemistry (incomplete), Lieut. Walke, 200 pages, 500 copies.
- Description and Service of Machine Guns, Capt. Mills, 80 pages, 1,000 copies.

Binding:

Volumes of Artillery School library (rebound)	396
Volumes for enlisted men's library (bound and rebound)	408
Miscellaneous books for instructors	165
Blank books for instruction purposes	208
Pads for instruction purposes	615
Pamphlets, manuals, etc.	2,318

ENLISTED MEN'S POST SCHOOL.

The enlisted men's post school was in charge of Lieut. E. A. Millar, Second Artillery. The attendance varied from 80 at the beginning to 62 at the close. They were classified into four sections, according to ability and attainments, and as a rule showed interest and a desire to improve. The benefit to those who did not feel that interest was incommensurate with the effort required, and it is believed that the best interest of the school would be served if only those who desire to attend should be required to do so.

DISCIPLINE.

The discipline of the command has been very satisfactory. Desertions during the year have amounted to only $4\frac{1}{2}$ per cent; during the year before they were $10\frac{1}{2}$ per cent. There is at the post a branch of the Young Men's Christian Association, with an active membership of 65 and an associate membership of 70 enlisted men; a Catholic social club with a membership of 55 enlisted men. The rooms of the canteen have also proved attractive to a large portion of the command and have afforded agreeable and harmless amusement. In addition to these the recreation room of each set of barracks is provided with a billiard table and other games. All of these have contributed largely to the contentment and welfare of the command. A good gymnasium would leave little to be desired in this direction.

SANITARY CONDITION.

With the exception of a severe epidemic of influenza, confined chiefly to commissioned officers, the health of this post has been unusually good, due apparently to an abundant rainfall and a plentiful supply of water.

QUARTERS, ETC.

In addition to the improvements on the artillery school building before mentioned, there are now in process of construction two double sets of officers' quarters. Three more similar sets are necessary to provide all officers with quarters outside of casemates. Band quarters, quarters for the post noncommissioned staff, and an administration building are also much needed.

Very respectfully, your obedient servant,

ROYAL T. FRANK,

Lieutenant-Colonel, Second Artillery, Commanding.

THE ADJUTANT-GENERAL OF THE ARMY,
Washington, D. C.

UNITED STATES MILITARY ACADEMY.

UNITED STATES MILITARY ACADEMY

ANNUAL REPORT

OF THE

SUPERINTENDENT OF THE U. S. MILITARY ACADEMY.

HEADQUARTERS U. S. MILITARY ACADEMY,
West Point, N. Y., September 1, 1891.

GENERAL: As Superintendent of the U. S. Military Academy I have the honor to submit the following report for the year ending August 31, 1891:

The number of officers and instructors stationed at this post on September 1, 1891, was as follows: Eight professors, 55 commissioned officers, including 1 surgeon and 1 assistant surgeon, 1 acting assistant surgeon, 1 swordmaster, and 1 teacher of music.

THE CORPS OF CADETS.

Up to June, 1891, under the terms of section 1315, Revised Statutes, the maximum number of cadets authorized was 347.

As a general rule the number of cadets at the Academy seldom exceeds 300, and on May 31, 1891, it was only 278; 17 of whom were pronounced deficient at the June examination and were discharged.

It will therefore be observed that on June 1, 1891, the corps lacked 20 per cent. of the number authorized by law.

On September 1, 1891, with the new fourth class, consisting of 103 cadets, the corps numbered 287, or about 17 per cent. less than the maximum authorized under the apportionment based upon the census of 1880.

These losses are due to resignations and to discharges based upon failures at examinations.

Under the new apportionment, based upon the last census, the maximum number of cadets authorized will be 371.

I am of the opinion that a further moderate increase of the corps will be advantageous, believing that our plant is amply sufficient to turn out a larger number of graduates each year.

Such increase should be gradual, and I would suggest at first simply restoring to the President of the United States the privilege of appointing 10 cadets each year, of which privilege he was deprived by the terms of the act of June 11, 1878.

Should this be done, the maximum number of cadets authorized would be 401, and estimating the same percentage of vacancies as now exist, the Academy would probably be able to send out to the country from 70 to 80 graduates every year.

With 401 cadets on duty, all that would be required would be the detail of a few more officers as instructors and the erection of additional quarters for their accommodation.

On September 1, 1890, there were 289 cadets connected with the Military Academy. Since that date the loss has been 9 by resignation, 25 by discharge, and 65 by graduation. The gain has been 97 admitted as new cadets, making a present total of 287 belonging to the corps, one of whom was admitted September 1, 1891. This number includes one cadet from Switzerland, and one from Central America, who are receiving instruction at the Academy by authority of joint resolutions of Congress.

In my last annual report I expressed the opinion that the medical examination of candidates should be completed before they reported at West Point.

After a close and careful study of the institution for two years, I feel assured that both the mental and physical examinations can be conducted without difficulty before the arrival of the young gentlemen at the Academy.

I therefore respectfully recommend that candidates be required to report for physical examination to the nearest medical officer of the Army immediately after receiving their letters of appointment, and should they be pronounced physically disqualified for military duty their appointments can at once be revoked, and they will be spared further expense and mortification; should they be *pronounced qualified* they should be admitted *without further physical examination*, provided they pass the mental tests.

I recommend that upon the first Wednesday in April of each year candidates throughout the United States who have letters of appointment be required to appear for mental examination at certain geographical centers throughout the country, such as Portland, Boston, New York, Philadelphia, Pittsburg, Washington, Richmond, Charleston, Atlanta, Mobile, New Orleans, San Antonio, Memphis, Louisville, St. Louis, St. Paul, Chicago, Omaha, Denver, Cheyenne, Helena, Salt Lake City, San Francisco, Portland, Seattle, and such other prominent places as the Secretary of War shall indicate.

These mental examinations should be held under the direction of the Academic Board of the U. S. Military Academy, and if necessary members of the Board can be detailed to be present at the more important points.

The questions should be prepared here by the Academic Board, and the examinations conducted in writing, under the immediate supervision of army officers, acting simply as monitors.

Each candidate should receive a number, and such number, without his name, should appear upon his examination papers.

The names, with the numbers, should at once be sent by the officer in charge to the War Department, while the examination papers with numbers only should be sent to the Superintendent of the Military Academy for the action of the Academic Board.

The Board, after carefully considering all the papers, can at once determine which are satisfactory, and the Adjutant-General can be immediately informed of the numbers of the successful candidates.

Appointments in place of those who may have failed at this examination can be made without delay; and these additional candidates, who will be few in number, can be promptly examined by the Academic Board as soon as they report in June.

I believe the foregoing plan can be easily carried out and will be

greatly to the advantage of the candidates, who, upon their arrival here, are always placed at more or less disadvantage on account of their surroundings, their absence from home, and being entirely unaccustomed to the rules and methods of discipline to which they are necessarily at once subjected.

During the past year the condition of the corps of cadets as regards drill, discipline, and instruction has been excellent; there has not been a single offense brought to the knowledge of the authorities which has received the severe punishment of dismissal or suspension. As a rule the young gentlemen seem to appreciate the privilege extended to them by the country, and to be ready to aid the distinguished professors and officers in charge of departments and their accomplished assistants in maintaining the splendid reputation for instruction, discipline and drill for which West Point is so justly noted.

DEPARTMENT OF TACTICS.

Attention is respectfully invited to the report of Lieut. Col. H. S. Hawkins, Twenty-third Infantry, Commandant of Cadets, submitted herewith.

During the past 12 months instruction has been given in artillery, infantry, and cavalry drill; in target practice with seacoast guns, mortars, breech-loading field guns and small arms; in fencing with sword and bayonet; in gymnastics and swimming; in military police and discipline, and in quartermaster, subsistence, and company administration.

Advantage was taken of the unusually clear weather in the spring of 1891, to give practical instruction in the duties of advance guard, rear guard, outpost, and reconnoissance.

THE WEST POINT OBSERVATORY.

There is an excellent observatory connected with the U. S. Military Academy, which I believe can be advantageously used in connection with a post-graduate course for young officers in the practical determination of time, latitude, longitude, and the meridian.

This observatory, under the direction of Prof. P. S. Michie, of the Department of Philosophy, is in the immediate charge of First Lieut. F. S. Harlow, First Artillery, a most efficient officer, thoroughly capable of conducting the instruction of any reasonable number of young officers of the Army.

The fixed instruments in the building are as follows: One 12-inch telescope by Alvan Clark & Son; one 7-inch Repsold transit circle.

The following portable instruments are mounted in the field observatory: One zenith telescope; one field transit; one altitude and azimuth instrument.

In addition to the above mentioned instruments there are a number of excellent sextants, manufactured by Stackpole.

At present the cadets take a course in practical astronomy during their first class encampment.

If two or three officers of the Army were ordered here annually to receive instructions at the Observatory for a period of about 9 months, they would then be available for general explorations and surveys, for surveys in military departments, for determining boundary lines between States, and for other work of a like character.

I commend this subject to the consideration of the Secretary of War, and suggest that during the coming year two young officers be ordered here to take the course in practical astronomy.

Owing to the lack of quarters, unmarried officers only should be sent here for the present.

THE DEPARTMENTS OF LAW AND OF ORDNANCE AND GUNNERY.

Section 1309 of the Revised Statutes provides for assistant professors in all the academic departments of instruction except those of law and of ordnance and gunnery, while section 1337 of the Revised Statutes provides that each assistant professor shall receive the pay of a captain.

The department of languages has two assistant professors, one of French, the other of Spanish.

The importance of the departments of law and of ordnance is so fully recognized that it seems unjust to the first assistants in each that they should not be accorded the same pay now received by officers occupying similar positions in other departments.

I therefore respectfully recommend that the senior assistants in these two departments shall hereafter be known as the assistant professor of law and assistant instructor in ordnance and gunnery, and that they shall receive the same pay and emoluments now authorized by law for the assistant professors in other academic departments.

MASTER OF THE SWORD AND SWIMMING.

I again invite attention to the recommendation submitted in my last annual report and in the report of the Board of Visitors for 1889 in regard to the faithful, efficient, and capable sword master, Mr. H. J. Koehler.

It is earnestly recommended that the following item shall be added to the Military Academy appropriation bill :

Provided, That from and after the passage of this act the master of the sword at the United States Military Academy shall have the rank and receive the pay and emoluments of a first lieutenant of infantry.

Mr. Koehler, who at present occupies the position of sword master, performs also the duties of instructor in gymnastics and swimming. He is faithful, energetic, and remarkably well qualified, both physically and intellectually, for his important work.

During the past six years he has worked up a system of gymnastics for the Corps of Cadets, which by its results has challenged the admiration of the members of the Boards of Visitors, and others who have been present at the annual exercises in June.

PHYSICAL TRAINING AND INSTRUCTION IN MILITARY GYMNASTICS.

Physical training by calisthenic exercises forms a part of the academic curriculum. These exercises are required in the gymnasium between October 1 and May 31 of the cadet's first year at the Academy, but are afterwards voluntary. During the second, third, and fourth years of cadet life they are continued in the riding hall, in exercises in the school of the soldier mounted.

Besides military drills and calisthenic exercises, cadets receive instruction in military gymnastics. These gymnastics may be defined as such simple exercises and combinations of exercises, arranged progressively,

as tend to develop muscular strength, activity, grace and agility, and in which the danger of overexertion and injury is reduced to a minimum. They are performed by a number of cadets simultaneously, each exercise or portion thereof being executed at command. They embrace exercises on the usual gymnastic apparatus, the clubs, dumb-bells, the various wands and iron bars, calisthenics, running, jumping, gymnastic contests, etc.

Besides these, instruction is given in fencing with foil, broadsword and bayonet, and in swimming; during the months of July and August instruction is given in dancing.

The present system of gymnastics was introduced in 1885, and has been gradually improved.

The physical measurements and tests show marked average gains at the end of the first year's work, in weight, wrist measurement, forearm measurement, upper arm extended, and also with biceps set, chest inflated and normal, and in tests with horizontal bar, parallel bars, and broad jump. The average duration of each lesson to the fourth class is 45 minutes.

Occasional sprained ankles are about the only accidents occurring during exercises in the gymnasium; about 3 years ago a cadet, while exercising "at will," attempted a feat not included in the regular course and broke his arm.

When we consider that the fourth class averages annually about 100 cadets, thus making 600 since 1885 who have received instruction for 8 months annually and executing during this period about twenty exercises daily, we find a grand total of about 1,200,000 exercises since 1885 without an instance of serious injury or accident. We are thus confronted with a marvelous record, the correctness of which is shown by the hospital books.

To one unacquainted with the physical training cadets receive, the foregoing gives but a faint impression of its value and thoroughness.

INSTRUCTION IN MILITARY HYGIENE.

During the present academic year it is proposed to have a course of lectures delivered to the fourth class by the post surgeon, upon the subject of military hygiene.

U. S. MILITARY ACADEMY BAND.

During the past year the band has performed all of its duties to my satisfaction, and its improvement both in music and discipline has been so marked as to invite most favorable comments.

By the act of March 3, 1875, the Military Academy Band consisted of 1 teacher of music and 40 enlisted musicians; of the latter, 10 received \$34 per month, and the remaining 30 received \$30 per month, together with the usual allowances of enlisted men.

By the act of March 3, 1877, the band was reduced to 1 teacher of music and 24 enlisted men, 6 of whom receive \$34 per month, 6 \$20 per month, and the remaining 12 \$17 per month, with the usual allowances of enlisted men.

This is the present status of the band, and I earnestly invite attention to the appeals annually made in the reports of the Boards of Visitors and by the Superintendent of the Military Academy for its improvement.

The teacher of music, Mr. Arthur A. Clappé, is a man of eminent musical talent, earnest, and conscientious, and has devoted every mo-

ment of his time to the important work of bringing the band up to its present excellent condition; I commend him for the faithful and intelligent manner in which he has performed his laborious duties, and I earnestly recommend that he shall receive promotion to the grade of a second lieutenant; should this be refused, then I recommend that his salary be increased from \$1,080 to \$1,500 per annum, a sum he richly deserves on account of his important work.

Many of the members of the band are excellent musicians and men with families, and as they improve in their profession and see their children growing up around them it is natural that the temptation to better their condition in life should affect them, and that they should not only decline to reënlist, but often endeavor to obtain their discharge from the service of the United States.

This subject was thoroughly investigated by the Committee on Military Affairs of the House of Representatives in 1890, as will be seen by House Report No. 2627 of the first session of the Fifty-first Congress.

It is earnestly hoped that during the coming session of Congress the condition of the band will be improved, and in case of its reorganization I recommend that hereafter it shall be constituted as follows: One teacher of music, who shall have the rank, pay, and emoluments of a second lieutenant so long as he shall remain such teacher of music; 1 drum-major, with the rank, pay, and emoluments of a sergeant of engineers; 30 musicians, 15 of whom shall be known as first-class musicians, with pay of \$34 per month; and 15 as second-class musicians, with pay of \$24 per month; all to have the same allowance of clothing, rations, and quarters as now authorized by law.

In view of the importance of the U. S. Military Academy and the number of distinguished guests both from at home and abroad who annually visit West Point, I earnestly hope that Congress will give this subject favorable consideration.

THE ARTILLERY OF THE POST.

I respectfully invite attention to my report of September 8, 1890, wherein I gave a full description of the artillery of this post.

The condition to-day remains exactly the same. We still have but one field battery of 32 steel rifled breech-loading guns, and it is necessary to drill the fourth class with the old obsolete 3-inch muzzle-loaders, which will probably never again be used in action.

The same old 4½-inch muzzle-loading guns remain at the siege battery, and the cadets must still use them for drill, with probably an unwritten history, that could tell of sieges and camps of over a quarter of a century ago. All that seems to be known of them is, that they were the best of a lot on hand at the New York Arsenal, sent there from the Washington Arsenal some years ago.

In view of the fact that during the past few years three of the old-fashioned siege guns have burst at this battery, I directed that those now on hand should not again be fired, believing that it would be criminal on my part to endanger unnecessarily the lives of cadets by practicing with these old and obsolete pieces.

At the seacoast battery the conditions reported in 1890 remain unchanged, and I repeat the language of the accomplished senior instructor of artillery drill regulations, First Lieut. J. D. C. Hoskins, Third Artillery, who describes it as follows:

At the seacoast battery the cadets use 3 8-inch muzzle-loading rifles (converted 10-inch smoothbore Rodman guns), 2 15-inch smoothbore Rodman guns, and one 13-inch mortar.

No two pieces in this battery are mounted on carriages of the same pattern, which fact renders a uniform system of instruction impossible.

For effective work here guns of the same class should be mounted upon modern carriages, uniform in construction.

In the interest of the Academy, in the interest of the country for which our cadets are being educated, I beg that these matters shall not be thrust aside, and I ask that we may be supplied with an armament that will be a credit to the institution and give us the means of properly instructing the young gentlemen whom we send out, at least with a solid foundation upon which to build the character of accomplished soldiers.

MEN AND HORSES FOR LIGHT BATTERY.

I repeat the recommendations made in my last annual report, that the light battery be placed upon an independent footing; that a detachment of not less than 30 artillery soldiers be ordered here for duty with the batteries, and that 50 strong draft horses be supplied for this particular purpose, relieving the light cavalry horses from the duty which utterly unfits them for their legitimate work.

COMPANY E, BATTALION OF ENGINEERS.

This company maintains the same high character for drill, discipline, and efficiency accorded it in my last annual report.

While it has quite a number of excellent old soldiers, the majority of the men are quite young and frequently chafe under the restraints of discipline; this has caused a number of cases for the summary court and two for general courts, while two men have deserted during the year.

The company has charge of the repair and preservation of all forts and batteries and of the pontoon train, and assists in the instruction of the Corps of Cadets in practical military engineering and signaling. The officers are indefatigable in their efforts to improve the welfare, drill, and discipline of the company. The buildings occupied as quarters and for shops and storehouses are models of neatness.

THE CAVALRY DETACHMENT AND HORSES.

At present there are eighty-five horses available for light artillery and cavalry drill. Thirty-five new ones were received during the year; but, in spite of the earnest and faithful efforts of the Quartermaster's Department to select the best possible animals, as a rule the horses were either ill upon their arrival or were taken sick shortly thereafter. The diseases were generally the result of severe colds caught while the animals were on the cars, and three died within a few weeks after they reached West Point.

I can only repeat the statement made in my last annual report, that there should be separate detachments of horses for artillery and cavalry drill, the cavalry horses generally being too light for hauling the heavy fieldpieces and caissons.

During the year the cavalry detachment, which has a maximum strength of 68 men, has improved in drill and discipline; the troopers now being fully armed and equipped, and being drilled both on foot and on horseback whenever time can be spared from the regular duties for which they were enlisted.

As a rule the men are faithful and diligent in the discharge of their duties. It is anticipated that their new barracks near the riding hall will be completed during the present calendar year.

THE DETACHMENT OF ARMY SERVICE MEN IN THE QUARTERMASTER'S DEPARTMENT.

A description of this detachment and the necessity for its service was given in my last annual report.

The men are not soldiers in the ordinary acceptance of the term, but are clerks, overseers, mechanics, watchmen, janitors, and laborers. They are neither armed, drilled, nor equipped as soldiers; while authorized to wear the undress uniform of an artillery soldier when not at work, they are required to appear in fatigue costume whenever doing duty as mechanics or laborers.

With but very few exceptions the men have been earnest, faithful, and industrious in the discharge of their varied duties during the year.

NEW BUILDINGS IN PROGRESS.

During the past year there has been an unusual amount of building in progress.

The new gymnasium, which was commenced in June, 1890, under contract with Mr. John Sheehan, has progressed slowly; the walls are up and the greater part of the iron-roof trusses are in position.

On August 14, 1891, the contractor suspended work and declined to complete his contract, giving as a reason the difficulty he had in satisfying the architect, Mr. R. M. Hunt, whose decision, under the contract, "is final upon all questions concerning workmanship and materials."

It is very much to be regretted that the contractor concluded to take this step, as it will greatly delay the progress of the work, and result in all the usual anxieties and annoyances not only to the United States but to the contractor and his bondsmen incident to taking up for completion an important structure the contract for which has been abandoned.

The old academic building has been torn down, and the foundation trenches for the new building for which provision was made in the act of March 2, 1889, have been commenced under contract with Messrs. J. E. and A. L. Pennock, of Philadelphia, Pa.

The plans and specifications for these buildings were prepared by that eminent architect Mr. Richard M. Hunt, of New York, and the work is carried on under his supervision.

It is not anticipated that the new academic building will be completed before August, 1893.

Five sets of officers' quarters have been in progress of construction, 2 of which are nearly ready for occupancy; the other 3 will probably be completed by the coming spring.

The soldiers' hospital, located on high ground, upon the site of the former cavalry garden, is well advanced, being now under cover; the same may be said of the new cavalry barracks, located on the river bank near the riding hall.

The band practice building and the watchman's house, on the south dock, have been completed and are ready for occupancy.

Thirty sets of quarters for married enlisted men have been in progress of construction during the year; of these, 10 sets are about completed and the remaining 20 sets are well advanced, and will probably be finished and ready for occupancy during the winter.

SURVEY OF THE RESERVATION.

The work of rerunning and marking the boundary lines of the reservation has been completed, and attention is invited to the report and map submitted by First Lieut. John Biddle, Corps of Engineers, which is transmitted herewith.

Lieutenant Biddle has located the corners, measured the boundary lines, and determined their azimuths by connecting with a secondary triangle of the U. S. Coast and Geodetic Survey; he has surveyed the boundary lines of the Kinsley addition, replaced stone monuments at corners of reservation by old iron guns sunk in the ground to their trunnions, and has completed a slashing about 20 feet wide around the entire reservation.

THE KINSLEY MANSION.

This old building has been partially repaired during the year, but the lack of gas, water, or furnace facilities and its distance from the cadet barracks renders it very inconvenient for officers quarters.

In view of the demand for more hotel privileges on the post, I recommend that authority be obtained from Congress to rent the building and 5 or 10 acres of ground immediately around it for hotel purposes for a term of 5 or 10 years, under such rules and regulations as may be prepared or approved by the Secretary of War; this would save the United States from the expense of repairing and maintaining in good order this old house and the grounds immediately around it.

THE WEST POINT HOTEL AND WEST POINT STABLES.

The West Point Hotel was erected during the administration of Col. Sylvanus Thayer, Corps of Engineers, between the years 1824 and 1833, at a cost of about \$16,000; since the latter date it has been enlarged and repaired from time to time, so that the total expense connected with it, including insurance, has been about \$50,000; all of which has been paid from what has been known as the post contingent fund.

Up to the summer of 1887 the control of the hotel was exclusively under the Superintendent, who had the power of leasing it to such party as in his judgment would manage it in the best manner for the following special objects:

(1) For the accommodation of the Board of Visitors to the United States Military Academy and of officers of the Government making tours of inspections to the post.

(2) For the accommodation of the parents and guardians of cadets and persons visiting West Point.

(3) For the accommodation of officers on duty at the Military Academy with quarters when the same, in the opinion of the Superintendent, was necessary.

Rent was received from time to time from the year 1830 and credited to the post contingent fund, the sum varying from \$900 per annum in 1830 to \$3,334 in 1856, then being reduced to \$2,000 until 1864, when it gradually increased until it reached its maximum, \$4,583, in 1867. From 1868 to 1887 it varied, being as high as \$4,000 some years and finally down to \$1,500 in 1887.

By direction of the Secretary of War in 1887 the lease of the hotel was opened to competition, and in November of that year it was rented for 5 years to Mr. A. H. Craney, the highest responsible bidder, at an annual rental of \$3,500, the lessee to make annual repairs not to exceed

in value \$500. This lease I found on record when I assumed command in August, 1889; it does not expire until November 1, 1892.

The lessee came to me in the autumn of 1889, pronounced the rental required to be excessive, and asked a reduction; it was not in my power to grant his request, as the lease had been based upon his proposal and had been approved by the Secretary of War; no further action in the matter, so far as I am aware, has been taken by the lessee.

During the season of the examination and graduating exercises in June the hotel is crowded to so great an extent that more or less discomfort necessarily ensues.

A copy of the regulations governing the lease, upon which proposals for renting the hotel were based, is submitted herewith.

As the hotel is practically without guests for about 8 months of the year, the rental paid appears to me to be excessive, but it was the result of competition; future leases, in my opinion, should be made by the Superintendent with the approval of the Secretary of War, and should be worded in such manner as to fully protect the interests of the United States, the Military Academy, and the officers and other guests who may be residing at the hotel.

The contingent fund accruing from rents, etc., is properly accounted for by abstracts and vouchers, submitted to the Secretary of War in accordance with the terms of the act of Congress approved May 1, 1888.

THE PUBLIC STABLE.

The public stable was erected in 1855, and has been repaired from time to time at a total expense of about \$2,000.

It was very necessary that there should be some means of transportation from the docks to the plain and the hotel, and that visitors could be able to obtain vehicles when desired for riding over the reservation.

The stable, with the exclusive privilege of furnishing carriages and horses, was leased in 1865 for \$150 per annum, and has been continued from that date; the annual rental varying from \$500 to \$100, at which nominal sum it is at present.

Up to 1887 the matter was under the complete control of the Superintendent, but in that year, *by direction of the Secretary of War*, it was opened to competition and leased to Mr. John Denton, the highest responsible bidder, for the term of 5 years, with the exclusive privilege of hiring carriages and horses to guests of the post.

In 1890, Mr. Denton being desirous of retiring from business, was authorized to transfer his interests to Messrs. Drew & Mandigo, who now hold the lease which will expire November 1, 1892.

A copy of the regulations governing the lease of the stable is transmitted herewith, together with the tariff of prices, approved when the lease was made.

It must be remembered that there are few calls for vehicles except during the summer, and that between October 15 and May 15, a period of 7 months, the lessee of the stables has comparatively little patronage, but must maintain his establishment, care for his horses, and have suitable vehicles at the depots to meet all the trains arriving between the hours of 8 a. m. and 9 p. m., daily.

When the lease is renewed in 1892 it should be worded in such manner as to carefully protect the interests of the Military Academy and the guests of the post. In the mean time I recommend that Congress be requested to make the necessary appropriation for a carriage and an omnibus for the use of the members of the Board of Visitors during their annual visits to the Military Academy.

THE CEMETERY.

The West Point cemetery now contains an area of about 14 acres, more than one-half of which is still only partially improved.

The old cemetery, which contains the remains of officers, cadets, soldiers, and resident civilians who have died in past years, is also honored with being the final resting place on earth of some of the most distinguished soldiers of the Republic.

As the cemetery was being rapidly filled, I extended its limits in 1890 so as to take in the adjacent ground occupied in years past as a cadet garden. This new addition is now being laid out to correspond with the beauty of the remainder of the cemetery, and it is earnestly hoped that Congress will appropriate the sum of \$1,500 for the continuance of the work of enlarging and beautifying this home for the remains of the honored dead.

SEWERAGE AND PLUMBING.

By the act of Congress approved March 2, 1891, an appropriation of \$15,000 was made for necessary repair of and for improving the plumbing and sewerage system at West Point, N. Y., and putting the same in a sanitary condition to be expended under the joint direction of the superintendent, the surgeon, and the post quartermaster.

In anticipation of the passage of the appropriation bill, I convened a board in January, 1891, upon the subject of sewerage and plumbing, consisting of Lieut. Col. James Mercur, professor of engineering; Maj. Henry McElderry, surgeon U. S. Army, post surgeon; Capt. William H. Miller, assistant quartermaster, post quartermaster; and First Lieut. John A. Lundeen, Fourth Artillery.

This board gave the subject the most thoughtful and serious consideration, making a thorough examination of the general system of sewerage and plumbing, and in March, 1891, submitted an exhaustive report with recommendations for certain much-needed improvements; after a careful examination of this report, which I held under consideration for several days, I approved it fully, and it thus constituted the views of the three officers indicated in the law.

Operations were commenced early in July, 1891, upon the general plumbing of the Post, which had been found to be seriously defective, and orders were given for the introduction of the modern system as far as possible, and for such improvement of the sewerage as the funds available would admit.

All materials were purchased under contract as far as practicable, after due advertisement. The work is being done by hired labor, a first-class sanitary expert plumber having been employed as foreman, and a number of skilled plumbers placed under his immediate order. The work is progressing as rapidly as the means at our command will admit.

As the original estimate for renovating present plumbing and sewerage was \$33,000, it is earnestly hoped that Congress will this year appropriate the necessary sum (\$18,000) to complete the work which is so very important to the health of this large command.

The following statement shows the number, length, dimensions and general location of the main drains, the general style of auxiliary drains, and the location of the sewers at West Point, N. Y.

Designation.	Main drains.		Auxiliary drains.		Kind.
	Length.	Size.	Length.	Size.	
Southern sewer.....	<i>Fect.</i> 160 440 1,037	<i>Inches.</i> 8 10 15	<i>Fect.</i>	<i>Inches.</i>	Round earthen-pipe. Do. Do.
First branch.....	1,637	.....	350 300 975	8 10 15	Do. Do. Do.
Second branch.....	.....	.....	1,625 730	.....	Size 2 by 2 feet by 6 inches. Brick. Round earthen-pipe.
Central sewer.....	2,725	12	600 650	8 8	Do. Do.
First branch.....	.....	.....	.....	.....	Do.
Second branch.....	.....	.....	.....	.....	Do.
Northwestern sewer.....	1,650	10	350 415	10 6	Do. Do.
First branch.....	.....	.....	.....	.....	Do.
Second branch.....	.....	.....	.....	.....	Do.
Northern sewer.....	860	10	650 330	8 8	Do. Do.
First branch.....	.....	.....	.....	.....	Do.
Second branch.....	.....	.....	.....	.....	Do.
Sewer No. 1.....	787	4	.....	.....	Do.
Sewer No. 2.....	671	10	.....	.....	Do.
Sewer No. 3.....	350	8	.....	.....	Do.

LOCATION OF SEWERS.

Southern sewer.—Commences in rear of quarters No. 17, and runs south in rear of quarters Nos. 15, 13, and 7, thence to road in front of Cadet Barracks, thence south in rear of Academic Building, thence between Academic Building and Grant Hall across main road to stone steps on side of hill, thence to river, 250 feet south of the West Shore tunnel.

Central sewer.—Commences in rear of quarters Nos. 41 and 43, and runs in rear of quarters Nos. 39, 37, 35, 33, and 31, and in front of quarters No. 29, thence across road to southeast corner of laboratory, thence to river at a point 225 feet east of the north wharf.

Northwestern sewer.—Commences at quarters No. 51, and runs due north to river.

Northern sewer.—Commences in rear of band barracks, thence to river.

Sewer No. 1.—Commences at Denton's store, thence to river.

Sewer No. 2.—Commences at hotel, thence to river.

Sewer No. 3.—Commences at cadet sinks (in camp), thence to river.

EXTENSION OF GAS PLANT AND METHOD OF LIGHTING CADET BARRACKS.

During past years great complaint has been made of the character of light furnished cadets for studying at night, and in my last annual report I submitted a plan and estimate for a complete electric light and power plant for this post.

This plan did not meet with favorable consideration and no action was taken upon my recommendation.

During the past year the post surgeon has recommended the use of glasses for studying in a number of cases of cadets, and at the medical examination of the graduating class in June, the surgeons informed me that the eyes of nearly every graduate were more or less congested; 19 of the young gentlemen failed to come up to the requirements of the War Department as to vision, and 6 failed to read the test type at

three-fourths of the required distance. In every instance the young gentlemen claimed that the difficulty had commenced since they entered the Military Academy.

The gas furnished for the use of the post is reported by the professor of chemistry, who tests it frequently, as of excellent quality; owing to some bad coal furnished by the contractor, it contained more or less sulphur on two or three occasions during the year.

The gas jet used in barracks is what is known as the bat-wing burner, placed upon an arm 10 inches long, projecting directly from the side wall of the room and over the table. Two cadets, one on each side of the table, study by this light, which not only is of insufficient power, but gives out so much heat near the head of the student as to be exceedingly uncomfortable.

In order to furnish a better light I propose to increase the gas plant sufficiently to furnish a full supply for all buildings on the post and to place in every room in barracks a plain iron chandelier with two arms and a slide drop light. This chandelier will be in the centre of the ceiling, immediately over the table, so that the cadets can study without difficulty.

An estimate of \$48,000 is submitted for the purpose of carrying out this plan, and I earnestly urge that an appropriation be made for this very important and, I may say, almost absolutely necessary improvement.

HEALTH OF THE COMMAND.

Attention is invited to the report of the post surgeon, submitted herewith.

The general health of the command has been unusually good during the past year; there have been no epidemics, and even the so-called "Grippe," which prevailed in the vicinity, has not been felt here to any marked degree.

In the corps of cadets there was one case of pneumonia, one of traumatic cellulitis, and one of typhlitis, all of which were successfully treated by the very skillful surgeons at the post.

UNITED STATES COMMISSIONER AND DEPUTY UNITED STATES MARSHAL.

Owing to the large amount of building in progress and the number of mechanics and laborers necessarily on the post, it was deemed best by me that the civil authorities should be represented upon this military reservation.

At my request, Mr. H. J. Koehler, the master of the sword, was appointed United States commissioner, and Mr. Frank P. Bailey, a faithful and efficient employé of the quartermaster's department was appointed deputy United States marshal.

The presence of these two civil officers, both of whom live upon the post, will enable immediate action to be taken in case of felony or breach of the peace at West Point by any civilian temporarily upon the reservation.

THE BATTLE MONUMENT.

In my last annual report I mentioned the circumstances connected with the subscriptions raised in 1863 for the erection of a monument at West Point, N. Y., in memory of the officers and enlisted men of the regular army who were killed or died of wounds received in action during the war of the rebellion.

Competitive plans were invited from four firms of architects eminent in the profession, and in October, 1890, the designs submitted were examined by a committee consisting of the following-named gentlemen:

Mr. R. M. Hunt, architect, of New York City; Mr. Augustus St. Gaudens, sculptor, of New York City; Mr. Arthur Roatch, architect, of Boston; Col. P. S. Michie, professor of philosophy, U. S. Military Academy; Col. C. W. Larned, professor of drawing, U. S. Military Academy; Col. E. W. Bass, professor of mathematics, U. S. Military Academy; Lieut. Col. J. Mercur, professor of engineering, U. S. Military Academy.

This committee selected the design marked "Monolith," the motto of the firm of Messrs. McKim, Mead & White, of New York.

As stated by the professor of drawing, "the results of the competition were very gratifying and the merits of all the designs so conspicuous as to render final decision a matter of nice discrimination, based upon many considerations."

The description of the design selected, as given by the architects, is as follows:

In preparing the design we have most carefully considered the object of the monument and the site which it is to occupy.

We believe the monument should be first and foremost a martial one, distinctive in its character, and impressive in its design.

The beauty of its site and the surroundings seem to us to preclude any bulky or massive treatment and to suggest rather a treatment where the impression should be produced by height supported by a base which should not interfere with graceful and artistic treatment.

For this reason we have adopted as the feature of our design a single monolithic shaft treated in the shape of a memorial column or column of victory.

This form seems to us to be more distinctively martial than any other, and in this form we believe it is possible to obtain impressiveness and dignity without a sacrifice of grace, at the same time preserving a distinctively architectural and monumental character.

We lay great stress upon these two points, viz, the necessity of giving the monument a martial design, and the relation of the monument to its site.

In our design we have had these two points continually in mind, with results which you must judge.

The shaft is a monolith of polished granite, 41 feet 6 inches high and 5 feet 8 inches in diameter.

It is proposed to surmount it with a figure of Victory, and surround it by eagles—a distinct mark of its national character.

The shaft rests upon a circular base, surrounded by flights of steps, giving the greatest breadth and dignity possible to the base.

The materials are most enduring—granite and bronze.

On July 28, 1891, a contract was made with the firm of Norcross Brothers, of Worcester, Mass., for the granite work and the necessary labor of placing the bronzes in position. Operations were at once commenced at the quarry at Stony Creek, Conn., getting out the enormous stone which is to form the main shaft. All the granite except the shaft will come from quarries at Milford, Mass.

It is hoped that the shaft can be hauled to the site during the coming winter, and that the monument will be completed during the autumn of 1892.

The site selected is on the plain north of Execution Hollow and about 100 yards southeast of Trophy Point.

The height of the monument when completed will be about 78 feet.

NEW BUILDING FOR SINKS AND BATH ROOMS FOR CADETS.

I beg to invite special attention to the necessity for modern improvements in the cadet sinks.

These sinks have been condemned by the post surgeon as in very bad sanitary condition, and demanding complete renovation and enlargement.

An estimate of \$28,000 is submitted for this purpose.

It is proposed to construct a two-story stone-faced, brick-lined building, 60 feet long and 40 feet wide. The lower story will contain 54 water closets and 60 urinal troughs, and the upper story 35 bath tubs.

This will enable us to remove the present bath rooms from basement of barracks.

The building will be heated by steam from the main boiler house.

I respectfully invite attention to the estimates submitted for the next fiscal year.

They have been carefully prepared under my personal supervision, and there is not a single item that is not deemed by me absolutely necessary for the welfare and prosperity of the Military Academy and the post of West Point, N. Y. I earnestly urge that these estimates may receive favorable consideration.

In conclusion, I can only repeat the closing words of my last annual report, and express my high appreciation of the earnest, faithful, and intelligent assistance I have received in the discharge of my official duties from the professors and other officers of the Academy, and my gratification at being able, at the end of my second year as Superintendent, to report the corps of cadets in excellent condition as regards health, discipline, drill, and instruction.

Very respectfully, your obedient servant,

JOHN M. WILSON,

Colonel of Engineers, Superintendent U. S. Military Academy.

The ADJUTANT-GENERAL, U. S. ARMY,

Washington, D. C.

HEADQUARTERS UNITED STATES CORPS OF CADETS,
West Point, N. Y., August 26, 1891.

The ADJUTANT U. S. MILITARY ACADEMY,
West Point, N. Y.:

SIR: I have the honor to report that during the preceding 12 months instruction has been given in the drill of the three arms, in target practice with small arms and breech-loading field guns, seacoast guns, and mortars, in mechanical maneuvers with field, siege, and seacoast guns, in fencing with small sword and bayonet, in gymnastics and swimming, in military police and discipline, and in quartermaster, subsistence, and company administration.

Owing to the unusual number of fine days in the spring, the customary drills in the school of the company and school of the battalion were completed much earlier than usual. Advantage was taken of this to give practical instruction in the duties of advance guard, rear guard, outpost, and reconnaissance; first in miniature, by the several companies on the plain, with a view to familiarizing the cadets with the theoretical disposition of a given small force, and afterward in the rough country west of the post, where the varying accidents of ground would alter the conditions of each exercise.

To develop interest and to make the operation more realistic, a portion of the available force was made to occupy a position as part of a system of outposts affording to a supposed main body the necessary security from surprise.

The opposing force, supposed to be the advance guard of an approaching column, was to discover the location and strength of these outposts, to turn the position and effect its capture, if it could be done without compromising the main column.

The cadets can be absent from barracks for only one hour on any one day for instruction in the field. Consequently it is not possible to proceed very far into new ground each day, and the practical problems that can be thus illustrated must be very few. Nevertheless the practice, even to this limited extent, is beneficial, and may assist a young officer in learning how to conduct a patrol at least.

The officers detailed as assistants in the tactical department have been most earnest in their efforts to maintain the excellent reputation of the corps of cadets, and its gratifying condition as to discipline and high honor is an attestation of their tact and judgment.

Very respectfully, your obedient servant.

H. S. HAWKINS,

Lieutenant-Colonel Twenty-third Infantry, Commandant of Cadets.

A true copy.

J. M. CARSON, Jr.,

Second Lieutenant Fifth Cavalry, Adjutant.

Regulations governing the lease of the West Point Hotel, referred to in advertisement for proposals for lease of same, dated this office, June 24, 1887.

HEADQUARTERS U. S. MILITARY ACADEMY,
OFFICE OF THE TREASURER,
West Point, N. Y., June 24, 1887.

1. The lease will embrace the hotel, its fixtures, appurtenances, and grounds now inclosed about the same.

2. The hotel must be kept open and maintained all the year round in such style as is usual in hotels of the first class in the city of New York.

3. A bar will not be permitted in connection with the hotel, nor will liquors be disposed of excepting under such regulations as may be promulgated by the Superintendent of the Military Academy, approved by the Secretary of War. The sale of liquors of any description may be forbidden.

4. The continuance of the hotel has for its special objects: (1) The accommodation of the Board of Visitors to the United States Military Academy and officers of the Government making tours of inspection to the post. (2) The accommodation of the parents and guardians of cadets, and persons visiting West Point. (3) The accommodation of officers of the Army on duty at the Military Academy, with quarters when the same, in the opinion of the Superintendent, is necessary.

In pursuance of these special objects the lessee of the hotel will be required to assign the members of the Board of Visitors and other official visitors and their families the most desirable rooms in the hotel, and at a cost, including regular meals and service, but excluding extras, not to exceed \$3.50 per person per day, nor shall any guest be charged a per diem in excess of said sum for regular service.

5. The lessee will be required to purchase such of the valuable and essential property now in the hotel belonging to the present lessee on terms which may be agreed upon by the two named interested parties. Should they fail to come to an agreement, each will select a disinterested person to determine the value of such property and questions arising in connection therewith, and should these two persons be unable to come to an agreement they shall select a third party to the arbitration, and the decision of a majority of the three persons so chosen shall be final and binding on all interested parties.

6. The annual rent of the hotel will be paid in proportional quarterly installments in advance.

7. The lessee will be required to pay the cost of repairs on the hotel, but in complying with this regulation he shall not be required to expend annually a sum greater than \$500. The repairs necessary will be determined by a board of three officers convened by the Superintendent of the Military Academy during the first week of March in each year.

8. The lessee shall have no claim upon the Government for any improvements he may make by permission of the Superintendent, or for repairs referred to in paragraph 7.

9. The lessee will bind himself to observe and cause to be observed all the regulations and rules now established or that may hereafter be promulgated in relation to the hotel.

10. A copy of these regulations will accompany each proposal.

11. Each bidder will be required to furnish a bond, properly executed, in a sum double the amount of his bid, with approved security, guarantying the execution and faithful performance of the contract which he will enter into should his bid be accepted, said contract to embrace the points enumerated in this paper.

12. The contract referred to in paragraph 11 will be entered into between the lessee and the Superintendent of the Military Academy, subject to the approval of the Secretary of War, and a clause will be inserted therein providing for its annulment at any time by order of the Secretary of War should the lessee fail to keep the hotel in the manner hereinbefore described, or should he fail to observe the orders relative thereto now in existence or which may be hereafter promulgated.

13. The lessee will not be permitted to sublet or lease the hotel or any of the buildings connected therewith.

14. The right is reserved on the part of the Government to reject any or all bids, and to accept such bid as it may consider best for its interests.

By order of the Superintendent.

WM. F. SPURGIN,

Captain Twenty-first Infantry, Treasurer U. S. Military Academy.

Regulations governing the franchise connected with the lease of the public stable and residence at West Point, N. Y., now occupied by Mr. John Denton.

HEADQUARTERS U. S. MILITARY ACADEMY,

OFFICE OF THE TREASURER,

West Point, N. Y., June 24, 1887.

1. The lessee of the public stable and house now occupied by Mr. John Denton shall have the exclusive right to carry all passengers landed at the wharves and railroad stations on this reservation to and from the West Point Hotel and other parts of the post in so far as the same does not conflict with law or the right of any resident of the post to furnish transportation for himself, his family, or his guests.

2. The lessee shall keep for the use of residents and visitors such horses and vehicles as are found at first-class livery stables and at first-class hotels.

3. The drivers of all vehicles connected with the public stable shall have a neat and distinctive uniform which shall meet the approval of the Superintendent of the Military Academy, and which they shall wear at all times when on the post of West Point.

4. The lessee will have suitable vehicles of the class referred to in paragraph 2 at the docks, ferry landing, and West Shore Railroad depot to meet all trains and boats arriving between the hours of 8 a. m. and 9 p. m., and in all cases to provide for the transportation and protection of baggage belonging to residents or visitors employing him.

5. A uniform tariff of prices will be fixed by the Superintendent of the Military Academy for residents of or persons on duty at West Point and transient visitors.

6. The lessee will be required to purchase at a fair valuation the stock on hand belonging to the present lessee, Mr. John Denton, said valuation to be determined between Mr. John Denton and the lessee. Should they fail to come to an agreement, each will select a disinterested person to determine the value of property in question and all points arising in connection therewith, and should these two persons be unable to come to an agreement, they shall select a third party to the arbitration, and the decision of a majority of the three persons so chosen shall be final and binding on all interested parties.

7. The annual rental will be paid in proportional quarterly installments in advance.

8. The lessee will be required to pay the cost of all necessary repairs on the dwelling house occupied by him and on the public stable, the repairs necessary to be determined by a board of three officers convened by the Superintendent of the Military Academy during the first week of March in each year, and not to exceed annually a sum for the dwelling house greater than \$100, and for the stable a sum greater than \$50, or a total for both house and stable greater than \$150.

9. The lessee shall have no claim upon the Government for any improvements he may make by permission of the Superintendent whilst in possession.

10. Each bidder will be required to furnish a bond, properly executed, in a sum double the amount of his bid, with approved security, guarantying the execution and faithful performance of the contract which he will enter into should his bid be accepted, said contract to embrace the points enumerated in this paper and such regulations in reference to the livery business at West Point as may be in existence and not mentioned herein, inadvertently omitted.

11. The contract referred to in paragraph 10 will be entered into between the lessee and the Superintendent of the Military Academy, subject to the approval of the Secretary of War, and a clause will be inserted therein providing for its annulment at any time by order of the Secretary of War should the lessee fail to conduct the livery business in the manner hereinbefore described, or should he fail to observe the orders relative thereto now in existence or which may be hereafter promulgated.

12. The lessee will not be permitted to lease or sublet any privileges granted to him connected with the stables or carrying for the post.

13. The right is reserved on the part of the Government to reject any or all bids, and to accept such bid as it may consider best for its interests.

By order of the Superintendent.

WM. F. SPURGIN,

Captain Twenty-first Infantry, Treasurer U. S. Military Academy.

Abstract of charges authorized to be made by party holding lease of livery stable, as recommended by board convened at West Point, N. Y., October 30, 1887, and approved by the superintendent U. S. Military Academy November 4, 1887.

For carrying residents of or persons on duty at West Point, N. Y., to or from the wharves or railroad depot	\$0. 15
For each trunk or box carried in baggage wagon by them	. 15
For a two-horse carriage or sleigh, the first hour	1. 50
After the first hour	1. 00
For a two-horse carriage or sleigh per hour, between 10 p. m. and reveille	2. 00
For a one-horse carriage or sleigh, per hour	1. 00
For carrying persons to or from Ruger, Camp, or Log towns to wharves or depot ..	15

Other charges for residents of or persons on duty at West Point, N. Y., to be in proportion to the above.

For carrying each transient visitor to or from wharves or depot	.25
For each trunk or box carried by them in baggage wagon	.25
For the hire by them of a two-horse carriage, the first hour	2. 00
After the first hour	1. 50
For the hire by them of a two-horse carriage between 10 p. m. and reveille, per hour	2. 00

W. H. MILLER,

Captain and Assistant Quartermaster, U. S. Army.

WEST POINT, N. Y., April 1, 1891.

THE ADJUTANT U. S. MILITARY ACADEMY,
West Point, N. Y. :

SIR: I have the honor to submit the following report of survey made of the United States Military Reservation of West Point, N. Y.

I received verbal orders from Capt. P. M. Price, Corps of Engineers, U. S. Army. They were to redetermine the azimuths and lengths of the bounding lines of the reservation, the corners of which having, with one exception, been already located and marked.

These orders were subsequently modified to include the addition known as the Kinsley estate. This latter was first surveyed by me in the spring of 1888, and the deed of purchase was based on that survey. The corners of this estate were shown me by the owners of adjacent property, and according to the plats these corners were joined by right lines. The location of the corners was verified by the statement of Mr. Caldwell, of Newburg, the surveyor who surveyed all the property in that neighborhood.

The northeast corner of the military reservation was the one that had not been marked. The north bounding line was first surveyed by a commission appointed for that purpose, and subsequently by a Mr. Parmenter. The latter describes the line as passing by a large, marked tree, and ending at a large stone on the Hudson River bank. There is still a large rock on the bank, which would appear might be the one. However, a right line joining this point with the northwest corner would go over ground whose topography does not at all agree with the description; on it no marks could be found, and its direction would differ several degrees from the description. Moreover, the survey made by the commission, and on which Mr. Parmenter's was based, does not mention this rock. This, then, evidently could not be the line.

I corresponded with the county surveyor, and recorder, and the railroad company; obtained copies of deed of transfer, etc., but could get no additional information; A bolt in a small rock about 300 feet north of large rock was thought by Mr. Caldwell, the surveyor from Newburg, might be the corner. This bolt was evidently of recent origin; the rock was so small as not to be conspicuous, and apparently had been placed by the railroad company. It could not have been the one referred to by Parmenter, as it was right by an old house foundation which, in Parmenter's survey, is at some distance. The objections as to the topography and direction of line apply here as well.

By making the angle at the northwest corner very nearly equal to that of Parmenter and the commissioner's survey, I determined a line whose topography agreed with the description, and on which I found a tree lying on the ground partly decayed, but which was the only large tree in that vicinity, and was probably the tree referred to. I took this as the line and continued it to the river.

The azimuths of all the lines were determined by connecting with Crow Nest, Plum Bush, and Bare or Bald Rock stations of the Coast Survey, and with the north and south line established on the plain at West Point.

The instrument used was a good field transit. Angles were repeated in the usual way.

As observations to long distances could usually not be taken from the corners, lines were prolonged to the corners. All lines were determined by two independent systems of observations, and are accurate within the limits of the description.

The distances were measured by stadia, by two independent observers.

The description of the line is as follows:

Azimuths are measured from the south around to the west; the number of the stations are given to agree with previous survey.

Starting at a point where west bank of Hudson River is intersected by south line, marked by iron gun near bank, thence $89^{\circ} 21'$, 3,467 feet to iron bolt in rock (station 3); thence $184^{\circ} 32'$, 411 feet to iron gun (station 4); thence $192^{\circ} 15'$, 1,701 feet to iron gun (station 5); thence $184^{\circ} 44' 30''$, 2,123 feet to iron gun (station 6); thence $91^{\circ} 14' 30''$, 4,950 feet to iron gun (station 7); thence $18^{\circ} 36'$, 1,612 feet to iron gun (station 8); thence $83^{\circ} 40' 15''$, 3,402 feet to iron bolt in rock (station 9); thence $172^{\circ} 11'$, 3,051 feet to iron gun (station 10); thence $256^{\circ} 5' 45''$, 4,095 feet to iron gun (station 11); thence $171^{\circ} 53'$, 6,433 feet to iron gun (station 12); thence $262^{\circ} 53' 30''$, 6,200 feet to river bank; thence down river bank to place of beginning, excepting strip of $49\frac{1}{2}$ feet on each side of center of West Shore Railroad track, beginning at south boundary, marked by iron gun, and extending to north line of Kinsley estate, marked by bolt in rock.

The lines are further marked as follows: Line 2-3, iron gun at Highland Falls road; line 6-7, iron gun at Stony Lonesome road; line 8-9, iron gun at Highland Falls road; line 8-9, iron gun at Long Pond road; line 9-10, iron gun at Long Pond road; line 10-11, iron gun at Cornwall road; line 11-12, 2 iron guns at crossings of Cornwall road; line 12-13, iron gun at top of hill overlooking river; line 12-13, iron gun near river bank.

Furthermore, the line is slashed throughout.

On lines 6-7, 7-8, 8-9, 9-10, and on south boundary of Kinsley estate, the fences of private individuals encroach upon the reservation, not, however, to any great extent.

A map and a sworn statement of the location of the guns are appended.

Very respectfully, your obedient servant,

JOHN BIDDLE,
First Lieutenant, Corps of Engineers.

A true copy.

J. M. CARSON, JR.,
Second Lieutenant Fifth Cavalry, Adjutant U. S. Military Academy.

ENGINEER OFFICE, U. S. ARMY,
Nashville, Tenn., May 7, 1891.

I hereby make affidavit that the iron guns placed at the corners of the United States Military Reservation, marked 5, 6, 7, 8, 10, 11, 12, in the appended plat occupy exactly the same locations as the stone monuments that previously marked these corners.

JOHN BIDDLE,
First Lieutenant, Corps of Engineers.

Subscribed and sworn to before me this May 7, 1891.

[SEAL.]

E. R. CAMPBELL,
Clerk United States District Court.

CADET HOSPITAL, U. S. MILITARY ACADEMY,
West Point, N. Y., August 31, 1891.

The POST-ADJUTANT,
Present:

SIR: In compliance with the verbal instructions of the Superintendent, I have the honor to submit the following report concerning the condition and work of the Medical Department of the U. S. Military Academy and Post of West Point for the year ending June 30, 1891:

The following medical officers have been on duty during the year, viz :

(1) Maj. Henry McElderry, surgeon, U. S. Army, post surgeon, on leave of absence on account of sickness from September 10, 1890, to January 10, 1891. (S. O. No. 214 and 263, A. G. O., C. S., 1890.)

(2) Capt. Samuel Q. Robinson, assistant surgeon, U. S. Army, from July 1 to July 9, 1890. Relieved from duty by S. O. No. 153, paragraph 12, A. G. O., C. S., 1890.

(3) Capt. William Fitzhugh Carter, assistant surgeon, U. S. Army, from July 9, 1890, to end of year (June 30, 1891). S. O. No. 153, paragraph 12, A. G. O., C. S., 1890. On leave of absence for 11 days, from May 22, 1891, to June 2, 1891. By orders No. 78, Headquarters U. S. Military Academy, West Point, N. Y., C. S., 1891.

(4) Acting Assistant Surgeon William Penn Compton, U. S. Army, from beginning to end of year.

The duties of the medical officers have been divided generally as follows, viz :

The post surgeon has charge of the cadet hospital and cadet sick call, general administrative affairs of the Medical Department of the Academy and Post and of such officers and their families as may call on him for professional advice and treatment.

The first assistant has charge of the soldiers' hospital and such officers and their families as may call on him for treatment, and since January 1, 1891, has examined and fitted with glasses for studying such cadets as have suffered from eye strain.

The second assistant has professional charge of the families of enlisted men and of civilian employes and their families living on the reservation and of such officers and their families as may call on him for professional treatment.

The following table shows the average strength of the command for the year :

Officers	50
Cadets	261
Enlisted men	331
Civilians, officers, and soldiers' families; employes and their families.....	1,065
Total	1,707

The following table shows number of cases treated during the year :

Officers: wounded, 3; sick, 18	21
Cadets in hospital: wounded, 81; sick, 368	449
Cadets, approximate number, treated in quarters and excused from some duty	1,910
Cadets treated in quarters, not excused	2,644
Enlisted men in hospital and quarters: wounded, 66; sick, 315	381
Civilians on reservation: Men, women, and children treated	967
Total	6,372

There was no death among officers or cadets during the year. Of the total number of cases among civilians on the reservation, 291 are recorded at the cadet hospital as having occurred among officers' families.

There was but one death among this class of patients: (From heart failure and old age).

There were 676 cases treated among civilians at the soldiers' hospital. Of this number there were 123 cases of contagious diseases, as follows, viz: Diphtheria, 1; acute parotitis (mumps), 27; influenza, 71; whooping cough, 24. Total, 123. There were three deaths among this class of patients: Still-born, 1; pulmonary tuberculosis, 1; croupous-pneumonia, 1.

There were two deaths among enlisted men during the year: Heart failure, 1; pulmonary tuberculosis, 1.

Eighteen births are recorded as having taken place on the reservation during the year.

Five thousand one hundred and eighty-six prescriptions are recorded at the cadet hospital as having been put up during the year, 710 for officers and 4,476 for others. Three thousand one hundred and seventy-three prescriptions are recorded at the soldiers' hospital as having been put up during the year.

One hundred and eighty-six recruits were examined at the soldiers' hospital during the year. Fifty-one vaccinations, 172 revaccinations were performed on the reservation during the year.

The entire fourth class corps of cadets was included in the number. The following points have been particularly dwelt upon by the medical officers in their monthly sanitary reports during the year, viz :

(1) Defects in plumbing in cavalry barracks, artillery detachment barracks, assistant surgeon's quarters, and need of flushing of privy in rear of band barracks. August 5, 1890. (Assistant Surgeon Carter.)

(2) Recommendations concerning improvement of the lighting at night of cadet barracks. October 12, 1890. (Assistant Surgeon Carter.)

(3) Recommendations concerning flushing and disinfection of all waste pipes, soil pipes, house drains, and sewers throughout the post, and examination of plumbing in

barracks by a plumber. Calls attention to the poor quality of the lining of the copper vessels now in use in the cadet hospital, which has worn off in places. November 19, 1890. (Assistant Surgeon Carter.)

(4) Calling attention to defects in plumbing in officers' quarters; recommends that cadets be required to wear overcoats out of doors regularly during cold weather, and overshoes whenever the ground is wet and cold or covered with snow. January 8, 1891. (Assistant Surgeon Carter.)

(5) Reports that the whole subject of drainage and sewerage of the post is now being thoroughly considered by a board of officers appointed by the Superintendent, and of which the professor of engineering, the post surgeon, the post quartermaster, and Lieutenant Lundeen are members.

The board is directed to investigate and report the present condition of affairs and make recommendations.

Reports the result of vaccination and revaccination of entire fourth class of cadets. February 8, 1891. (Surgeon McElderry.)

(6) Reports defects in plumbing of soldiers' hospital. February 9, 1891. (Assistant Surgeon Carter.)

(7) States that the report of the board of officers appointed by the Superintendent on the improvement of the drainage and sewerage of the post has been submitted to the Superintendent and has received his cordial approval and action, and that a satisfactory programme of operations for the expenditure of the appropriation of \$15,000 made by Congress in the last Military Academy appropriation bill for repairs to the drainage and sewerage system of the post, etc., and available July 1, 1891, has been decided upon by the officers directly charged with the supervision of the expenditure. Also reports that there have been two cases of diphtheria, and two officers affected with sewer poisoning, due, in the opinion of the post surgeon, to leaks in the soil pipes in their respective houses. April 13, 1891. (Surgeon McElderry.)

(8) Reports that the plumbing in one of the officers' quarters was tested on the 30th instant and found defective; that there had been constant sickness in this family, "entirely due to this cause." Upon the fact being reported to the Superintendent action was promptly taken to repair the plumbing, and the work is now in progress. Recommends that the sewers throughout the post be thoroughly flushed out with the hose and fire engines, as soon as practicable, to cleanse them, etc. May 6, 1891. (Surgeon McElderry.)

(9) States it seems to be well understood that the amount of money, \$15,000, appropriated by the last Congress, will not be sufficient to do all the work necessary to properly carry out the recommendations of the post surgeon regarding the plumbing, drainage, and sewerage of the post, which recommendations have already received the approval of the Superintendent, and the necessity for which has been fully recognized by the board of officers recently convened at this post by the commanding officer to report upon the best method of expending the present appropriation for these purposes. The post surgeon respectfully begs leave to express the hope that the estimate for the next Military Academy appropriation bill may contain provisions for the necessary funds for carrying on and completing these very necessary and much needed improvements to bring the post in these respects into satisfactory sanitary condition. June 3, 1891. (Surgeon McElderry.)

The following special sanitary reports have been made by the medical officers of the post during the year:

(1) Detailed special report dated September 26, 1890, by Capt. W. F. Carter, assistant surgeon, U. S. Army, acting post surgeon, upon the character of the gas light in the cadet barracks, and recommending that the cadet barracks be lighted by the incandescent electric light (in which recommendation the post surgeon fully concurs).

(2) Special report dated October 14, 1890, by Capt. W. F. Carter, assistant surgeon, U. S. Army, acting post surgeon, detailing, in compliance with instructions, the results of a careful and critical inspection of the buildings where diphtheria appeared during the past year.

(3) Special report, dated January 14, 1891, by Maj. Henry McElderry, surgeon U. S. Army, post surgeon, calling attention to the urgent necessity for new cadet sinks and baths and urging that the proper steps be taken to bring this matter to the early attention of the proper authorities, with a view to having the item referred to in the estimate originally forwarded allowed in the pending Military Academy bill.

(4) Special report, dated February 6, 1891, by Maj. Henry McElderry, surgeon, U. S. Army, post surgeon, concerning cases of diphtheria and scarlet fever which occurred at the post between October, 1889, and May, 1890.

(5) Special report, dated April 26, 1891, by Maj. Henry McElderry, surgeon, U. S. Army, post surgeon, detailing results of a personal inspection of a set of quarters occupied by a corporal of the engineer company.

(6) Special report, dated March 16, 1891, by Maj. Henry McElderry, surgeon, U. S. Army, post surgeon, reporting a suspicious case of sore throat in the family of an

officer. (This case turned out to be diphtheria, and a leak in the soil pipe was afterwards found in this set of quarters, which was promptly repaired.)

(7) Special report, dated March 25, 1891, by Maj. Henry McElderry, surgeon, U. S. Army, post surgeon, reporting a leak in the plumbing in a set of officers' quarters and sickness of officers caused thereby. (Leak promptly repaired.)

(8) Special report, dated March 18, 1891, by Maj. Henry McElderry, surgeon, U. S. Army, post surgeon, reporting a case of diphtheria in the family of the superintendent of the cadet laundry, and three joints of the soil pipe in the set of quarters were found leaking, etc. (Leaks promptly repaired and family quarantined.)

(9) Recommends that an estimate of cost of material and labor required to construct a set of hospital steward's quarters, to be located in the immediate neighborhood of the new soldiers' hospital, now in course of construction at this post, may be included in the next Military Academy appropriation bill, and gives reasons therefor.

June 8, 1891.—One hundred and eight cadets suffering with eye strain have had their eyes thoroughly examined by Capt. W. F. Carter, assistant surgeon, U. S. Army, during the year, and of this number forty-three have had spectacles furnished for studying.

This special work was undertaken at the desire of the present Superintendent to save the cadets the expense and loss of time from their studies in going to New York City to consult oculists, and Captain Carter deserves commendation for the thorough and satisfactory manner in which he has performed this special work.

It is presumed that the new soldiers' hospital now being built will be completed during the present fall. A sewer will be needed to connect it with the sewerage system of the post.

A new set of hospital steward's quarters will be needed near the new soldiers' hospital, as the present building now occupied by the steward, and which adjoins the old soldiers' hospital, will be too far away from the new hospital. An estimate has been asked for some needful improvements and repairs at the cadet hospital.

It is understood that estimates for all these items will be included in the next Military Academy appropriation bill.

The work of improving the drainage and sewerage of the post, under the appropriation of \$15,000 made by the last Congress, is now in satisfactory course of construction.

A much larger sum will be needed to carry out the sanitary improvements of the post already recommended by the post surgeon and approved by the Superintendent.

The completion of the thirty sets of soldiers' quarters now in course of construction on high ground will very much add to the comfort and sanitary surroundings of the families of enlisted men living on the reservation.

In the five new sets of officers' quarters now being built at the post proper precautions have apparently been taken to insure dry and well-drained foundations. The clerical work, dispensing of medicines, cooking, and nursing in the cadet hospital and soldiers' hospital during the year have been satisfactorily performed by members of the hospital corps.

The medical department of the post is indebted to the Superintendent for his uniform, prompt, earnest, and cordial approval of every recommendation made during the year for the sanitary improvement of the post and garrison.

It is believed that the cadet and soldiers' hospitals at this post are fully supplied with all the medicines and surgical appliances needed for the proper treatment of the sick and wounded, and they have been kept in good condition during the year.

Instruction in first aid to the wounded, and, when the weather permitted, in litter and ambulance drills, has been given the men of the hospital corps and company litter bearers of the post each week during the year by Capt. W. F. Carter, assistant surgeon, U. S. Army.

The post surgeon desires to express his satisfaction with the efficient manner in which his assistants and the hospital corps generally have performed their duties during the year.

Very respectfully, your obedient servant,

HENRY MCELDERRY,
Major and Surgeon, U. S. Army, Post Surgeon.

Official.

J. M. CARSON, Jr.,
Second Lieutenant Fifth Cavalry, Adjutant.

REPORT OF THE ADJUTANT-GENERAL.

ANNUAL REPORT

OF

THE ADJUTANT-GENERAL.

WAR DEPARTMENT,
ADJUTANT-GENERAL'S OFFICE,
Washington, October 1, 1891.

SIR: I have the honor to submit my annual report for the year ended September 1, 1891.

MILITARY COLLEGES.

The data in the table submitted herewith, compiled from the reports of the officers detailed as professors of military science and tactics at the several institutions named, afford gratifying evidence of increased good results of a system that, by adopting military training so as to develop in the pupils a manly bearing and deportment and habits of ready obedience, confers practical benefits to both the youths under instruction and the State.

The average number of students over 15 years of age attending the several universities and colleges named was 15,717, or 4,000 more than reported in the previous year. Of this number 12,301 constitute the whole number of male students capable of military duty, while 7,487 represent the number required by the several institutions to be enrolled as military students. The total number that received military instruction during the last quarter of the scholastic year was 7,366, an increase of over 1,300 as compared with the number reported for the scholastic year 1889-'90.

The number of institutions at which the average attendance of students over 15 years of age was less than 100 has been reduced from 17 in 1889 to 10 in the past year; and the interest manifested by the faculties of the several colleges in military instruction and exercises is marked and steadily increasing.

The requirement by the college authorities, that pupils of suitable age and physical ability be enrolled as military students, shows the benefit resulting from such a rule by the increase, noted above, in the number of youths that have received military instruction, and it is therefore regrettable that at two of these institutions it has been left optional with the pupils to determine whether they would avail themselves of the advantages offered them by the military course. It is still more regrettable that, at one, the professor of military science and

tactics has been constrained to report that the interest manifested by the faculty is very faint or adverse. This condition neutralizes to a marked degree the zeal and best efforts of the military professor.

The regulation prescribed by the President of the United States, that the names of the three most distinguished students in military science and tactics at each college shall, when graduated, be inserted in the U. S. Army Register and published in general orders, was for the purpose of increasing the interest of the collegiate youths in military studies and exercises; and the fact that of the twelve civilian appointments in the Army, made during the past summer, four were given to young men who had received military instruction while at college and four others to active members of the national guard is to further stimulate the ambition of pupils at the several universities and colleges to excel in the military course, thereby fitting them for efficient service in the State militia, to the great advantage of that important branch of national defense.

Tabulated statement from reports of professors of military science and tactics, showing average attendance of students at universities and colleges.

Universities and colleges.	Average number of students.			Whole number of male students capable of military duty.	Number required by the institution to be enrolled as military students.	Total number that received military instruction during the last quarter.	Attendance at—		Aptitude of pupils.	Interest manifested by—	
	Over 15 years of age.	Under 15 years of age.	Total.				Artillery drills.	Infantry drills.		Students.	Faculty.
Alabama Agricultural and Mechanical College, Auburn	208	6	214	212	200	200	52	158	Fair	Satisfactory	Fair.
Arkansas Industrial University	400	90	490	240	236	236	.....	150	Good	Good	Good.
University of California, Berkeley	398	.....	398	277	277	258	.....	180	Excellent ..	Encouraging	All that can be desired.
State Agricultural College, Fort Collins, Colo	48	1	49	48	47	53	17	41	Good	Satisfactory	Do.
Sheffield Scientific School of Yale University, New Haven, Conn.	397	.....	398	397	*90	55	.....	50	Of a high grade.	Thoroughly enlisted.	Decided and increasing.
Delaware College, Newark	89	16	105	87	63	87	20	67	Good	Good	Satisfactory.
Florida Agricultural College, Lake City	59	.....	59	51	59	62	.....	36	Fair	Considerable	Not great, but the officer is given unqualified support in enforcing discipline.
North Georgia Agricultural College, Dahlonega	65	7	72	50	50	50	10	48	do	Fair	Great.
University of Illinois, Champaign	430	.....	430	309	275	275	.....	206	Good	Far from satisfactory.	Satisfactory.
Knox College, Galesburg, Ill.	200	15	215	200	(†)	58	.....	52	do	Fair	Marked.
Northern Illinois Normal School, Dixon	250	.....	250	250	(†)	56	.....	50	do	Great	Great.
De Pauw University, Greencastle Ind	850	.....	850	550	210	163	23	132	do	do	Do.
Perdue University, La Fayette, Ind	496	.....	496	345	145	122	27	83	Very fair ..	Moderate	Fair.
Vincennes University, Vincennes, Ind	85	50	135	85	50	50	.....	50	Good	Good	Good.
Cornell College, Mount Vernon, Iowa	435	.....	435	222	197	197	.....	176	Excellent ..	Fair	Fair.
State University of Iowa, Iowa City	175	.....	175	162	148	150	26	96	do	Satisfactory	Satisfactory.
Kansas State Agricultural College, Manhattan	270	2	272	269	None.	112	15	92	Good	Very encouraging.	Passive.
Agricultural and Mechanical College of Kentucky	150	5	155	140	120	120	18	81	do	Good	Good.
Louisiana State University and Agricultural and Mechanical College, Baton Rouge ..	131	2	133	133	133	140	.....	133	do	do	Do.
Maine State University, Orono	91	.....	91	87	87	87	.....	72	do	Excellent	Excellent.
Maryland Agricultural College, Prince George County	41	4	45	44	44	44	.....	41	do	Good	Good.
Baltimore Mutual Training School, Maryland	192	138	330	300	300	54	.....	25	Fair	Fair	Fair.

*Seniors.

†Not stated.

‡Optional.

Tabulated statement from reports of professors of military science and tactics, showing average attendance of students, etc.—Continued.

Universities and colleges.	Average number of students.			Whole number of male students capable of military duty.	Number required by the institution to be enrolled as military students.	Total number that received military instruction during the last quarter.	Attendance at—		Aptitude of pupils.	Interest manifested by—	
	Over 15 years of age.	Under 15 years of age.	Total.				Artillery drills.	Infantry drills.		Students.	Faculty.
St. John's College, Annapolis, Md	101	9	110	108	108	108	.....	95	Satisfactory	Commendable ..	Satisfactory.
Massachusetts Agricultural College, Hampshire County	115	.....	115	113	115	115	.....	108	Good	Excellent	Most excellent.
Michigan Agricultural College, Lansing	240	.....	240	192	162	162	15	133	Fair	Average	Rather indifferent.
Michigan Military Academy, Orchard Lake	156	4	160	160	160	160	24	156	Excellent ..	Excellent	Excellent.
University of Minnesota, Minneapolis	700	.....	700	400	107	146	17	113	Very good ..	Very good	Very high.
Agricultural and Mechanical College of Mississippi, Oktibbeha	181	2	183	201	201	201	31	159	Good	Good	Good.
Missouri State University, Columbia	440	.....	440	350	174	156	21	144	do	do	Do.
Washington State University, St. Louis, Mo	410	240	650	83	300	None.	(*)	(*)	do	do	Very much interested.
University of Nebraska, Lincoln	218	6	224	218	84	123	26	113	Very good ..	Great	Pretty generally give their support.
Nevada State University, Reno	100	.....	100	40	29	33	.....	29	Good	do	Great.
Rutgers College, New Brunswick, N. J	193	.....	193	190	92	92	.....	78	do	Steadily increasing.	Good.
Cornell University, Ithaca, N. Y	1,390	.....	1,390	1,240	438	438	19	363	Excellent ..	Good	Fair.
De La Salle Institute, New York City	137	88	225	137	.....	.....	(*)	(*)	.....do	do	Evidenced by hire of military instructor at cost.
St. John's College, Fordham, N. Y	253	65	318	259	240	250	.....	105	Good	Generally excellent.	Excellent.
Bingham School, Orange County, N. C	97	8	105	102	105	102	.....	96	do	Good	Good.
University of North Dakota, Grand Forks	66	.....	66	66	66	66	.....	82	do	do	Do.
Ohio Normal University, Ada	955	30	985	597	(1)	220	20	164	do	Great	Very great.
Mount Union College, Alliance, Ohio	153	.....	153	153	122	108	.....	92	Excellent ..	Fair	Strong.
Ohio State University, Columbus	438	4	442	337	242	254	15	202	Good	Fairly good	Good.
Ohio Wesleyan University, Delaware	767	.....	767	482	248	248	.....	210	First class ..	Good	Excellent.
Allegheny College, Meadville, Pa	192	.....	193	146	109	90	.....	56	Average	Moderate	Very good.
Grove City College, Pa	267	1	268	260	195	195	.....	175	do	Satisfactory ..	Great.
Pennsylvania Military Academy, Chester	125	2	127	118	127	135	.....	120	Decided	Well sustained.	Very satisfactory.
Pennsylvania State College, Centre County	175	2	177	155	137	137	28	113	Good	Great	Great.
South Carolina Military Academy, Charleston	127	.....	127	127	127	127	27	87	do	Satisfactory ..	Fair.
South Dakota Agricultural College, Brookings	252	1	253	127	62	66	55	55	do	Considerable ..	Do.

University of the South, Sewanee, Tenn.....	198	10	208	187	(†)	97	-----	64	do	Fair	Very faint or adverse.
University of Tennessee, Knoxville.....	160	-----	160	156	82	84	-----	69	do	Favorable	As far as expressed,
Agricultural and Mechanical College of Texas, College Station.	205	5	210	209	205	205	-----	181	do	Excellent.....	Favorable.
University of Deseret, Salt Lake City, Utah.....	175	6	181	175	175	60	-----	50	Excellent...	Very encourag- ing.	Fair.
Norwich University, Northfield, Vt.....	51	-----	51	51	51	51	20	43	Good.....	Excellent.....	Very encouraging.
University of Vermont, Burlington.....	150	-----	150	118	100	100	12	71	do	Excellent.....	Very good.
Virginia Agricultural and Mechanical College, Blacksburg ...	106	-----	106	103	103	103	-----	103	do	Good	Good.
West Virginia University, Morgantown	164	-----	164	159	74	89	41	76	do	do	Do.
University of Wisconsin, Madison.....	800.	-----	800	421	226	200	-----	148	Excellent...	Excellent.....	Fair.
									Good.....	On a par with other branches.	Satisfactory.
* See remarks.						† Optional.					

* See remarks.

† Optional.

EXAMINATIONS FOR PROMOTION.

Under the provisions of the act of Congress approved October 1, 1890, examinations for promotion, theretofore confined to the Corps of Engineers and Ordnance and Medical Departments, have been extended to all officers of the Army below the rank of major, and 330 examinations have been conducted before 39 different boards.

All officers who are likely to be promoted before January 1, 1892, have been examined.

As a consequence of the immediate application of the law to officers of the line, and the Quartermaster's and Subsistence Departments, the professional examination prescribed was necessarily restricted, and confined exclusively to subjects connected with routine duties, with which all were familiar, and which therefore would require but little preparatory study. The scheme was in the nature of an expedient, to serve a temporary purpose, until officers should gradually prepare themselves for a new and higher order of examination, and at the same time afford the Department time to acquire by experience and inquiry the necessary data upon which to arrange a comprehensive and more permanent system, suitable to the dignity and the best interests of the service.

Although these initiatory examinations have been confined to primary subjects, they have disclosed a most gratifying degree of proficiency in regard to routine duties. The progressive improvement, which is very apparent in the work submitted by candidates, justifies the conclusion that intellectual activity has already been produced as the direct result of the law, and leads to the expectation that the systematic investigation and study of more advanced branches of the profession, which must of course be included in future examinations, will be correspondingly beneficial.

The only suggestion of fear or complaint from officers who have been examined seems to arise from a belief that there is a great want of uniformity in the character of the examinations as conducted by different boards, in consequence of which some candidates are subjected to much more severe tests than others.

In the first instance boards were given great latitude in regulating their own proceedings, and the tendency to diverging methods at once became apparent. This disposition to deviate was immediately and effectually corrected, however, by means of a memorandum setting forth subheads under the different subjects of examination, accompanied by a requirement that at least one question be propounded under each subhead, thus fixing a minimum limit to which all boards are obliged to conform. Some boards still continue to propound more questions than others, thereby, no doubt, increasing the manual work; but all candidates since the publication of the memorandum, February 10, 1891, have been subjected to a remarkably even test so far as establishing proficiency is concerned.

This subject has received most attentive consideration, and it is believed that when the course of studies for examinations is fully decided upon and systematized, as contemplated in General Orders, No. 128, of 1890, from this office, a method will be prescribed which will insure absolute uniformity in the proceedings of boards so far as regards written examinations.

The provision of the law requiring the examination of certain officers who served in the war of the rebellion to be conducted entirely by officers who were appointed from civil life, or who were officers of volun-

teers only during said war, has proved to be a source of inconvenience without any compensating benefit to the officers in whose behalf it was enacted. The practical working of the restriction may be illustrated by a case now before this office, in which an officer must be sent to a considerable distance from his regular station because the numerous officers serving in the same vicinity suitable to conduct his examination are graduates of the Military Academy, and therefore ineligible to act in his case. In view of the dispersion of the Army throughout the vast area of the Republic, similar cases are of such frequent occurrence as to amount to a serious embarrassment in transacting the necessary routine connected with the business of examinations, besides greatly increasing the expense thereof.

Aside from this practical aspect of the case, a more serious question is presented by reason of the invidious classification the law involuntarily imposes upon officers. The law in effect not only casts a suspicion upon the professional proficiency of one class, but it also declares that another class can not be trusted to perform a plain and simple duty.

The officers of the Army compose a homogeneous compact corps. Antecedents are not inquired of excepting as regards moral character. Actuated by a common sentiment, all are coöperating with intelligent zeal for the interests and honor of the service. In the light of such conditions, a provision of law which in effect declares that it is necessary to protect certain officers against injustice at the hands of brother officers, is not only unnecessary in itself but is very unfortunate, if not positively pernicious. In its remote consequences it must produce a spirit of discord among men at present actuated by the most sincere sentiments of comradeship and good feeling. In this connection it may be said that, as all officers sit on courts-martial, why then should they be classified for duty on examining boards the functions of which are certainly not more important than those of courts-martial?

It is urgently recommended that Congress be asked to modify the law so as to make all officers eligible to conduct examinations for promotion regardless of the antecedents of the candidates.

The wording of the statute makes it apply in a peculiar way to the Corps of Engineers and the Ordnance Department. In each there are a few captains who served in the volunteer Army before entering the regular establishment, and therefore must be examined for promotion in the same manner as prescribed for other officers of the same category. As there are no officers of Engineers, and only two of Ordnance, eligible to sit as examiners, these war captains can not be examined by officers of their own organizations unless they waive the provision of the law intended for their benefit. It is obvious that this result was not intended by Congress. An amendment is therefore recommended to the effect that captains of Engineers and Ordnance who served in the war of the rebellion shall be examined for promotion in the same subjects and in the same manner as other officers of their respective organizations.

THE RETIRED LIST.

The act of Congress of February 16, 1891, requiring the transfers of officers on the retired list from the limited to the unlimited list upon attaining the age of 64 years, and fixing the number of the limited list as 350 instead of 400, as theretofore, has accomplished all that was anticipated, and will prove a great and lasting benefit to the Army. All incapacitated officers have been retired excepting seven, whose cases

are now pending, and for whom vacancies exist to which they can be transferred if it is found expedient to order their retirement.

At the date of the passage of the law the limited list was composed of 392 officers. Of these, 105 have passed to the unlimited list, and 9 have been dropped by reason of casualties, thus reducing the limited list to 278, or 72 below the authorized limit. To these vacancies 62 incapacitated officers have been transferred from the awaiting retirement list, leaving at the present date 10 vacancies.

Transfers from the limited to the unlimited list on account of attaining 64 years of age will take place as follows during each year, to include 1896:

1891.....	1	1894.....	14
1892.....	13	1895.....	13
1893.....	10	1896.....	10

It is believed that with careful administration the unlimited retired list, as now authorized, will be able to absorb all disabled officers as soon as they are found to be incapacitated.

ARMY REGULATIONS.

The necessity for revision and reprint of the Army Regulations is evidenced by the fact that 374 of the 1,861 paragraphs have been amended since the publication of the Regulations of 1889, and in order to make the book complete the amendments made must now be pasted in, which is a very difficult matter. These numerous changes were necessary on account of the adoption of better methods in Army administration and the enactment of many recent laws, as, for instance, to provide for the examination of officers and to regulate promotions; discharge of enlisted men and to prevent desertions from the Army, etc.; the substitution of post canteens for post traders; the administration of company and other funds under entirely new conditions; new and improved methods in the recruiting service, etc.

It has become, therefore, most perplexing to post and company commanders to know exactly what the regulation is on a given subject, for many paragraphs have been amended several times, and in justice to the Army at large the Regulations should be carefully revised by an expert and reprinted.

OATH OF ENLISTMENT.

The second of the Articles of War for the government of the Army prescribes the oath to be taken by the recruit within six days after his enlistment, and empowers any commissioned officer of the Army to administer it.

While, in the abstract, the sacredness of an oath legally taken retains its inviolability under any circumstances, however simple the manner of its administration, it is nevertheless unquestionable that a formal and imposing ceremonial does much to impress upon the individual the full sense of the solemn obligation that binds him; and therefore I earnestly recommend that Congress be asked to authorize a renewal of the oath of enlistment after the soldier has joined his regiment or command.

Such a requirement will, it is expected, prove of great benefit to the service and aid in keeping men true to their oath.

The individual oath of enlistment must, of course, be taken when the recruit is accepted at the rendezvous, and therefore it is suggested the ceremonial attending the renewal of the oath can best be observed

and followed after a detachment of young soldiers has joined the regiment for which destined. Up to that time most recruits are under drill and instruction at the depots, and so remain until they join a regiment and become integral parts of a fighting force. If this view be concurred in the issue of the full-dress uniform should be delayed until the recruit has joined his command, to first appear in it on the occasion of renewing his oath of allegiance.

This occasion (now that at the majority of posts monthly musters are made) would naturally seem to be the first or second muster following the arrival of the recruit at the post and his assignment to a company.

The troops at the post being paraded under arms, it is suggested the recruits from each company be marched to the front, and, after a short and suitable address by the adjutant or post chaplain, formally renew their obligation in the presence of their armed comrades. Inspection and muster would then follow a ceremony the details of which can readily be arranged to make the occasion an impressive one.

PAY OF NONCOMMISSIONED OFFICERS.

The absolute importance of efficient noncommissioned officers in the line of the Army has been represented in former reports, and especial stress laid upon the unfortunate fact that the inadequacy of the pay of that class not only robs the position of its value, but actually deters suitable men in the ranks from aspiring to promotion.

A bill embodying the recommendations made by this office was introduced in the last Congress, but from reasons not affecting its merits failed to become a law. It is therefore earnestly recommended that the attention of the approaching Congress be called to the eminent justice of the measure. I reiterate the remarks on the subject made in report of 1889, and now again recommend that at least the pay of the first sergeant and of the duty sergeant be increased.

The first sergeant of a company may truly be called the hardest worked non-commissioned officer in the Army. He has a direct responsibility for the proper care and use of the arms, equipments, and other property of the company; he is always on duty; must possess tact, sound judgment, superior intelligence, and have a thorough knowledge of all details, orders, and papers pertaining to company administration. A good first sergeant is indispensable to the making of a good company, for without him the best efforts of the captain would be rendered abortive. Exercising a certain supervision over the duties performed by every member of the company, he commands and instructs men in the ranks who receive more compensation than is allowed him, his pay being \$6 less than that of a soldier detailed as a mechanic and \$1.50 less than is received by the private detailed on duty as laborer. Company sergeants, who are charged with important duties in the internal economy of the company, besides commanding guards, escorts, fatigue parties, etc., receive \$6.50 less than a soldier teamster in the Quartermaster's Department; while a private on extra duty receives \$8.50 more than the pay of a corporal. These facts sufficiently evidence what little incentive is offered to noncommissioned officers to enlist and remain in the service.

The class of noncommissioned officers in the Army occupies the intermediate grade between the private and the commissioned officer, and its duties demand men of good capacity, strict honesty, untiring energy, and possessing high soldierly attributes. Justice to company noncommissioned officers demands that their pay should assimilate to that allowed similar grades in other branches of the service.

I submit that first sergeants and duty sergeants of companies, troops, and batteries (1,910 in number) should receive the following rates of pay: First sergeants \$34, and sergeants \$25 per month.

The increase of pay in these grades is \$12 for first sergeants and \$8 for duty sergeants, and will increase the annual appropriation by \$201,168.

In connection with the foregoing, I beg to say that the highest in

rank of the noncommissioned officers of the Army is the regimental sergeant major, whose pay is now only \$23 per month. This should be increased to \$36, the same pay as is now received by the sergeant major of Engineers. The duties of a sergeant major are most responsible in the correct and safe keeping of the regimental records, and he must be the highest type of the enlisted soldier to fulfill the military duties of his position. In fact he is selected as and he should be the ideal soldier and exemplar to the enlisted men of his regiment and a valuable aid to the regimental commander and his adjutant, and should receive pay commensurate with his rank and important duties. I also beg to recommend that Congress be asked to authorize the appointment of fifty "post sergeant majors," with the same pay as regimental sergeant majors, for assignment to important posts at which there are no regimental headquarters. This grade of noncommissioned officers is greatly needed to aid post commanders and post adjutants in keeping the post records and also in the other duties pertaining to their positions, which have now to be performed by men detailed for the purpose, and are seldom sufficiently well done, due largely to constant changes in troops from one post to another and change in details. This would not be the case were permanent post sergeant majors provided, similar to post quartermaster sergeants, and for the same reason—for the protection of the best interests of the service.

The increase of pay of regimental sergeant majors and the appointment of fifty post sergeant majors will amount to \$27,840 per annum.

When the Adjutant-General can state in the posters calling for recruits that there are 2,000 positions of noncommissioned officers in the Army with pay and allowances that make them desirable, the disposition of good men to enlist will surely be greatly stimulated, and it will be economy to secure such men even at the cost of \$228,000 per annum.

CHAPLAINS.

Suggestions have reached me, as the official medium of communication with the War Department, from a source entitled to much respect, as reflecting the best thoughts of army chaplains on the important duties devolving upon them, and I beg to submit them for the consideration of the honorable Secretary of War, viz:

In conducting religious exercises each chaplain should be authorized to wear the vestments of his own church.

A form of service especially harmonized and formulated for use in a truly catholic service in which all creeds and classes can join, and a hymnal compiled for and adapted to religious, patriotic, and other occasions, are greatly needed in the Army.

Fully and most heartily concurring in the suggestions briefly presented above, I beg to recommend, with regard to the last proposition, that the senior chaplain be charged with the duty of preparing such a form of service, and that he submit the results of his labors to the Secretary of War with the view to its consideration and report thereon by a board of chaplains to be composed of one chaplain of each denomination represented in the Army.

On the subject of wearing vestments in conducting religious services, it is recommended that when the denomination of which a chaplain is a member does not prescribe the vestment to be worn when officiating, a suitable one be authorized by the War Department; for instance, the Geneva gown. It is a long, loose overdress of varying style, worn on distinctly official occasions by clergymen, professors, and students, and

may be worn with propriety and advantage by the clergy of any denomination. The gown is the emblem of civil power as opposed to the sword.

CERTIFICATES OF MERIT AND MEDALS OF HONOR.

Section 17 of the act of March 3, 1847, provides that when any private soldier shall distinguish himself, or may have distinguished himself *in the service*, the President may grant him a certificate of merit which shall entitle him to additional pay at the rate of \$2 per month; and

Section 6 of the act of March 3, 1863, directs the President to cause medals of honor to be struck, and to present them to such noncommissioned officers and privates as have most distinguished, or who may hereafter most distinguish, themselves *in action*.

That a reward for any distinguished service should carry with it substantial advantage to the beneficiary was recognized by Congress in the act first cited above, for that law prescribes that the certificate of merit provided therein shall entitle the soldier who should peril his life or perform any conspicuous act of daring to an increase of \$2 per month to his pay. The omission of a similar provision in the act of March 3, 1863, has worked unintentional, but not the less unjust, discrimination against the enlisted man who by distinguishing himself in action has won a medal of honor.

As the omission of this section of the act cited from the Revised Statutes has rendered it obsolete, I beg to recommend that the law be reenacted authorizing the issue of medals of honor for distinguished service *in action*, and providing that enlisted men of the Army who have received, or shall hereafter receive, a medal of honor shall be entitled to \$3 per month in addition to their pay, such increase to commence from the date at which the medal of honor has been or shall be awarded.

The number of certificates of merit issued to men in the regular Army since 1874 is 59. Of these men 23 are still in the service. The number of medals of honor given to men in the regular Army since the act of March 3, 1863, is 380, and of these men there are 76 now in the service.

CIVIL EMPLOYMENT FOR HONORABLY DISCHARGED SOLDIERS.

I am strongly of the opinion that the Army would greatly gain in popularity and efficiency from the recognition of the principle that efficient service in the Army for not less than ten years shall constitute a claim upon the War Department for appointment in certain subordinate civil positions under its control.

There is in the War Department quite a large force of men employed as messengers, watchmen, etc., and the Engineer Corps, the Ordnance, the Medical, the Quartermaster's, and the Subsistence Departments have many places now filled by civilians which might well be given to discharged soldiers of honorable service who prove their competency to discharge the duties of such positions. If this suggestion is approved, applications should be accompanied by the certificate of the commanding officer of the applicant that his character is excellent and that he is fitted in every respect to satisfactorily discharge the duties of the position he seeks to obtain.

The adoption of the above recommendation may be expected to have a good influence upon the Army, by holding out a prospect to a worthy soldier of long and faithful military service of an appointment to a very

advantageous civil position; and there is no question that the training to habits of exact and prompt obedience gained in the Army would prove of much value to the Department, bureau, or office securing the services of any of this meritorious class of men.

RECORDS OF THE REVOLUTION.

At the burning of the War Department building in November, 1800, the greater portion of the rolls and returns pertaining to the Revolutionary war were destroyed. But many valuable records, embracing orders, correspondence, rolls, reports, etc., escaped destruction owing to their being at the time of the fire in the custody of other Departments of the Government. They are still scattered, and of course not readily accessible for reference, and their arrangement is such, not being indexed or any particular order observed in filing, that to obtain specific information therefrom is necessarily a long and tedious operation.

The major and most valuable portion is in the keeping of the State Department. The Treasury and Interior Departments also hold many of the rolls, showing the names of both officers and enlisted men, as well as other valuable papers, which are principally in the offices of the Commissioner of Pensions and the Third Auditor. It is obvious that after the lapse of a century the paper upon which these records were originally prepared is very fragile and the writing in many instances quite indistinct and must now soon become illegible.

A complete record of the war in question, with names and services of all the participants, can never be made, but sufficient interest and value center in the documents still extant to warrant their collection and preservation in one Department. It is suggested that by act of Congress these invaluable records be collected, compiled, indexed, and printed, for the reason that of late years an almost national spirit of interest relative to the Revolutionary period has revived, especially as regards the identification of ancestors who were engaged in that world-blessing conflict, thus rendering themselves heroic and of precious memory to their posterity for all time. There is a constant and increasing demand for information of a varied character from these old documents, invariably addressed to this Department, where it is supposed by the public these records properly belong, but which can only be referred to the different Departments where the papers are kept, with small chance, as they are now arranged, that the information sought can be given.

GOVERNMENT HOSPITAL FOR THE INSANE.

The following is a list of persons committed to the Government Hospital for the Insane under the orders of the honorable the Secretary of War from September 1, 1890, to September 1, 1891:

Officers of the U. S. Army	3
Officers of the U. S. Army (retired)	2
Enlisted men of the U. S. Army	46
Enlisted men of the U. S. Army (retired)	1
Late soldiers U. S. Army	1
Total	53

OFFICE WORK.

The clerical force of this office remains substantially the same as at the date of the last report, and has been usefully and actively employed on the work pertaining to the administration of affairs affecting the military establishment, including the recruiting service, and also in

urnishing information in answer to calls from the President, Congress, the various bureaus of the Executive Departments, and the Court of Claims.

In addition to its heavy and important work, the appointment, commission, and personal division of this office has prepared and rendered 355 reports in pension cases, affecting the claims of volunteer officers who had service in the general staff of the Army; and the work of the regular rolls division, in answer to calls for information, is shown in the following table:

Bureau.	On hand October 1, 1890.	Received.	Finished.	On hand September 1, 1891.
Commissioner of Pensions		10, 880	10, 880	
Second Auditor		8, 500	8, 500	
Third and Fourth Auditors		12	12	
Second Comptroller		29	29	
General Land Office		44	44	
Paymaster-General		25	25	
Quartermaster-General		33	33	
Commissary-General of Subsistence		72	72	
Total		19, 595	19, 595	

A great mass of papers, measuring about 930 cubic feet, consisting principally of quartermasters' and commissary accounts pertaining to the Confederate archives, had not up to June 1 last received careful examination, as no part of the clerical force of this office could be diverted for the purpose from the current business since the transfer of these records to it, February 4, 1888. Under the direction of the Secretary of War the examination of these records was commenced on June 5 last with a force of 3 clerks. This force has been increased from time to time by details from other bureaus of the Department, and at this date 23 clerks are engaged in this work of withdrawing vouchers for supplies furnished the Confederate Government. Four hundred and seventy-one cubic feet of papers have been examined up to date, which contained about 100,000 vouchers. These have been indexed and placed in jackets (envelopes) for easy reference. It is estimated that 461 cubic feet of papers remain to be examined, and the work of eliminating the vouchers from these papers and indexing them will probably be finished by December 1 next.

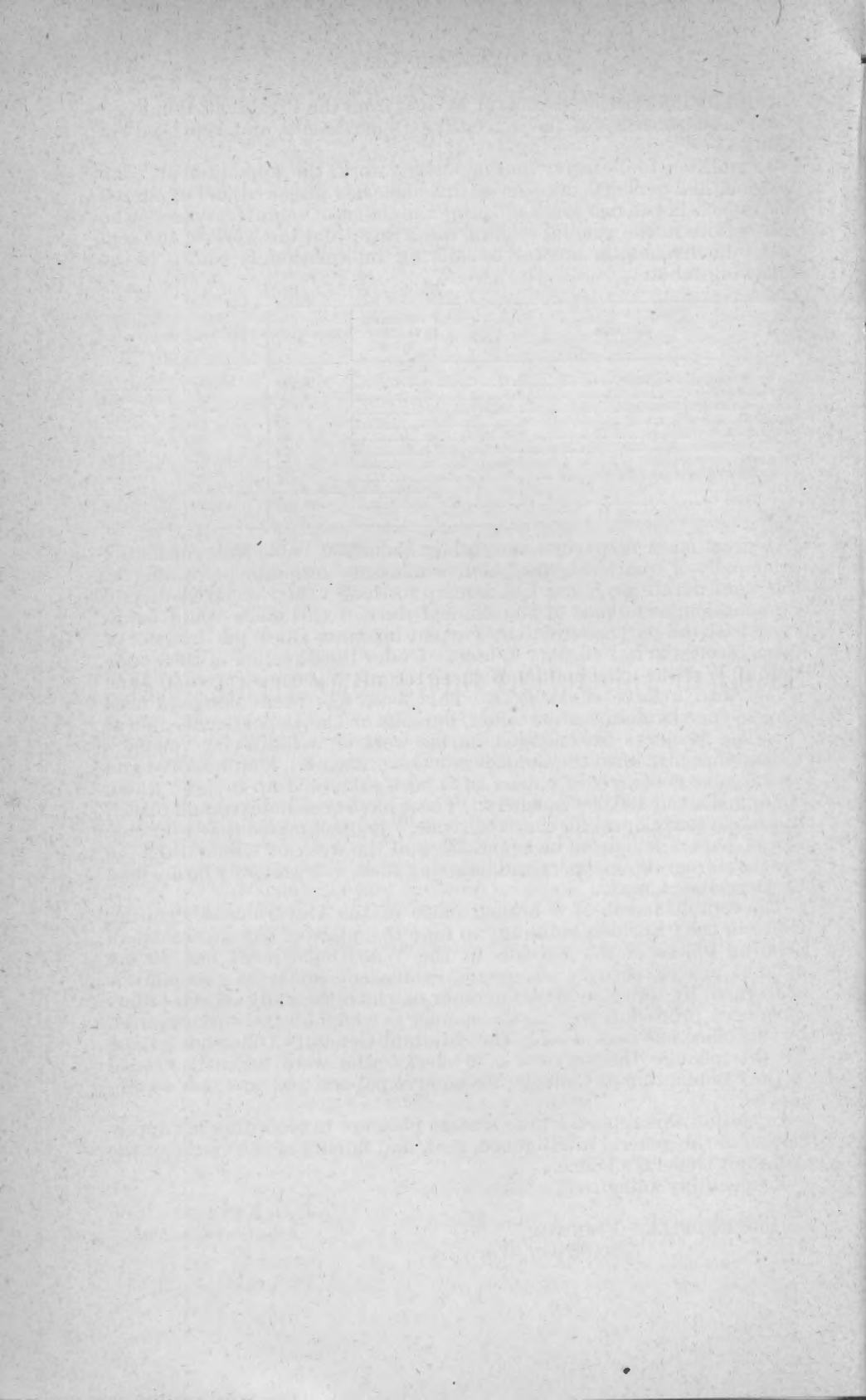
The establishment of a branch office of the Government Printing Office in the "Speiden building" to take the place of the several small printing offices of the bureaus of the War Department has, in my opinion, proved entirely successful, evidenced, so far as this office is concerned, by the expeditious manner in which the daily special orders have been printed as well as the manner in which all the work required by this office has been done. The Adjutant-General's Office has gained by this change the services of 9 clerks, who were urgently needed in the examination of Confederate archive papers, and are now so employed.

In closing this report, I take sincere pleasure in recording my appreciation of the general intelligence, zeal, and fidelity of the clerks of the Adjutant-General's Office.

Respectfully submitted.

Hon. REDFIELD PROCTOR,
Secretary of War.

J. C. KELTON,
Adjutant-General.



REPORT OF THE ACTING JUDGE-ADVOCATE-GENERAL.

REPORT OF THE ACTING SECRETARY OF THE ARMY

REPORT OF THE ACTING JUDGE-ADVOCATE-GENERAL.

WAR DEPARTMENT,
JUDGE-ADVOCATE-GENERAL'S OFFICE,
Washington, D. C., October 12, 1891.

Hon. REDFIELD PROCTOR,
Secretary of War:

SIR: I have the honor to submit my report for the year ending September 30, 1891:

Commissioned officers tried by general court-martial:

Records reported upon and submitted to the Secretary of War for action of the President.....	8
Records received, revised, and recorded, not requiring the action of the President, (convicted, 8; acquitted, 2).....	10
Cadets of the United States Military Academy tried by general court-martial:	
Records reported upon and submitted to the Secretary of War.....	1
Records received, revised, and recorded, not requiring further action, (convicted, 2).....	2
Enlisted men tried by general court-martial.....	1,878
Military convicts tried by general court-martial (convicted, 7; acquitted, 1).....	8
Total tried by general court-martial.....	1,907

Statement of the number of trials by general court-martial for the last twelve years.

Year ending September 30—	Strength of the Army June 30—	Trials by general court-martial.	Year ending September 30—	Strength of the Army June 30—	Trials by general court-martial.
1880.....	26,474	1,543	1886.....	26,254	1,983
1881.....	25,787	1,792	1887.....	26,540	1,640
1882.....	25,647	1,850	1888.....	26,881	1,730
1883.....	25,552	1,985	1889.....	27,519	1,999
1884.....	26,424	2,280	1890.....	27,105	1,782
1885.....	26,898	2,328	1891.....	26,174	1,907

Showing an increase this year as compared with last year of 125 cases.

Records of courts of inquiry received, etc.....	2
Reports made upon proceedings of courts-martial.....	160
Reports made upon petitions for clemency.....	955
Reports made upon cases referred by the record and pension division.....	110
Reports made upon miscellaneous subjects.....	371
Legal papers examined and reported upon.....	240
Legal papers prepared.....	121
Miscellaneous letters, etc.....	1,913
Official applications from the War and Treasury Departments and Pension Office for abstracts of proceedings of trials answered.....	415
Copies of records of proceedings of general courts-martial furnished.....	211
Of these, 189 copies, containing 9,085 pages, were furnished to the parties tried, and 22 copies, containing 1,225 pages, were furnished to the Pension Office and other executive offices and departments; total pages.....	10,310
	319

Number of convictions of various offences taken from the records of general courts-martial received at this office during the past year:

Absence without leave.....	412
Allowing prisoner to escape.....	8
Assault and battery.....	114
Assault with deadly weapon.....	24
Assault with intent to kill.....	13
Attempt at suicide.....	1
Breach of arrest.....	38
Burglary.....	2
Conspiracy.....	3
Desertion.....	393
Disobedience of orders of commissioned officer.....	118
Disobedience of orders of non-commissioned officer.....	175
Disrespect to superior officer.....	56
Drunkenness.....	201
Drunkenness on duty.....	206
Embezzlement, etc.....	39
Escaping from guard or arrest.....	25
Failure to attend drill, roll-call, etc.....	215
Forgery.....	4
Indecent exposure of person.....	3
Larceny.....	76
Malingering.....	2
Mayhem.....	1
Neglect of duty.....	75
Perjury.....	1
Quitting guard or post as sentinel.....	64
Resisting arrest.....	65
Selling or losing clothing.....	74
Selling, losing, or wasting Government property.....	47
Sleeping on post.....	36
Conduct unbecoming an officer and a gentleman (not included under previous heads).....	16
Disorders, etc., charged as "conduct to the prejudice of good order and military discipline" (not included under previous heads).....	524
Miscellaneous offences (not included under any previous head).....	10

The number of trials by garrison and summary courts-martial in the various departments in which the courts were held is as follows:

Department of Arizona.....	1, 452
Department of California.....	836
Department of the Columbia.....	1, 298
Department of the East.....	2, 921
Department of Dakota.....	1, 508
Department of the Missouri.....	2, 187
Department of the Platte.....	2, 460
Department of Texas.....	1, 173
At posts not in any of the above departments.....	1, 305

Total.....	15, 140
Total cases tried by inferior courts-martial last year.....	11, 574

Difference.....	3, 566
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Increase as compared with last year:

Cases tried by general courts.....	125
Cases tried by inferior courts.....	3, 566

Total increase.....	3, 691
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The number of trials by inferior courts-martial resulting in acquittal was 344, and the number of different enlisted men tried, 9,181—many having been tried more than once.

During the period covered by this report an important reform in the administration of military justice has taken effect. What led to it was the want of uniformity of punishment which had become an intolerable

evil in our Army and could not be checked. As far as possible to equalize punishment it had become necessary to maintain a close supervision over the subject at the War Department and to have constant recourse to the pardoning power, and scarcely a day passed without a batch of orders being issued for this purpose. It was seen, however, that this was not the proper way to reach the evil; that in fact it was an abuse of the pardoning power, and ought to be regarded as a temporary expedient only. At one time it was thought that the cure might be effected by a revision of the Articles of War, but the subject was not brought to the attention of Congress in this form, and as events have proved it was not necessary, for a reform which has now been tested and has been found to be entirely satisfactory has been accomplished much more easily in another way—by an act of Congress, (of about four lines, as printed in the Statutes,) viz.:

That whenever by any of the Articles of War for the government of the Army the punishment on conviction of any military offense is left to the discretion of the court-martial the punishment therefor shall not, in time of peace, be in excess of a limit which the President may prescribe.

As thirty-two of the thirty-four Articles of War relating to the punishment of enlisted men leave the measure of punishment to the discretion of the court-martial, the needed modification of the articles could very well be made in this way; and accordingly the President has issued his executive order, published in General Orders, No. 21, 1891, Headquarters of the Army, prescribing the limits of punishment for the offences of enlisted men which are of most common occurrence. This order has been in force since March 28, and although in putting forth a new measure introducing such radical changes as this it was to be expected that experience would show some defects, none that I have been able to recognize as defects have been brought to my attention. It is true that there was at first some misgiving as to the result of the greatly reduced punishment for desertion, whereby in certain cases the deserter was to be retained in the service and not in all cases dishonorably discharged, as was lately the practice; but that apprehension must have disappeared in view of the continual decrease of the crime of desertion in the Army. No one, I think, can now doubt that the whole system is, in the first place a rational and humane change from a conception of military punishment which the country and age had outgrown, and in the second place a perfectly successful change. It has gone into effect so quietly—there was so little friction even in the starting of the machinery—that it has not attracted much attention; yet it marks a most important era in the history of the administration of military justice in the American Army. It may be thought that I am overestimating the value of this change, but with the records of all the trials by general court-martial passing through my hands and with the opportunity thus given me of comparing the present with the former system, I feel sure that such is not the case. Orders mitigating sentences are, it is true, still issued from the War Department, but that is principally due to the necessity of reducing to the limit of the present system punishments which had been awarded under the old. When that shall have been fully done recourse will no doubt much less frequently be had to the pardoning power, and it will probably not often be considered necessary to modify the action of the courts.

My attention has indeed lately been attracted to the number of trials for disobedience of orders and other offences involving a failure of respect for authority, and I feared that in compiling the statistics for this report I should find that these offences had increased in number, but there is no material difference in this respect from last year. Nor, if

there were, could it be attributed entirely or even properly to the reduced punishment of the executive order, because this order does not undertake to place any limit of punishment upon disobedience of orders which is in practice the most serious of these offences, and for other offences involving defiance of or disrespect to authority courts-martial seldom award the full measure of punishment allowed.

The good effect of the adoption of the new scale of punishment is not yet to be found in a reduced number of trials by general court-martial. There has, in fact, been an increase this year, and one which is particularly noticeable with regard to the offence of desertion, but it must be remembered that many of the offences for which soldiers have been tried during the past twelve months were committed at an earlier date. Thus of the 393 trials for desertion 248 were for desertions occurring before October 1, 1890, when the twelve months began. Moreover, the executive order did not take effect until March 28, 1891, and it is now too soon for its influence on the number of trials to be apparent. That there will be a much better showing next year as to the number of trials I am quite confident, but the improvement I have referred to exists, notwithstanding that it is not yet to be discovered in a decrease of their number. It is an improvement in the justness of the trial by court-martial, leading one to the conviction—to the knowledge, I might say—that soldiers are now being tried with greater fairness and humanity, and on that account with what will prove to be better effect. The improvement has already taken hold, and in due time will make itself manifest in its results.

Another noticeable change in the administration of justice in the Army is the substitution of the summary court for the garrison and regimental courts-martial. This measure has given general satisfaction throughout the Army, and is now in successful action. The number of trials by summary court this year is materially greater than the number of trials by garrison court-martial last year, but this is easily explained by the fact that on account of the convenience and promptness of the trial by summary court soldiers are now brought before it for a large number of slight derelictions of duty which under the garrison court-martial system were passed over without trial. So that the increase in the number of trials by inferior courts-martial must not be understood as indicating an increase in the number of actual offences.

In one particular the summary court act seems to be generally regarded as defective. Under the garrison court-martial system the post commander had the power to remit and mitigate the sentences of garrison courts, but he has no corresponding power with reference to the summary court, and the sentence of this court when once approved is beyond the reach of all authority except the pardoning power of the President. It therefore has happened in several instances that this power had to be invoked, and this it is believed should not be made necessary. Besides, it must sometimes happen that it can not be reached in time to remove an undeserved punishment.

I have in former annual reports called attention to certain articles of war which need amendment. Agreeably to instructions received last year I shall in due time submit a separate report with a draft of a bill for this purpose.

Very respectfully, your obedient servant,

G. NORMAN LIEBER,
Acting Judge-Advocate-General.

Extract from the report of Lieut. Col. Thomas F. Barr, deputy judge-advocate-general, judge-advocate Department of the East.

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The increased number of cases tried by general courts-martial, as noted, is accounted for by the fact that the strength of this command has been greater by more than 20 per cent than it was during the preceding year. Of the cases of commissioned officers tried, three were referred for trial to this department by higher authority. The cases of enlisted men tried for desertion were in large proportion of men belonging to other commands, but who surrendered or were apprehended within the limits of this department. The large number of cases determined by summary courts, so greatly in excess of cases tried before garrison courts in the preceding year, is not, in my judgment, an unsatisfactory indication. Inquiry has informed me that it has been the practice since the creation of summary courts to send all cases of which such courts can take cognizance before them, even when the offences alleged are of the most trivial character, and such as post and company commanders theretofore dealt with without the intervention of a court, by the denial of good conduct privileges, restriction to post, etc. The small forfeitures of 50 cents and of \$1 imposed in many instances show this. The operation of the law has, in my opinion, been markedly successful. In but few instances have enlisted men demanded a trial by a superior court, and so far as I have been able to learn, the men have no complaints to make against the law. There have been complaints on the part of three post commanders that either the interpretation placed upon the law is erroneous or else it is defective in restricting their power to mitigate and remit sentences. There is no restriction in the statute of the character complained of. There is no provision contained in it conferring the power to pardon or mitigate, without which such authority could not lawfully be exercised; and it is fully within my knowledge that the law was purposely so framed. It was the object and intention of this legislation to vest exclusive power to adjudge a penalty in the court itself before which alone the incidents of an offence should be recited and the offender summarily dealt with. The officer at a post superior to a court can have nothing before him except the nature of an offence charged and the penalty awarded. The law, therefore, and wisely, in my opinion, confined his authority to a simple approval or disapproval of a sentence, thereby providing a check against excessive punishments. This power has been judiciously exercised, and the fact that no complaint has come from enlisted men is thought to be a high indorsement of the law.

The code of prescribed penalties has, in my judgment, proved generally satisfactory in practice. It is recommended that the sentences of deserters who surrender to civil authority should be made to embrace a forfeiture of any amount paid as a reward for the return of the deserter to the military service.

It is also recommended that the prescribed penalties under the seventeenth article of war, as controlled by the fact which restricts a court to simply confirming the charges against a soldier in his clothing account, be modified. To adjudge by a sentence that a certain thing shall be done which would be done if there were no such sentence detracts from the dignity of a court's proceedings. The seventeenth article of war is mandatory in its provisions, that a soldier who violates its provisions shall suffer such stoppages as may be sufficient to repair the loss or damage shown. The old practice to stop the amount of the established value of the clothing when it had been sold or lost by a soldier was a harsh one. To prohibit any stoppage appears to conflict with the law. The arbitrary value at which clothing is issued to soldiers does not represent its real cost to the Government, and when it is improperly disposed of, the Government is a loser. To that extent a stoppage should be made while the article in question remains in force in its present shape.

Extract from report of Lieut. Col. H. P. Curtis, deputy judge-advocate-general, judge-advocate Department of Dakota.

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The table which closes this report presents the called-for comparison as to the number of trials between the old system of garrison and regimental courts-martial and the present one of summary courts-martial, and of itself demonstrates the preference among enlisted men for the latter method of procedure.

It cannot indeed be otherwise. Their exemption from arrest and confinement in the guard-house, the general mildness and uniformity of punishment, and the promptness of the new system in the administration of justice, all unite to popularize and bring into favor with the soldiers of our Army the recently adopted system of summary courts-martial.

I believe I am justified in reporting without hesitation that they regard the change from the old system to the present one as one greatly to their advantage and interest.

Extract from report of Maj. Edward Hunter, judge-advocate, U. S. Army, judge-advocate Department of California.

I am required to state "how the enlisted men seem to regard the change from garrison to summary courts, whether favorably or otherwise."

The non-commissioned officers and other intelligent enlisted men from whom an expression of opinion was asked, spoke as follows:

(1) "The men like the summary court system far better than to be tried by a garrison court."

(2) "The summary court gives more satisfaction to the men in general, on account of the speedy transaction of the affair. From my point of view, trial by summary court is decidedly preferable to trial by garrison court-martial. But I fail to understand why if the officer on duty as summary court is the accuser, the next ranking officer should not constitute such court. As it stands now, especially at a one or two company post, the post commander is in half the cases the summary court, and approves his own sentence."

(3) "Men are now tried for slight offences, such as 'having blouse unbuttoned,' 'missing a roll call,' and five such convictions warrant dishonorable discharge, though the man may have had long and faithful previous service. Three at least of the five previous convictions cited against a man should be by general court-martial."

(4) "Before the summary court was in vogue a commanding officer would not notice, other than by a few words of reprimand, if at all, the slight infractions of discipline which he now feels called upon to submit to a summary court."

(5) "The summary court is in many ways a good thing, especially in conjunction with General Orders, No. 21, current series, War Department, which shows a man the full measure of punishment which such court can give him."

In view of the fact that it is held that from day to day, between date of sentence and date of remission, the sentence of a military court is fully operative and beyond remission, I recommend that the act of Congress be so amended as to require the transcript of the record of summary court to be furnished department headquarters weekly instead of monthly, as at present.

Such rendition will, it is thought, by facilitating earlier discovery and report, increase the chance that some portion of an unjust sentence may remain unexecuted, and give more opportunity at time of examination to redress the wrong, at least while the officer commanding the garrison in which the summary court is held shall be without the power to pardon or remit any punishment which such court may adjudge.

I venture to suggest that the thirty-eighth article of war be amended by inserting after the word "service," in line 2, the words "or suffer such less punishment as a court-martial may direct."

I offer this suggestion because experience and reflection convince me that it is a judicial discretion and power that may safely be granted to such a tribunal as a general court-martial.

Extract from report of Capt. H. K. Bailey, acting judge-advocate, Department of Arizona

Trials by general courts-martial have materially decreased, while proportionately there has been a slight increase in the number of trials by inferior courts. The unfortunate circumstances which led to the trial of 31 enlisted men of Company E, Twenty-fourth Infantry, creates an erroneous impression in considering the total number of trials by general courts-martial, and particularly those occurring at San Carlos, the place of trial, which is one of the most orderly posts in the department.

It is observed that trials by general courts-martial are constantly decreasing, which would indicate an improved state of discipline.

The beneficial effect of the summary court upon the discipline of the Army is quite apparent, and it is believed to have met the purpose for which it was established. No complaint has been received touching its administration, and, judging from the small number of cases appealed, it is presumably indorsed by the enlisted men.

The provisions of General Orders, No. 21, current series, Adjutant-General's Office, so far as they reach, are believed to have had a favorable effect upon the Army. Its provisions should, however, be extended so as to include all of the Articles of War which leave the punishment discretionary with the court; the differences still existing in the sentences awarded seem to demand such action. It is observed that the

maximum punishments authorized by the order are invariably imposed, indicating that they are not considered excessive, if sufficient.

Under the provisions of paragraph three of this order, many worthless men have been discharged who have long been a burden to the service and an eyesore to their more worthy companions.

The act of Congress, approved June 16, 1890, providing for the discharge of certain enlisted men, and the rules made in conformity with sections 2 and 4 thereof, promulgated in General Orders, Nos. 80 and 81, series 1890, Adjutant-General's Office, has had the effect of reducing the number of desertions in this department to 1.9 per cent of the average strength of the command during the past year. The number of desertions has been 102 less than last year.

Many men who have taken advantage of the privileges of these orders under the mistaken idea that they could better their condition in civil life have applied for reenlistment before the expiration of the year from date of discharge. Many of them were given excellent characters on their discharges and undoubtedly would continue to so conduct themselves as to merit a like character were they again in the service. It is believed that it would be a wise policy to materially modify the restriction imposed, if not to do away with it entirely.

It is gratifying to note that the many efforts made to have the judge-advocates' offices supplied with suitable law books have met with success, and that they are now provided with at least a fair working library. It is hoped that the necessity of continuing the purchase of the latest editions of such works as are required for the proper transaction of the business of these offices will be fully impressed upon Congress and a suitable annual appropriation made for the purpose. I desire to again invite attention to the embarrassment which judge-advocates of courts are often subjected to by their inability to compel a civilian witness to testify when brought before the court. It is earnestly recommended that a law granting to courts-martial the power to punish for contempt a contumacious witness be speedily enacted.

I respectfully renew my recommendation that department judge-advocates have a clerk assigned them who will be under their exclusive control, subject only to the provisions of paragraphs 156 and 158, Army Regulations.

Extract from report of Capt. H. C. Carbaugh, acting judge-advocate, Department of Texas.

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No direct comparison can be made between the total number of trials given in this report and that given in the report rendered last year, as the average enlisted strength is nearly 500 less this year than last year, resulting from marked decrease in the strength of the various organizations serving in the department, and from the transfer of the greater part of the Fifth Infantry from the department during the year, and as the total number of trials last year included nearly all trials had by inferior courts during the month of September, while for the same month this year none have yet been received. Taking into consideration these variations the number of trials as compared with the enlisted strength shows an actual increase in trials by inferior courts from 47 per cent for last year to 67 per cent for this year,—the average enlisted strength for these years being respectively 2,250 and 1,750.

During July and August of 1889-'90 there were 163 trials by inferior courts in an average enlisted strength of 2,150, while during the same months of 1890-'91 there were 232 in an average enlisted strength of 1,560. In other words, trials by inferior courts for those months were nearly doubled this year as compared with last.

Trials by general courts-martial have decreased from 175 last year to 166 this year, but as compared with the average enlisted strength have slightly increased, but this increase is more than accounted for by the more extended cognizance of offences taken by such courts and by the continued and large increases in trials for disrespect, for insubordination, and for disobedience to both commissioned and non-commissioned officers—both before general and inferior courts. These offences probably follow from a large number of comparatively new men entering the service, as well as from the gradual disappearance of many well-disciplined men, and could doubtless be remedied by increasing the importance of the position of non-commissioned officer,—not only in a pecuniary way, but by systematically instructing them so as to increase their intelligence and self-respect and thus their moral ascendancy over the men. To this, however, should be certainly added continued and thorough disciplining of recruits, as recruits, upon their arrival at their posts and before being absorbed in the company and allowed to undertake company and post duties. To secure this discipline the Regulations of 1795 recommend detail of an officer and several non-commissioned officers all especially qualified for this purpose. If embodied in the

present regulations and rigorously adhered to, this provision would do much to insure cheerful and complete subordination.

Though the number of trials by inferior courts has increased, the number of different enlisted men tried has decreased, thus indicating that the class among which offences are committed is growing smaller and that the general tendency to commit them is being reduced. From the great number of trials, it seems that the responsibility for discipline has to a great extent been transferred from company and post commanders to summary courts, and that quick methods of trial are, in a measure, made to take the place of executive management, discretion, and tact; but I think, however, the conclusion that it is no more wise or necessary with enlisted men than with officers to court-martial them for each and every failure to come up to the requirements of the service will ultimately prevail.

With the radical changes that have been made in connection with the administration of justice by military tribunals during the past eighteen months, especially the encouragement of the use of counsel at trial, the summary court, and the various provisions of the executive order, have arisen needless as well as necessary technical discussions of matters in and before courts. The records show that counsel frequently delay courts through immaterial matters which would not be tolerated by the same officer either as a member or as judge-advocate of the court.

As to the change in system from trials by garrison and regimental courts to trials by summary courts, the general opinion by officers and enlisted men is that it is a good one. This further appears from the fact that only seven demands of removal from summary to garrison courts have been made, of which four occurred at one post.

Upon these changes and systems certain representative line officers have freely expressed themselves and they are quoted as follows:

"The detail for a general court-martial should be reduced to nine or seven and the maximum should always be granted and selected by lot from the names of at least twice that number. The judge-advocate should be required to retire when a court is closed—remaining he learns the opinions and views of individual members. There seems to be no clear understanding how far the summary court shall prosecute, if at all, and something definite should be laid down. Though of the least jurisdiction it has the most absolute power. Its decrees must be enforced or annulled *in toto*. Cases have come under my observation where the court could not consistently act otherwise and yet the cases merited mitigation, but the commanding officer could only approve or disapprove. There is a firm conviction among the non-commissioned officers that the schedule of sentences is disproportionate and unfair to them. That the introduction of counsel in minor cases has bad effect—tends to foster the evil spirit of law versus fact; it befores justice; that the practice of general courts-martial of 1865, used as a last resort, was simpler and better than those of 1891; that the summary court is regarded as an excellent institution in its simpler form as originally conceived, now much hampered in its workings by involved orders and decisions; that the enlisted men seem to like the summary court—they are intelligent and highly appreciate its promptitude and its curtailing effects upon guardhouse confinements."

In forwarding records of previous convictions there has been during the year in numerous cases substantial adherence to the old regulation that evidence of them would only be forwarded when desired by the officer preferring or forwarding the charges, and a signal failure to appreciate that the use of them is now governed by fixed and exact rules of practice through which they become a fundamental part of our military system of adjudging sentences. This failure has been so marked that, to insure their uniform use before summary courts throughout the service, I would recommend that the indorsement on the blank transcript furnished from the office of the Adjutant-General be added to so as to include the statement that "all existing previous convictions within the two years have in each case been submitted to the court." I would also recommend that such action be taken as may be necessary to enable the line officer, where there is but one present with a command and he is the accuser, to act as a summary court, and that commanding officers be given power to remit sentences adjudged by summary courts in their commands. It has, I believe, been practically demonstrated in this department that both powers are for the best interests of the service.

In truth it may be said that the failures of the law organizing the summary courts, namely: To definitely fix its jurisdiction, as done for the field officers' court in the eightieth article of war, by kind of offence; to limit its punishing power; to make it applicable in war; to insure a court in isolated posts and detachments where most needed; to allow mitigation of sentences; to permit any one but the second officer in rank to act, except the post commander in certain cases, and to give the right to compel the attendance of witnesses—all warrant its being superseded by a revision of the eightieth article of war so as to create a court applicable alike in peace and in war.

The reports of summary courts further show a failure to adjudge uniform penalties, and that in many instances forfeitures are trifling and amount only to official recognition of the offence without the qualities of punishment. There is also a marked change in the character of punishment from confinement to money fine. I can not believe that these results are intended or are for the better.

Adequate sentences uniformly applied to similar cases and only lowered through circumstances which are positively extenuating, reduce the tendency to commit offences, while confinement of old offenders, administered in appropriate places under well-defined rules strictly followed, must result in greater reformatory good than general use of money forfeiture alone. In this connection I would add, as disciplinary punishment is only prescribed and not executed by military tribunals, and as the chief and resulting virtue must necessarily be derived from the administration of such punishment, that I am of the firm conviction that uniformity in guard houses, in guard-house discipline and in methods of guarding and working prisoners, should be strictly enforced throughout the service, so as to cause the former to be reformatory and to be avoided. In reference to this one officer suggests "that bunks, mattresses, reading matter, games, and all such comforts and amusements be excluded from prison rooms and cells of the guard house; that prisoners be allowed only the necessary blankets to keep them warm, and that they sleep on the floor or on a banquette such as is provided for the use of the guard. We sometimes meet with men with so little ambition that they would rather be in the guard house than do their duty."

Under existing orders in this department this office is charged with the custody of reports of boards of survey held on deserters. From these and from the records of trials for desertion it is found that of the sixty-eight desertions since January 1, 1891, eighteen have been apprehended and convicted and eleven have surrendered—none of the latter were recommended for restoration to duty without trial. The apprehensions and surrenders in general occurred within about ten days after desertion. During the year from January 1 to December 31, 1890, there were only eighteen convictions for desertion, while from January 1, 1891, to the present date there have already been thirty-six. In connection with this should be noticed the fact that of the one hundred and twenty-six desertions which occurred in the last fiscal year, two-thirds occurred before January 1, 1891. As the offer of \$60 reward for the apprehension of each deserter went into effect about the latter date it is safe to conclude that the present methods of preventing desertions and of securing the return of deserters are resulting in increased certainty of arrest with corresponding decrease in the number of desertions.

These reports also set forth that about one out of seven alleged deserters were known to be indulging in intoxicating liquor when last seen, but very few of them drunk. Drunkenness is, however, the usual defense interposed on these trials, and in order that it may be well considered a copy of General Orders No. 91, series of 1881, Adjutant-General's Office, on the subject of what constitutes desertion is always transmitted to each member of every general court-martial convened in the department.

As the duties of the judge-advocate of a department are such that if mistakes occur in them, they are frequently of grave consequence and liable to strong criticism, I would recommend that measures be consummated by which that officer, of his own motion, can command and secure intelligence and reliability in clerical service, coupled with fair ability in stenography and typewriting. This would result in efficient help and in frequent saving to the Government.

In my opinion the privilege of direct official correspondence with the Judge Advocate-General granted by regulation to the judge-advocates of departments could well be extended to include legal matters and intended operations of laws, regulations and orders from the War Department. This extension would at least be conducive to uniformity of recommendations throughout the service, especially if a copy of such correspondence were transmitted direct to each department judge-advocate.

Judge-advocates of general courts-martial are frequently called upon under regulations and otherwise to administer oaths to both civil and military persons outside of trials before military tribunals. The binding force of the oath administered should be established by statute and falsity in it be, in like manner, made a crime. A general power by those officers to administer such oaths would save expense, inconvenience, and resulting delays.

The substantial additions to the library during the past year have been accompanied with the securing, for the judge advocate's office, rooms well fitted for the purpose. The usefulness of both is being practically demonstrated by an increasing number of calls on the part of officers on duty at and about department headquarters for information from the volumes therein. With occasional additions to the library it is certain to be recognized and used, as containing sufficient information to determine correct rules of action in most military and quasi-military matters. In this connection I would suggest that a small amount of money ought to be and could be

well spent in binding orders now on file, as well as those received each year, in this office.

In general it may be said that the administration of justice by general courts-martial in the department is now satisfactory. Members evince interest in determining correct conclusions of fact and law, while the necessity for and advantage of detailing officers of wide experience as judge advocates has been demonstrated and is being followed as closely as the limited number of officers present for duty in this department will admit.

In view of the recent rulings by Federal judges as to the force and effect of sections 5342 and 5391, Revised Statutes of the United States, that many crimes, especially assault with intent to commit murder or manslaughter with a dangerous weapon in a place over which the United States have exclusive jurisdiction, can not be tried by Federal courts, I would urge such action as will secure a reenactment and revision of those sections in language which will put beyond question the right of said courts to try and punish all crimes committed in such places.

Extract from report of Capt. C. McClure, acting judge-advocate, Department of the Columbia.

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Under date of January 28, 1891, I made a report to your office upon the practical working of the act of Congress establishing the summary court; and as the above data appear to sustain the views expressed in that report, they are substantially reiterated as follows:

The small number of "removals" clearly indicates that the enlisted men are thus far well satisfied with the summary court, or rather that they greatly prefer it to the garrison court-martial.

While the summary court is undoubtedly regarded with favor by both officers and enlisted men, the prevailing criticism on the part of the former is that it has been too lenient in the matter of punishment. That the average punishment adjudged by it has been less than that which would probably have been imposed by the garrison court must, I think, be conceded. But I do not consider this apparent leniency the sole cause of the noticeable increase in the number of trials.

Under the old system company commanders were averse to bringing their men before garrison court-martial for many minor offences which could, by the deprivation of privileges, etc., or by release from confinement without trial within eight days, be disposed of.

That the practice of releasing men from confinement without trial was encouraged by a majority of the post commanders in this department conclusively appears from the fact that during the year ending September 30, 1890, seven hundred and ninety-seven cases (478 men) were tried by garrison courts-martial and 428 were released without trial. (See last annual report of my predecessor, Capt. Birkhimer.)

Under the present system there has been a gratifying improvement in this respect, and it is only a question of a short time before the summary court will have caused the abandonment of the practice referred to.

And while under the old system company commanders did in practice dispose of not a few slight offences by the deprivation of privileges, etc., I apprehend that now, practically all such cases are willingly transferred to the summary court.

That the number of trials by summary court in this department would exceed the number had by garrison courts-martial during the corresponding period last year was inevitable, and for the reasons already indicated, to wit:

First. The apparent leniency of the summary court, together with the prompt and speedy trial required;

Second. The great decrease in the number of men released from confinement without trial; and

Third. That practically all minor infractions of discipline would be brought before the summary court.

This court, so far as obtaining cognizance of all minor offences is concerned, has surely accomplished all that its most ardent advocates could have desired. It now remains for it to adjudge punishment sufficiently severe to exercise a deterring influence.

The matter of adjudging such punishments, notwithstanding the limitations prescribed in General Orders No. 21, Adjutant-General's Office, series of 1891, is largely in the hands of the officers acting as summary courts. Previous convictions should be considered, and an old offender punished as such in every case. The regulation respecting evidence of previous convictions seems to contemplate that such evidence shall accompany the charge submitted to the summary court, but it was surely not

intended to include previous convictions of record in the summary court docket book and of which the court may take judicial notice.

In my opinion, this court with its simple and summary mode of procedure, can not be too highly commended. I am not prepared to assert that the maximum punishments prescribed for most of the minor offences cognizable by it are too light. I am inclined in the opinion that the evil—if it be one—of too many trials by the summary court must be overcome by a proper consideration, with proper limitations, of previous convictions.

PREVIOUS CONVICTIONS.

The schedule of maximum punishments, published in General Orders No. 21, Adjutant-General's Office, current series, so far as it is applicable to first offences, does not, in my opinion, require amendment; but I am strongly of the opinion that the provisions relating to previous convictions require material amendment, and for these reasons, to wit:

(1) An inferior court-martial should not be without power, in the cases of old offenders, to adjudge for minor infractions of discipline such as absence from roll-calls, etc., the limit named in the eighty-third Article of War.

The summary courts in this department during the period (ten and a half months) covered by this report have tried 547 men with a total of 1,184 trials. Ninety-six of the 547 were tried four or more times with a total of 497 trials. Special attention is invited to the fact that of the 1,413 offences brought before these courts 855 were for violations of the thirty-second and thirty-third Articles of War.

(2) While court-martial should have power to discharge from the service men who persistently defy the requirements of discipline, as evidenced by previous convictions, yet for obvious reasons such courts should not be prohibited from adding confinement at hard labor to dishonorable discharge.

(3) Five previous convictions should not sustain a sentence of dishonorable discharge unless one at least by a general court-martial is included.

4. In every trial by court-martial, after a finding of guilty where a discretionary punishment is authorized, evidence, if any, of all previous convictions had within a prescribed period should be submitted to the court to aid it in determining upon its sentence. Discretion as to whether such evidence shall in such case be submitted can not be vested in any one without preventing, to the injury of the service, the impartial administration of justice.

It is therefore recommended that sections III and IV of the executive order published in General Orders No. 21, Adjutant-General's Office, current series, be amended to read substantially as follows:

III. (1) When a soldier shall be found guilty, by an inferior court, of an offence or offences for which, upon first conviction, the maximum punishment authorized does not exceed that which such court may adjudge, his punishment therefor may exceed the prescribed limit by one-half, it it shall appear that during his current enlistment and within two years preceding his trial he has been once convicted of one offence or more, and said limit may be increased by one-half for every such previous conviction; provided, that upon proof of four or more previous convictions the court may in its discretion adjudge the limit named in the eighty-third Article of War.

(2) When a soldier shall be found guilty by a general court-martial of an offence or offences as aforesaid, his punishment therefor, on proof of one or more previous convictions within the two years aforesaid, may be the prescribed limit increased by one-half for each previous conviction; provided, that the punishment thus determined shall not exceed six months' confinement at hard labor; provided further, that upon proof of five or more such previous convictions, including one or more by general court-martial, dishonorable discharge with forfeiture of all pay and allowances and six months' confinement at hard labor may be adjudged.

(3) When a soldier shall be found guilty of an offence or offences for which upon first conviction the prescribed maximum punishment exceeds that which an inferior court may adjudge and does not include dishonorable discharge, upon proof of one or more previous convictions within the two years aforesaid, the punishment therefor, if the prescribed limit be less than six months' confinement at hard labor or its equivalent as hereinafter provided, may be said limit increased by one-half for every such previous conviction; provided, that the punishment thus determined shall not exceed six months' confinement at hard labor and a forfeiture of ten dollars per month for the same period; if said prescribed limit shall be six months' confinement at hard labor, or more, or the equivalent as hereinafter provided, it may be increased one-half by reason of previous convictions; provided further, that upon proof of five or more previous convictions, including one or more by general court-martial, dishonorable discharge with forfeiture of all pay and allowances and nine months' confinement at hard labor may be adjudged. When found guilty of an offence or offences for which,

without previous convictions, dishonorable discharge is authorized, previous convictions may be considered in determining whether the prescribed limit of punishment shall be adjudged.

(4) After arriving at the findings, a court may be opened to receive evidence of previous convictions. These convictions must be proved by the records of previous trials, or duly authenticated orders promulgating the same, showing the actual offences of which the soldier was convicted, except in the cases of convictions by summary court, when a duly authenticated copy of the record of said court shall be deemed sufficient proof. Charges forwarded for reference to a general court-martial, or submitted to a garrison or regimental court-martial, must, in every case where discretionary punishment is authorized, be accompanied by the proper evidence of all previous convictions had within the period hereinbefore prescribed. Charges submitted to a summary court will be accompanied by similar evidence, except that evidence of previous convictions by the summary court before which the accused may be arraigned need not accompany said charges. A summary court may take judicial notice of the previous convictions of record in its own docket book.

The foregoing provisions of this section are subject to the modifications imposed by paragraph II, section 1, of this order.

VI. The following substitutions for punishments named in sections 2 and 3 of this order are authorized at the discretion of the court.

DESERTIONS.

From the appendix relating to desertion the following data is obtained:

Year.	Desertions.	Trials.	Apprehensions.	Surrenders.
1888-'89	109	26	16	10
1889-'90	91	12	8	4
1890-'91	106	27	19	8
Total	306	65	43	22

Of the 106 desertions this year, 64 were from the band and seven troops of the Fourth Cavalry serving in this department. Forty-five of the 64 were from the band and troops A, C, D, and H, Fourth Cavalry, composing the garrison of Fort Walla Walla, Wash.

The forcible and unlawful taking from the county jail in the city of Walla Walla, Wash., of a citizen prisoner by soldiers of Fort Walla Walla, and the killing of said prisoner by said soldiers in April last, with all the attendant circumstances, are facts with which you doubtless have, from the records on file in your office, become familiar.

In my opinion, the increase (15) in the number of desertions in this department over last year may be largely attributed to the efforts of both the civil and military authorities to bring to trial the soldiers implicated in that killing.

As to the "causes which induce desertions" I have nothing new to submit. The subject has long since been exhausted.

In my opinion, it should never be forgotten that desertion is one of the worst crimes known to the military code. There may be circumstances which in some cases extenuate it, but rarely, if ever, can there be any justification of it. This distinction is not always kept in view by those who are seeking for the "causes of desertion."

In eighteen cases in this department during the past year "dissatisfaction with the military service" is assigned as the "cause" of the desertions. Now, dissatisfaction with the service may result from a grievance of which the soldier may properly complain, may be made a pretext for desertion, but it ought not to be called a "cause of desertion." Will not the average soldier reason that if dissatisfaction with the service is a "cause of" it is a cause for desertion, justifies it, and that it is for him to determine when the necessary degree of dissatisfaction exists? Just so with many other generally reputed "causes of desertion." Will not therefore the frequent official publication as "causes which induce desertions," of facts which are only excuses or pretexts for committing the crime tend to increase rather than decrease the number of desertions?

While there have been one hundred and six desertions in this department this year, there have been but nineteen apprehensions; and during the past three years there have been three hundred and six desertions and forty-three apprehensions.

By reason of these facts, I submit as pertinent to the subject under consideration, the following extract from an article written by me upon this subject for the public press in 1889.

"There is, however, one real 'cause' which, in my opinion, has never been sufficiently urged, to wit: That so many deserters escape apprehension and punishment, and not, as many claim, that the average punishment inflicted is too light. It is less a question of increasing punishment than of increasing the number punished. The certainty of punishment is ever more important than its severity. If four-fifths of our deserters were apprehended and punished as we now punish those apprehended, the number of desertions would soon become very small compared with what it is now. We would hear far less about the causes of desertion. They would become what they in most cases are—complaints to be considered or grievances to be redressed.

"As a sure cure for desertion the following remedies have often been suggested: (1) That a soldier in time of peace be permitted to purchase on proper terms his discharge; and (2) that recruits be obtained principally from the rural districts. To these most excellent remedies I would add as supplemental thereto and more important than either, so far as preventing desertion is concerned, the following: (3) That for the apprehension and delivery of every deserter, exclusive of the actual expenses thereof, a reward of at least \$100 shall be paid."

Recent legislation and regulations have supplied the first and second remedies, and most excellent results may be anticipated. The third remedy has only been partially supplied.

Everything that can be done to remove excuses for desertion should be done, but the odiousness of the crime should be maintained; and this can best be accomplished by liberal rewards for apprehensions.

In the recent trial of an officer at Fort Walla Walla, Wash., by a general court-martial ordered by the President of the United States, a civilian witness for the defense was asked a question by the counsel for the accused, which the witness, without assigning any reason, expressed an unwillingness to answer. A member of the court thereupon objected to the question and the objection was sustained. The court thus avoided making an order which it would have been powerless to enforce.

Moreover, as judge-advocate of the court, I invite attention to the fact that in that trial the prosecution would have hopelessly failed as to the most serious offense charged had the civilian witnesses for the prosecution, by taking advantage of their privilege under the law, politely declined to testify against the accused.

The propriety as well as the necessity of a law providing means for compelling civilian witnesses to testify before courts-martial is so patent that a recommendation that such a law be enacted seems superfluous.

I acknowledge with pleasure the receipt of the liberal allowance of law books—sixty-seven volumes—furnished this office during the past year. To keep up the law libraries at the different department headquarters a fixed allotment per year should be available, to be expended through the Judge-Advocate General's office.

I desire to report that at these headquarters one general service clerk performs the clerical work of both this office and that of the inspector of small-arms practice. The amount and character of the clerical work in a department judge-advocate's office require, in my opinion, that one clerk should be assigned exclusively to that office.

Extract from the report of Capt. E. H. Crowder, acting judge-advocate, Department of the Platte.

* * * * *

The increase in the number of trials by general courts in this department over that of last year is due partly to an increase of nearly 400 in the average enlisted strength of the department, but is, I think, mainly accounted for by the fact that under the provisions of General Orders No. 21, Adjutant-General's office, current series, fixing maximum punishments, a greater number of the more trivial offences of soldiers must now be referred to the general court than formerly. Reference is here made to the latter part of paragraph 6, page 7, of the aforesaid order, which provides as follows:

"Wherever the limit herein prescribed for an offence or offences may be brought within the punishing power of inferior courts-martial, as defined by the 83d Article of War, by substitution of punishment under the provisions of this section, the aforesaid courts shall be deemed to have jurisdiction of such offence or offences."

This rule is understood to require the reference of all cases of the class named to the summary court for trial, and that whenever the prescribed limit of punishment for an offence or offences is in excess of the punishing power of the inferior courts, such offence or offences should be reserved for trial by general courts. As thus understood, the order has been enforced in this department, and many cases which, prior to March 30, 1891, were referred for trial by post commanders to summary courts, are now, under the rule above quoted, required to be forwarded for trial by general courts. The result has been to increase the volume of business transacted by the general courts.

While the general effect of the aforesaid order and the legislation to which it relates has been to make the administration of justice much more prompt and certain than formerly, with reference to the cases so transferred, there has been greater delay than when trial was had by the inferior courts. In this connection I have the honor to recommend that, in case an attempt is made with the next Congress to secure an adequate revision of the Articles of War, legislation be urged extending the jurisdiction of garrison and regimental courts-martial so as to enable these courts to impose a sentence of six months' confinement at hard labor, with forfeiture of pay for the same period. I am unable to discover any reason why such courts, as at present constituted, can not, under the guidance of existing orders fixing maximum punishments, be trusted to impose punishment to the extent suggested.

The statistics of this office prove that more than one-half the cases now tried by general courts could, under the legislation proposed, be heard and finally determined by garrison and regimental courts, with the result in all these cases of reducing to a minimum the time between the commission of the offence and the punishment of the offender.

During the year just closed 1,389 different men have been tried by inferior courts-martial. Of the total number of trials by these courts as set forth above, 136 were by garrison courts-martial. Of these 50 were tried between October 1 and 15, 1890, the date of organization of the summary court. Seventy-two were tried between October 16 and December 31, 1890, and but 14 between January 1 and September 30, 1891.

From this statement the deduction seems legitimate that the summary court has steadily grown in favor among the enlisted men in the department, there having been but fourteen appeals from it to the garrison court during the last nine months.

I recommend further that steps be taken to define accurately the limit of jurisdiction of the summary court. The language in the act ceding jurisdiction is indefinite, and with respect to all those military offences not enumerated in the code of maximum punishments, is not uniformly construed throughout the Army. As the jurisdiction of this new court is held to be, with the exceptions stated in the act creating it, exclusive of the jurisdiction of other military courts, the necessity for taking steps to define with accuracy the offences within its jurisdiction is obvious.

Many much-needed works on both civil and military law have been received during the past year, but the office library is yet deficient in many respects. There are no reports except the United States Supreme Court Reports, vols. 1 to 23 inclusive. This series should be completed, and a complete text of the opinions of Attorneys-General should be furnished.

Extract from the report of Capt. E. Rice, acting judge-advocate, Department of the Missouri.

From these figures it would appear that this year about 80 per cent of the enlisted men in the Department have been tried by court-martial, and that last year the percentage was about 52. But when it is considered that many men are tried more than once, and some as often as eight times, the actual number of different men tried is about 45 per cent of the command.

To make a comparison as to the number of trials between the old system of garrison and the new system of summary courts, the following tables have been prepared from the records of this office to include the first six months of each of the years 1890 and 1891.

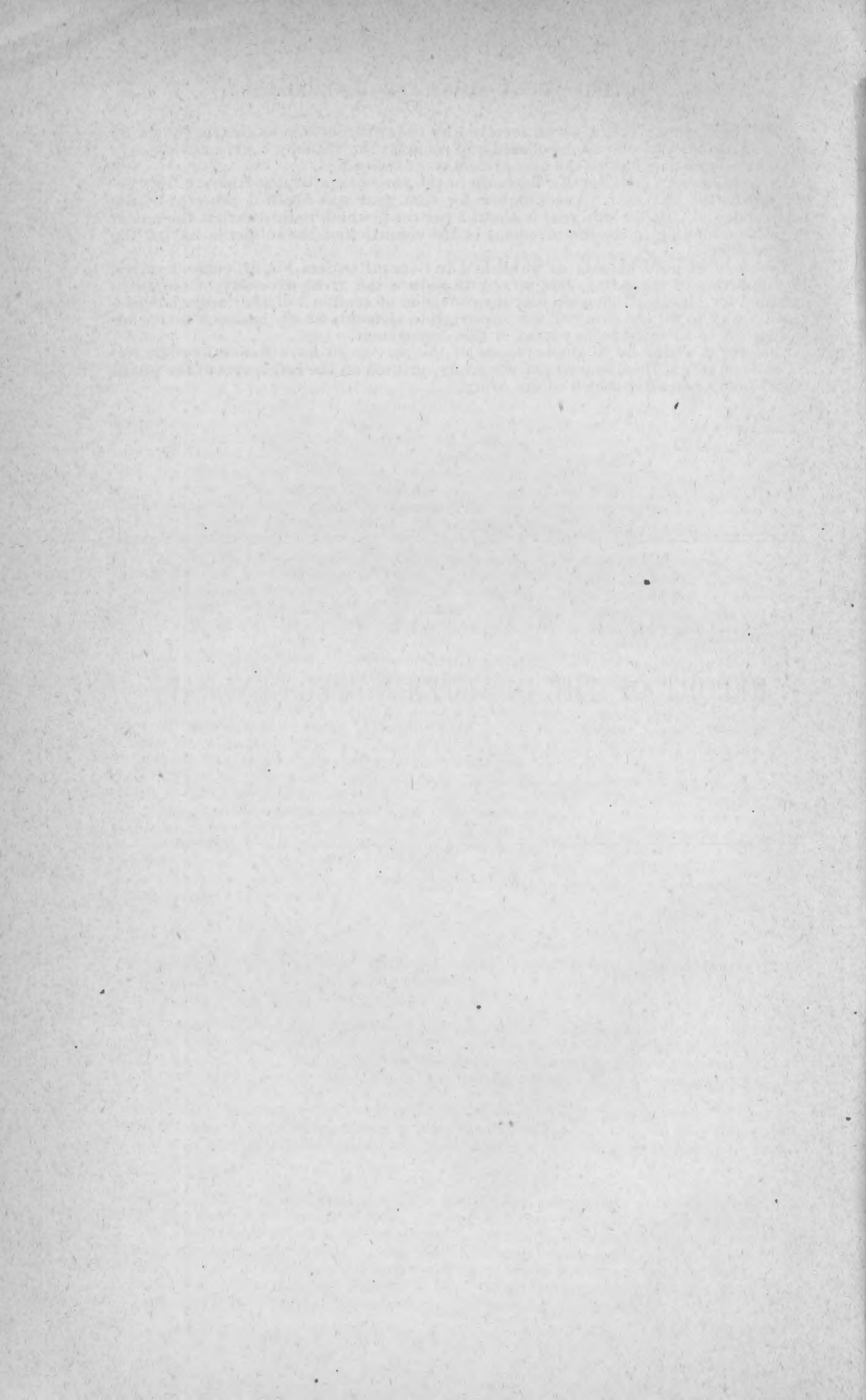
These tables show that under the new system the percentage of trials for minor offences is greater than under the old system, and the principal causes seem to be, first, that many cases are now brought before the summary court that under the old system would have been disposed of by the company commander with a reprimand or deprivation of privilege; second, the arraignment of all those cases which formerly would have been released without trial after a confinement of one or two days, and third, the comparatively light sentences awarded by these courts.

That the summary court is well received by the enlisted men is clearly shown by the small number of objections offered and requests for trial by court-martial, only 15 in this department since the new system went into effect.

There has been a considerable decrease in the percentage of desertions in this department over last year. The number for that year was about 7 per cent of the command, and that for this year is about 5 per cent, which indicates that the recent legislation looking to the improvement of the condition of the soldier is having the desired effect.

The code of punishments as published in General Orders No. 21, current series, Headquarters of the Army, has served to reduce the great diversity of sentences awarded for identical offences, and the provision of section 3 of that order has provided a way to rid the Army of the incorrigible element, which has been taken advantage of to a considerable extent in this department.

I believe it would be to the interests of the service to have General Orders No. 21, current series, Headquarters of the Army, printed on the last leaves of the guard report books hereafter issued to the Army.



REPORT OF THE QUARTERMASTER-GENERAL.

REPORT OF THE GOVERNMENT

REPORT

OF

THE QUARTERMASTER-GENERAL.

QUARTERMASTER-GENERAL'S OFFICE,
Washington, D. C., October 3, 1891.

SIR: I have the honor to submit the annual report of the Quartermaster's Department for the fiscal year ending June 30, 1891:

By acts of June 13, 1890, August 30, 1890, and March 3, 1891, there was appropriated for the service of the Quartermaster's Department for the fiscal year 1890-'91, the sum of \$9,533,437.44
During the year there was deposited to the credit of said appropriations, amounts received from sales to officers, etc., the sum of..... 372,380.65

Making a total of 9,905,818.09
Of this amount there was remitted to disbursing officers. \$9,024,710.10
There was paid out on account of settlements made at Treasury of claims and accounts 31,531.10
9,056,241.20

Leaving a balance available for payment of outstanding obligations incurred or fulfillment of contracts properly entered into within the fiscal year 849,576.89

On the 1st of July, 1890, there was on hand from regular appropriations for the service of the Quartermaster's Department, pertaining to the fiscal year ending June 30, 1890, the sum of 82,639.65
And from appropriations pertaining to previous fiscal years, including those for specific and indefinite purposes, the sum of 989,897.38

Making a total balance on hand, from all appropriations, July 1, 1890, of 1,072,537.03
For specific purposes there was appropriated during the fiscal year ending June 30, 1891 1,659,074.35
During the year there was deposited and transferred to credit of the appropriations other than those for 1890-'91 (shown above) the sum of .. 540,641.52

Making a total of 3,272,252.90
Of said amount there was remitted to disbursing officers the sum of \$865,581.78
There was paid out on account of Treasury settlements and transferred the sum of 970,765.75
There was carried to the surplus fund the sum of..... 180,647.05
2,016,994.58

Leaving a balance of 1,255,258.32

The items of appropriations, remittances, etc., will be found in detail in the accompanying report of the officer in charge of the finance branch.

The business of the Quartermaster's Department for the last fiscal year is given in detail in the reports of the officers in charge of the several branches in this office, which reports are herewith transmitted. Attention is specially invited to the following:

ARMY SERVICE MEN, QUARTERMASTER'S DEPARTMENT.

Under the act of Congress approved June 20, 1890, the enlisted men belonging to the organization known as the Detachment of Artillery at West Point, N. Y., were mustered out of the service, and in accordance with said law were immediately reenlisted as army service men, Quartermaster's Department. Capt. W. H. Miller, acting quartermaster, on duty at West Point, N. Y., was assigned as commanding officer of said detachment. The total strength of this detachment, when complete, consists of 117 men, as follows: One first sergeant, 6 sergeants, 8 corporals, 102 privates, and is composed of clerks, mechanics, overseers, laborers, teamsters, etc., who perform the same duties as those previously performed by the detachment of artillery, which consist mainly of taking care of the buildings and grounds at the Military Academy. It is reported that the men composing this detachment are adapted physically and otherwise to perform the duties required of them, and that they are performing the same in a satisfactory manner.

The eighty post quartermaster sergeants provided by law to assist post and other quartermasters, in lieu of citizen employés, have rendered satisfactory service during the past fiscal year.

CLOTHING AND EQUIPAGE SUPPLIES.

The appropriation for the last fiscal year for clothing and equipage for the Army was \$1,150,000. In addition to this the further sum of \$187,702.18 was appropriated by act March 3, 1891, to meet the large demands on the Department occasioned by the Sioux Indian campaign last winter. There was also placed to the credit of the appropriation the sum of \$166,035.26, on account of issues of clothing and equipage to the militia; and the sum of \$61,664.13 was credited from sales to officers, etc., making a total of \$1,565,401.57.

Of this sum there was expended during the fiscal year \$1,489,011.31, leaving a balance in the Treasury on June 30, 1891, of \$76,390.26, all of which will be required to meet outstanding indebtedness.

During the last winter campaign against the hostile Sioux, the resources of the supply depots were severely taxed to meet the urgent need for tents and extra warm clothing, but from reports since received it is shown that these supplies were promptly received in the field, and gave good satisfaction.

The issues to the militia under the act of Congress amending section 1661, Revised Statutes, and under the special acts of Congress approved May 14 and August 30, 1890, amounted during the year to \$176,093.75.

The following issues, etc., represent a total loss during the last fiscal year to the clothing appropriation:

To the militia of the District of Columbia	\$7, 105. 54
To the Indian prisoners of war, Mount Vernon Barracks, Alabama	7, 596. 92
For prisoners' clothing, military prison, Fort Leavenworth, Kans.	1, 031. 73
For prisoners' clothing, Alcatraz Island, Cal.	1, 004. 12
Sale of leather cuttings at military prison, Fort Leavenworth, Kans., proceeds credited to miscellaneous receipts	1, 152. 66
Sale of condemned clothing, equipage, and materials, proceeds credited to miscellaneous receipts	16, 324. 58
Total	34, 875. 55

The subject of improvement of the boots and shoes for the enlisted men of the Army is still under consideration by the Department. The question as to what particular kinds are best adapted for the Army is a difficult one to solve.

By reason of the reduction of the working stock on hand at the supply depots, as explained in my last annual report, and the constant annual losses from the clothing appropriation on account of gratuitous issues, etc., it is earnestly recommended that the sum of \$1,300,000, estimated as necessary for the purchase and manufacture of clothing for the Army for the next fiscal year, may be granted.

NATIONAL CEMETERIES.

There are 82 national cemeteries and 74 superintendents.

During the fiscal year 9,977 headstones were provided to mark the graves of soldiers, sailors, and marines buried in national, post, private, city, and village cemeteries.

Under the acts of Congress approved March 2, 1889, August 30, 1890, and March 3, 1891, the sum of \$2,092 was paid during the year for the burial, in the Arlington National Cemetery, of indigent ex-Union soldiers, sailors, and marines of the late civil war, who died in the District of Columbia.

The following roadways to national cemeteries, authorized by special acts of Congress, were completed during the past fiscal year:

Roadway to Antietam National Cemetery, at a cost of.....	\$5,199.60
Roadway to Marietta, Ga., National Cemetery, at a cost of.....	8,254.60
Roadway to Corinth, Miss., National Cemetery, at a cost of.....	9,771.53
Extension of roadway to Natchez, Miss., National Cemetery, at a cost of..	5,988.12

TRANSPORTATION.

The regular appropriation for transportation of the Army for the fiscal year ending June 30, 1891, was \$2,600,000, but by act March 3, 1891, an additional sum of \$935,016.86 was appropriated to supply deficiencies for extraordinary expenses caused by the Indian campaign.

During the past fiscal year the Quartermaster's Department provided transportation for 362,715 persons, 9,930 animals, and 113,152 tons of freight, at a cost of \$2,140,693.04.

The cost of the principal movement of troops during the year, exclusive of deductions on account of land-grant and bond-aided railroads, was \$134,843.40. In addition to this the cost of transportation of troops and stores to seat of Indian war, and return of troops to posts, aggregated the sum of \$543,324, making the total amount expended in the principal movement of troops during the year \$678,167.40.

Fifteen thousand and sixty-eight persons, 5,708 animals, and 49,940,112 pounds of freight were transported during the year over the bond-aided Pacific railroads, their branches and leased lines.

The settlement of the accounts of these bond-aided Pacific railroads has continued to be made during the fiscal year, under the provisions of the circular of the honorable Secretary of the Treasury of June 23, 1887.

The cost of maintaining, including repairs, of nine steamboats in service for the year was \$86,706.79.

The sum of \$33,898.35 was expended during the year for transportation of troops in connection with summer encampments, practice

marches, field maneuvers, and instructions, and the sum of \$30,325.98 for transportation of enlisted men to engage in target practice and rifle competition.

The telegraphic service has continued during the year without actual cash outlay to this Department. The Western Union Telegraph Company, having refused to accept the rates fixed by the Postmaster-General for Government telegrams, has furnished no accounts for these services.

REGULAR SUPPLIES.

During the fiscal year there were 44 team horses and 1,082 pack mules purchased, at a cost of \$182,610.47, and 1,268 cavalry and artillery horses, at a cost of \$170,216.14.

The expenditures during the fiscal year for horse and mule shoes, horseshoe nails, etc., amounted to \$19,685.59; for wagons, carts, etc., \$23,656.82; for miscellaneous supplies, \$74,355.22; for stoves, ranges, and extra parts, \$43,508.32, and for table ware and kitchen utensils, \$29,792.98.

BARRACKS AND QUARTERS.

The sum of \$725,000 was appropriated for barracks and quarters for the fiscal year ending June 30, 1891. Of this amount the sum of \$307,767.47 was expended on the construction of barracks, officers' quarters, storehouses, etc., and the remainder was expended for the repair, alteration of buildings, and for rent, etc.

For the construction and repair of hospitals, expenditures to the amount of \$100,000 were authorized, and also the sum of \$12,500 for the construction and repair of hospital stewards' quarters.

Under the act of Congress approved August 30, 1890 (sundry civil bill), making appropriation of \$690,000 for the construction of buildings and the enlargement of such military posts as in the judgment of the Secretary of War may be necessary, the following apportionment was made:

Fort Logan, Colo	\$28, 191. 80	Fort Snelling, Minn	\$24, 041. 50
Fort McPherson, Ga	47, 094. 17	Fort Warren, Mass	26, 000. 00
Fort Riley, Kans	40, 513. 90	Fort Myer, Va	20, 150. 00
Fort Sheridan, Ill	202, 057. 81	Fort Niagara, N. Y	38, 117. 83
Fort Sam Houston, Tex	57, 266. 10	Miscellaneous expenditures ..	200. 00
Fort Thomas, Ky	52, 133. 36	Balance on hand June 30, 1891.	49, 728. 34
Fort Yellowstone, Wyo	57, 961. 68		
Fort Niobrara, Nebr	7, 693. 51	Total	690, 000. 00
Fort Robinson, Nebr	38, 850. 00		

The buildings authorized at the posts above named, with the exception of those authorized at Fort Warren, Mass., have been contracted for, and many of them are in course of construction.

SPECIAL APPROPRIATIONS FOR MILITARY POSTS.

Fort Crook, Nebr.—No buildings have yet been constructed at this post, but the work of preparing plans and estimates for the same are in progress. The total cost of the work at this post is, by act of Congress approved March 3, 1891, limited to \$500,000.

Fort Myer, Va.—With a view to the enlargement of this post, to accommodate two additional troops of cavalry, as provided by act of Congress approved June 13, 1890, one double barrack and two brick stables have been constructed, at a cost of \$32,600, the sum appropriated therefor.

Fort Brady, Mich.—The sum of \$120,000 was appropriated for the construction of this post, the total cost of which is, by act of March 3, 1891, limited to \$250,000. During the fiscal year the land purchased for the site has been cleared and the necessary filling and excavating done requisite to the commencement of building operations. The construction of a part of the work, has been authorized.

Fort Bliss, Tex.—The act of Congress approved March 1, 1890, appropriated the sum of \$150,000 for the purchase of a site and for the construction of this post, the total cost of which is, by the act of Congress approved March 3, 1891, limited to \$300,000. Nothing was done during the fiscal year in the way of building. Attention is being given to the preparation of plans and estimates.

Plattsburg Barracks, N. Y.—Congress, by act approved February 16, 1891, authorized the enlargement of this post to a twelve-company post, and for the beginning of the work appropriated the sum of \$200,000. The Secretary of War was authorized to accept, free of cost to the United States, a donation of not less than 500 acres of land, for a target range and other military purposes, at or near the post at Plattsburg Barracks, N. Y. This land has been selected, and as soon as the United States is given a clear title to the same the work of construction will commence.

The work on the reservation of the Presidio at San Francisco, Cal., authorized by acts of Congress approved June 4, 1888, and March 2, 1889, consisting of the construction and improvement of roadways, cultivation of trees, the water supply, etc., has progressed very favorably during the past fiscal year.

The sum of \$140,352 has been expended during the year for roads, walks, and bridges, and \$13,365.75 for wharves.

RESERVATIONS.

During the fiscal year the following reservations or parts thereof have been turned over to the Interior Department for disposition under the act of July 5, 1884, or as otherwise provided by law:

Fort Maginnis, Mont.
Hot Springs (block No. 94), Ark.
Point Roberts, Wash.
Fort Mojave, Ariz.
Fort Verde, Ariz.
Little Rock Barracks, Ark.
Greenwood Island, Miss.
Fort Lowell, Ariz.

Fort McDowell, Ariz.
Fort Totten, N. Dak.
Fort Bridger, Wyo.
Fort Elliott, Tex.
Fort Bidwell, Cal.
Fort Crawford, Colo.
Fort Gibson, Ind. T., except part used
as national cemetery.

The sum of \$241,031.79 was expended during the year for water, sewerage, plumbing, etc., and \$72,358.98 for lighting.

INDIAN CAMPAIGN IN SOUTH DAKOTA.

During the Indian disturbance in South Dakota last winter the Quartermaster's Department promptly met every demand made upon it. The troops operating against the hostile Sioux were abundantly supplied with all the necessary clothing for active winter service, and the animals with proper covering, and both men and animals supplied with every article of quartermaster's stores that was necessary for their protection and comfort.

The officers intrusted with the work of the Quartermaster's Department in connection with this campaign rendered faithful and efficient service.

NEW RECORD SYSTEM.

On the 15th of November, 1890, the system of keeping the records in this office was changed to what is commonly known as the "card system."

At the time of the change the files of the office, in many of its branches, were encumbered with cases not disposed of—laid aside for future consideration or buried under later accumulations. The disposition of these cases in connection with the current work, and the hesitation inevitable upon the discarding of old and the adoption of new methods, taxed the clerical force of the office quite severely for a time, until the routine became familiar and the work was brought up to date. All classes of business now receive the prompt attention and action formerly accorded to "special cases."

Respectfully submitted.

R. N. BATCHELDER,

Quartermaster-General, U. S. Army.

Hon. REDFIELD PROCTOR,

Secretary of War.

List of papers accompanying the annual report of the Quartermaster-General for the fiscal year ending June 30, 1891.

1. Report of Lieut. Col. M. I. Ludington, Deputy Quartermaster-General, U. S. Army, of the operations of the inspection branch of the Quartermaster-General's Office during the fiscal year ending June 30, 1891.

2. Report of Lieut. Col. M. I. Ludington, Deputy Quartermaster-General, U. S. Army, of the operations of the finance branch of the Quartermaster-General's Office during the fiscal year ending June 30, 1891.

3. Report of Lieut. Col. M. I. Ludington, Deputy Quartermaster-General, U. S. Army, of the operations of the money and property accounts branch of the Quartermaster-General's Office during the fiscal year ending June 30, 1891.

A.—Statement showing number of money accounts and returns of quartermaster's stores received and disposed of during the fiscal year ending June 30, 1891.

B.—Statement showing the amount received from sales of quartermaster's stores to officers and soldiers during the fiscal year ending June 30, 1891.

C.—Statement showing in detail the amounts expended under the various appropriations for the fiscal year ending June 30, 1891, and supplement pertaining to the fiscal year ending June 30, 1890.

D.—Statement showing number of civilian employes employed by the month, as reported by officers of the Quartermaster's Department on their report of persons for June, 1891.

E.—Statement of amounts expended by each officer serving in the Quartermaster's Department during the fiscal year ending June 30, 1891.

4. Report of Lieut. Col. M. I. Ludington, Deputy Quartermaster-General, U. S. Army, of the operations of the clothing and equipage returns branch of the Quartermaster-General's Office during the fiscal year ending June 30, 1891.

5. Report of Lieut. Col. M. I. Ludington, Deputy Quartermaster-General, U. S. Army, of the operations of the clothing supply branch of the Quartermaster-General's Office during the fiscal year ending June 30, 1891.

A.—Statement showing articles of clothing and equipage and materials on hand at the issuing depots of the Quartermaster's Department June 30, 1890, the quantities purchased, manufactured, received from posts and depots, taken up, sold, transferred to general depots, expended, issued to the Army and militia, and the quantities remaining in the depots June 30, 1891.

B.—Statement of amounts received and remitted by the Quartermaster's Department on account of clothing and equipage during the fiscal year ending June 30, 1891.

6. Report of Lieut. Col. M. I. Ludington, Deputy Quartermaster-General, U. S. Army, relating to the care and maintenance of national cemeteries during the fiscal year ending June 30, 1891.

A.—Statement of disbursements of appropriation "National cemeteries" during the fiscal year ending June 30, 1891.

7. Report of Maj. James Gilliss, quartermaster, U. S. Army, of the operations of the transportation, regular supplies, and claims under act July 4, 1864, branches, during the fiscal year ending June 30, 1891.

8. Report of Capt. W. S. Patten, assistant quartermaster, U. S. Army, of the operations of the miscellaneous claims branch and mail and record division of the Quartermaster-General's Office during the fiscal year ending June 30, 1891.

9. Report of Capt. C. P. Miller, assistant quartermaster, U. S. Army, of the operations of the barracks and quarters branch of the Quartermaster-General's Office during the fiscal year ending June 30, 1891.

A.—Statement showing property rented by the Quartermaster's Department during the fiscal year ending June 30, 1891.

10. Report of Capt. C. P. Miller, assistant quartermaster, U. S. Army, of the operations of the reservation branch of the Quartermaster-General's Office during the fiscal year ending June 30, 1891.

A.—Statement of expenditures authorized for water, sewerage, plumbing, etc., chargeable to appropriation for "Army transportation," for the fiscal year ending June 30, 1891.

B.—Statement of expenditures authorized for lighting, heating, etc., chargeable to appropriation for regular supplies, for the fiscal year ending June 30, 1891.

C.—Statement showing military reservations turned over to the Interior Department or otherwise disposed of since 1858.

D.—Statement giving alphabetical list of military reservations, showing location, size, how occupied, accommodations for officers and men, etc., on June 30, 1891.

1.

WAR DEPARTMENT, QUARTERMASTER-GENERAL'S OFFICE, *Washington, D. C., September 4, 1891.*

GENERAL: I have the honor to submit my report of the operations of the inspection branch of this office during the fiscal year ending June 30, 1891.

This branch of the office takes cognizance of all matters which relate to the personnel of the officers of the Quartermaster's Department, such as their assignment to stations, furnishing bonds, etc., and to matters which pertain individually to clerks and employes in the office of the Quartermaster-General, and of the Quartermaster's Department at large.

The biennial and annual reports, monthly roster, returns of officers of the Quartermaster's Department, monthly and semimonthly pay-rolls of clerks and employes in the office of the Quartermaster-General, are all prepared in this branch, and action is also taken upon all matters which relate to the application, examination, appointment, and assignment to duty of post quartermaster sergeants, U. S. Army. The services performed by the post quartermaster sergeants during the past fiscal year have been generally satisfactory.

All books, orders, circulars, and other printed matter for the use of officers of the Quartermaster's Department are distributed from this branch, and during the past fiscal year 111,806 of such orders, etc., were so distributed.

By act of Congress approved June 20, 1890 (G. O. 72, A. G. O.), it was provided that the enlisted men known as the "artillery detachment," at West Point, N. Y., "shall be mustered out of the service as artillery men and immediately reënlisted as Army service men in the Quartermaster's Department, continuing to perform the same duties, and to have the same pay, allowances, rights, and privileges, and subject to the same rules and regulations and laws, in the same manner as if their services had been continuous in the artillery."

Upon the passage of the above law steps were immediately taken to

organize the detachment of Army service men, Quartermaster's Department, in accordance therewith.

Capt. W. H. Miller, assistant quartermaster, on duty at West Point, was assigned as commanding officer of said detachment. He reports that the number of men of the artillery detachment who were reenlisted as Army service men, Quartermaster's Department, when the latter was organized, were as follows:

First sergeants	1	
Sergeants	6	
Corporals	8	
Privates	93	
		108
Total number of men transferred and discharged from the detachment since organization to June 30, 1891	33	
		75
Total number of men enlisted and transferred to the detachment since organization to June 30, 1891	34	
		109
Number of vacancies existing in detachment June 30, 1891	8	
		117

The total strength of the detachment, when complete, consists of 117 men, as follows:

First sergeants	1	
Sergeants	6	
Corporals	8	
Privates	102	
		117

This detachment, as now organized, is composed of clerks, mechanics, laborers, teamsters, overseers, etc., who perform the same duties as those previously performed by the detachment of artillery, which consist mainly of taking care of the buildings and grounds at the Military Academy.

Capt. Miller reports that the men now composing the detachment of "Army service men, Quartermaster's Department," at West Point, are generally well adapted, both physically and otherwise, for the duties they are required to perform, and, with few exceptions, they have and do perform said duties in a satisfactory manner.

With a view to improving and maintaining the efficiency of this detachment, instructions have been given Capt. Miller, the commanding officer, in filling future vacancies, to enlist therein only young, able-bodied men who are suitable for the duties that will be required of them, and who are not under 21 nor over 35 years of age. In the case of the reenlistment of persons hereafter joining the detachment, the age limit is fixed at 48 years.

Such further instructions as may from time to time appear necessary to increase the efficiency of this organization will be given to the officer commanding this detachment.

The officers of the Quartermaster's Department, regular establishment, are as follows:

One Quartermaster-General, 4 Assistant Quartermasters-General, 8 Deputy Quartermasters-General, 14 quartermasters, 30 assistant quartermasters, 2 military storekeepers; total, 59.

Very respectfully,

M. I. LUDINGTON,
Deputy Quartermaster-General, U. S. Army.

The QUARTERMASTER-GENERAL, U. S. ARMY.

2.

Annual report of the finance branch for the fiscal year ending June 30, 1891.

This branch has charge of matters relating to the procurement and distribution of funds, the compilation and preparation for Congress of the annual estimates of funds for the service of the Quartermaster's Department and for funds required for the Quartermaster-General's Office, the examination of estimates of funds received from disbursing officers and the issues of requisitions in favor of such disbursing officers, the action upon settlements made at the Treasury of claims and accounts pertaining to the Quartermaster's Department, the abstracting of weekly and monthly statements of funds for comparison with the Treasury records, and the conducting of the necessary correspondence and the keeping of the prescribed records and necessary memorandum books connected with the foregoing.

From the balance books, upon which all debits and credits are recorded, the following statement has been prepared:

Annual report of the finance branch for the fiscal year ending June 30, 1891.

Appropriations.	Balance in Treasury undrawn July 1, 1890.	Appropriated.		Placed to credit of appropriations during the year, being the proceeds of sales to officers.	Placed to credit of appropriations by Treasury transfer warrants.	Total to be accounted for.	Remitted to disbursing officers.	Requisitions issued on settlements made at Treasury of claims and accounts.	Amounts charged against appropriations by Treasury transfer warrants.	Amounts carried to surplus fund, act June 20, 1874.	Balance in Treasury undrawn June 30, 1891, available for outstanding obligations.	Total accounted for.
		Amount.	Date of act.									
1888.												
50 per centum of arrears of army transportation due certain land-grant railroads.....		\$10,396.73	Sept. 30, 1890			\$10,396.73		\$10,396.54		\$0.19		\$10,396.73
1888 and prior years.												
Regular supplies.....				\$1,411.37		1,411.37				1,411.37		1,411.37
Incidental expenses.....				270.28		270.28				270.28		270.28
Barracks and quarters.....				61.70		61.70				61.70		61.70
Transportation of the Army and its supplies.....				2,642.39		2,642.39				2,642.39		2,642.39
Clothing, camp, and garrison equipage.....				2,794.41		2,794.41				2,794.41		2,794.41
Construction and repair of hospitals.....				40.00		40.00				40.00		40.00
National cemeteries.....				7.71		7.71				7.71		7.71
50 per centum of arrears of army transportation due certain land-grant railroads.....				3.78		3.78				3.78		3.78
Total.....				7,231.64		7,231.64				7,231.64		7,231.64
1888 and prior years, transfer account.												
Regular supplies.....				1,258.65		1,258.65		575.02	\$683.63			1,258.65
Incidental expenses.....				74,776.48		74,776.48		1,814.83	72,961.65			74,776.48
Transportation of the Army and its supplies.....				529.74	\$50.08	579.82		295.11	284.71			579.82
Clothing, camp, and garrison equipage.....				537.01		537.01			537.01			537.01
Total.....				77,101.88	50.08	77,151.96		2,684.96	74,487.00			77,151.96

1888-'89.									
Regular supplies	\$86,985.17			29,621.62	116,606.79	1,870.54	114,736.25		116,606.79
Incidental expenses	354.02			28.78	382.80	320.05	62.75		382.80
Horses for cavalry and artillery	1,290.34				1,290.34	4.00	1,286.34		1,290.34
Barracks and quarters	2,315.92			181.76	2,497.68	3.39	2,494.29		2,497.68
Transportation of the Army and its supplies	5,022.21	{ 36,290.67 13.60	{ Sept. 30, 1890 Mar. 3, 1891	{ 13,798.61	55,125.09	52,751.98		\$2,373.11	55,125.09
Clothing, camp, and garri- son equipage	40,509.95			655.56	41,165.51	2,486.69	38,678.82		41,165.51
Construction and repair of hospitals	799.35			16.54	815.89		815.89		815.89
National cemeteries	1,494.56			1.25	1,495.81	744.47	751.34		1,495.81
Pay of superintendents of national cemeteries	405.68				405.68		405.68		405.68
Shooting galleries and ranges	475.45	4,496.05	Mar. 3, 1891		4,971.50	475.45		4,496.05	4,971.50
Quarters for hospital stew- ards	402.10				402.10	16.54	385.56		402.10
Total	140,054.75	40,800.32		44,304.12	225,159.19	58,673.11	159,616.92	6,869.16	225,159.19
1889-'90,									
Regular supplies	52,884.94			65,759.70	118,644.64	\$19,297.79	4,367.25	94,979.60	118,644.64
Incidental expenses	23,728.06			16,502.14	40,230.20	11,982.05	6,371.19	21,876.96	40,230.20
Horses for cavalry and artillery				3,258.44	3,258.44		250.00	3,008.44	3,258.44
Barracks and quarters	3,828.52			8,414.57	12,243.09	1,103.00	676.65	10,463.44	12,243.04
Transportation of the Army and its supplies	458.85	85,507.20	March 3, 1891	52,249.77	138,215.82	11,592.72	126,198.57	424.53	138,215.82
Clothing, camp, and garri- son equipage	271.21			63,970.38	64,241.59	58,436.13	2,757.84	3,047.62	64,241.59
Construction and repair of hospitals	314.36			1,041.45	1,355.81	1,293.31	62.50		1,355.81
National cemeteries	719.82			1,632.96	2,352.78	258.87	340.94	1,752.97	2,352.78
Pay of superintendents of national cemeteries	168.49			34.00	202.49			202.49	202.49
Shooting galleries and ranges	161.59			574.03	735.62		29.66	705.96	735.62
Quarters for hospital stew- ards	103.81			163.71	267.52	181.29	20.00	66.23	267.52
Total	82,639.65	85,507.20		213,601.15	381,748.09	104,145.16	141,074.60	136,528.24	381,748.00
1890-transfer account.									
Transportation of the Army and its supplies				2.50	2.50		2.50		2.50

Clothing, camp, and garri- son equipage	532.83 2.22	Sept. 30, 1890 Mar. 3, 1891		535.05	535.05		535.05
Construction and repair of hospitals	7.20	Sept. 30, 1890		7.20	7.20		7.20
National cemeteries	1.00	do		1.00	1.00		1.00
Military post at Fort D. A. Russell, Wyo.	309.80	do		309.80	309.80		309.80
Military post at Fort Rob- inson, Nebr.	1,330.01	do		1,330.01	1,330.01		1,330.01
50 per centum of arrears of army transportation due certain land-grant railroads.	11,404.42 3,095.70	do Mar. 3, 1891		14,500.12	14,500.12		14,500.12
Total	1,011.82	215,455.16	247.80	216,714.78	215,103.91	599.05	216,714.78
<i>Indefinite or special.</i>							
Approaches to the national cemetery, Culpeper, Va.	4,500.00	Aug. 30, 1890		4,500.00	4,500.00		4,500.00
Army and Navy Hospital, Hot Springs, Ark.	2,000.00	Sept. 30, 1890		2,000.00	2,000.00		2,000.00
Barracks and quarters, Fort Myer, Va.	32,600.00	June 13, 1890		32,600.00	32,600.00		32,600.00
Battle lines and sites for tablets at Antietam.	15,000.00	Aug. 30, 1890		15,000.00		15,000.00	15,000.00
Burial of indigent soldiers.	1,000.00 500.00	do Mar. 3, 1891		1,500.00	1,500.00		1,500.00
Confederate cemetery near Columbus, Ohio	75.46			75.46		75.46	75.46
Fort Brady military post, Michigan	107,697.60			107,697.60	10,860.00	96,837.60	107,697.60
Headstones for graves of soldiers	70,378.80	10,000.00	Aug. 30, 1890	80,394.86	20,212.30	215.29	59,967.27
Improvement of national park, Mackinac, Mich.	973.98			973.98	973.98		973.98
Levee at Brownsville national cemetery, Texas.	3,735.00	Aug. 30, 1890		3,735.00	3,735.00		3,735.00
Military posts	81,239.69	690,000.00	do	806,623.42	530,627.18	7,374.00	115,000.00
Military post near New- port, Ky., site.	11,972.05			11,972.05			11,972.05
Military post near New- port, Ky., buildings.	97.63		50,000.00	50,097.63	36,758.12		13,339.51
Military post at Fort Omaha, Nebr.	123,383.34		50.20	123,383.54	10,000.00		113,383.54
Military post near Chi- cago, Ill.	90,095.88		841.81	90,937.69	89,097.11	1,493.92	346.66
Military post, Fort Bliss, Tex.	150,000.00			150,000.00	1,041.00		148,959.00
Military post, Fort Sid- ney, Nebr.			4.86	15,000.00	15,004.86		15,004.86

Annual report of the finance branch for the fiscal year ending June 30, 1891—Continued.

Appropriations.	Balance in Treasury undrawn July 1, 1890.	Appropriated.		Placed to credit of appropriations during the year, being the proceeds of sales to officers.	Placed to credit of appropriations by Treasury transfer warrants.	Total to be accounted for.	Remitted to disbursing officers.	Requisitions issued on settlements made at Treasury of claims and accounts.	Amounts charged against appropriations by Treasury transfer warrants.	Amounts carried to surplus fund, act June 20, 1874.	Balance in Treasury undrawn June 30, 1891, available for outstanding obligations.	Total accounted for.
		Amount.	Date of act.									
Military post, near Denver, Colo.				\$5.83		\$5.83					\$5.83	\$5.83
Military post, Atlanta, Ga.					\$75 000.00	75,000.00					75,000.00	75,000.00
Military post, Fort Snelling, Minn.					15,000.00	15,000.00					15,000.00	15,000.00
Military post, Plattsburg, N. Y.		\$200,000.00	Feb. 7, 1891			200,000.00					200,000.00	200,000.00
National cemetery, Hampton, Va.		10,000.00	Aug. 30, 1890			10,000.00	\$250.00				9,750.00	10,000.00
Officers' quarters, military post at Columbus, Ohio.	\$18.10	471.90	Mar. 3, 1891	2.00		492.00		\$20.10			471.90	492.00
Purchase of Fort Brown reservation, Texas.	160,000.00					160,000.00					160,000.00	160,000.00
Purchase of land adjoining military post at Madison Barracks, N. Y.	7,000.00					7,000.00				\$7,000.00		7,000.00
Purchase of land for target ranges, Fort McPherson, Ga.		16,500.00	June 13, 1890			16,500.00					16,500.00	16,500.00
Purchase of land adjoining military reservation at West Point, N. Y.				404.30		404.30				404.30		404.30
Road from Natchez to the national cemetery, Mississippi.	106.29					106.29					106.29	106.29
Road to the national cemetery, Presidio of San Francisco, Cal.	16,890.41					16,890.41	16,885.32	5.09				16,890.41
Road to the national cemetery at Hampton, Va.	2,000.00					2,000.00					2,000.00	2,000.00
Road from Staunton to the national cemetery, Virginia.	6,000.00					6,000.00					6,000.00	6,000.00
Road to the national cemetery, Port Hudson, La.	13,500.00					13,500.00	100.00				13,400.00	13,500.00

Repairing roads to national cemeteries	4,555.75	15,000.00	Aug. 30, 1890	.....	.....	19,555.75	10,541.90	9.10	.....	.....	9,004.99	19,555.75
Road to the national cemetery near Beverly, N. J. ....	.....	.....	.....	451.44	.....	451.44	.....	.....	.....	.....	451.44	451.44
Road to the national cemetery near Fredericksburg, Va. ....	.....	8,000.00	Aug. 30, 1890	.....	.....	8,000.00	3,500.00	.....	.....	.....	4,500.00	8,000.00
Road from Marietta to the national cemetery, Georgia .....	.....	8,264.77	do	.....	.....	8,264.77	8,264.77	.....	.....	.....	.....	8,264.77
Road from Antietam to the national cemetery, Maryland .....	.....	5,000.00	do	.....	3.12	5,003.12	5,000.00	.....	.....	.....	3.12	5,003.12
Road to the national cemetery near Pineville, La. ....	.....	.....	.....	11.12	.....	11.12	.....	.....	.....	11.12	.....	11.12
Road from Alexandria to the national cemetery, Virginia .....	.....	7,000.00	Dec. 11, 1890	.....	.....	7,000.00	.....	.....	.....	.....	7,000.00	7,000.00
Road from New Berne to the national cemetery, North Carolina .....	.....	.....	.....	12.95	.....	12.95	.....	.....	.....	.....	12.95	12.95
Riflerange, Fort Sheridan, Ill. ....	.....	10,000.00	June 13, 1890	.....	.....	10,000.00	9,748.00	.....	.....	.....	252.00	10,000.00
Relief of the estate of Charles F. Bowers .....	.....	230.00	do	.....	.....	230.00	.....	230.00	.....	.....	.....	230.00
Tents for sufferers from flood in Arkansas, Mississippi, and Louisiana .....	.....	.....	.....	5,708.37	.....	5,708.37	.....	.....	5,708.37	.....	.....	5,708.37
Water supply, Fort D. A. Russell, Wy	2,955.83	.....	.....	62.32	.....	2,958.15	.....	.....	.....	.....	2,958.15	2,958.15
Total indefinite,	848,830.81	1,039,801.67	.....	42,958.11	155,000.00	2,086,590.59	761,436.62	46,105.62	155,000.00	13,199.25	1,110,849.10	2,086,590.59
Army transportation, Pacific railroads. ....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1888 and prior years .....	.....	5,861.06	June 30, 1891	.....	.....	5,861.06	.....	5,861.06	.....	.....	.....	5,861.06
1889 .....	.....	65,710.94	do	.....	51.17	65,762.11	.....	65,762.11	.....	.....	.....	65,762.11
1890 .....	.....	192,077.27	do	.....	93.07	192,170.34	.....	192,170.34	.....	.....	.....	192,170.34
1891 .....	.....	3,464.00	do	.....	.....	3,464.00	.....	3,464.00	.....	.....	.....	3,464.00
Total .....	.....	267,118.27	.....	144.24	.....	267,257.51	.....	267,257.51	.....	.....	.....	267,257.51
Grand total	1,072,537.03	11,192,511.79	.....	757,724.29	155,297.88	13,178,070.99	9,890,291.88	772,827.35	229,469.50	180,647.05	2,704,835.21	13,178,070.99

NOTE.—Of the amount appropriated for claims for "quartermasters' stores and commissary supplies" by act of May 1, 1882, \$90 has been paid through this office during the fiscal year.

The sum of \$525.27, appropriated for "20 per centum additional compensation" by act of March 3, 1891, has been paid on settlements made at Treasury.

Of the \$81,781.30 appropriated for "horses and other property lost in the military service" (certified claims), acts of September 30, 1890, and March 3, 1891, the sum of \$78,479.44 has been paid through this office during the fiscal year.

Fort Thomas, Ky.....	16,280.46	2,709.21	2,529.93	46,327.34	18,244.00	1,175.56	87,266.50
Fort Bliss, Tex.....		754.15	104.00	145.84			1,003.99
Fort Brady, Mich.....	382.95	2,602.00	270.00	354.04			3,608.99
Powder Depot, New Jersey.....	202.00						292.00
Allegheny Arsenal.....	725.50		36.00	173.00			934.50
Augusta Arsenal.....	856.40	365.00		168.84			1,390.24
Benicia Arsenal.....	2,702.27	90.10		422.50			3,214.87
Columbia Arsenal.....	12.99	31.40		20.00			64.39
Frankford Arsenal.....	90.00			1,010.76			1,100.76
Indianapolis Arsenal.....	384.31	6.50					390.81
Kennebec Arsenal.....	1,200.00	50.00		150.00			1,400.00
Rock Island Arsenal.....	1,185.02	226.85		1,667.45	134.00		3,223.32
Watertown Arsenal.....	2,402.44	124.40		312.53			2,839.37
Watervliet Arsenal.....	2,509.98	440.10		298.20			3,248.28
Total depots, posts, etc.....	419,038.52	228,941.71	92,592.66	120,367.11	975,175.34	1,478,636.52	3,507,045.92
Grand total.....	2,635,631.81	667,093.14	173,459.59	697,895.78	3,107,048.60	1,488,995.25	9,024,710.10

Remitted from indefinite or special appropriations.

Divisions, departments, etc.	Improvement national park, Island of Mackinac, Michigan.	Military posts.	Rifle range at Fort Sheridan.	Levee at Brownsville National Cemetery, Texas.	Military post at Fort Omaha, Nebr.	Headstones for graves of soldiers.	Repairing roads to national cemeteries.	Road from Antietam to the national cemetery, Maryland.	Road to the national cemetery near Fredericksburg, Va.	Approaches to the national cemetery, Culpeper, Va.	Burial of indigent soldiers.
Division of the Atlantic.....	\$973.98	\$38,132.83									
Department of the Platte.....		55,957.05			\$10,000.00						
Department of Dakota.....		58,109.18									
Total Division of the Missouri.....		114,066.23			10,000.00						
Department of Missouri.....		28,191.80									
Department of Texas.....		57,916.10		\$3,735.00							
New York depot.....						\$19,913.30					
Washington depot.....		21,200.00				250.00					
Jeffersonville depot.....						42.00	\$6,696.96	\$5,000.00	\$3,500.00	\$4,500.00	\$1,500.00
San Francisco depot.....											
Hot Springs, Ark.....											
Atlanta, Ga. (military post).....		84,749.17									
Atlanta, Ga. (cemetery).....						7.00	3,845.00				
Fort Sheridan, Ill.....		127,940.81	\$9,748.00								
Fort Riley, Kans.....		40,311.04									
Fort Thomas, Ky.....		18,119.20									
Fort Brady, Mich.....											
Fort Bliss, Tex.....											
Total depots, posts, etc.....		292,320.22	9,748.00			20,212.30	10,541.96	5,000.00	3,500.00	4,500.00	1,500.00
Grand total.....	973.98	530,627.18	9,748.00	3,735.00	10,000.00	20,212.30	10,541.96	5,000.00	3,500.00	4,500.00	1,500.00

Remitted from indefinite or special appropriations—Continued.

Divisions, departments, etc.	National cemetery, Hampton, Va.	Barracks and quarters, Fort Myer, Va.	Road to the national cemetery, Presidio of San Francisco, Cal.	Army and Navy Hospital, Hot Springs, Ark.	Road to the national cemetery, Port Hudson, La.	Road from Marietta to the national cemetery, Georgia.	Military post near Chicago, Ill.	Fort Brady military post, Michigan.	Military post, Fort Bliss, Tex.	Horses and other property lost in the military service. (Certified claims.)	Total.
Division of the Atlantic.....											\$39, 106. 81
Department of the Platte.....											65, 957. 05
Department of Dakota.....											58, 109. 18
Total Division of the Missouri...											124, 066. 23
Department of Missouri.....											23, 191. 80
Department of Texas.....											61, 651. 10
New York depot.....											19, 913. 30
Washington depot.....	\$250. 00	\$32, 600. 00								\$75, 125. 37	150, 622. 33
Jeffersonville depot.....											42. 00
San Francisco depot.....			\$16, 885. 32								16, 885. 32
Hot Springs, Ark.....				\$2, 000. 00							2, 000. 00
Atlanta, Ga. (military post).....											84, 749. 17
Atlanta, Ga. (cemeterial).....					\$100. 00	\$3, 264. 77					12, 216. 77
Fort Sheridan, Ill.....							\$89, 097. 11				226, 785. 92
Fort Riley, Kans.....											40, 311. 04
Fort Thomas, Ky.....											18, 119. 20
Fort Brady, Mich.....								\$10, 860. 00			10, 860. 00
Fort Bliss, Tex.....									\$1, 041. 00		1, 041. 00
Total depots, posts, etc.....	250. 00	32, 600. 00	16, 885. 32	2, 000. 00	100. 00	3, 264. 77	89, 097. 11	10, 860. 00	1, 041. 00	75, 125. 37	533, 546. 05
Grand total.....	250. 00	32, 600. 00	16, 885. 32	2, 000. 00	100. 00	3, 264. 77	89, 097. 11	10, 860. 00	1, 041. 00	75, 125. 37	836, 561. 99

Respectfully submitted.

M. I. LUDINGTON,
Deputy Quartermaster-General, U. S. Army.

QUARTERMASTER-GENERAL'S OFFICE, September 2, 1891.

QUARTERMASTER-GENERAL.

3.

WAR DEPARTMENT,
QUARTERMASTER-GENERAL'S OFFICE,
Washington, D. C., September 25, 1891.

GENERAL: I have the honor to submit a report of the operations of the money and property branch of this office during the fiscal year 1891.

The duties of this branch are the administrative examination of the money accounts and returns of quartermaster's stores rendered by officers serving in the Quartermaster's Department before their transmission to the accounting officers for final action.

It also takes action on certificates of deposits of funds pertaining to the appropriations for the Quartermaster's Department received from sales to officers and soldiers, sales at auction, and other sources, and upon boards of survey and inventory and inspection reports of quartermaster's stores no longer fit for issue or use.

The accompanying statements exhibit in detail the work of the branch, and are marked:

A.—A statement showing number of accounts and returns examined, etc.

B.—A statement showing the amounts received from sales of quartermaster's stores to officers and soldiers.

C.—A statement showing in detail the amounts expended under the various heads of appropriations for the fiscal year 1891, and supplement pertaining to fiscal year ended June 30, 1890.

D.—A statement showing the number of civilians employed by the month, etc.

E.—A statement of amounts expended by each officer serving in the Quartermaster's Department.

Very respectfully,

M. I. LUDINGTON,
Deputy Quartermaster-General, U. S. Army.

The QUARTERMASTER-GENERAL, U. S. ARMY.

A.—Statement showing the number of money accounts and returns of quartermaster's stores received and disposed of during the fiscal year ending June 30, 1891.

MONEY ACCOUNTS.

On hand July 1, 1890.....	1,255
Received during the year	2,737
Total	3,992
Examined and sent to Auditor	2,704
Remaining on hand July 1, 1891.....	1,288

PROPERTY RETURNS.

On hand July 1, 1890.....	1,554
Received during the year	3,448
Total	5,002
Examined and sent to Auditor.....	3,077
Remaining on hand July 1, 1891.....	1,925

B.—Statement showing the amount received from sales of quartermaster's stores to officers and soldiers of the Army during the fiscal year ending June 30, 1891.

From returns made to this date there has been received from such sales. \$165,781.81

This amount has been credited to appropriations as follows:

Regular supplies	125,539.77
Incidental expenses	5.72
Cavalry and artillery horses	552.80
Barracks and quarters	1.04
Transportation of the Army	192.32
Clothing and equipage	39,490.16
Total	165,781.81

C.—Statement showing in detail the amounts expended from the various appropriations, independent posts, and general depots of the Army, as shown by the accounts of this office up to and including September 15, 1891.

Division, department, and post.	REGULAR SUPPLIES.					
	Forage.					
	Hay.	Oats.	Corn.	Bran.	Barley.	Straw.
<i>Department of the East.</i>						
Hedquarters, Governors Isl- and, N. Y.	\$3,267.12	\$3,981.11	\$196.15	\$293.32		\$894.77
New Orleans, La.	2,806.76	2,596.47				995.42
Boston, Mass.	3,433.67	4,310.05	156.66	212.50		757.30
Baltimore, Md.	2,037.85	2,436.92		22.66		408.02
Buffalo, N. Y.	2,119.65	2,786.44	83.41	74.84		444.09
Washington Barracks, D. C.						
Newport Barracks, Ky.						
Jackson Barracks, La.						
St. Francis Barracks, Fla.						
Mount Vernon Barracks, Ala.	67.36	85.58				42.12
Madison Barracks, N. Y.						
Plattsburg Barracks, N. Y.						
Fort Monroe, Va.	1,344.27	688.14	321.14			387.51
Fort Warren, Mass.						
Fort Preble, Me.						
Fort Trumbull, Conn.						
Fort Adams, R. I.						
Fort Myer, Va.						
Fort Thomas, Ky.						
Fort Hamilton, N. Y.						
Fort Wood, N. Y.						
Fort McHenry, Md.						
Fort Schuyler, N. Y.						
Fort Wadsworth, N. Y.						
Fort Wayne, Mich.						
Fort Brady, Mich.						
Fort Mackinac, Mich.						
Fort Porter, N. Y.						
Fort Ontario, N. Y.	31.31	62.08				
Fort Niagara, N. Y.						
Fort McPherson, Ga.						
Fort Barrancas, Fla.					\$93.00	
In the field.	530.15	746.62				
Total.	15,638.14	17,693.41	757.36	603.32	93.00	3,929.23
<i>Division of the Missouri.</i>						
Headquarters, Chicago, Ill.	4,845.85	3,636.35	1,964.56	512.34		349.40
Fort Sheridan, Ill.	491.74	214.20	40.50	40.05		136.94
Do.		178.49				
Total.	5,337.59	4,029.04	2,005.06	552.39		486.34
<i>Department of the Missouri.</i>						
Headquarters, St. Louis, Mo.	48,419.25	33,099.68	34,677.33	8,885.68		4,707.53
Fort Leavenworth, Kans.		2,464.10	1,254.69			
Denver, Colo.	456.56	816.96	47.65	86.99	5.40	19.49
Little Rock Barracks, Ark.	87.75	28.63	17.86	4.31		20.40
Fort Riley, Kans.	1,973.15	6,113.62	1,583.38	390.23		6.00
Fort Lewis, Colo.	4.41	7.14				
Fort Reno, Okla.	5,419.09	5,087.55	2,180.95	27.00		
Fort Logan, Colo.	3.00					
Fort Supply, Ind. T.						
Fort Sill, Okla.	264.77	756.84	243.57			
Fort Crawford, Colo.						
Fort Gibson, Ind. T.						
Oklahoma City, Okla.						
Guthrie, Okla.	126.97	11.62	199.48			
Camp Wade, Okla.	27.06					
Fort Elliott, Tex.						
Total.	56,782.01	48,386.14	40,204.91	9,394.21	5.40	4,753.42
<i>Department of the Platte.</i>						
Headquarters, Omaha, Nebr.	65,488.33	84,661.29	15,521.58	4,010.78		4,098.41
Fort Robinson, Nebr.	506.62	330.57	.36			
Fort Sidney, Nebr.						
Fort Omaha, Nebr.						
Fort Niobrara, Nebr.	147.03	18.64				

made for the Quartermaster's Department for the fiscal year 1891 in the divisions, departments, from July 1, 1890, to July 1, 1891, and, so far as accounts have been received, in

REGULAR SUPPLIES.								
Fuel.		Stoves.		Lights.			Station- ery.	Adver- tising.
Wood.	Coal.	Heating.	Cook.	Lamps and lanterns.	Mineral oil.	Light.		
\$2,038.13	\$17,719.01	\$3,179.02				\$164.70	\$114.13	\$544.99
6,964.99	10,667.15	69.40		\$2.73		7.48	54.75	
4,270.46	16,518.37	376.90		14.69		5.12	45.84	
2,304.59	9,913.33	169.31				16.75	22.82	
3,413.76	23,494.60	672.29					57.44	
		515.20		17.00		2,708.42		
510.00		93.86		48.80	\$303.86	361.27		
						6.24		
						6.95		
						19.50		
						12.60		
		3,351.65				7.14		
717.14	9,277.52	1,880.70		800.00		117.66		
						13.46		
						5.40	19.67	
		345.79				2.10		
						24.96		
		75.47				3.92		
		416.95				6.45		
		290.68				6.05		
		275.65				2.94	25	
		1,296.09				6.64		
		112.51				4.09		
		225.42		20.75		13.01		
						12.47	26.67	
105.00						5.55		
		46.32				2.35		
		106.22				686.13	1.90	
						4.18		
5.25		72.91				3.91	2.50	
10.00						7.84		
						4.50		
20,339.32	87,589.98	13,572.25		903.97	303.86	4,249.78	345.97	544.99
205.89	5,135.12	313.60				559.85	1,690.81	990.15
2,448.01	2,268.14	26,706.39		30.50		8.03	8.62	
306.00	162.03	30.25				2.71		
2,959.90	7,565.29	27,050.24		30.50		570.59	1,699.43	990.15
19,870.28	38,371.90	260.00					2,375.41	1,035.21
167.63	983.86	2,062.29		26.00	.75	41.83	272.89	
262.61	1,488.26	535.71					131.84	
39.00		50.02		1.50		13.35	18.75	
1,650.79		52.60				6.95		
						33.22		
5.50						19.40		
122.00						10.00		
						10.82		
						2.10		
							3.00	
144.55	849.60						1.95	
214.75								
						8.15		
22,477.11	41,693.62	2,960.62		27.50	.75	145.77	2,798.39	1,035.21
50,622.90	65,692.26	1,793.62		56.67	15,187.00	2.10	1,536.14	606.23
95.50						29.95		
						15.73		
						19.87		
						3.89		

C.—Statement showing in detail the amounts expended from the various

Division, department, and post.	REGULAR SUPPLIES.					
	Forage.					
	Hay.	Oats.	Corn.	Bran.	Barley.	Straw.
<i>Department of the Platte—Con'd.</i>						
Fort Bridger, Wyo.						
Fort D. A. Russell, Wyo.	\$10.00	\$6.00				
Fort McKinney, Wyo.	962.95	883.21				
Fort Washakie, Wyo.	968.14	1,584.66				
Fort Du Chesne, Utah	21.75	6.25				
Fort Douglas, Utah						
Ogden, Utah		10.46				
Camp Pilot Butte, Wyo.						
Bellevue Rifle Range, Nebr.						
In the field	14.44	15.92				\$16.67
Total	68,119.26	87,517.00	\$15,521.94	\$4,010.78		4,115.08
<i>Department of Dakota.</i>						
Headquarters, St. Paul, Minn.	74,951.01	91,969.06	16,467.73	2,821.02		1,702.06
Fort Custer, Mont.	4,357.58	161.82				
Fort Missoula, Mont.	6.80					
Fort Keogh, Mont.	4,646.61	243.22				
Fort Shaw, Mont.						
Fort Assiniboine, Mont.						
Helena, Mont.	5,458.25	14,178.68	4,732.52	555.97		238.00
Fort Buford, N. Dak.	38.08					
Fort Pembina, N. Dak.						
Fort Yates, N. Dak.	832.83					
Fort A. Lincoln, N. Dak.						
Fort Totten, N. Dak.						
Camp Poplar River, N. Dak.						
Fort Sully, S. Dak.	33.44					
Fort Randall, S. Dak.	25.88					
Fort Meade, S. Dak.	188.47	26.91	4.99			
Fort Bennett, S. Dak.	843.44					
Fort Snelling, Minn.	5,966.53	60.13	80.61			11.84
Fort Yellowstone, Wyo.	49.17	66.64				
In the field	1,436.69	6.00				
Total	98,834.78	106,712.46	21,285.85	3,376.99		1,951.90
<i>Department of Texas.</i>						
Headquarters, San Antonio, Tex.	36,764.14	32,969.15	26,143.65	6,544.79		144.22
Fort Clark, Tex.						
Fort Brown, Tex.						
Fort Sam Houston, Tex.						
Fort Hancock, Tex.						
Fort Bliss, Tex.						
Fort McIntosh, Tex.						
Fort Davis, Tex.						
Fort Elliott, Tex.						
Fort Ringgold, Tex.						
Camp at Eagle Pass, Tex.						
Camp Del Rio, Tex.						
Camp Pena Colorado, Tex.						
Total	36,764.14	32,969.15	26,143.65	6,544.79		144.22
<i>Department of California.</i>						
Headquarters, San Francisco, Cal.	20,125.21	12,001.35		864.93	\$12,250.33	
Fort Gaston, Cal.	638.21	419.07				
Fort Mason, Cal.						
Fort Bidwell, Cal.	65.82				17.93	
Presidio of San Francisco, Cal.						
Alcatraz Island, Cal.						
San Diego Barracks, Cal.						
Benicia Barracks, Cal.		89.18				
Angel Island, Cal.	1,259.35				1,980.11	
Total	22,088.59	12,509.60		864.93	14,248.37	

appropriations made for the Quartermaster's Department, etc.—Continued.

REGULAR SUPPLIES.								
Fuel.		Stoves.		Lights.			Station- ery.	Adver- tising.
Wood.	Coal.	Heating.	Cook.	Lamps and lanterns.	Mineral oil.	Light.		
\$36.00						\$34.13		
680.28						23.01		
215.45						10.23		
12.00						19.58		
						24.11		
	\$73.56					4.10		
224.96								
51,287.09	65,765.82	\$1,793.62		\$56.67	\$15,187.00	186.70	\$1,536.14	\$606.23
82,104.81	58,648.01	3,655.99		35.94	9,250.25	400.13	2,598.88	273.46
421.19						20.16		
84.00	5.00					14.60		
						16.66		
						9.26		
						10.00		
11,751.17	70.42					9.00		
1.00						5.07		
2.55						10.00		
						9.56		
11.67						1.46		
						6.58		
199.20						8.00		
						2.00		
12.58	300.80					40.00		
						2.50		
1,231.39		17.10				9.57	7.70	
						4.00		
6,818.46		5.50				85.92		
102,638.02	59,023.78	3,678.59		35.94	9,250.25	664.47	2,606.58	273.46
44,291.72	8,782.33	205.49		106.00	4,500.00	936.05	365.21	278.60
						27.00		
						16.14		
						5.20		
						7.15		
						6.06		
						14.60		
						5.88		
						1.93		
						5.09		
44,291.72	8,782.33	205.49		106.00	4,500.00	1,025.05	365.21	278.60
3,228.05	46,949.15	1.25				248.40		121.34
						3.36		
						8.88		
						24.99		
						20.83		
						12.32		
	803.28					7.26		23.10
2,208.87						16.77		
5,436.92	47,752.43	1.25				342.81		144.44

C.—Statement showing in detail the amounts expended from the various

Division, department, and post.	REGULAR SUPPLIES.					
	Forage.					
	Hay.	Oats.	Corn.	Bran.	Barley.	Straw.
<i>Department of Arizona.</i>						
Headquarters, Los Angeles, Cal.	\$87,036.22	\$9,969.13	\$22,513.82	\$7,590.13	\$70,718.57	\$4,275.35
Whipple Barracks, Ariz.						
San Carlos, Ariz.						
Fort Huachuca, Ariz.						
Fort Thomas, Ariz.						
Fort McDowell, Ariz.						
Fort Apache, Ariz.	11.76				35.55	
Fort Verde, Ariz.						
Fort Mojave, Ariz.						
Fort Bowie, Ariz.						
Fort Lowell, Ariz.						
Fort Grant, Ariz.						
Santa Fé, N. Mex.	27,606.53	5,794.47	13,836.97	2,542.92	1,675.17	3,728.05
Fort Selden, N. Mex.						
Fort Wingate, N. Mex.						
Fort Bayard, N. Mex.						
Fort Union, N. Mex.						
Fort Stanton, N. Mex.						
Total	114,654.51	15,763.60	36,350.79	10,133.05	72,429.29	8,003.40
<i>Department of the Columbia.</i>						
Headquarters, Vancouver Bar-						
racks, Wash.	10,730.54	14,345.89		489.61		731.36
Portland, Oregon	29,458.62	27,511.64	6.15	1,812.72		1,326.22
Fort Spokane, Wash.	286.00	196.21				
Fort Canby, Wash.						
Fort Walla Walla, Wash.	653.11				19.17	
Fort Townsend, Wash.	22.81					
Boisé Barracks, Idaho	151.48	114.14				
Fort Sherman, Idaho	221.31	61.90				
In the field	245.42	36.12			70.70	
Total	41,769.29	42,265.90	6.15	2,302.33	89.87	2,057.58
<i>Independent posts.</i>						
West Point, N. Y.	5,211.84	5,835.00	845.74	1,542.92	129.57	1,161.99
Atlanta, Ga.	328.58	510.73	7.64			37.35
Columbus Barracks, Ohio	513.52	702.35				97.92
Hot Springs, Ark.	375.82	388.47				67.81
Fort Riley, Kans.		3,420.14	5,200.92			359.23
Devils Island, N. Y. Harbor						
Willels Point, N. Y. Harbor						
Fort Leavenworth Military						
Prison, Kans.						
Sault de Ste. Marie, Mich.				1.35		
Jefferson Barracks, Mo.	2,694.93	2,789.09	410.55	121.48	12.93	278.85
U. S. Powder Depot, N. J.	61.23	116.64	16.00			
Fort Snelling Ordnance Depot,						
Minn.						
Columbia Arsenal, Tenn.	136.84	158.83				
Frankford Arsenal, Pa.						34.65
Kennebec Arsenal, Me.						9.08
Allegheny Arsenal, Pa.	142.42	193.95				12.15
Indianapolis Arsenal, Ind.	97.07	109.50				14.40
Watertown Arsenal, Mass.	270.20	323.10				63.39
Benicia Arsenal, Cal.	228.70	62.55				
Augusta Arsenal, Ga.	102.57	136.89				20.97
Watervliet Arsenal, N. Y.	150.26	255.76				26.15
Rock Island Arsenal, Ill.	85.07	147.12				14.13
Springfield Armory, Mass.	290.74	318.42				76.02
U. S. legations at London, Paris,						
Berlin, St. Petersburg, Vienna.	5.03	19.84				3.09
Total	10,694.82	15,488.38	6,480.85	1,665.75	142.50	2,277.18
<i>General depots.</i>						
New York, N. Y.	1,971.29	3,365.05	138.42	128.48		485.40
Philadelphia, Pa.	515.29	702.98				137.47
Washington, D. C.	9,779.05	17,939.72	196.06	153.89		2,876.57
Jeffersonville, Ind.	458.93	483.71	8.00	6.40		52.98
St. Louis, Mo.	2,439.97	2,117.67				317.16
San Francisco, Cal.	1,208.24	1,750.57				45.61
Total	16,372.77	26,359.70	342.48	288.77		3,915.19

appropriations made for the Quartermaster's Department, etc.—Continued.

REGULAR SUPPLIES.								
Fuel.		Stoves.		Lights.			Station- ery.	Adver- tising.
Wood.	Coal.	Heating.	Cook.	Lamps and lanterns.	Mineral oil.	Light.		
\$62,751.92	\$4,490.00	\$13.25			\$17.50	\$782.20 34.34 12.60 28.21 4.18 13.56 4.40 8.06 9.79 13.62 11.74	\$949.85	\$274.14
15,749.23	7,902.20					8.42 21.04 2.70 30.50		13.70
78,495.15	12,392.20	13.25			17.50	985.36	949.85	287.84
21,568.43 32,283.65 8.25 30.75	1,130.09 1,276.25	489.45 2,486.30		\$62.50 6.00	3.75	24.08 8.34 4.86 18.77 8.06 13.04 10.60	495.69 3,530.84	383.09
127.40 21.54								
54,040.02	2,405.34	2,975.75		68.50	3.75	87.75	4,026.53	383.09
1,610.99 95.03 478.80 627.50	6,166.71 943.62 4,136.43 1,573.17		\$208.78 13.45 80.40 164.43 188.00 110.20	32.50 41.33 64.59		424.66 3.92 2,281.69 1,539.79 38.13 90.27 15.00	2.40 32.16	132.92 2.00 12.43 7.87 13.67
	17.00	3,546.40 44.75 6.60	140.27 86.75	10.50	278.48	1.30 71.60	8.00 84.22 7.60	
	8,419.32 98.13							35.70
	12.99 1,054.74 1,047.68 249.34				90.00	2.40		
65.88			12.00 2.07			55.87 148.39		4.36 19.05 4.55
	1,745.77 1,491.61					2.04 1.05	.98	
345.00 127.35	204.60 1,772.09 898.44 1,235.36		8.05			1.96 1.30		7.48 24.95 3.25
212.76	99.60					58.16	116.54	
3,563.31	26,166.60	5,464.39	826.40	148.92	1,653.32	4,737.53	313.00	268.23
297.92 51.10 1,995.56	18,285.47 1,889.52 18,415.95	1,945.16 28.00	3,014.26 182.07 56.00	4,698.54 148.33	8,086.45 46,802.00 731.15 167.90 588.55 151.86 696.85	482.07 678.12 1,309.04 14,522.55 409.32 4,179.98	8,817.30 768.90 1,309.04 14,522.55 409.32 4,179.98	560.37 133.10 67.22 348.20 16.80 40.67
609.14 242.70	1,338.15 9,006.94	1,133.39 567.49	1,439.54 1,965.43	92.86 274.25	16.01 264.00			
3,196.42	52,408.64	4,534.80	23,484.20	5,213.98	55,900.19	2,765.35	30,007.09	1,166.36

C.—Statement showing in detail the amounts expended from the various

Division, department, and post.	REGULAR SUPPLIES.					
	Printing.	Paulins.	Lawn mowers.	Engineers.	Firemen.	Watchmen.
<i>Department of the East.</i>						
Headquarters, Governors Isl- and, N. Y.	\$2,424.44		\$24.77	\$270.00		\$180.00
New Orleans, La.			96.00			
Boston, Mass.	4.00		9.20			
Baltimore, Md.			14.52			
Buffalo, N. Y.			6.44			
Washington Barracks, D. C.			50.00	900.00		
Newport Barracks, Ky.					\$227.49	
Jackson Barracks, La.						
St. Francis Barracks, Fla.						
Mount Vernon Barracks, Ala.						
Madison Barracks, N. Y.					440.00	
Plattsburg Barracks, N. Y.						
Fort Monroe, Va.						
Fort Warren, Mass.			139.50			
Fort Preble, Me.						
Fort Trumbull, Conn.						
Fort Adams, R. I.						
Fort Myer, Va.			9.00			
Fort Thomas, Ky.						
Fort Hamilton, N. Y.						
Fort Wood, N. Y.						
Fort McHenry, Md.			50.12			
Fort Schuyler, N. Y.						
Fort Wadsworth, N. Y.			71.70			
Fort Wayne, Mich.						
Fort Brady, Mich.						
Fort Mackinac, Mich.						
Fort Porter, N. Y.			11.25	490.00		
Fort Ontario, N. Y.						
Fort Niagara, N. Y.						
Fort McPherson, Ga.						
Fort Barrancas, Fla.						
In the field.						
Total.	2,428.44		482.50	1,660.00	667.49	180.00
<i>Division of the Missouri.</i>						
Headquarters, Chicago, Ill.	1,435.02		35.00	7.00		
Fort Sheridan, Ill.						
Do.						
Total.	1,435.02		35.00	7.00		
<i>Department of the Missouri.</i>						
Headquarters, St. Louis, Mo.	1,902.81					
Fort Leavenworth, Kans.	1,471.64		115.65	1,305.00		
Denver, Colo.			118.00			
Little Rock Barracks, Ark.			6.50			
Fort Riley, Kans.						
Fort Lewis, Colo.						
Fort Reno, Okla.						
Fort Logan, Colo.						
Fort Supply, Ind. T.						
Fort Sill, Okla.						
Fort Crawford, Colo.						
Fort Gibson, Ind. T.						
Oklahoma City, Okla.						
Guthrie, Okla.						
Camp Wade, Okla.						
Fort Elliott, Tex.						
Total.	3,374.45		240.15	1,305.00		
<i>Department of the Platte.</i>						
Headquarters, Omaha, Nebr.	3,153.29		134.15			1,275.00
Fort Robinson, Nebr.						
Fort Sidney, Nebr.						
Fort Omaha, Nebr.						
Fort Niobrara, Nebr.						
Fort Bridger, Wyo.						
Fort D. A. Russell, Wyo.						
Fort McKinney, Wyo.						
Fort Washakie, Wyo.						

appropriations made for the Quartermaster's Department, etc.—Continued.

REGULAR SUPPLIES.							
Labor.	Other employees.	Rubber stamps.	Forage-masters and agents.	Scales.	Type-writer.	All expenses not otherwise enumerated.	Total amounts.
		\$3.00			\$4.35	\$230.35	\$35,426.36
		3.20			90.00	46.95	24,501.10
					80.75	138.15	30,256.11
						20.49	17,448.01
						51.34	33,204.50
						88.70	4,279.32
	\$300.00	5.50		\$207.50		7,437.91	9,586.19
				2.50		151.25	159.99
						327.20	6.95
\$36.00	1,166.72					1,315.23	6,322.20
	33.75		\$900.00		94.50	1,550.51	7.14
				215.00		125.85	18,112.84
				147.00		4.00	493.81
						6.25	176.07
						800.00	8.35
							1,170.75
							12.92
						3.50	85.42
						90.00	513.00
						2.50	296.37
						224.00	556.41
						30.50	1,300.00
						45.03	156.02
						30.65	402.04
							36.20
							107.35
						57.84	1,293.44
						33.01	236.80
						60.00	66.41
						81.50	162.25
						8.75	9.75
							1,379.77
36.00	1,500.47	11.70	900.00	662.00	269.60	12,952.71	188,315.49
	2.00	26.60			492.75	1,355.39	23,557.68
65.88	10.61			963.22	19.60	7,311.11	40,723.04
							719.98
65.88	12.61	26.60		963.22	512.35	8,666.50	65,000.70
		9.00			181.42	172.42	193,967.92
89.00	2,264.00	8.75				376.63	12,904.71
	360.00				15.20	744.21	5,088.38
	560.00		300.00			208.46	165.45
			900.00			160.65	11,257.46
			409.50				179.15
			900.00				15,351.20
			600.00				431.90
							615.50
							1,998.00
							2.10
							3.00
							1,334.17
							241.81
			225.00				228.15
89.00	3,184.00	17.75	3,334.50		196.62	1,662.37	244,068.90
3,564.00	863.33	6.50	2,800.00	20.00	249.00	1,127.85	321,870.43
			1,000.00				1,963.00
							15.73
							19.87
			1,007.50				1,177.06
	90					10.40	186.53
							2,549.45
			162.00			62.19	3,002.67

C.—Statement showing in detail the amounts expended from the various

Division, department, and post.	REGULAR SUPPLIES.					
	Printing.	Paulins.	Lawn-mower.	Engineers.	Firemen.	Watchmen.
<i>Department of the Platte—Con'd.</i>						
Fort Du Chesne, Utah.....						
Fort Douglas, Utah.....						
Ogden, Utah.....						
Camp Pilot Butte, Wyo.....						
Bellevue Rifle Range, Nebr.....						
In the field.....						
Total.....	\$3,153.29		\$134.15			\$1,275.00
<i>Department of Dakota.</i>						
Headquarters, St. Paul, Minn.....	2,216.32		27.20	\$1,200.00	\$759.00	
Fort Custer, Mont.....						
Fort Missoula, Mont.....						
Fort Keogh, Mont.....						
Fort Shaw, Mont.....						
Fort Assiniboine, Mont.....						
Helena, Mont.....						
Fort Buford, N. Dak.....						
Fort Pembina, N. Dak.....						
Fort Yates, N. Dak.....						
Fort A. Lincoln, N. Dak.....						
Fort Totten, N. Dak.....						
Camp Poplar River, N. Dak.....						
Fort Sully, S. Dak.....						
Fort Randall, S. Dak.....						
Fort Meade, S. Dak.....						
Fort Bennett, S. Dak.....						
Fort Spelling, Minn.....				900.00		
Fort Yellowstone, Wyo.....				60.00		
In the field.....						
Total.....	2,216.32		27.20	2,160.00	759.00	
<i>Department of Texas.</i>						
Headquarters, San Antonio, Tex.....	1,197.05		50.00	1,020.00	420.00	1,120.00
Fort Clark, Tex.....						
Fort Brown, Tex.....						
Fort Sam Houston, Tex.....						
Fort Hancock, Tex.....						
Fort Bliss, Tex.....						
Fort McIntosh, Tex.....						
Fort Davis, Tex.....				60.00		
Fort Elliott, Tex.....						
Fort Ringgold, Tex.....						
Camp at Eagle Pass, Tex.....						
Camp Del Rio, Tex.....						
Camp Pena Colorado, Tex.....						
Total.....	1,197.05		50.00	1,080.00	420.00	1,120.00
<i>Department of California.</i>						
Headquarters, San Francisco, Cal.....	2,514.01					
Fort Gaston, Cal.....						
Fort Mason, Cal.....			18.00			
Fort Bidwell, Cal.....						
Presidio of San Francisco, Cal.....						148.00
Alcatraz Island, Cal.....						
San Diego Barracks, Cal.....						
Benicia Barracks, Cal.....						
Angel Island, Cal.....						
Total.....	2,514.01		18.00			148.00
<i>Department of Arizona.</i>						
Headquarters, Los Angeles, Cal.....	2,793.17					
Whipple Barracks, Ariz.....						
San Carlos, Ariz.....						
Fort Huachuca, Ariz.....						

appropriations made for the Quartermaster's Department, etc.—Continued.

REGULAR SUPPLIES.							
Labor.	Other employees.	Rubber stamps.	Forage-masters and agents.	Scales.	Type-writer.	All expenses not otherwise enumerated.	Total amounts.
						\$334.47	\$59.58
							358.58
							84.02
							4.10
						8.67	280.66
\$3,564.00	\$953.33	\$6.50	\$4,969.50	\$20.00	\$249.00	1,543.58	331,571.68
		19.55			168.66	2,437.33	351,715.41
	113.00		900.00				5,973.75
			900.00				21.40
			282.50			12.00	5,895.49
			720.0			16.28	9.26
							304.50
							37,001.29
							768.08
							7.62
	42.00					7.06	849.89
							51.56
							13.13
							6.58
3.00							243.64
			900.00			116.50	27.88
			900.00				1,589.75
						12.05	845.94
261.43							9,196.92
							119.81
							8,674.00
264.43	155.00	19.55	4,602.50		168.66	2,601.22	423,315.90
	780.00	14.65	720.00		247.50	1,288.70	168,889.25
			675.00	225.00			927.00
							16.14
							5.29
							7.15
			603.40				6.06
			360.00				678.00
							305.83
							1.93
							5.09
	780.00	14.65	2,358.40	225.00	247.50	1,288.70	170,901.65
	980.00	6.00			252.25	29.50	99,571.77
	602.50					30.00	1,060.64
	680.00		999.96				659.38
							83.75
							1,852.95
							20.83
						87.84	100.16
							922.82
						24.75	5,489.85
	2,262.50	6.00	999.96		252.25	172.09	109,762.15
50.00		127.25	320.00		8.00	548.88	275,224.38
			780.00				814.34
			720.00				732.60
			728.00				756.21

C.—Statement showing in detail the amounts expended from the various

Division department, and post.	REGULAR SUPPLIES.					
	Printing.	Paulins.	Lawn-mowers.	Engineers.	Firemen.	Watchmen.
<i>Department of Arizona—Cont'd.</i>						
Fort Thomas, Ariz.						
Fort McDowell, Ariz.						
Fort Apache, Ariz.						
Fort Verde, Ariz.						
Fort Mojave, Ariz.						
Fort Bowie, Ariz.						
Fort Lowell, Ariz.						
Fort Grant, Ariz.						
Santa Fe, N. Mex.						
Fort Selden, N. Mex.						
Fort Wingate, N. Mex.						
Fort Bayard, N. Mex.						
Fort Union, N. Mex.						
Fort Stanton, N. Mex.						
Total.	\$2,793.17					
<i>Department of the Columbia.</i>						
Headquarters, Vancouver Bar-						
racks, Wash.	3,454.08		\$8.00			
Portland, Oregon.			9.50			
Fort Spokane, Wash.				\$870.00		
Fort Canby, Wash.				225.00		
Fort Walla Walla, Wash.				293.00		
Fort Townsend, Wash.				240.00		
Boisé Barracks, Idaho.				546.75	\$58.50	
Fort Sherman, Idaho.						
In the field.						
Total.	3,454.08		17.50	1,074.75	58.50	
<i>Independent posts.</i>						
West Point, N. Y.						
Atlanta, Ga.						
Columbus Barracks, Ohio.			20.00	900.00	560.00	
Hot Springs, Ark.						
Fort Riley, Kans.				2,541.33		
David's Island, N. Harbor.				375.00		
Willets Point, N. Y. Harbor.						
Fort Leavenworth Military						
Prison, Kans.					300.00	
Sault de St. Marie, Mich.						
Jefferson Barracks, Mo.						
U. S. Powder Depot, N. J.						
Fort Snelling Ordnance Depot,						
Minn.						
Columbia Arsenal, Tenn.						
Frankford Arsenal, Pa.						
Kennebec Arsenal, Me.	1.50					
Allegheny Arsenal, Pa.						
Indianapolis Arsenal, Ind.	1.25					
Watertown Arsenal, Mass.						
Benicia Arsenal, Cal.						
Augusta Arsenal, Ga.						
Watervliet Arsenal, N. Y.						
Rock Island Arsenal, Ill.						
Springfield Armory, Mass.						
U. S. Legations at London, Paris,						
Berlin, St. Petersburg, Vienna.						
Total.	2.75		20.00	3,816.33	860.00	
<i>General depots.</i>						
New York, N. Y.			986.81	1,100.00	229.66	\$195.00
Philadelphia, Pa.			126.00			
Washington, D. C.	53.63					
Jeffersonville, Ind.	116.00	\$191.47	980.10	1,650.00	150.00	
St. Louis, Mo.			44.81			
San Francisco, Cal.			122.10			
Total.	169.63	191.47	2,259.82	2,750.00	379.66	195.00

QUARTERMASTER-GENERAL.

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appropriations made for the Quartermaster's Department, etc.—Continued.

REGULAR SUPPLIES.							
Labor.	Other employes.	Rubber stamps.	Forage-masters and agents.	Scales.	Type-writer.	All expenses not otherwise enumerated.	Total amounts.
			\$60.00				\$64.18
			60.00				60.00
	\$130.00		720.00			\$175.00	1,085.87
			300.00				304.40
			134.00				134.00
			666.48				674.54
			536.00				545.79
			740.00				753.62
			306.24				79,161.22
						7.51	7.51
			720.00				728.42
			720.00			6.00	747.04
			420.00				422.70
			735.00				765.50
\$50.00	130.00	\$127.25	8,665.72		\$3.00	737.39	362,982.32
380.00	2,720.00		1,620.00		8.25	2,229.35	60,870.41
				\$10.00		997.07	100,717.71
	300.00					57.50	1,526.30
	78.25					6.25	814.36
	140.00		420.00	300.00		65.00	1,939.80
	40.00		120.00				430.87
				33.22		58.50	975.63
						1,276.55	1,697.76
							373.78
380.00	3,278.25		2,160.00	343.22	8.25	4,690.22	168,846.62
						81.25	23,145.99
						181.24	2,142.27
				2.25		576.35	10,523.02
255.00	38.80					266.39	5,154.07
540.00	1,102.00		600.00			6,351.75	21,330.99
71.75	24.75					345.01	3,111.29
				55.00		72.03	447.23
	900.00		900.00		100.00	6,038.63	11,951.60
		2.50			110.00	127.16	380.48
	600.00		865.00			220.31	11,899.19
							292.00
							2.40
							12.99
						.50	1,475.56
	12.00						1,140.50
						7.00	691.78
						.75	377.98
							2,402.46
						1.00	1,785.90
							812.06
							2,349.10
							1,171.01
							1,923.79
						17.70	532.72
866.75	2,677.55	2.50	2,365.00	57.25	210.00	14,287.07	105,056.38
	2,883.59	84.42		54.20	435.28	4,734.21	62,979.35
				66.00	258.00	23,172.19	28,681.32
340.00	942.00	39.20	1,200.00		374.00	257.51	56,922.45
	153.75	10.10				2,615.60	90,446.94
		15.85			4.10	1,685.38	11,832.01
		58.50		22.00	297.41	1,173.92	21,916.66
340.00	3,979.34	208.07	1,200.00	142.20	1,368.79	33,638.81	272,778.73

C.—Statement showing in detail the amounts expended from the various

Division, department, and post.	INCIDENTAL EXPENSES.					
	Postage.	Printing.	Advertis- ing.	Extra duty.	Civilian employes.	
					\Clerks.	Messen- gers.
<i>Department of the East.</i>						
Headquarters, Governors Isl- and, N. Y.	\$20.00			\$1,165.95	\$17,266.49	\$2,700.00
New Orleans, La.					4,399.92	405.00
Boston, Mass.					3,949.98	900.00
Baltimore, Md.	2.00				3,399.96	600.00
Buffalo, N. Y.					3,000.00	720.00
Washington Barracks, D. C.				1,082.10		
Newport Barracks, Ky.	2.00		\$41.35	829.35	1,644.96	495.00
Jackson Barracks, La.				458.33		
St. Francis Barracks, Fla.				580.25		
Mount Vernon Barracks, Ala.				560.50		
Madison Barracks, N. Y.				1,252.48		
Plattsburg Barracks, N. Y.				479.72		
Fort Monroe, Va.				1,386.00	2,799.96	
Fort Warren, Mass.				619.95		
Fort Preble, Me.				535.40		
Fort Trumbull, Conn.				421.93		
Fort Adams, R. I.				1,019.75		
Fort Myer, Va.				707.73		
Fort Thomas, Ky.				313.20		
Fort Hamilton, N. Y.				1,033.50		
Fort Wood, N. Y.				457.50		
Fort McHenry, Md.				769.75		
Fort Schuyler, N. Y.				577.40		
Fort Wadsworth, N. Y.				755.50		
Fort Wayne, Mich.				961.00		
Fort Brady, Mich.				605.98		
Fort Mackinac, Mich.				380.09		
Fort Porter, N. Y.				698.30		
Fort Ontario, N. Y.	1.00			469.45		
Fort Niagara, N. Y.				756.00		
Fort McPherson, Ga.				910.85		
Fort Barrancas, Fla.				442.25		
In the field				127.57		
Total	25.00		41.35	20,297.78	36,461.27	5,820.00
<i>Division of the Missouri.</i>						
Headquarters, Chicago, Ill.					17,885.73	1,626.00
Fort Sheridan, Ill.			120.81	457.00	1,433.32	90.00
Do				277.15		
Total			120.81	734.15	19,319.05	1,716.00
<i>Department of the Missouri.</i>						
Headquarters, St. Louis, Mo.	10.00				7,800.00	1,100.00
Fort Leavenworth, Kans.	5.00			2,451.80	3,568.31	630.00
Denver, Colo.			12.00		2,400.00	500.00
Little Rock Barracks, Ark.				97.20		
Fort Riley, Kans.				819.31	400.00	
Fort Lewis, Colo.	2.00			681.15		
Fort Reno, Okla.	10.50			1,433.60		
Fort Logan, Colo.				979.10		
Fort Supply, Ind. T.				1,275.00		
Fort Sill, Okla.				911.90		
Fort Crawford, Colo.				141.95		
Fort Gibson, Ind. T.				79.52		
Oklahoma City, Okla.				821.33		
Guthrie, Okla.				269.25		
Camp Wade, Okla.						
Fort Elliott, Tex.				178.10		
Total	27.50		12.00	10,139.21	14,168.31	2,230.00
<i>Department of the Platte.</i>						
Headquarters, Omaha, Nebr.					19,077.18	2,210.00
Fort Robinson, Nebr.				1,620.65	200.00	
Fort Sidney, Nebr.				1,126.65		
Fort Omaha, Nebr.	6.00			2,095.05		
Fort Niobrara, Nebr.	5.00			1,800.42	83.33	
Fort Bridger, Wyo.				305.80		
Fort D. A. Russell, Wyo.	5.00			1,659.30		
Fort McKinney, Wyo.				1,118.20	27.77	

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[illegible]

C.—Statement showing in detail the amounts expended from the various

Division, department, and post.	INCIDENTAL EXPENSES.					
	Postage.	Printing.	Advertis- ing.	Extra duty.	Civilian employés.	
					Clerks.	Messen- gers.
<i>Department of the Platte—Con'd.</i>						
Fort Washakie, Wyo.....				\$670.20		
Fort Du Chesne, Utah.....				2,944.10		
Fort Douglas, Utah.....				1,864.55		
Ogden, Utah.....						
Camp Pilot Butte, Wyo.....				521.70		
Bellevue Rifle Range, Nebr.....				53.10		
In the field.....					\$389.16	
Total.....	\$16.00			15,779.72	19,777.44	\$2,210.00
<i>Department of Dakota.</i>						
Headquarters, St. Paul, Minn ..	50.00			82.95	17,791.58	2,400.00
Fort Custer, Mont.....	2.50			2,474.80	1,200.00	
Fort Missoula, Mont.....	2.00			860.60	957.36	
Fort Keogh, Mont.....				1,871.70	1,399.10	
Fort Shaw, Mont.....	5.00			617.03	916.63	
Fort Assiniboine, Mont.....				1,398.90	999.96	
Helena, Mont.....					1,800.00	600.00
Fort Buford, N. Dak.....				1,217.15		
Fort Pembina, N. Dak.....				532.90		
Fort Yates, N. Dak.....				1,527.25		
Fort A. Lincoln, N. Dak.....				814.51		
Fort Totten, N. Dak.....				235.10		
Camp Poplar River, N. Dak.....				616.00		
Fort Sully, S. Dak.....	1.00			1,027.75		
Fort Randall, S. Dak.....				374.15		
Fort Meade, S. Dak.....				1,746.65		
Fort Bennett, S. Dak.....				425.05		
Fort Snelling, Minn.....	1.00			1,618.60	2,809.96	
Fort Yellowstone, Wyo.....				335.45		
In the field.....				417.23	703.95	19.83
Total.....	61.50			18,193.77	28,578.54	3,019.83
<i>Department of Texas.</i>						
Headquarters, San Antonio, Tex.	24.50		\$21.78	533.15	12,949.91	1,869.00
Fort Clark, Tex.....	2.00			1,683.95	500.00	
Fort Brown, Tex.....	5.00			785.07		
Fort Sam Houston, Tex.....	2.00			1,248.15		
Fort Hancock, Tex.....				480.55		
Fort Bliss, Tex.....				594.85	666.65	
Fort McIntosh, Tex.....				982.45		
Fort Davis, Tex.....				1,605.25		
Fort Elliott, Tex.....						
Fort Ringgold, Tex.....	1.00			956.90		
Camp at Eagle Pass, Tex.....				477.70		
Camp Del Rio, Tex.....				239.75		
Camp Pena Colorado, Tex.....				434.45		
Total.....	34.50		21.78	10,022.22	14,116.56	1,869.00
<i>Department of California.</i>						
Headquarters, San Francisco, Cal.....	20.00				9,785.58	1,355.00
Fort Gaston, Cal.....				528.80		
Fort Mason, Cal.....				1,304.85		
Fort Bidwell, Cal.....				208.50		
Presidio of San Francisco, Cal.....				2,429.00	1,549.98	
Alcatraz Island, Cal.....				810.10		
San Diego Barracks, Cal.....				295.10		
Benicia Barracks, Cal.....	7.00			561.75		
Angel Island, Cal.....				990.20		
Total.....	27.00			7,128.30	11,335.56	1,355.00
<i>Department of Arizona.</i>						
Headquarters, Los Angeles, Cal.....	30.00				13,229.59	2,260.00
Whipple Barracks, Ariz.....	16.00			1,489.70		
San Carlos, Ariz.....	7.00			1,441.80		
Fort Huachuca, Ariz.....	3.50			1,278.73		
Fort Thomas, Ariz.....				211.10		

appropriations made for the Quartermaster's Department, etc.—Continued.

INCIDENTAL EXPENSES.							
Civilian employes.					Horse and mule—		
Draftsmen.	Laborers.	Store-keepers.	Watchmen.	Spies, guides, etc.	Wagon and forage masters.	Shoes and shoe nails.	Recovery of.
				\$674. 00			
				900. 00			
	\$139. 50		\$63. 00	30. 00			\$20. 00
\$2. 863. 25	1, 790. 67	\$1, 200. 00	1, 119. 50	5, 511. 99		\$438. 78	130. 00
	540. 00					17. 15	
				2, 717. 96			
				1, 757. 00		27. 50	40. 00
				780. 00			
						720. 00	50. 00
				576. 67			25. 00
				698. 00			50. 00
				130. 00			
				1, 590. 00			38. 00
				362. 00			
			1, 358. 38	881. 99			
	4. 55			900. 00			30. 00
				1, 329. 50			
	544. 55		1, 358. 38	11, 733. 12		764. 65	233. 00
900. 00	3, 533. 67	1, 000. 00	1, 333. 50			60. 65	60. 00
900. 00	3, 533. 67	1, 000. 00	1, 333. 50			60. 65	60. 00
1, 166. 66	1, 000. 00		1, 377. 50	133. 33			
							25. 00
	353. 51						
1, 166. 66	1, 353. 51		1, 377. 50	133. 33			25. 00
	1, 138. 33			257. 00	\$190. 00		35. 00
	6. 00			770. 00			

C.—Statement showing in detail the amounts expended from the various

Division, department, and post.	INCIDENTAL EXPENSES.					
	Postage.	Printing.	Advertis- ing.	Extra duty.	Civilian employés.	
					Clerks.	Messen- gers.
<i>Department of Arizona—Cont'd.</i>						
Fort McDowell, Ariz.				\$116.45		
Fort Apache, Ariz.				1,348.80		
Fort Verde, Ariz.	\$1.00			109.30		
Fort Mojave, Ariz.				63.10		
Fort Bowie, Ariz.	10.00			1,152.70		
Fort Lowell, Ariz.				670.80		
Fort Grant, Ariz.	10.00			1,404.93		
Santa Fé, N. Mex.	25.00		\$6.00	421.20	\$3,125.04	\$480.00
Fort Selden, N. Mex.	2.00			174.30		
Fort Wingate, N. Mex.	10.00			1,250.45		
Fort Bayard, N. Mex.	6.70			1,476.99		
Fort Union, N. Mex.	5.00			530.30		
Fort Stanton, N. Mex.	30.00			926.80		
Total	156.20		6.00	14,067.45	16,354.63	2,740.00
<i>Department of the Columbia.</i>						
Headquarters, Vancouver Bar- racks, Wash.	24.00			3,170.42	7,800.00	720.00
Portland, Oreg.					3,700.04	720.00
Fort Spokane, Wash.	4.00			1,056.45		
Fort Canby, Wash.				848.80		
Fort Walla Walla, Wash.	10.00			1,110.20		
Fort Townsend, Wash.				599.40		
Boisé Barracks, Idaho.				681.90	55.50	
Fort Sherman, Idaho				1,298.82		
In the field						
Total	38.00			8,765.99	11,555.54	1,440.00
<i>Independent posts.</i>						
West Point, N. Y.				7,426.63	3,153.32	
Atlanta, Ga.				143.37	4,100.00	910.00
Columbus Barracks, Ohio				1,366.70	1,599.96	
Hot Springs, Ark.					1,400.04	720.00
Fort Riley, Kans.				924.62	1,900.00	480.00
David's Island, N. Y. Harbor				2,212.50	1,599.96	
Willetta Point, N. Y. Harbor				1,909.90		
Fort Leavenworth Military Prison, Kans.				127.75	1,800.00	
Sault de St. Marie, Mich.	4.03				1,800.00	400.00
Jefferson Barracks, Mo.				2,809.52	900.00	
U. S. Powder Depot, N. J.						
Fort Snelling Ordnance Depot, Minn.	2.00			104.80		
Columbia Arsenal, Tenn.			13.40			
Frankford Arsenal, Pa.						
Kennebec Arsenal, Me.						
Allegheny Arsenal, Pa.						
Indianapolis Arsenal, Ind.	1.00					
Watertown Arsenal, Mass.				123.90		
Benicia Arsenal, Cal.	4.00			42.80		
Augusta Arsenal, Ga.		\$7.20			350.00	
Watervliet Arsenal, N. Y.				99.40	9.10	
Rock Island Arsenal, Ill.	8.00			54.25	50.40	
Springfield Armory, Mass.	8.00				300.00	
U. S. legations at London, Paris, Berlin, St. Petersburg, Vienna.	99.63			31.85		
Total	126.66	7.20	13.40	17,377.99	18,962.78	2,510.00
<i>General depots.</i>						
New York, N. Y.	66.50		122.60	87.15	15,153.55	2,652.48
Philadelphia, Pa.	24.00				18,916.41	3,195.00
Washington, D. C.					16,465.97	1,080.00
Jeffersonville, Ind.	2.58				13,103.33	1,340.00
St. Louis, Mo.	20.00				10,399.92	1,080.00
San Francisco, Cal.	36.50				9,499.95	1,555.00
Total	149.58		122.60	87.15	83,539.13	10,902.48

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INCIDENTAL EXPENSES.							
Civilian employés.						Horse and mule—	
Draftsmen.	Laborers.	Storekeepers.	Watchmen.	Spies, guides, etc.	Wagon and forage masters.	Shoes and shoe nails.	Recovery of.
				\$900.00			
					\$10.00		
				60.00			\$25.00
				542.50			
	\$1,144.33			2,529.50	200.00		60.00
	421.75			700.00	40.00	\$9.75 25.50	
				3.00			
	421.75			703.00	40.00	35.25	
\$650.00	4.20		\$163.33			7.00	
650.00	4.20		163.33			7.00	
	309.00	\$588.64	830.00			614.64	
	195.00					13.05	
	3,605.50		90.00				
	6.57	1,400.04	2,936.00			9,490.67	
	544.25		638.75				
	495.00	2,599.92				4,581.47	
	5,155.32	4,586.60	4,494.75			14,699.83	

C.—Statement showing in detail the amounts expended from the various

Division, department, and post.	INCIDENTAL EXPENSES.					
	Interments—		Telegraph and telephone operators.	Telegrams.	Hire of telephones.	Subscription to newspapers.
	Of officers.	Of enlisted men.				
<i>Department of the East.</i>						
Headquarters, Governors Isl- and, N. Y.			\$1,057.49	\$24.70	\$12.50	
New Orleans, La.					2.85	\$6.00
Boston, Mass.						
Baltimore, Md.					100.50	
Buffalo, N. Y.						4.00
Washington Barracks, D. C.	\$15.00					
Newport Barracks, Ky.						
Jackson Barracks, La.		\$25.00			144.00	
St. Francis Barracks, Fla.					6.00	
Mount Vernon Barracks, Ala.	75.00					
Madison Barracks, N. Y.						
Plattsburg Barracks, N. Y.						
Fort Monroe, Va.					25.00	
Fort Warren, Mass.						
Fort Preble, Me.					84.00	
Fort Trumbull, Conn.						
Fort Adams, R. I.	75.00					
Fort Myer, Va.		10.00			150.75	
Fort Thomas, Ky.						
Fort Hamilton, N. Y.						
Fort Wood, N. Y.						
Fort McHenry, Md.						
Fort Schuyler, N. Y.						
Fort Wadsworth, N. Y.						
Fort Wayne, Mich.						
Fort Brady, Mich.						
Fort Mackinac, Mich.						
Fort Porter, N. Y.	20.00					
Fort Ontario, N. Y.						
Fort Niagara, N. Y.						
Fort McPherson, Ga.					137.50	
Fort Barrancas, Fla.						
In the field						
Total	185.00	35.00	1,057.49	24.70	663.10	10.00
<i>Division of the Missouri.</i>						
Headquarters, Chicago, Ill.		60.40	127.50		315.83	6.00
Fort Sheridan, Ill.		15.00				
Do						
Total		75.40	127.50		315.83	6.00
<i>Department of the Missouri.</i>						
Headquarters, St. Louis, Mo.			50.00		133.33	6.00
Fort Leavenworth, Kans.			160.05	.50	228.15	5.00
Denver, Colo.	10.00		20.00		60.00	
Little Rock Barracks, Ark.		10.00			4.00	
Fort Riley, Kans.		45.00			80.00	
Fort Lewis, Colo.						
Fort Reno, Okla.	75.00					
Fort Logan, Colo.		30.00				
Fort Supply, Ind. T.						
Fort Sill, Okla.						
Fort Crawford, Colo.						
Fort Gibson, Ind. T.					10.00	
Oklahoma City, Okla.						
Guthrie, Okla.						
Camp Wade, Okla.						
Fort Elliott, Tex.						
Total	85.00	85.00	230.05	.50	515.48	11.00
<i>Department of the Platte.</i>						
Headquarters, Omaha, Nebr.			362.94	10.00	495.75	
Fort Robinson, Nebr.						
Fort Sidney, Nebr.		25.00				
Fort Omaha, Nebr.	140	37.00			144.00	
Fort Niobrara, Nebr.		70.00	120.00			
Fort Bridger, Wyo.						
Fort D. A. Russell, Wyo.			48.00		106.00	

appropriations made for the Quartermaster's Department, etc.—Continued.

INCIDENTAL EXPENSES.						
Affidavits.	Shoeing.	Office furni- ture.	Other em- ployés.	Deserters.	All expenses not otherwise enumerated.	Total amounts.
\$91.00		\$887.26	\$2.75	\$1,710.00	\$91.00	\$26,184.14
	\$24.00	54.75		150.00	643.72	6,586.24
3.00	18.15	143.00		570.00	9.25	5,953.48
2.10		44.50		330.00	27.75	4,506.81
		6.00		120.00		3,850.00
	164.00	41.50			24.75	1,327.35
6.50	206.83	444.70	238.40		150.20	4,179.29
	67.16					694.49
	51.08			90.00	14.50	741.83
		5.00	100.00		374.79	2,215.29
				180.00	25.23	1,457.71
	33.03			30.00	105.40	648.15
				120.00	648.00	5,434.96
						619.95
	61.25			60.00		740.65
.25	58.00			120.00		600.18
				210.00	92.00	1,396.75
				60.00	550.00	1,478.48
3.50	82.62			120.00		519.32
	153.40	3.45	92.00		50.75	1,332.70
		1.25				458.75
1.05	86.20				30.50	887.50
	206.40					783.80
	164.50	45.00			212.55	1,177.55
1.90	126.64				199.55	1,289.09
	107.16				30.95	744.09
4.00						384.09
	32.60	2.50		30.00		723.40
	26.50			90.00	.90	587.85
	60.00		40.00		250.97	1,106.97
				90.00		1,138.35
				120.00		562.25
					99.53	227.10
113.30	1,729.12	1,678.91	473.15	4,200.00	3,632.39	80,538.56
7.75	477.33	357.84	209.04	570.00	283.81	23,925.72
21.00	70.00	26.50		30.00	1,917.82	4,945.67
	56.60	2.00		60.00	46.53	502.28
28.75	603.93	386.34	209.04	660.00	2,248.16	29,373.67
57.00	113.40	713.90	2,306.83	510.00	196.75	13,657.21
6.35		282.88	2,497.33	630.00	1,134.41	13,288.78
.50	34.10	134.10	1,530.00	390.00	704.72	6,435.42
.50	16.80				51.30	179.80
5.25		84.64		30.00	65.35	1,529.55
2.00		12.00		60.00	2.00	759.15
79.25	154.25			30.00		2,982.60
48.00	29.40		5.00		94.50	1,226.00
27.75						2,539.15
18.00				120.00		1,849.90
						141.95
			8.80		.40	98.72
.75	30.00					851.33
	4.70					274.70
				120.00		843.10
245.35	382.65	1,227.52	6,347.96	1,800.00	2,249.43	46,167.36
44.25	562.50	543.45	594.50	1,320.00	1,024.55	83,550.82
33.75			.50		30.50	2,939.90
					3.25	1,154.90
					10.00	2,432.05
29.50					242.62	2,873.70
						305.80
51.50		4.00			125.00	2,138.80

C.—Statement showing in detail the amounts expended from the various

Division, department, and post.	INCIDENTAL EXPENSES,					
	Interments—		Telegraph and telephone operators.	Telegrams.	Hire of telephones.	Subscription to newspapers.
	Of officers.	Of enlisted men.				
<i>Department of the Platte—Con'd.</i>						
Fort McKinney, Wyo		\$52.75				
Fort Washakie, Wyo.						
Fort Du Chesne, Utah						
Fort Douglas, Utah					\$168.00	
Ogden, Utah			\$34.00		47.00	
Camp Pilot Butte, Wyo		20.00				
Bellevue Rifle Range, Nebr.						
In the field			208.83			
Total	\$140.00	204.75	773.27	\$10.00	960.75	
<i>Department of Dakota.</i>						
Headquarters, St. Paul, Minn		8.46		83.92	296.20	
Fort Custer, Mont.					40.00	
Fort Missoula, Mont.					30.00	
Fort Keogh, Mont.						
Fort Shaw, Mont.						
Fort Assiniboine, Mont.						
Helena, Mont.						
Fort Buford, N. Dak						
Fort Pembina, N. Dak						
Fort Yates, N. Dak.						
Fort A. Lincoln, N. Dak						
Fort Totten, N. Dak						
Camp Poplar River, N. Dak						
Fort Sully, S. Dak.		13.50				
Fort Randall, S. Dak						
Fort Meade, S. Dak			75.00		225.00	
Fort Bennett, S. Dak						
Fort Snelling, Minn			45.00		135.00	
Fort Yellowstone, Wyo						
In the field		75.00	362.50			
Total		96.96	482.50	83.92	726.20	
<i>Department of Texas.</i>						
Headquarters, San Antonio, Tex.		75.00	51.58		144.00	
Fort Clark, Tex			96.33			
Fort Brown, Tex						
Fort Sam Houston, Tex.					48.00	
Fort Hancock, Tex						
Fort Bliss, Tex.					66.00	
Fort McIntosh, Tex					55.00	
Fort Davis, Tex.						
Fort Elliott, Tex						
Fort Ringgold, Tex						
Camp at Eagle Pass, Tex						
Camp Del Rio, Tex.						
Camp Pena Colorado, Tex						
Total		75.00	147.91		313.00	
<i>Department of California.</i>						
Headquarters, San Francisco, Cal.			186.89		218.78	\$5.00
Fort Gaston, Cal.						
Fort Mason, Cal.						
Fort Bidwell, Cal.						
Presidio of San Francisco, Cal.						
Alcatraz Island, Cal.					120.83	
San Diego Barracks, Cal.					48.00	
Benicia Barracks, Cal.					53.30	
Angel Island, Cal.	75.00					
Total	75.00		186.89		440.91	5.00
<i>Department of Arizona.</i>						
Headquarters, Los Angeles, Cal.		15.00	169.42	.50	288.60	
Whipple Barracks, Ariz.						
San Carlos, Ariz.						
Fort Huachuca, Ariz.						

appropriations made for the Quartermasters' Department, etc.—Continued.

INCIDENTAL EXPENSES.						
Affidavits.	Shoosng.	Office furniture.	Other employes.	Deserters.	All expenses not otherwise enumerated.	Total amounts.
			\$213.33		\$50.00	\$3,666.71
\$5.00	\$16.55				9.75	1,375.50
22.00	4.00		880.00			4,750.10
			15.00		3.00	2,050.55
	68.90					81.00
	50.75					610.60
						53.10
						900.74
186.00	702.70	\$547.45	1,703.33	\$1,320.00	1,498.67	58,884.27
35.50	165.27	1,017.10	21.00	30.00	513.30	\$23,052.43
113.50	14.25	3.50		270.00	38.60	6,880.11
		1.50		180.00		2,031.46
155.00	39.85		457.00	60.00		5,807.15
	25.00			201.50	20.85	2,566.01
.85				445.00		3,698.86
		35.15				2,435.15
3.50	2.00					1,824.32
	1.50			30.00		564.40
28.00						2,253.25
			92.00			956.51
					3.00	238.10
						616.00
3.00					23.20	1,198.45
12.00	4.00					390.15
	6.00	2.50		60.00		3,743.15
3.50	61.30	9.50	60.00	360.00	136.20	7,490.43
8.00	414.10				142.50	1,235.45
						3,507.16
452.00	733.27	1,069.25	630.00	1,636.50	877.65	71,275.59
63.25	366.75	712.84	2,134.67	990.00	1,391.83	28,216.08
	3.00	2.25				2,287.53
14.50						804.57
.50			12.50			1,311.15
1.00		86.50		90.00		480.55
36.25						1,505.00
						1,037.45
17.50						1,641.00
	58.25				68.50	1,043.90
	55.25					535.95
						295.00
						434.45
133.00	483.25	801.59	2,147.17	1,080.00	1,460.33	39,593.13
14.00		63.42	1,456.68	540.00	142.15	17,464.99
	187.26		10.00		465.00	528.80
	56.25					1,967.11
	70.00		498.00		525.50	289.75
	200.00					5,072.48
13.50	148.40		45.00		10.00	1,130.93
	121.89		2.50			560.00
	103.20			90.00		746.44
						1,611.91
27.50	887.00	63.42	2,012.18	630.00	1,142.65	29,372.41
305.50	393.14	453.18	405.90	270.00	1,023.15	20,464.31
					10.50	1,522.20
2.50						2,221.30
						1,282.23

C.—Statement showing in detail the amounts expended from the various

Division, department, and post.	INCIDENTAL EXPENSES.					
	Interments—		Telegraph and telephone operators.	Telegrams.	Hire of telephones.	Subscription to newspapers.
	Of officers.	Of enlisted men.				
<i>Department of Arizona—Cont'd.</i>						
Fort Thomas, Ariz						
Fort McDowell, Ariz						
Fort Apache, Ariz						
Fort Verde, Ariz						
Fort Mojave, Ariz						
Fort Bowie, Ariz						
Fort Lowell, Ariz						
Fort Grant, Ariz						
Santa Fé, N. Mex.			\$6.55	\$9.58		
Fort Selden, N. Mex						
Fort Wingate, N. Mex.					\$25.00	
Fort Bayard, N. Mex						
Fort Union, N. Mex						
Fort Stanton, N. Mex						
Total		\$15.00	175.97	10.08	313.60	
<i>Department of the Columbia.</i>						
Headquarters, Vancouver Barracks, Wash.	\$75.00		\$29.93	280.93	328.33	
Portland, Oregon			30.25		90.00	\$5.00
Fort Spokane, Wash.						
Fort Canby, Wash.						
Fort Walla Walla, Wash.		15.00			137.28	
Fort Townsend, Wash.					79.80	
Boise Barracks, Idaho				5.00	55.00	
Fort Sherman, Idaho						
In the field						
Total	75.00	15.00	960.18	285.93	690.41	5.00
<i>Independent Posts.</i>						
West Point, N. Y.		10.00				
Atlanta, Ga.					12.50	5.00
Columbus Barracks, Ohio	75.00	50.00			72.00	
Hot Springs, Ark.	75.00	40.00				
Fort Riley, Kans.	75.00	7.34			224.40	
David's Island, N. Y. Harbor					60.00	
Wille's Point, N. Y. Harbor						
Fort Leavenworth Military Prison, Kans.					50.00	
Sault de Ste Marie, Mich.						
Jefferson Barracks, Mo.						
U. S. Powder Depot, N. J.						
Fort Snelling Ordnance Depot, Minn.						
Columbia Arsenal, Tenn.						
Frankford Arsenal, Pa.						
Kennebec Arsenal, Me.		15.00				
Allegheny Arsenal, Pa.						
Indianapolis Arsenal, Ind.						
Watertown Arsenal, Mass.						
Benicia Arsenal, Cal.						
Augusta Arsenal, Ga.						
Watervliet Arsenal, N. Y.						
Rock Island Arsenal, Ill.		35.00				
Springfield Armory, Mass.						
U. S. legations at London, Paris, Berlin, St. Petersburg, Vienna.						
Total	225.00	157.34			418.90	5.00
<i>General depots.</i>						
New York, N. Y.	150.00	25.00	121.99		306.07	4,180.73
Philadelphia, Pa.	75.00	30.00		.50	396.00	
Washington, D. C.	150.00	65.20		12.14	410.00	75.00
Jeffersonville, Ind.		382.92			109.12	
Saint Louis, Mo.	100.00				200.00	
San Francisco, Cal.			900.00		146.72	16.00
Total	475.00	503.12	1,021.99	12.64	1,567.91	4,271.73

appropriations made for the Quartermaster's Department, etc.—Continued.

INCIDENTAL EXPENSES.						
Affidavits.	Shoeing.	Office furniture.	Other employes.	Deserters.	All expenses not otherwise enumerated.	Total amounts.
						\$211.10
						116.45
\$21.50						2,270.30
						110.30
10.00					\$7.50	80.60
	\$34.66		\$80.00			1,172.70
						785.46
21.00	17.65			\$60.00	89.00	1,414.93
	12.00				5.35	4,346.02
14.50		\$5.00				193.65
						1,847.45
						1,483.69
27.00						535.30
						983.80
402.00	457.45	458.18	485.90	330.00	1,135.50	41,041.79
2.00	4.20	337.93	227.25		1,088.15	16,159.64
.75		333.13		690.00	379.58	5,974.25
	43.55		7.15		5.00	1,060.45
					745.00	904.50
	170.10					2,017.48
		8.00				849.30
	.75				12.88	813.28
					233.19	1,535.76
2.75	218.60	674.06	234.40	690.00	2,463.80	29,314.66
2.75		47.12		90.00	41.13	10,777.95
2.00		22.50	74.30		474.93	5,744.00
4.00		90.25	495.00	810.00	22.50	4,585.41
2.75	58.00		1.00			2,298.79
54.50	67.50	1.50	2,762.50	60.00	7.90	7,213.26
21.25		2.25			62.02	3,962.18
						1,909.90
2.75					44.00	2,024.50
9.50		324.12		32.65	31.70	2,602.00
21.50		122.50	1,320.00		26.80	5,200.32
1.50			5.00			276.63
						13.40
6.00	7.50					28.50
.50		6.50				7.50
	4.00					124.40
2.50						50.80
18.00			60.00	240.00		359.70
19.50				30.00		426.50
6.93						197.15
						314.93
		98.74	64.40		157.29	451.91
175.93	137.00	715.48	4,782.20	1,260.65	868.27	48,568.33
12.00	167.47	3,636.80	351.22	600.00	4,905.09	34,879.03
31.00	188.74	143.02	23.65	420.00	256.56	23,917.93
4.00	899.00	493.10	1,395.00	360.00	89.66	25,194.57
12.25	150.00	7,861.15	1,377.88		3,027.08	41,199.59
22.00	128.65	267.81	1,278.00	1,140.00	812.57	16,631.95
19.29	713.38	1,943.21	15.50		906.64	23,434.08
100.54	2,247.24	14,355.09	4,446.25	2,520.00	9,998.20	165,257.15

C.—Statement showing in detail the amounts expended from the various

Division, department, and post.	BARRACKS AND QUARTERS.					
	Pur- chase of tools.	Rent of—				Adver- tising.
		Quarters—		Offices.	Store- houses.		Stables and grounds.
	For offi- cers.	For en- listed men.				
<i>Department of the East.</i>						
Headquarters, Governors Isl- and, N. Y.						\$124.68
New Orleans, La.		\$105.00	\$90.00	\$1,290.00	\$1,800.00	
Boston, Mass.				1,839.96	90.00	
Baltimore, Md.		166.67	96.00	929.17		
Buffalo, N. Y.				750.00		
Washington Barracks, D. C.				79.69		
Newport Barracks, Ky.						
Jackson Barracks, La.						
St. Francis Barracks, Fla.						
Mount Vernon Barracks, Ala.						
Madison Barracks, N. Y.						6.50
Plattsburg Barracks, N. Y.						
Fort Monroe, Va.			60.00			16.71
Fort Warren, Mass.	\$34.28					
Fort Preble, Me.						
Fort Trumbull, Conn.						3.00
Fort Adams, R. I.						
Fort Myer, Va.						
Fort Thomas, Ky.						\$7.50
Fort Hamilton, N. Y.						
Fort Wood, N. Y.						
Fort McHenry, Md.	9.50					
Fort Schuyler, N. Y.						58.50
Fort Wadsworth, N. Y.						
Fort Wayne, Mich.						28.50
Fort Brady, Mich.						
Fort Mackinac, Mich.	7.00					
Fort Porter, N. Y.	93.58					
Fort Ontario, N. Y.						
Fort Niagara, N. Y.						4.13
Fort McPherson, Ga.	69.19	432.00	314.00			
Fort Barrancas, Fla.						
In the field						
Total	213.55	703.67	560.00	4,888.82	1,890.00	\$7.50 242.02
<i>Division of the Missouri.</i>						
Headquarters, Chicago, Ill.				15,222.00	3,000.00	1,650.00
Fort Sheridan, Ill.		240.00	32.00	310.00		
Do		160.00		24.00		
Total		400.00	32.00	15,556.00	3,000.00	1,650.00
<i>Department of the Missouri.</i>						
Headquarters, St. Louis, Mo.				402.00		470.41
Fort Leavenworth, Kans.	3.19	162.00		438.60		
Denver, Colo.	11.00	800.00		1,120.00		14.70
Little Rock Barracks, Ark.						
Fort Riley, Kans.						
Fort Lewis, Colo.						
Fort Reno, Okla.						
Fort Logan, Colo.			86.50			
Fort Supply, Ind. T.						
Fort Sill, Okla.						
Fort Crawford, Colo.						
Fort Gibson, Ind. T.						
Oklahoma City, Okla.		76.00	100.00	10.00		
Guthrie, Okla.		524.17	54.13			
Camp Wade, Okla.		97.09				
Fort Elliott, Tex.						
Total	14.19	1,659.26	240.63	1,970.60		485.21
<i>Department of the Platte.</i>						
Headquarters, Omaha, Nebr.	203.31			9,561.00	502.89	499.99 147.02
Fort Robinson, Nebr.					25.00	
Fort Sidney, Nebr.						
Fort Omaha, Nebr.						
Fort Niobrara, Nebr.						
Fort Bridger, Wyo.						
Fort D. A. Russell, Wyo.				2,420.00		

appropriations made for the Quartermaster's Department, etc.—Continued.

BARRACKS AND QUARTERS.							
Carpenters.	Masons.	Plasterers.	Painters.	Other employees.	Construction and repairs.	All expenses not otherwise enumerated.	Total amounts.
\$1,440.00			\$720.00	\$2,260.00	\$17,730.05	\$5.50	\$22,280.23
					499.99		3,784.99
					15.35		1,945.31
							1,191.84
					386.82		1,136.82
				1,707.53	7,520.31		7,600.00
73.00					1,616.24		3,323.77
303.00					2,868.08		2,941.08
240.33	\$375.00			37.50	2,019.99		2,019.99
					11,334.79		11,637.79
					4,704.27	6.00	5,369.60
					1,000.00		1,000.00
					18,490.13		18,566.84
							34.28
					1,692.15		1,992.15
					997.00		1,000.00
261.50				5.00	3,305.72		3,567.22
145.26			123.91		1,242.82		1,516.99
					122.15		129.65
					3,153.41		3,153.41
					12,677.50		12,677.50
					2,734.50		2,744.00
					9,434.50		9,493.00
			180.63		2,000.00		2,000.00
					5,865.17	24.36	6,098.66
					2,158.38		2,158.38
					719.37		726.37
24.00					698.94		792.52
					3,180.42		3,204.42
					4,896.96		4,901.09
					1,596.34		2,411.53
					4,175.52		4,175.52
2,487.09	375.00		1,024.54	4,010.03	129,136.87	35.86	145,574.95
					3,335.65		23,207.65
76.00					2,921.95	72.00	3,575.95
					41.80	56.00	357.80
76.00					6,299.40	128.00	27,141.40
610.00			709.50	170.55	9,428.00		10,471.06
					23,025.35	10.25	24,958.89
					447.24		2,392.94
					2.50		2.50
					257.59		257.59
40.00	7.50				261.00		261.00
					3,921.60	1.60	3,970.70
					606.56		693.06
	120.00	\$30.00		99.66			249.66
					710.00		896.00
35.00	50.00				175.90	4.00	789.20
							151.09
685.00	177.50	30.00	709.50	270.21	38,835.74	15.85	45,093.69
245.99	114.00			130.50	39,672.80	189.68	50,776.69
					1,226.02		1,741.51
					50.50	199.50	250.00
					63.74		63.74
2,208.60			33.00	456.40	996.00		3,694.00
					1,047.30		3,467.30

C.—Statement showing in detail the amounts expended from the various

BARRACKS AND QUARTERS.							
Division, department, and post.	Pur- chase of tools.	Rent of—				Adver- tising.	
		Quarters—		Offices.	Store- houses.		Stables and grounds.
		For offi- cers.	For en- listed men.				
<i>Department of the Platte—Con'd.</i>							
Fort McKinney, Wyo.							
Fort Washakie, Wyo.							
Fort Du Chesne, Utah							
Fort Douglas, Utah				\$360.00		\$11.00	
Ogden, Utah				203.80	\$45.06		
Camp Pilot Butte, Wyo.							
Bellevue Rifle Range, Nebr.					47.00		
In the field							
Total	\$203.13			12,544.80	594.95	535.99	
<i>Department of Dakota.</i>							
Headquarters, St. Paul, Minn.	563.70						
Fort Custer, Mont.							
Fort Missoula, Mont.							
Fort Keogh, Mont.						2.50	
Fort Shaw, Mont.							
Fort Assiniboine, Mont.							
Helena, Mont.				550.00	50.00		
Fort Buford, N. Dak.							
Fort Pembina, N. Dak.							
Fort Yates, N. Dak.							
Fort A. Lincoln, N. Dak.							
Fort Totten, N. Dak.							
Camp Poplar River, N. Dak.							
Fort Sully, S. Dak.							
Fort Randall, S. Dak.							
Fort Meade, S. Dak.						50.00	
Fort Bennett, S. Dak.							
Fort Snelling, Minn.		\$12.00					
Fort Yellowstone, Wyo.		60.00					
In the field							
Total	563.70	72.00		550.00	50.00	52.50	
<i>Department of Texas.</i>							
Headquarters, San Antonio, Tex.	33.70	36.50	\$980.00	1,316.20	1,050.00	3,082.63	
Fort Clark, Tex.							
Fort Brown, Tex.			180.00				
Fort Sam Houston, Tex.							
Fort Hancock, Tex.	51.22						
Fort Bliss, Tex.				104.00			
Fort McIntosh, Tex.							
Fort Davis, Tex.						54.00	
Fort Elliott, Tex.							
Fort Ringgold, Tex.			15.00		150.00		
Camp at Eagle Pass, Tex.							
Camp Del Rio, Tex.							
Camp Pena Colorado, Tex.			53.67				
Total	84.92	36.50	1,228.67	1,420.20	1,200.00	3,136.63	
<i>Department of California.</i>							
Headquarters, San Francisco, Cal.			24.00	10,024.00		903.00	
Fort Gaston, Cal.							
Fort Mason, Cal.							
Fort Bidwell, Cal.							
Presidio of San Francisco, Cal.							
Alcatraz Island, Cal.							
San Diego Barracks, Cal.		2,073.40		825.00	75.00		
Benicia Barracks, Cal.	50.00						
Angel Island, Cal.							
Total	50.00	2,073.40	24.00	10,849.00	75.00	903.00	
<i>Department of Arizona.</i>							
Headquarters, Los Angeles, Cal.	83.91	759.17		6,738.50	45.00	451.67	
Whipple Barracks, Ariz.						15.20	
San Carlos, Ariz.							
Fort Huachuca, Ariz.							
Fort Thomas, Ariz.							

QUARTERMASTER-GENERAL.

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appropriations made for the Quartermaster's Department, etc.—Continued.

BARRACKS AND QUARTERS.							
Carpenters.	Masons.	Plasterers.	Painters.	Other employees.	Construction and repairs.	All expenses not otherwise enumerated.	Total amounts.
\$275.83					\$1,517.71		\$1,793.54
300.00	\$666.66			\$480.00	1,330.10		2,476.76
	173.25			437.50	495.13		1,405.88
					2,199.68		2,570.88
							248.86
							47.00
3,030.42	953.91		\$33.00	1,504.40	48,596.98	\$389.18	68,535.96
				170.00	81,696.66	849.39	83,279.75
1,384.94	81.28			1,496.00	5,633.55		8,595.77
221.00	301.00		65.00		30.69		617.69
807.40	40.50		70.00		1,533.06		2,453.46
36.00	82.32				205.00		323.32
790.13	15.00	\$150.00	41.00		2,021.40		600.00
161.10	322.00			120.00	110.00		3,017.53
661.61	75.00				164.44		713.10
							901.05
224.59		103.50			118.00		446.09
26.00				1,667.43	3,758.29		26.00
							5,475.72
1,020.00				87.33	1,333.85	11.00	2,464.18
					95.00		155.00
5,332.77	917.10	253.50	176.00	3,540.76	46,699.94	860.39	59,068.66
1,413.00					35,653.82	9.50	43,763.80
					390.00		390.00
				50.00			180.00
							50.00
							51.22
					763.81		104.00
						48.00	763.81
145.00				42.50			102.00
						36.00	388.50
							53.67
1,558.00				92.50	36,807.63	93.50	45,847.00
							10,951.00
61.50			21.00		4,877.17		4,959.67
					15,267.84		15,267.84
					4,505.31		4,505.31
					3,640.66		2,973.40
							3,690.66
61.50			21.00		23,290.98		42,347.88
					12,784.57	369.07	21,247.09
943.71					1,651.28		2,594.99
					1,104.03		1,104.03

C.—Statement showing in detail the amounts expended from the various

Division, department, and post.	BARRACKS AND QUARTERS.					
	Purchase of tools.	Rent of—				Advertising.
		Quarters—		Offices.	Store-houses.		Stables and grounds.
		For officers.	For enlisted men.			
<i>Department of Arizona—Cont'd.</i>						
Fort McDowell, Ariz.						
Fort Apache, Ariz.						
Fort Verde, Ariz.						
Fort Mojave, Ariz.						
Fort Bowie, Ariz.						
Fort Lowell, Ariz.	\$129.38					
Fort Grant, Ariz.						
Santa Fé, N. Mex.	81.95	\$170.00	\$598.65	\$486.39		
Fort Selden, N. Mex.						
Fort Wingate, N. Mex.						
Fort Bayard, N. Mex.	9.29					
Fort Union, N. Mex.						
Fort Stanton, N. Mex.						
Total	304.53	929.17	598.65	7,224.89	\$45.00	\$451.67
<i>Department of the Columbia.</i>						
Headquarters, Vancouver Barracks, Wash.						
Portland, Oregon	18.90			1,376.00	720.00	
Fort Spokane, Wash.						
Fort Canby, Wash.				240.00		20.00
Fort Walla Walla, Wash.						
Fort Townsend, Wash.						
Boisé Barracks, Idaho.		30.00				
Fort Sherman, Idaho			16.00			
In the field.						
Total	18.90	30.00	16.00	1,616.00	720.00	20.00
<i>Independent posts.</i>						
West Point, N. Y.						
Atlanta, Ga.			92.00	300.00		
Columbus Barracks, Ohio.	41.00					
Hot Springs, Ark.						
Fort Riley, Kans.						
Davids Island, N. Y. Harbor	31.71					31.90
Willetts Point, N. Y. Harbor						80.40
Fort Leavenworth Military Prison, Kans.						
Sault de St. Marie, Mich.				270.00		
Jefferson Barracks, Mo.						
U. S. Powder Depot, N. J.						
Fort Snelling Ordnance Depot, Minn.						
Columbia Arsenal, Tenn.						
Frankford Arsenal, Pa.						
Kennebec Arsenal, Me.						
Allegheny Arsenal, Pa.						
Indianapolis Arsenal, Ind.						
Watertown Arsenal, Mass.						
Benicia Arsenal, Cal.						
Augusta Arsenal, Ga.						
Watervliet Arsenal, N. Y.						
Rock Island Arsenal, Ill.						
Springfield Armory, Mass.						
U. S. legations at London, Paris, Berlin, St. Petersburg, Vienna				1,212.26		
Total	72.71		92.00	1,782.26		112.30
<i>General depots.</i>						
New York, N. Y.	89.14		383.59			1,350.00
Philadelphia, Pa.				2,150.04		
Washington, D. C.			259.00			1,877.63
Jeffersonville, Ind.						49.66
St. Louis, Mo.	99.10			15,400.08		1,080.00
San Francisco, Cal.				9,999.96	1,699.09	36.75
Total	188.24		642.59	27,550.08	1,699.09	4,307.63
						86.41

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[illegible]

C.—Statement showing in detail the amounts expended from the various

Division, department, and post.	CAVALEY AND ARTILLERY HORSES.				HOSPITALS.	
	Purchase of cavalry and artillery.	Advertising.	All expenses not otherwise enumerated.	Total amounts.	Extra duty.	Advertising.
<i>Department of the East.</i>						
Headquarters, Governors Isl- and, N. Y.						
New Orleans, La.						
Boston, Mass.	\$820.00		\$10.00	\$830.00		
Baltimore, Md.						
Buffalo, N. Y.						
Washington Barracks, D. C.						
Newport Barracks, Ky.						
Jackson Barracks, La.						
St. Francis Barracks, Fla.						
Mount Vernon Barracks, Ala.						
Madison Barracks, N. Y.						
Plattsburg Barracks, N. Y.						
Fort Monroe, Va.						
Fort Warren, Mass.						
Fort Preble, Me.						
Fort Trumbull, Conn.					\$14.00	
Fort Adams, R. I.						
Fort Myer, Va.						
Fort Thomas, Ky.						
Fort Hamilton, N. Y.						
Fort Wood, N. Y.						
Fort McHenry, Md.						
Fort Schuyler, N. Y.						
Fort Wadsworth, N. Y.						
Fort Wayne, Mich.						
Fort Brady, Mich.						
Fort Mackinac, Mich.						
Fort Porter, N. Y.						
Fort Ontario, N. Y.						
Fort Niagara, N. Y.						
Fort McPherson, Ga.						
Fort Barrancas, Fla.						
In the field						
Total	820.00		10.00	830.00	14.00	
<i>Division of the Missouri.</i>						
Headquarters, Chicago, Ill.						
Fort Sheridan, Ill.						
Do						
Total						
<i>Department of the Missouri.</i>						
Headquarters, St. Louis, Mo.						
Fort Leavenworth, Kans.						
Denver, Colo.						
Little Rock Barracks, Ark.						\$11.70
Fort Riley, Kans.						
Fort Lewis, Colo.						
Fort Reno, Okla.						
Fort Logan, Colo.						
Fort Supply, Ind. T.						
Fort Sill, Okla.					52.00	
Fort Crawford, Colo.						
Fort Gibson, Ind. T.						
Oklahoma City, Okla.						
Guthrie, Okla.						
Camp Wade, Okla.						
Fort Elliott, Tex.						
Total					52.00	11.70
<i>Department of the Platte.</i>						
Headquarters, Omaha, Nebr.	23,029.70	\$129.49		23,159.19		27.08
Fort Robinson, Nebr.						
Fort Sidney, Nebr.						
Fort Omaha, Nebr.						
Fort Niobrara, Nebr.						
Fort Bridger, Wyo.						
Fort D. A. Russell, Wyo.						
Fort McKinney, Wyo.			138.40	138.40		

appropriations made for the Quartermaster's Department, etc.—Continued.

HOSPITALS.						CLOTHING.	
Masons.	Laborers.	Other employees.	Construction and repairs.	All expenses not otherwise enumerated.	Total amounts.	Purchase of material.	Manufacture.
			\$26.71	\$15.00	\$41.71		
			194.06		194.06		
			524.20		524.20		
			7,499.41		7,499.41		
			596.94		596.94		
			372.85		372.85		\$17.00
							20.00
			107.09		107.09		
			374.00		374.00		
			909.78	79.00	988.78		
							14.90
			53.76	10.00	77.76		
			400.00		400.00		
			192.00		192.00		
			130.73		130.73		
			206.50		206.50		
		\$8.50	682.00		690.50		
			238.00		238.00		
							10.00
		60.00	170.25		230.25		
			268.00		268.00		
			115.23		115.23		
			302.00		302.00		
			219.00	285.00	504.00		
			348.15		348.15		
		68.50	13,930.66	389.00	14,402.16		61.00
						\$5,208.33	
						5,208.33	
			1,188.00		1,188.00		
			595.78	531.00	1,126.78		1.00
			1,351.80		1,351.80		
			136.93		148.63		
			670.00	8.00	678.00		
		155.00			207.00		
			60.65		60.65		
		155.00	4,003.16	539.00	4,760.86		1.00
			1,785.33	23.43	1,835.84	660.35	
			2,286.38		2,286.38		
			25.00		25.00		
			800.00		800.00		
			203.96		203.96		

C.—Statement showing in detail the amounts expended from the various

Division, department, and post.	CAVALRY AND ARTILLERY HORSES.				HOSPITALS.	
	Purchase of cavalry and artillery.	Advertis- ing.	All ex- penses not otherwise enumer- ated.	Total amounts.	Extra duty.	Adver- tising.
<i>Department of the Platte—Con'd.</i>						
Fort Washakie, Wyo.						
Fort Du Chesne, Utah.						
Fort Douglas, Utah.						
Ogden, Utah.						
Camp Pilot Butte, Wyo.						
Bellevue Rifle Range, Nebr.						
In the field.						
Total.	\$23,029.70	\$129.49	\$138.40	\$23,297.59		\$27.08
<i>Department of Dakota.</i>						
Headquarters, St. Paul, Minn.	16,896.00	61.64	165.00	17,122.64		
Fort Custer, Mont.						
Fort Missoula, Mont.						
Fort Keogh, Mont.						
Fort Shaw, Mont.						
Fort Assiniboine, Mont.						
Helena, Mont.						
Fort Buford, N. Dak.						
Fort Pembina, N. Dak.						
Fort Yates, N. Dak.						
Fort A. Lincoln, N. Dak.						
Fort Totten, N. Dak.						
Camp Poplar River, N. Dak.						
Fort Sully, S. Dak.						
Fort Randall, S. Dak.						
Fort Meade, S. Dak.						
Fort Bennett, S. Dak.						
Fort Snelling, Minn.						
Fort Yellowstone, Wyo.						
In the field.					\$30.00	
Total.	16,896.00	61.64	165.00	17,122.64	30.00	
<i>Department of Texas.</i>						
Headquarters, San Antonio, Tex.	10,750.00	43.78	35.00	10,828.78		57.25
Fort Clark, Tex.						
Fort Brown, Tex.						
Fort Sam Houston, Tex.						
Fort Hancock, Tex.						
Fort Bliss, Tex.						
Fort McIntosh, Tex.						
Fort Davis, Tex.					13.00	
Fort Elliott, Tex.						
Fort Ringgold, Tex.						
Camp at Eagle Pass, Tex.					9.49	
Camp Del Rio, Tex.						
Camp Pena Colorado, Tex.						
Total.	10,750.00	43.78	35.00	10,828.78	22.49	57.25
<i>Department of California.</i>						
Headquarters, San Francisco, Cal.	9,082.75	150.60	100.00	9,333.35		
Fort Gaston, Cal.						
Fort Mason, Cal.						
Fort Bidwell, Cal.						
Presidio of San Francisco, Cal.						
Alcatraz Island, Cal.						
San Diego Barracks, Cal.						
Benicia Barracks, Cal.						
Angel Island, Cal.						
Total.	9,082.75	150.60	100.00	9,333.35		
<i>Department of Arizona.</i>						
Headquarters, Los Angeles, Cal.						
Whipple Barracks, Ariz.						
San Carlos, Ariz.						
Fort Huachuca, Ariz.						
Fort Thomas, Ariz.						
Fort McDowell, Ariz.						

appropriations made for the Quartermaster's Department, etc.—Continued.

HOSPITALS.						CLOTHING.	
Masons.	Laborers.	Other employees.	Construction and repairs.	All expenses not otherwise enumerated.	Total amounts.	Purchase of material.	Manufacture.
			\$254.02		\$254.02		
			175.00		175.00		
			5,529.69	\$23.43	5,580.20	\$660.35	
			1,922.37	12.04	1,934.41	257.52	
			275.00		275.00		
			8.00		8.00		
	\$13.30	\$73.00			86.30		
			212.71		212.71		
			63.75		63.75		
		6.08	138.52		144.60		
			22.00		22.00		
	99.00	344.09	172.00		615.09	9.85	
			2.10		2.10		
			46.00		46.00		
			324.83		354.83		
	112.30	423.17	3,187.28	12.04	3,764.79	267.37	
		72.00	7,912.36	33.00	8,074.61		
			48.00		48.00		
			269.50		269.50		\$10.00
			106.78		106.78		
					13.00		
	12.00	183.99			195.99		
\$10.00		4.50	14.00		33.49		
					4.50		
10.00	12.00	260.49	* 8,350.64	33.00	8,745.87		10.00
							1.00
			498.00		498.00		2.00
			262.78		262.78		
				3.00	3.00	39.00	
			760.78	3.00	763.78	39.00	3.00
			753.75	.20	753.95		
			298.75		298.75		
			329.23		329.23		

C.—Statement showing in detail the amounts expended from the various

Division, department, and post.	CAVALRY AND ARTILLERY HORSES.				HOSPITALS.	
	Purchase of cavalry and artillery.	Advertising.	All expenses not otherwise enumerated.	Total amounts.	Extra duty.	Advertising.
<i>Department of Arizona—Cont'd.</i>						
Fort Apache, Ariz.						
Fort Verde, Ariz.						
Fort Mojave, Ariz.						
Fort Bowie, Ariz.						
Fort Lowell, Ariz.						
Fort Grant, Ariz.						
Santa Fé, N. Mex.						
Fort Selden, N. Mex.						
Fort Wingate, N. Mex.						
Fort Bayard, N. Mex.					\$51.11	
Fort Union, N. Mex.						
Fort Stanton, N. Mex.						
Total					51.11	
<i>Department of the Columbia.</i>						
Headquarters, Vancouver Barracks, Wash.	\$4,970.00	\$95.06	\$3.00	\$5,068.06		
Portland, Oregon						
Fort Spokane, Wash.						
Fort Canby, Wash.						
Fort Walla Walla, Wash.						
Fort Townsend, Wash.						
Boisé Barracks, Idaho					31.50	
Fort Sherman, Idaho						
In the field.						
Total	4,970.00	95.06	3.00	5,068.06	31.50	
<i>Independent posts.</i>						
West Point, N. Y.						
Atlanta, Ga.						
Columbus Barracks, Ohio						\$33.55
Hot Springs, Ark.						
Fort Riley, Kans.	892.50			892.50		3.25
Davids Island, N. Y. Harbor						
Willets Point, N. Y. Harbor						
Fort Leavenworth Military Prison, Kans.						
Sault de St. Marie, Mich.						
Jefferson Barracks, Mo.						
U. S. Powder Depot, N. J.						
Fort Snelling Ordnance Depot, Minn.						
Columbia Arsenal, Tenn.						
Frankford Arsenal, Pa.						
Kennebec Arsenal, Me.						
Allegheny Arsenal, Pa.						
Indianapolis Arsenal, Ind.						
Watertown Arsenal, Mass.						
Benicia Arsenal, Cal.						
Augusta Arsenal, Ga.						
Watervliet Arsenal, N. Y.						
Rock Island Arsenal, Ill.						
Springfield Armory, Mass.						
U. S. legations at London, Paris, Berlin, St. Petersburg, Vienna.						
Total	892.50			892.50		36.80
<i>General depots.</i>						
New York, N. Y.	1,497.15	48.60		1,545.75		
Philadelphia, Pa.						
Washington, D. C.	1,999.00	47.74		2,046.74		
Jeffersonville, Ind.						
St. Louis, Mo.	93,307.50	146.99	2,055.57	95,510.06		
San Francisco, Cal.						
Total	96,803.65	243.33	2,055.57	99,102.55		

appropriations made for the Quartermaster's Department, etc.—Continued.

HOSPITALS.						CLOTHING.	
Masons.	Laborers.	Other employees.	Construction and repairs.	All expenses not otherwise enumerated.	Total amounts.	Purchase of material.	Manufacture.
		\$402.50	\$402.40		\$804.90		
			72.79		72.79		
		170.59	61.76 453.06		232.35 504.17		
		573.09	2,371.74	\$0.20	2,996.14		
			27.13 812.10 552.00		27.13 812.10 552.00	\$25.00	
			172.70 231.62 620.50		172.70 263.12 620.50		
			2,416.05		2,447.55	25.00	
							\$9.00
		1,512.15	3,031.84 1,112.70 687.40 699.50	6.00	33.55 4,543.99 1,121.95 687.40 699.50	41,898.78	79.39
			120.17		120.17		
		1,512.15	5,651.01	6.00	7,206.56	41,898.78	88.39
						945,566.72	135,919.21
			430.74 92.36	67.49	498.23 92.36	6,357.08 133,576.52	24,753.59
			523.10	67.49	590.59	1,085,520.32	160,672.80

C.—Statement showing in detail the amounts expended from the various

Division, department, and post.	CLOTHING.						
	Adver- tising.	Clerks.	Inspec- tors.	Net oth- erwise enumer- ated.	Repairs.	Other employés.	Total amounts.
<i>Department of the East.</i>							
Headquarters, Governors Isl- and, N. Y.					\$9.00		\$9.00
New Orleans, La.							
Boston, Mass.							
Baltimore, Md.							
Buffalo, N. Y.							
Washington Barracks, D. C.					69.00		69.00
Newport Barracks, Ky.				\$12.50			12.50
Jackson Barracks, La.							
St. Francis Barracks, Fla.							17.00
Mount Vernon Barracks, Ala.							20.00
Madison Barracks, N. Y.							
Plattsburg Barracks, N. Y.				33.65	3.65		33.65
Fort Monroe, Va.							
Fort Warren, Mass.					17.00		17.00
Fort Preble, Me.							14.00
Fort Trumbull, Conn.					12.00		12.00
Fort Adams, R. I.					51.00		51.00
Fort Myer, Va.					2.00		2.00
Fort Thomas, Ky.							
Fort Hamilton, N. Y.					51.00		51.00
Fort Wood, N. Y.							
Fort McHenry, Md.					51.00		51.00
Fort Schuyler, N. Y.					34.00		34.00
Fort Wadsworth, N. Y.					50.00		50.00
Fort Wayne, Mich.					14.00		14.00
Fort Brady, Mich.					12.00		22.00
Fort Mackinac, Mich.							
Fort Porter, N. Y.					7.50		7.50
Fort Ontario, N. Y.							
Fort Niagara, N. Y.							
Fort McPherson, Ga.					15.00		15.00
Fort Barrancas, Fla.					17.00		17.00
In the field.							
Total.				42.50	415.15		518.65
<i>Division of the Missouri.</i>							
Headquarters, Chicago, Ill.							5,208.33
Fort Sheridan, Ill.							
Do.							
Total.							5,208.33
<i>Department of the Missouri.</i>							
Headquarters, St. Louis, Mo.							
Fort Leavenworth, Kans.					9.00		10.00
Denver, Colo.	\$15.40						15.40
Little Rock Barracks, Ark.							
Fort Riley, Kans.					19.50		19.50
Fort Lewis, Colo.							
Fort Reno, Okla.							
Fort Logan, Colo.					22.75		22.75
Fort Supply, Ind. T.							
Fort Sill, Okla.							
Fort Crawford, Colo.							
Fort Gibson, Ind. T.							
Oklahoma City, Okla.							
Guthrie, Okla.							
Camp Wade, Okla.							
Fort Elliott, Tex.							
Total.	15.40				51.25		67.65
<i>Department of the Platte.</i>							
Headquarters, Omaha, Nebr.						\$8.61	668.96
Fort Robinson, Nebr.							
Fort Sidney, Nebr.							
Fort Omaha, Nebr.							
Fort Niobrara, Nebr.							
Fort Bridger, Wyo.							
Fort D. A. Russell, Wyo.					1.00		1.00
Fort McKinney, Wyo.							

appropriations made for the Quartermaster's Department, etc.—Continued.

Shooting galleries and ranges.	Hospital stewards' quarters.	TRANSPORTATION OF THE ARMY.					
		Rail.		Water.		Express- age.	Wagon. Freight.
		Passengers.	Freight.	Passengers.	Freight.		
\$8.10							\$60.00
	\$49.80	\$2,520.01	\$6,605.66	\$36.50	\$2,110.62	\$0.25	1,170.75
		1,505.43	1,072.37	12.00	1,001.58		708.40
		14,956.62	5,931.86	845.75	336.91		2,206.92
		869.90	1,397.56	725.75	1,229.67		561.65
99.88							
248.35	1,219.95						417.15
50.24							5.00
	39.48						210.80
86.00	50.00						222.83
118.94							642.02
23.45	794.00						
16.40	3.18						197.40
59.47					2.75		445.62
491.63							
64.98		49.20					
196.20							
	1,196.87						
105.22							
4.50	95.65						
2.24							45.00
	26.00						1.75
594.01	792.13						
139.14				400.00	2,000.00		870.00
2,248.25	4,266.56	19,901.16	15,007.45	2,020.00	6,681.53	.25	7,763.29
		109,167.43	64,803.56	14.50	309.09	959.69	2,568.87
10.25		1,061.80	8,559.28		35.00		
10.25		110,229.23	73,362.84	14.50	344.09	959.69	2,568.87
587.29	45.00	57.55				878.31	17,391.56
	887.20	45,085.51	138,935.41			229.78	2,493.49
							854.92
646.00							.50
1.15							458.27
66.24	800.00						889.45
115.70							2,671.94
4.94						33.10	
1,421.32	1,732.20	45,143.06	138,935.41			1,141.19	24,760.13
1,059.60	25.75	3,338.19	9,563.92		611.45	6,127.70	80,296.06
71.68							
4.50							195.28
9.20							
8.67							3,017.36
9.00							
46.50							1,048.95

C.—Statement showing in detail the amounts expended from the various

Division, department, and post.	CLOTHING.					
	Adver- tising.	Clerks.	Inspec- tors.	Not oth- erwise enumer- ated.	Repairs.	Other employés.
<i>Department of the Platte—contd.</i>						
Fort Washakie, Wyo.						
Fort Du Chesne, Utah						
Fort Douglas, Utah						
Ogden, Utah						
Camp Pilot Butte, Wyo.						
Bellevue Rifle Range, Nebr.						
In the field						
Total					\$1.00	\$8.61
<i>Department of Dakota.</i>						
Headquarters, St. Paul, Minn.				\$661.85	357.00	1,275.87
Fort Custer, Mont.					49.50	49.50
Fort Missoula, Mont.					75.33	75.33
Fort Keogh, Mont.					50.00	50.00
Fort Shaw, Mont.					62.30	62.30
Fort Assiniboine, Mont.					102.07	102.07
Helena, Mont.						
Fort Buford, N. Dak.					147.00	147.00
Fort Pembina, N. Dak.					75.52	75.52
Fort Yates, N. Dak.					100.00	100.00
Fort A. Lincoln, N. Dak.					38.00	38.00
Fort Totten, N. Dak.						
Camp Poplar River, N. Dak.						
Fort Sully, S. Dak.					24.00	24.00
Fort Randall, S. Dak.					30.00	60.00
Fort Meade, S. Dak.					140.30	150.15
Fort Bennett, S. Dak.					11.00	11.00
Fort Snelling, Minn.					153.00	193.50
Fort Yellowstone, Wyo.					18.62	18.62
In the field						
Total				661.85	1,433.64	2,462.86
<i>Department of Texas.</i>						
Headquarters, San Antonio, Tex.						16.00
Fort Clark, Tex.						
Fort Brown, Tex.						
Fort Sam Houston, Tex.					7.00	17.00
Fort Hancock, Tex.						
Fort Bliss, Tex.						
Fort McIntosh, Tex.						
Fort Davis, Tex.				8.43		8.43
Fort Elliott, Tex.						
Fort Ringgold, Tex.						
Camp at Eagle Pass, Tex.						
Camp Del Rio, Tex.						
Camp Pena Colorado, Tex.						
Total				8.43	7.00	41.43
<i>Department of California.</i>						
Headquarters, San Francisco, Cal.						
Fort Gaston, Cal.						
Fort Mason, Cal.					12.00	13.00
Fort Bidwell, Cal.						
Presidio of San Francisco, Cal.					2.00	2.00
Alcatraz Island, Cal.					20.00	22.00
San Diego Barracks, Cal.						
Benecia Barracks, Cal.						
Angel Island, Cal.						39.00
Total					34.00	76.00
<i>Department of Arizona.</i>						
Headquarters, Los Angeles, Cal.						
Whipple Barracks, Ariz.						
San Carlos, Ariz.						
Fort Huachuca, Ariz.					4.00	4.00
Fort Thomas, Ariz.						
Fort McDowell, Ariz.						

appropriations made for the Quartermaster's Department, etc.—Continued.

Shooting galleries and ranges.	Hospital stewards' quarters.	TRANSPORTATION OF THE ARMY.					
		Rail.		Water.		Express- age.	Wagon.
		Passengers.	Freight.	Passengers.	Freight.		Freight.
\$72.10							\$9.80
5.25							
7.88							915.32
							61.00
2.32							
							5,784.99
1,296.70	\$25.75	\$3,336.19	\$9,563.92		\$611.45	\$6,127.70	91,328.76
1,058.58	421.93	29,646.64	46,843.55	\$535.04	3,020.92	1,497.94	21,955.42
91.69							4.70
3.83							20,978.25
7.65	49.50						
3.83							
10.13		4,686.89	166.82	80.50	87.42	208.06	2,829.66
3.83	93.54						
23.36							16,085.00
4.70							
2.35							9.00
2.34							45.00
3.30							
1.28							
5.47	266.40		35.00				1,938.50
1.10							
7.02	9.00					8.70	28,207.64
2.55							2,930.20
1,233.01	840.37	34,333.53	47,045.37	615.54	3,108.34	1,700.70	94,983.37
741.94	1,324.08	13,330.98	22,565.19	56.00	1,319.27	299.38	10,400.02
4.90	35.00						75.00
	10.00						
18.62					4.25		9.75
24.34							
1.00							
5.29							
1.00							
797.09	1,369.08	13,330.98	22,565.19	56.00	1,323.52	299.38	10,484.77
							12,112.23
87.27	1,200.00						
360.93					1,528.50		
34.84							
50.50				25.00			
2.32					6.61		59.26
5.05							5,009.50
540.91	1,200.00			25.00	1,535.11		17,180.99
108.52	6.00	3,012.00	6,549.99	141.00	1,268.17		40,520.75
50.75							
106.95							
5.55							

C.—Statement showing in detail the amounts expended from the various

Division, department, and post.	CLOTHING.					
	Adver- tising.	Clerks.	Inspec- tors.	Not oth- erwise enumer- ated.	Repairs.	Other employés.
<i>Department of Arizona—Cont'd.</i>						
Fort Apache, Ariz.						
Fort Verde, Ariz.						
Fort Mojave, Ariz.						
Fort Bowie, Ariz.						
Fort Lowell, Ariz.						
Fort Grant, Ariz.						
Santa Fé, N. Mex.					\$31.00	\$31.00
Fort Selden, N. Mex.					2.62	2.62
Fort Wingate, N. Mex.						
Fort Bayard, N. Mex.						
Fort Union, N. Mex.						
Fort Stanton, N. Mex.						
Total.					37.62	37.62
<i>Department of the Columbia.</i>						
Headquarters, Vancouver Bar- racks, Wash.						
Portland, Oregon.						
Fort Spokane, Wash.						
Fort Canby, Wash.						25.00
Fort Walla Walla, Wash.						
Fort Townsend, Wash.					4.00	4.00
Boisé Barracks, Idaho						
Fort Sherman, Idaho						
In the field						
Total.					4.00	29.00
<i>Independent posts.</i>						
West Point, N. Y.						
Atlanta, Ga.						9.00
Columbus Barracks, Ohio						11.50
Hot Springs, Ark.						
Fort Riley, Kans.						
Dauids Island, N. Y. Harbor						
Willets Point, N. Y. Harbor.					11.00	11.00
Fort Leavenworth Military Prison, Kans.	\$418.46		\$2,649.94	\$19,887.13		2,349.98
Sault de St. Marie, Mich.						67,283.68
Jefferson Barracks, Mo.						
U. S. Powder Depot, N. J.						
Fort Snelling Ordnance Depot, Minn.						2.50
Columbia Arsenal, Tenn.						2.50
Frankford Arsenal, Pa.						
Kennebec Arsenal, Me.						
Allegheny Arsenal, Pa.						
Indianapolis Arsenal, Ind.						
Watertown Arsenal, Mass.						
Benicia Arsenal, Cal.						
Augusta Arsenal, Ga.						
Watervliet Arsenal, N. Y.						
Rock Island Arsenal, Ill.						
Springfield Armory, Mass.						
U. S. legations at London, Paris, Berlin, St. Petersburg, Vienna.						
Total.	418.46		2,649.94		11.00	2,363.98
<i>General depots.</i>						
New York, N. Y.	3.50				2.90	6.40
Philadelphia, Pa.	1,647.49	\$3,983.73	5,202.50		238.48	17,093.64
Washington, D. C.						1,109,671.77
Jeffersonville, Ind.		1,266.69				1,333.34
St. Louis, Mo.	92.30	3,800.01			527.88	2,600.03
San Francisco, Cal.	393.76	3,899.95	2,400.02		3,547.82	729.25
Total.	2,137.05	12,950.38	7,602.53	19,887.13	4,317.08	185,658.95
						1,309,443.67

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[illegible]

REPORT OF THE SECRETARY OF WAR.

C.—Statement showing in detail the amounts expended from the various

Division, department, and post.	TRANSPORTATION OF THE ARMY.					
	Stage.	Transportation employees.		Vessels.		
	Passengers.	Civilians.	Enlisted men on extra duty.	For purchasing, operating, and maintaining.	For chartering from private parties.	For repairing.
<i>Department of the East.</i>						
Headquarters, Governors Isl- and, N. Y.		\$14,388.54	\$103.50	\$3,552.75		\$3,270.00
New Orleans, La.		900.00		1,156.09		
Boston, Mass.	\$2.50	2,303.04	.70	7,518.96	\$625.44	827.44
Baltimore, Md.						
Buffalo, N. Y.	28.80			332.75		
Washington Barracks, D. C.		1,930.00	630.40			
Newport Barracks, Ky.		5,005.13	525.62			
Jackson Barracks, La.		1,200.00	409.37			
St. Francis Barracks, Fla.		90.00	464.05			
Mount Vernon Barracks, Ala.		1,105.20	2,932.55			
Madison Barracks, N. Y.		840.00	661.05			
Plattsburg Barracks, N. Y.			396.67			
Fort Monroe, Va.		6,795.82	828.55	539.28	84.00	441.13
Fort Warren, Mass.			370.10			
Fort Preble, Me.		840.000	346.25			
Fort Trumbull, Conn.			331.07			
Fort Adams, R. I.		2,853.25	873.25	540.00	49.50	50.00
Fort Myer, Va.		1,109.69	688.18			
Fort Thomas, Ky.			148.40			
Fort Hamilton, N. Y.		995.25	531.00			
Fort Wood, N. Y.			88.90			
Fort McHenry, Md.			440.20			
Fort Schuyler, N. Y.		1,720.00	379.05			
Fort Wadsworth, N. Y.		800.00	529.55			60.00
Fort Wayne, Mich.		949.50	429.97	15.00		
Fort Brady, Mich.			347.15			
Fort Mackinac, Mich.		660.00	362.95			
Fort Porter, N. Y.		40.00	363.95			
Fort Ontario, N. Y.			127.75			
Fort Niagara, N. Y.		1,408.00	382.55			
Fort McPherson, Ga.		1,080.00	537.55			
Fort Barrancas, Fla.			304.10	150.00		
In the field.						
Total.	31.30	47,013.43	14,534.38	13,804.83	758.94	4,648.57
<i>Division of the Missouri.</i>						
Headquarters, Chicago, Ill.	1.00	7,945.96				
Fort Sheridan, Ill.		14,989.53	259.70			
Do.		330.00	186.15			
Total.	1.00	23,265.49	445.85			
<i>Department of the Missouri.</i>						
Headquarters, St. Louis, Mo.		7,080.04				
Fort Leavenworth, Kans.	120.20	11,450.67	464.10			
Denver, Colo.	148.25	6,399.95				
Little Rock Barracks, Ark.			67.55			
Fort Riley, Kans.		5,245.33	241.15			
Fort Lewis, Colo.		5,228.00	268.45			
Fort Reno, Okla.	64.50	8,078.20	2,428.20			
Fort Logan, Colo.		2,971.32	539.70			
Fort Supply, Ind. T.		7,842.25	1,083.76			
Fort Sill, Okla.	447.70	4,581.00	1,150.90			
Fort Crawford, Colo.		601.50	97.30			
Fort Gibson, Ind. T.		280.00	21.70			
Oklahoma City, Okla.			249.20			
Guthrie, Okla.			122.50			
Camp Wade, Okla.						
Fort Elliott, Tex.		969.00	151.80			
Total.	780.65	60,727.26	6,886.31			
<i>Department of the Platte.</i>						
Headquarters, Omaha, Nebr.	4,691.31	25,725.81		7.50		
Fort Robinson, Nebr.		4,715.82	1,754.25			
Fort Sidney, Nebr.		1,826.00	446.25			

appropriations made for the Quartermaster's Department, etc.—Continued.

TRANSPORTATION OF THE ARMY.						
Means of transportation— wagons, carts, drays, ambulances, etc.		Draft horses and mules.		Stabling, watering, etc., public animals.	Harness.	
For purchases (including ve- hicles and parts of ve- hicles).	For repairing (including services and miscellaneous purchases).	Number pur- chases.	Payments.		For purchas- ing and manu- facturing harness and harness ma- terial.	For repairing.
\$1,078.20						
213.57	\$131.65					\$2.22
2.50	1.75					
5.30		3	\$740.00			
18.75		1	175.00		\$3.67	.50
	500.00					
317.50	164.35	2	450.00	\$2.40		10.10
51.30		1	150.00			
19.74	50.00					
				50.00		
196.00		2	400.00			31.34
	42.40					15.70
28.15	10.80					
	5.15					
	149.50					
	33.40					
	131.50					33.50
20.94						
	55.00					18.50
	10.00					
	10.00	1	125.00		9.35	
92.00	244.50					
2,043.95	1,540.00	10	2,040.00	52.40	13.02	111.90
1,149.60	424.05	2	383.00	26.90	5,573.61	67.38
43.15	188.65	1	175.00	29.01		92.37
	15.50			73.26		7.50
1,192.75	628.20	3	563.00	129.17	5,573.61	167.25
43.20	338.65			63.00	105.55	3.25
433.41	431.98			6.00		3.95
177.26	35.32				21.42	
77.52	82.31			40.00		7.20
						37.50
	52.55			182.10		
	40.75					
	95.20			9.70		
	3.75					
				34.08		
	29.75					
781.39	1,110.76			334.88	126.97	51.90
2,717.22	214.77	203	27,582.00	209.28	1,180.29	46.00
	1.00					

C.—Statement showing in detail the amounts expended from the various

Division, department, and post.	TRANSPORTATION OF THE ARMY.					
	Stage.	Transportation employes.		Vessels.		
	Passengers.	Civilians.	Enlisted men on extra duty.	For purchasing, operating, and maintaining.	For chartering from private parties.	For repairing.
<i>Department of the Platte—Con.</i>						
Fort Omaha, Nebr.		\$2,788.29	\$1,799.09			
Fort Niobrara, Nebr.	\$10.00	7,196.84	1,960.18			
Fort Bridger, Wyo.		1,024.83	182.40			
Fort D. A. Russell, Wyo.		14,788.97	1,341.60			
Fort McKinney, Wyo.		4,765.62	1,625.73			
Fort Washakie, Wyo.		3,219.96	834.75			
Fort Du Chene, Utah		4,381.84	2,189.30			
Fort Douglas, Utah		2,798.33	1,623.90			
Ogden, Utah		1,949.94				
Camp Pilot Butte, Wyo.			255.50			
Bellevue Rifle Range, Nebr.						
In the field		171.05				
Total	4,701.31	75,353.30	14,012.95	\$7.50		
<i>Department of Dakota.</i>						
Headquarters, St. Paul, Minn.	1,693.72	15,920.01		1,073.86		
Fort Custer, Mont.		13,442.32	743.40			
Fort Missoula, Mont.		7,112.31	774.20			
Fort Keogh, Mont.	20.00	8,888.87	1,233.25			
Fort Shaw, Mont.	7.00	5,339.32	614.60			
Fort Assiniboine, Mont.		9,211.67	1,136.05			
Helena, Mont.	135.50					
Fort Buford, N. Dak.		8,820.94	273.00			
Fort Pembina, N. Dak.		2,686.46	465.38			
Fort Yates, N. Dak.		8,987.25	451.15			
Fort A. Lincoln, N. Dak.	5.00	3,487.67	379.05			
Fort Totten, N. Dak.		1,000.00	2.45			
Camp Poplar River, N. Dak.		2,580.00	239.75			
Fort Sully, S. Dak.		5,276.46	521.55			
Fort Randall, S. Dak.	30.00	3,599.96	303.95			
Fort Meade, S. Dak.		10,876.18	1,223.50			
Fort Bennett, S. Dak.		1,784.65	341.60			
Fort Snelling, Minn.		10,468.56	1,245.75			
Fort Yellowstone, Wyo.		3,162.00	43.05		\$35.00	
In the field		4,817.16	457.00			
Total	1,891.22	126,961.79	10,448.88	1,073.86	35.00	
<i>Department of Texas.</i>						
Headquarters, San Antonio, Tex.	1,342.15	14,632.39	2,312.70	330.66		
Fort Clark, Tex.		2,500.00	2,486.50			
Fort Brown, Tex.		2,750.00	957.95			
Fort Sam Houston, Tex.		1,631.00	1,332.45			
Fort Hancock, Tex.		567.95	921.75			
Fort Bliss, Tex.		1,256.67	640.15			
Fort McIntosh, Tex.		1,728.00	1,204.75			
Fort Davis, Tex.		3,330.00	1,313.50			
Fort Elliott, Tex.						
Fort Ringgold, Tex.		3,118.00	1,543.72			
Camp at Eagle Pass, Tex.			527.30			
Camp Del Rio, Tex.		150.00	138.25			
Camp Pena Colorado, Tex.		578.00	951.40			
Total	1,342.15	32,242.01	14,330.42	330.66		
<i>Department of California.</i>						
Headquarters, San Francisco, Cal.		11,726.68		15,140.62	220.00	\$4,024.63
Fort Gaston, Cal.		1,380.45	321.60			
Fort Mason, Cal.		12.25	600.25			
Fort Bidwell, Cal.		518.50	170.15			
Presidio of San Francisco, Cal.		13,788.65	1,229.95			
Alcatraz Island, Cal.			259.75			
San Diego Barracks, Cal.	32.50	79.00	385.00		5.00	
Benicia Barracks, Cal.			292.50			
Angel Island, Cal.		1,043.00	677.95			
Total	32.50	28,548.53	3,932.15	15,140.62	225.00	4,024.63

appropriations made for the Quartermaster's Department, etc.—Continued.

TRANSPORTATION OF THE ARMY.						
Means of transportation— wagons, carts, drays, ambu- lances, etc.		Draft horses and mules.		Stabling, watering, attending, etc., public animals.	Harness.	
For purchase (including vehicles and parts of ve- hicles).	For repairing (including services and miscellaneous purchases).	Number pur- chased.	Payments.		For purchas- ing and manu- facturing harness and harness ma- terial.	For repairing.
				\$5.75		
\$5.00	\$80.55			228.00		
	7.75			421.50		
	16.75					
	59.10					
	3.60			63.50		
2,722.22	383.52	203	\$27,582.00	928.03	\$1,180.29	\$46.00
1,929.57	58.25	2	450.00		680.12	52.63
19.50				547.25		
	14.50			3.00		
				97.50		
				289.25		
				46.00		
				1,014.47		
				165.95		
				385.89		
	119.70			417.58		
	22.10			4.70		
				10.65		
		6	602.00	306.12		
				6.25		
				4.50		
1,949.07	214.55	8	1,052.00	3,298.91	680.12	52.63
1,308.20	492.01	15	7,225.00	620.00	17.55	90.10
	27.00					1.00
						45.00
	33.25			156.80		
	14.85			81.59		
	120.00					
1,308.20	687.11	15	7,225.00	858.39	17.55	136.10
	102.00	24	5,145.00			
2.50	225.75					6.50
	62.50				7.00	
	14.00					
	22.00					
	24.00					
2.50	400.25	24	5,145.00		7.00	6.50

REPORT OF THE SECRETARY OF WAR.

C.—Statement showing in detail the amounts expended from the various

Division, department, and post.	TRANSPORTATION OF THE ARMY.					
	Stage.	Transportation employees.		Vessels.		
	Passengers.	Civilians.	Enlisted men on extra duty.	For purchasing, operating, and maintaining.	For chartering from private parties.	For repairing.
<i>Department of Arizona.</i>						
Headquarters, Los Angeles, Cal.	\$3,262.81	\$25,284.38			\$25.00	
Whipple Barracks, Ariz.		2,273.33	\$1,596.60			
San Carlos, Ariz.		3,934.00	1,439.88			
Fort Huachuca, Ariz.	2.75	4,532.00	928.00			
Fort Thomas, Ariz.		1,873.94	361.30			
Fort McDowell, Ariz.		475.32	104.15			
Fort Apache, Ariz.		5,932.65	1,011.85			
Fort Verde, Ariz.		140.00	98.10			
Fort Mojave, Ariz.		200.00	106.10			
Fort Bowie, Ariz.		4,196.00	663.10			
Fort Lowell, Ariz.		2,672.00	572.15			
Fort Grant, Ariz.		3,880.00	1,379.74			
Santa Fé, N. Mex.	1,231.23	2,783.00	555.60			
Fort Selden, N. Mex.			193.30			
Fort Wingate, N. Mex.		3,844.00	2,190.02			
Fort Bayard, N. Mex.		3,146.00	1,735.00			
Fort Union, N. Mex.		1,605.00	582.25			
Fort Stanton, N. Mex.		3,022.00	859.80			
Total.....	4,496.79	69,793.62	14,376.94		25.00	
<i>Department of the Columbia.</i>						
Headquarters, Vancouver Barracks, Wash.		15,969.42	2,342.29			
Portland, Oregon.....	301.00	1,599.63		\$150.00		
Fort Spokane, Wash.		4,584.00	2,107.13		4.25	
Fort Canby, Wash.		630.00	544.30		40.00	\$30.00
Fort Walla Walla, Wash.		5,606.31	1,836.78			
Fort Townsend, Wash.		546.57	824.19			
Boisé Barracks, Idaho		1,931.41	346.10			
Fort Sherman, Idaho		3,916.50	2,114.84			
In the field.....						
Total.....	301.00	34,783.84	10,115.63	150.00	44.25	30.00
<i>Independent posts.</i>						
West Point, N. Y.		382.50	3,193.99	81.00		138.05
Atlanta, Ga.		10,600.88	1,052.60			
Columbus Barracks, Ohio		80.00	1,137.90			
Hot Springs, Ark.		480.00				
Fort Riley, Kans.		8,268.18	199.85			
David's Island, N. Y. Harbor	280.00	5,251.66	964.15	43.03		287.96
Wille's Point, N. Y. Harbor			1,572.35	16.80		
Fort Leavenworth Military Prison, Kans.		1,200.00				
Sault de Ste. Marie, Mich.		320.00				
Jefferson Barracks, Mo.		1,800.00	1,310.84			
U. S. Powder Depot, N. J.						
Fort Snelling Ordnance Depot, Minn.		792.40				
Columbia Arsenal, Tenn.		9.75				
Frankford Arsenal, Pa.		999.96				
Kennebec Arsenal, Me.						
Allegheny Arsenal, Pa.						
Indianapolis Arsenal, Ind.						
Watertown Arsenal, Mass.						
Benicia Arsenal, Cal.		232.50				
Augusta Arsenal, Ga.						
Watervliet Arsenal, N. Y.						
Rock Island Arsenal, Ill.						
Springfield Armory, Mass.						
U. S. legations at London, Paris, Berlin, St. Petersburg, Vienna.						
Total.....	280.00	30,417.83	9,431.68	140.83		426.01

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TRANSPORTATION OF THE ARMY.						
Means of transportation— wagons, carts, drays, ambulances, etc.		Draft horses and mules.		Stabling, watering, attending, etc., public animals.	Harness.	
For purchases (including vehicles and parts of ve- hicles).	For repairing (including services and miscellaneous purchases).	Number pur- chases.	Payments.		For purchas- ing and manu- facturing harness and material.	For repairing.
\$1,568.13	\$268.51			\$1,335.97	\$364.07	\$127.80
50.75						
78.12						
326.02	5.65			1,092.08	10.50	23.25
2,023.02	274.16			2,428.05	374.57	151.05
95.30	1,275.10			204.38	82.00	357.30
344.38	500.58			20.50	108.45	
	3.75					
	194.00					
	178.64					892.15
	189.26					288.90
	447.00					
	1,348.10					
439.68	4,136.43			224.88	190.45	1,538.35
	142.10				15.00	4.50
14.65	109.41					
	15.20			80.89		
13.96	23.00					
	12.00					42.00
	21.90					
3,363.83					22,601.71	
9.60	1.50					
3,402.04	325.11			80.89	22,616.71	46.50

REPORT OF THE SECRETARY OF WAR.

C.—Statement showing in detail the amounts expended from the various

Division, department, and post.	TRANSPORTATION OF THE ARMY.					
	Stage.	Transportation employees.		Vessels.		
	Passengers.	Civilians.	Enlisted men on extra duty.	For purchasing, operating, and maintaining.	For chartering from private parties.	For repairing.
<i>General depots.</i>						
New York, N. Y.		\$12,559.32		\$21,018.68	\$2,290.50	\$3,331.58
Philadelphia, Pa.	\$2.50	34,083.38				
Washington, D. C.	3.00	25,435.75				389.12
Jeffersonville, Ind.		23,646.03				
St. Louis, Mo.		15,334.60				
San Francisco, Cal.	1,438.50	6,757.46		73.00		
Total	1,444.00	117,814.54		21,091.68	2,290.50	3,720.70

appropriations made for the Quartermaster's Department, etc.—Continued.

TRANSPORTATION OF THE ARMY.						
Means of transportation— wagons, carts, drays, ambulances, etc.		Draft horses and mules.		Stabling, watering, attending, etc., public animals.	Harness.	
For purchases (including vehicles and parts of ve- hicles).	For repairing (including services and miscellaneous purchases).	Number pur- chases.	Payments.		For purchas- ing and manu- facturing harness and harness ma- terial.	For repairing.
\$3,801.95	\$369.31	15	\$2,923.50	-----	\$1,389.05	\$52.58
-----	107.38	1	225.00	-----	-----	7.00
838.50	338.25	2	410.00	-----	369.72	267.24
53,488.72	495.79	-----	-----	-----	11,625.14	-----
24,526.31	219.33	642	101,306.10	\$1.00	8,259.78	35.61
14,774.79	242.05	1	225.00	-----	12,734.80	69.40
97,430.27	1,772.11	661	105,089.60	1.00	34,378.49	431.83

C.—Statement showing in detail the amounts expended from the various

Division, department, and post.	TRANSPORTATION OF THE ARMY.				
	Water supply and sewerage.			Wharves and bridges.	
	For water rents and taxes.	For material purchased.	For constructing and repairing and for digging wells.	For constructing and repairing.	For rent of wharves and wharfage.
					For constructing roads and for repairs and removal of obstructions.
<i>Department of the East.</i>					
Headquarters, Governors Isl. and, N. Y.	\$5,472.25	\$973.76	\$1,602.22	\$415.00	\$75.00
New Orleans, La.		1,124.25	4.75	575.00	
Boston, Mass.	35.00	8,431.63			\$1,020.00
Baltimore, Md.		71.85			
Buffalo, N. Y.		454.13	30.88		64.00
Washington Barracks, D. C.		487.50	234.35	1,075.00	
Newport Barracks, Ky.	957.71	4,334.81	309.11		25,053.75
Jackson Barracks, La.		1,004.37	693.32		26.80
St. Francis Barracks, Fla.	125.00	871.75	150.00		
Mount Vernon Barracks, Ala.			245.00		
Madison Barracks, N. Y.				239.45	
Plattsburg Barracks, N. Y.	500.00		314.75		1,000.00
Fort Monroe, Va.		1,816.50	347.15	512.00	899.50
Fort Warren, Mass.	150.00	547.76			
Fort Preble, Me.		48.12	131.24		
Fort Trumbull, Conn.	300.00	2.25	28.13		
Fort Adams, R. I.	1,327.70	91.00	537.50		125.04
Fort Myer, Va.		68.56			
Fort Thomas, Ky.	80.59	116.00	98.68		
Fort Hamilton, N. Y.	1,672.70	484.38	186.85		240.00
Fort Wood, N. Y.	56.00		1,250.00		
Fort McHenry, Md.	180.00		34.00		
Fort Schuyler, N. Y.			3,666.00		98.60
Fort Wadsworth, N. Y.	222.31	256.01	5,713.80		116.70
Fort Wayne, Mich.	450.00	63.00			290.75
Fort Brady, Mich.	75.00				
Fort Mackinac, Mich.		69.20	418.00		347.50
Fort Porter, N. Y.	225.00	137.00	1,074.95		
Fort Ontario, N. Y.	400.00	139.00	367.43		257.50
Fort Niagara, N. Y.	6.00	410.07	345.00		
Fort McPherson, Ga.			198.00		
Fort Barrancas, Fla.			343.00	695.35	135.00
In the field.					
Total.	12,235.26	22,002.90	18,324.11	3,511.80	28,808.10
<i>Division of the Missouri.</i>					
Headquarters, Chicago, Ill.	1,099.61	398.20	1,191.59		
Fort Sheridan, Ill.		5,364.98	5,589.78		30,981.90
Do.					
Total.	1,099.61	5,763.18	6,781.37		30,981.90
<i>Department of the Missouri.</i>					
Headquarters, St. Louis, Mo.	6,748.69	2,200.00	8,847.96		
Fort Leavenworth, Kans.		1,051.65	2,094.08		81.93
Denver, Colo.	187.50	1,282.36	354.24		3,752.74
Little Rock Barracks, Ark.	180.00	17.00			
Fort Riley, Kans.		148.00	45.50		
Fort Lewis, Colo.					
Fort Reno, Okla.			1,144.81		484.50
Fort Logan, Colo.					
Fort Supply, Ind. T.		400.92	563.24		
Fort Sill, Okla.					
Fort Crawford, Colo.					
Fort Gibson, Ind. T.					
Oklahoma City, Okla.					
Guthrie, Okla.					
Camp Wade, Okla.	18.00				
Fort Elliott, Tex.					
Total.	7,134.19	5,099.93	13,049.83		4,319.17

QUARTERMASTER-GENERAL.

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appropriations made for the Quartermaster's Department, etc.—Continued.

TRANSPORTATION OF THE ARMY.						
Tolls on turnpikes, ferries, and bridges.	Advertise- ments, publi- cations, and printing.	For reimburse- ments of travel- ing expenses and payments from private funds for pub- lic purposes.	Boxes, can- vas, and other articles for packing and protecting freight.	All expenses not otherwise enumerated.	Lumber, rope, and pur- chases of mis- cellaneous articles.	Total amounts.
\$100.00			\$79.55	\$216.47	\$1,008.81	\$32,216.50
					116.60	16,747.51
		\$13.60			957.09	26,037.43
67.90	\$15.10	2.00		17.40	126.56	25,324.17
20.00	4.50	13.75			301.66	6,232.92
120.00					36.00	5,013.25
309.50					297.58	38,154.71
20.00				465.00	583.00	4,406.86
					330.00	2,241.60
					336.89	4,619.64
					455.45	2,397.25
1.00				230.15	70.50	1,605.75
					635.00	13,941.35
						2,017.36
126.00					105.92	2,224.87
25.28					36.68	978.91
			19.95	909.94	162.00	7,967.55
					15.00	1,940.33
28.00					20.00	496.82
39.00					1,082.30	5,723.68
					50.00	1,444.90
100.00						903.70
						5,897.05
17.40				135.00	606.05	8,621.82
69.00	5.50				1,200.86	8,494.52
					455.91	951.56
					110.58	2,013.23
60.00					415.50	2,326.40
	61.75					1,437.78
					78.75	2,692.12
15.00					173.00	2,340.05
				143.90	2,326.10	6,497.45
					10.08	880.08
1,118.08	86.85	29.35	99.50	2,117.86	12,003.87	239,689.12
142.50	34.80	16.75			9,457.95	205,741.04
					2,374.64	69,744.79
						612.41
142.50	34.80	16.75			11,832.59	276,098.24
19.50	178.09				93.00	43,112.49
46.95		39.00	3.60	131.85	3,058.18	22,896.90
	32.20	20.65		1.75	881.13	198,400.39
			3.60		27.00	295.65
	10.80	68.50			83.05	6,508.13
		27.50		11.20	86.60	6,548.70
		24.50			45.99	14,995.19
1.50				30.00	90.50	3,855.87
		62.32				9,985.59
120.00		20.00				6,319.60
						698.80
2.00						303.70
						354.10
						126.25
						52.08
						1,150.55
189.95	221.09	262.47	7.20	174.80	4,365.45	315,603.99

REPORT OF THE SECRETARY OF WAR.

C.—Statement showing in detail the amounts expended from the various

Division, department, and post.	TRANSPORTATION OF THE ARMY.				
	Water supply and sewerage.			Wharves and bridges.	
	For water rents and taxes.	For material purchased.	For constructing and repairing and for digging wells.	For constructing and repairing.	For rent of wharves and wharfage.
Department of the Platte.					
Headquarters, Omaha, Nebr	\$338.64	\$2,069.81	\$3,109.57		
Fort Robinson, Nebr			299.00		
Fort Sidney, Nebr					
Fort Omaha, Nebr	2,905.00				
Fort Niobrara, Nebr					
Fort Bridger, Wyo					
Fort D. A. Russell, Wyo					
Fort McKinney, Wyo			90.00		
Fort Washakie, Wyo		12.00	921.11		\$1,063.89
Fort Du Chesne, Utah					1,500.00
Fort Douglas, Utah		237.24	316.00		9.00
Ogden, Utah					
Camp Pilot Butte, Wyo					
Bellevue Rifle Range, Nebr.					
In the field					
Total	3,243.64	2,318.55	4,735.68		2,572.89
Department of Dakota.					
Headquarters, St. Paul, Minn	136.92	10,340.43	1,456.32		\$48.84
Fort Custer, Mont					
Fort Missoula, Mont					
Fort Keogh, Mont		1,500.00			
Fort Shaw, Mont					
Fort Assiniboine, Mont			30.00		
Helena, Mont					
Fort Buford, N. Dak					
Fort Pembina, N. Dak					
Fort Yates, N. Dak			65.00		
Fort A. Lincoln, N. Dak					
Fort Totten, N. Dak					
Camp Poplar River, N. Dak					
Fort Sully, S. Dak					
Fort Randall, S. Dak					
Fort Meade, S. Dak					
Fort Bennett, S. Dak					
Fort Snelling, Minn		177.07	526.66		4,362.85
Fort Yellowstone, Wyo					
In the field	25.00				
Total	161.92	12,017.50	2,077.98	48.84	4,362.85
Department of Texas.					
Headquarters, San Antonio, Tex.	5,500.00	1,748.99	1,815.60		59.82
Fort Clark, Tex			4.25		
Fort Brown, Tex			25.00		
Fort San Houston, Tex					
Fort Hancock, Tex					
Fort Bliss, Tex	1,375.00	7.53			
Fort McIntosh, Tex	15.00	256.90	927.21		
Fort Davis, Tex					
Fort Elliott, Tex					
Fort Ringgold, Tex	23.65				
Camp at Eagle Pass, Tex	86.68	88.88		26.40	
Camp Del Rio, Tex					
Camp Pena Colorado, Tex					
Total	7,000.33	2,102.30	2,772.06	26.40	59.82
Department of California.					
Headquarters, San Francisco, Cal.	1,112.10		180.00	\$3,700.00	1,196.13
Fort Gaston, Cal		22.00			

appropriations made for the Quartermaster's Department, etc.—Continued.

TRANSPORTATION OF THE ARMY.						
Tolls on turnpikes, ferries, and bridges.	Advertise- ments, publi- cations, and printing.	For reimburse- ments of travel- ing expenses and payments from private funds for pub- lic purposes.	Boxes, can- vas, and other articles for packing and protecting freight.	All expenses not otherwise enumerated.	Lumber, rope, and pur- chases of mis- cellaneous articles.	Total amounts.
	\$168.59	\$1,318.31	\$403.49	\$70.00	\$14,348.68	\$184,136.09
			110.00		109.49	6,989.56
				23.53	86.46	2,527.52
					83.00	7,575.38
						12,190.13
						1,207.23
		53.50			235.00	16,419.07
		26.67		2.65	174.05	8,042.22
						6,074.26
		16.50				8,525.89
\$5.00		21.00				5,925.79
30.00				3.50	19.00	2,063.44
						314.60
		11.00			1,342.00	7,376.14
35.00	168.59	1,446.98	513.49	99.68	16,347.68	269,367.32
25.00	226.03	48.50		365.88	2,424.07	140,429.66
48.87		80.75			3,948.00	18,890.09
12.00						7,906.21
17.50	81.42	9.75			192.90	32,483.74
3.45					58.85	6,312.67
						10,377.72
5.00		22.50		8.50	280.00	8,510.85
51.25						9,191.19
76.80						3,228.64
327.50						26,930.37
11.00					197.90	4,246.57
					31.25	1,042.70
.80						2,820.55
71.20					559.00	6,859.10
13.72				615.50	6,162.76	4,365.21
					2.00	20,975.84
39.15		92.50		30.24	1,150.65	2,138.90
36.00					20.00	46,632.99
		106.75			197.50	3,302.30
						9,140.11
739.24	257.45	360.75		1,020.12	15,224.88	365,725.41
10.00	150.28	283.58	26.94	758.44	3,636.60	90,331.85
10.00					934.50	5,935.25
				724.48	95.84	3,732.95
						3,858.77
					39.00	1,516.70
				98.00	320.25	3,333.35
					8.90	4,550.11
						4,652.40
						4,887.17
					180.00	1,024.10
						303.10
						1,649.40
20.00	150.28	283.58	26.94	1,580.92	5,215.09	125,775.15
	73.52	75.10		1,673.46		56,481.47
						1,724.05

C.—Statement showing in detail the amounts expended from the various

Division, department, and post.	TRANSPORTATION OF THE ARMY.				
	Water supply and sewerage.			Wharves and bridges.	Roads, harbors, and rivers.
	For water rents and taxes.	For material purchased.	For constructing and repairing and for digging wells.	For constructing and repairing.	For rent of wharves and wharfage.
<i>Department of California—Con'd</i>					For constructing roads and for repairs and removal of obstructions.
Fort Mason, Cal.....		\$20.00	\$1,038.82	\$12.50	
Fort Bidwell, Cal.....			59.50		
Presidio of San Francisco, Cal.....		35.00	130.50		
Alcatraz Island, Cal.....			392.00		
San Diego Barracks, Cal.....	\$341.40		12.80		
Benicia Barracks, Cal.....	345.87	.50	26.50		
Angel Island, Cal.....					
Total.....	1,799.37	77.50	1,840.12	3,712.50	\$1,196.13
<i>Department of Arizona.</i>					
Headquarters, Los Angeles, Cal.....	165.00	1,439.79	141.20		
Whipple Barracks, Ariz.....		45.00			
San Carlos, Ariz.....					
Fort Huachuca, Ariz.....		149.00			
Fort Thomas, Ariz.....					
Fort McDowell, Ariz.....					
Fort Apache, Ariz.....			75.00		
Fort Verde, Ariz.....					
Fort Mojave, Ariz.....					
Fort Bowie, Ariz.....					
Fort Lowell, Ariz.....					
Fort Grant, Ariz.....					
Santa Fé, N. Mex.....	2,200.00	298.48			
Fort Selden, N. Mex.....			54.00		
Fort Wingate, N. Mex.....			152.00	75.00	
Fort Bayard, N. Mex.....		23.95			
Fort Union, N. Mex.....					
Fort Stanton, N. Mex.....					
Total.....	2,365.00	1,956.22	422.20	75.00	
<i>Department of the Columbia.</i>					
Headquarters, Vancouver Barracks, Wash.....	100.00	3,751.05	740.46	2,796.89	\$324.66
Portland, Oregon.....		4,300.39	1,170.29		18.90
Fort Spokane, Wash.....					
Fort Canby, Wash.....	500.00		36.00		
Fort Walla Walla, Wash.....	239.00		930.00		
Fort Townsend, Wash.....	784.10	10.00	285.00	54.15	43.35
Boisé Barracks, Idaho.....			200.00	39.90	
Fort Sherman, Idaho.....		304.00	507.00		
In the field.....					
Total.....	1,623.10	8,365.44	3,868.75	2,890.94	43.35
<i>Independent posts.</i>					
West Point, N. Y.....		500.00	60.00		
Atlanta, Ga.....		2,993.04	921.05		11,122.41
Columbus Barracks, Ohio.....	1,437.37	587.60	1,202.90		
Hot Springs, Ark.....	512.74	4.25	61.30		
Fort Riley, Kans.....		897.27	2,309.25		3,816.53
Dauids Island, N. Y. Harbor.....	2,806.33	821.66	7,084.04	1,866.00	2,000.00
Willeys Point, N. Y. Harbor.....		2,654.70	33.00		5,661.00
Fort Leavenworth Military Prison, Kans.....					
Sault de St. Marie, Mich.....					
Jefferson Barracks, Mo.....	3,782.08	80.00	33.93		52.50
U. S. Powder Depot, N. J.....					
Fort Snelling Ordnance Depot, Minn.....					
Columbia Arsenal, Tenn.....					
Frankford Arsenal, Pa.....					
Kennebec Arsenal, Me.....					

appropriations made for the Quartermaster's Department, etc.—Continued.

TRANSPORTATION OF THE ARMY.						
Tolls on turnpikes, ferries, and bridges.	Advertise- ments, publi- cations, and printing.	For reimburse- ments of trav- eling expenses and payments from private funds for pub- lic purposes.	Boxes, can- vas, and other articles for packing and protecting freight.	All expenses not otherwise enumerated.	Lumber, rope, and pur- chases of miscellane- ous articles.	Total amounts.
		\$1.25		\$9.00	\$275.00	\$1,928.82
						1,086.65
						16,719.80
				486.00		1,131.75
				80.00	8.00	982.70
	\$4.25					757.49
					7.50	6,761.95
	77.77	76.35		2,248.46	290.50	87,574.48
\$66.13	21.86	380.25	\$39.26	33.00	1,677.95	87,693.02
15.00						3,914.93
						5,439.63
						5,611.75
						2,235.24
						579.47
		20.50				7,040.00
						238.10
						306.10
						4,859.10
		13.75			83.60	3,341.50
				136.88	52.50	5,527.24
		3.60	50.00			17,498.36
				58.60	10.47	262.37
		11.50			4.80	7,204.32
						5,131.95
					114.30	2,301.55
		7.20		85.20	49.47	4,023.67
81.13	21.86	436.80	89.26	313.68	1,993.09	163,208.30
	77.07	435.73		1,199.08	252.54	30,098.27
97.70		11.50			1,002.63	16,716.46
443.50					9.50	7,152.13
						1,974.30
410.38		25.00			431.20	10,549.46
				25.00	253.19	3,738.98
						2,964.41
31.26					2.50	8,224.20
982.84	77.07	472.23		1,224.08	1,951.56	81,418.21
3.70					411.85	4,802.54
	81.32	11.25			61.28	27,013.18
88.00				957.25	4.45	19,468.52
					20.00	1,174.38
	15.98			501.75	40.59	17,096.35
10.00	187.85	4.80		4.55	249.67	27,576.70
					319.19	4,617.94
				212.50	5,794.72	33,172.76
		1.25			31.34	354.09
					578.68	7,647.63
					49.50	841.90
						9.75
3.60						1,382.92
						45.90

REPORT OF THE SECRETARY OF WAR.

C.—Statement showing in detail the amounts expended from the various

Division, department, and post.	TRANSPORTATION OF THE ARMY.					
	Water supply and sewerage.			Wharves and bridges.		Roads, harbors, and rivers.
	For water rents and taxes.	For material purchased.	For constructing and repairing and for digging wells.	For constructing and repairing.	For rent of wharves and wharfage.	For constructing roads and for repairs and removal of obstructions.
<i>Independent posts—Continued.</i>						
Allegheny Arsenal, Pa.....			\$1.30			
Indianapolis Arsenal, Ind.....						
Watertown Arsenal, Mass.....						
Benicia Arsenal, Cal.....						
Augusta Arsenal, Ga.....						
Watervliet Arsenal, N. Y.....						
Rock Island Arsenal, Ill.....						
Springfield Armory, Mass.....						
U. S. legations at London, Paris, Berlin, St. Petersburg, Vienna.....						
Total.....	\$8,538.52	\$8,538.52	11,706.77	\$1,866.00	\$2,000.00	\$20,652.44
<i>General depots.</i>						
New York, N. Y.....	2,981.41	8,284.71	86.35	11.75	11,029.16	58.13
Philadelphia, Pa.....	181.00	1,474.56	83.50			169.00
Washington, D. C.....		85.68				1,212.05
Jeffersonville, Ind.....		6,268.31				11.82
St. Louis, Mo.....	501.00	9,950.65	330.15			552.00
San Francisco, Cal.....	2,522.69	9,820.16	82.25			87.50
Total.....	6,186.10	35,884.07	582.25	11.75	11,029.16	2,090.50

RECAPITULATION.

Divisions, departments, independent posts, and general depots.	Regular supplies.	Incidental expenses.	Barracks and quarters.
Department of the East.....	\$188,315.49	\$80,538.56	\$145,574.95
Division of the Missouri.....	65,000.70	29,373.67	27,141.40
Department of the Missouri.....	244,068.90	46,167.36	45,093.69
Department of the Platte.....	331,571.68	58,884.27	68,535.96
Department of Dakota.....	423,315.90	71,275.59	59,068.66
Department of Texas.....	170,901.65	39,593.13	45,847.00
Department of California.....	109,762.15	29,372.41	42,347.88
Department of Arizona.....	362,982.32	41,041.79	50,835.34
Department of the Columbia.....	168,846.62	29,314.66	24,522.60
Independent posts.....	105,056.38	48,568.33	29,014.09
General depots.....	272,778.73	165,257.15	69,394.56
Total.....	2,442,600.52	639,386.92	607,376.13

appropriations made for the Quartermaster's Department, etc.—Continued.

TRANSPORTATION OF THE ARMY.						
Tolls on turnpikes, ferries, and bridges.	Advertisements, publications, and printing.	For reimbursements of traveling expenses and payments from private funds for public purposes.	Boxes, canvas, and other articles for packing and protecting freight.	All expenses not otherwise enumerated.	Lumber, rope, and purchases of miscellaneous articles.	Total amounts.
					\$37.00	\$152.45
	\$46.25				14.25	242.09
	2.60					288.78
	7.47					140.95
					120.30	232.82
						1,684.79
				\$60.00	122.39	182.39
\$105.30	291.47	\$17.30		1,736.05	7,855.21	148,078.83
17.80	1,109.37	189.69	\$661.79	637.42	5,255.76	132,276.92
150.00	13.42	142.18	12,507.99	699.39	1,462.43	57,455.69
241.50	65.85	379.60	255.61		370.50	45,999.21
295.00	754.10	5.90	1,188.48	1,553.70	19,598.17	151,059.04
75.00	50.40	36.60		454.51	1,560.77	230,129.25
73.00	60.09	186.60	2,298.19	4,507.04	3,643.65	71,997.23
852.30	2,058.23	940.57	16,912.06	7,852.06	31,891.28	688,917.34

RECAPITULATION.

Cavalry and artillery horses.	Hospitals.	Clothing and equipage.	Shooting galleries and ranges.	Quarters for hospital stewards.	Transportation of the Army.	Total.
\$830.00	\$14,402.16	\$518.65	\$2,248.25	\$4,266.56	\$239,689.12	\$676,383.74
		5,208.33	10.25		276,098.24	402,832.59
	4,760.86	67.65	1,421.32	1,732.20	315,603.99	658,915.97
23,297.59	5,580.20	689.96	1,296.70	25.75	269,367.32	759,229.43
17,122.64	3,764.79	2,462.86	1,233.01	840.37	365,725.41	944,809.23
10,828.78	8,745.87	41.43	797.09	1,369.08	125,775.15	403,899.18
9,333.35	763.78	76.00	540.91	1,200.00	87,574.48	280,970.96
	2,996.14	37.62	1,209.04	81.00	163,208.30	622,391.55
5,068.06	2,447.55	29.00	622.28	273.65	81,418.21	312,542.63
892.50	7,206.56	67,317.68	59.30	190.00	148,078.83	406,383.67
99,102.55	590.59	1,309,443.67			688,917.34	2,605,484.59
166,475.47	51,258.50	1,385,872.85	9,438.15	9,978.61	2,761,456.39	8,073,843.54

C, SUPPLEMENTAL.—Statement showing in detail amounts expended from the various appro departments, independent posts, and general depots of the Army, as shown by the accounts

Division, department, and post.	REGULAR SUPPLIES.					
	Forage.					
	Hay.	Oats.	Corn.	Bran.	Barley.	Straw.
<i>Department of the East.</i>						
Headquarters, Governors Isl- and, N. Y.						
Boston, Mass.						
Baltimore, Md.	\$20.66					
New Orleans, La.	74.55	\$32.24	\$6.17			\$18.20
Buffalo, N. Y.						20.86
Washington Barracks, D. C.						
Fort Monroe, Va.						
Newport Barracks, Ky.						
Fort Barrancas, Fla.						
Jackson Barracks, La.						
Fort Trumbull, Conn.						
Fort Adams, R. I.						
Fort Hamilton, N. Y.						
Fort McHenry, Md.						
Fort Wayne, Mich.						
Madison Barracks, N. Y.						
Fort Warren, Mass.						
Fort McPherson, Ga.						
Fort Schuyler, N. Y.						
Mount Vernon Barracks, Ala.						
Fort Niagara, N. Y.						
In the field.						
Total.	95.21	32.24	6.17			39.06
<i>Division of the Missouri.</i>						
Headquarters, Chicago, Ill.						
Fort Sheridan, Ill.						
Total.						
<i>Department of the Missouri.</i>						
Headquarters and depot, Fort Leavenworth, Kans., and St. Louis, Mo.	2,513.80	7,866.50	2,571.61	\$890.92		352.63
Denver, Colo.						
Fort Riley, Kans.						
Fort Reno, Ind. T.						
Fort Lyon, Colo.						
Oklahoma City, Ind. T.						
Total.	2,513.80	7,866.50	2,571.61	890.92		352.63
<i>Department of the Platte.</i>						
Headquarters and depot, Omaha, Nebr.	1,967.28	3,429.06	83.96			300.00
Fort Robinson, Nebr.	14.25					
Fort Washakie, Wyo.						
Fort Douglas, Utah.	225.00					
Fort Du Chesne, Utah.						
Fort Niobrara, Nebr.						
Total.	2,206.53	3,429.06	83.96			300.00
<i>Department of Dakota.</i>						
Headquarters, St. Paul, Minn.	6,630.09	4,100.25	1,077.08	182.95		124.84
Helena, Mont.	991.22	518.70	36.00			
Fort Custer, Mont.	1.67					
Fort Meade, S. Dak.						
Fort Keogh, Mont.	142.16					
Fort Buford, N. Dak.	16.24					
Fort Yates, N. Dak.						
Fort Maginnis, Mont.	121.09					
Fort Randall, S. Dak.	13.20					
Fort Shaw, Mont.						
Fort Pembina, N. Dak.						
Fort Sully, S. Dak.	21.08					
Camp Sheridan, Wyo.						
Camp Poplar River.						
Total.	7,936.75	4,618.95	1,113.08	182.95		124.84

priations for the Quartermaster's Department for the fiscal year 1890, in the divisions, of officers received since preparation of annual report for fiscal year ending June 30, 1890.

REGULAR SUPPLIES.								
Fuel.		Stoves.		Lights.			Station- ery.	Adver- tising.
Wood.	Coal.	Heating.	Cook.	Lamps and lanterns.	Mineral oil.	Light.		
\$70.81						\$16.66		\$57.57
117.00								
678.13	\$1,243.16							
		\$45.00						
		10,304.54				3,947.00	\$1.90	
			\$3,548.00					
			841.98			3.91		
		243.35						
2.75								
868.19	1,243.16	10,592.89	4,389.98			3,967.57	1.90	57.57
		9,123.60	482.00				367.96	66.48
		9,123.60	482.00				367.96	66.48
735.88	4,440.40	892.52	1.10	\$1.50		2.00	148.57	705.17
			20.60				35.40	
735.88	4,440.40	892.52	21.70	1.50		2.00	183.97	705.17
825.20	6,404.45							270.82
26.45								
851.74	6,404.45							270.82
5,758.35	2,413.32		443.95	5.14	\$2,190.50	52.96	243.38	
2.00								
21.00					.73			
40.96	68.00							
5,822.31	2,481.32		443.95	5.14	2,191.23	52.96	243.38	

REPORT OF THE SECRETARY OF WAR.

C, SUPPLEMENTAL.—Statement showing in detail amounts expended from the various

Division, department, and post.	REGULAR SUPPLIES.					
	Forage.					
	Hay.	Oats.	Corn.	Bran.	Barley.	Straw.
<i>Department of Texas.</i>						
Headquarters and depot, San Antonio, Tex.....	\$419.51	-----	\$938.50	\$144.68	-----	-----
Fort Brown, Tex.....	60.00	-----	-----	-----	-----	-----
Total	479.51	-----	938.50	144.68	-----	-----
<i>Department of California.</i>						
Headquarters and depot, San Francisco, Cal.....	3,279.72	\$1,286.80	-----	209.33	\$1,815.01	-----
Fort Mason, Cal.....	-----	-----	-----	-----	-----	-----
Presidio of San Francisco, Cal.....	-----	-----	-----	-----	-----	-----
Fort Gaston, Cal.....	156.24	103.32	-----	-----	-----	-----
Fort Bidwell, Cal.....	174.50	-----	-----	-----	-----	-----
Benicia Barracks, Cal.....	-----	-----	-----	-----	-----	-----
Alcatraz Island, Cal.....	-----	-----	-----	-----	-----	-----
Angel Island, Cal.....	-----	-----	-----	-----	-----	-----
Total	3,610.46	1,390.12	-----	209.33	1,815.01	-----
<i>Department of Arizona.</i>						
Headquarters, Los Angeles, Cal.....	8,905.34	98.46	3,144.97	2,997.65	16,463.77	\$701.68
Santa Fé, N. Mex.....	12,065.72	809.24	5,506.86	503.52	3,440.48	984.27
Whipple Barracks, Ariz.....	-----	-----	-----	-----	-----	-----
Fort Huachuca, Ariz.....	-----	-----	-----	-----	-----	-----
Fort Wingate, N. Mex.....	-----	-----	-----	-----	-----	-----
Fort Bayard, N. Mex.....	-----	-----	-----	-----	-----	-----
Fort Seldon, N. Mex.....	-----	-----	-----	-----	-----	-----
Fort Stanton, N. Mex.....	-----	-----	-----	-----	-----	-----
Fort Union, N. Mex.....	-----	-----	-----	-----	-----	-----
Fort Apache, Ariz.....	-----	-----	-----	-----	-----	-----
Fort Lowell, Ariz.....	-----	-----	-----	-----	-----	-----
Fort McDowell, Ariz.....	-----	-----	-----	-----	-----	-----
Fort Grant, Ariz.....	-----	-----	-----	-----	-----	-----
Fort Bowie, Ariz.....	-----	-----	-----	-----	-----	-----
Fort Verde, Ariz.....	-----	-----	-----	-----	-----	-----
San Carlos, Ariz.....	-----	-----	-----	-----	-----	-----
San Diego Barracks, Cal.....	-----	-----	-----	-----	-----	-----
Fort Thomas, Ariz.....	-----	-----	-----	-----	-----	-----
Total	20,971.06	907.70	8,651.83	3,501.17	19,904.25	1,685.95
<i>Department of the Columbia.</i>						
Headquarters and depot, Vancouver Barracks, Wash.....	5.00	15.00	-----	-----	-----	-----
Portland, Oregon.....	2,520.41	541.50	-----	84.00	-----	58.88
Fort Walla Walla, Wash.....	5.00	-----	-----	-----	-----	-----
Boisé Barracks, Idaho.....	-----	-----	-----	-----	-----	-----
Fort Spokane, Wash.....	8.40	5.70	-----	-----	-----	-----
Total	2,538.81	562.20	-----	84.00	-----	58.88
<i>Independent posts.</i>						
Atlanta, Ga.....	-----	-----	-----	-----	-----	-----
West Point, N. Y.....	-----	-----	-----	-----	-----	-----
Columbus Barracks, Ohio.....	-----	-----	-----	-----	-----	-----
David's Island, N. Y.....	-----	-----	-----	-----	-----	-----
Wille's Point, N. Y.....	-----	-----	-----	-----	-----	-----
Jefferson Barracks, Mo.....	-----	-----	-----	-----	-----	-----
Total	-----	-----	-----	-----	-----	-----
<i>General depots.</i>						
New York, N. Y.....	-----	-----	-----	-----	-----	-----
Philadelphia, Pa.....	-----	-----	-----	-----	-----	-----
Washington, D. C.....	1,125.02	-----	-----	-----	2,365.96	993.39
Jeffersonville, Ind.....	-----	-----	-----	-----	-----	-----
San Francisco, Cal.....	110.40	173.00	-----	-----	-----	-----
St. Louis, Mo.....	-----	-----	-----	-----	-----	-----
Military Prison, Fort Leavenworth, Kans.....	-----	-----	-----	-----	-----	-----
Total	1,235.42	173.00	-----	-----	2,365.96	993.39

appropriations made for the Quartermaster's Department, etc.—Continued.

REGULAR SUPPLIES.								
Fuel.		Stoves.		Lights.			Station- ery.	Adver- tising.
Wood.	Coal.	Heating.	Cook.	Lamps and lanterns.	Mineral oil.	Light.		
						\$4,402.64	\$7.50	\$129.44
						4,402.64	7.50	129.44
\$1,332.12	\$3,132.10					19.00	498.00	67.30
25.70						2.42 .73		
		\$94.98						
1,357.82	3,132.10	94.98				22.15	498.00	67.90
1,060.82 55.08	1,970.39 178.14					30.55		961.84
						8.41		
						1.02		
1,115.90	2,148.53					39.98		961.84
3,066.61	159.00					4.14		9.90
3,066.61	159.00					4.14		9.90
		1,641.23	\$1,245.26			42.50		
			234.20			59.82	45.53	
		63.84				1.00		42.57
		1,705.07	1,479.46			103.32	45.53	42.57
				\$6,680.17		23.25 17.70 9.26	1,680.70 403.50	124.20 558.82 190.42
957.79	4.17 29.94 3,789.03	8,249.06	4,210.75	23.50 470.03		54.00 36.95	11,169.27 8,609.99	
957.79	3,823.14	8,249.06	4,210.75	7,173.70		141.16	21,863.46	910.19

C, SUPPLEMENTAL.—Statement showing in detail amounts expended from the various

Division, department, and post.	REGULAR SUPPLIES.					
	Printing.	Lawn mowers.	Engineers.	Watchmen.	Other employees.	Rubber stamps.
<i>Department of the East.</i>						
Headquarters, Governors Isl- and, N. Y.	\$385.98					
Boston, Mass.						
Baltimore, Md.						
New Orleans, La.						
Buffalo, N. Y.						
Washington Barracks, D. C.						
Fort Monroe, Va.	495.71					
Newport Barracks, Ky.	19.09	\$24.00				
Fort Barrancas, Fla.						
Jackson Barracks, La.						
Fort Trumbull, Conn.						
Fort Adams, R. I.						
Fort Hamilton, N. Y.						
Fort McHenry, Md.						
Fort Wayne, Mich.						
Madison Barracks, N. Y.						
Fort Warren, Mass.						
Fort McPherson, Ga.						
Fort Schuyler, N. Y.						
Mount Vernon Barracks, Ala.						
Fort Niagara, N. Y.						
In the field						
Total	900.78	24.00				
<i>Division of the Missouri.</i>						
Headquarters, Chicago, Ill.	238.74					
Fort Sheridan, Ill.						
Total	238.74					
<i>Department of the Missouri.</i>						
Headquarters and depot, Fort) Leavenworth, Kans., and St. Louis, Mo.	205.04 842.75		\$155.00		\$85.00	\$1.30
Denver, Colo.						
Fort Riley, Kans.						
Fort Reno, Ind. T.						
Fort Lyon, Colo.						
Oklahoma City, Ind. T.						
Total	1,047.79		155.00		85.00	1.30
<i>Department of the Platte.</i>						
Headquarters and depot, Omaha, Nebr.	238.72					
Fort Robinson, Nebr.						
Fort Washakie, Wyo.						
Fort Douglas, Utah.						
Fort Du Chesne, Utah.						
Fort Niobrara, Nebr.						
Total	238.72					
<i>Department of Dakota.</i>						
Headquarters, St. Paul, Minn.	227.53					
Helena, Mont.						
Fort Custer, Mont.						
Fort Meade, S. Dak.						
Fort Keogh, Mont.						
Fort Buford, N. Dak.						
Fort Yates, N. Dak.						
Fort Maginnis, Mont.						
Fort Randall, S. Dak.						
Fort Shaw, Mont.						
Fort Pembina, N. Dak.						
Fort Sully, S. Dak.						
Camp Sheridan, Wyo.						
Camp Poplar River						
Total	227.53					

appropriations made for the Quartermaster's Department, etc.—Continued.

REGULAR SUPPLIES.					INCIDENTAL EXPENSES.		
Forage masters and agents.	Scales.	Type- writer.	All expenses not otherwise enumerated.	Total amounts.	Postage.	Advertis- ing.	Extra duty.
				\$518.80			
				16.66			
				20.66			
				248.16			
			\$0.42	1,942.57			
			15.00	15.00			
			115.65	540.71			
			702.25	14,412.18			
				702.25			\$37.00
							91.50
			297.00	3,845.00			
			12.60	12.60			
			1,028.50	1,874.39			
			240.00	483.35			
							50.00
							46.05
				2.75			
			2,411.42	24,630.14			224.55
				673.18			
			1,084.00	10,689.60			
			1,084.00	11,362.78			
			1,847.89	3,337.92			
			30.70	20,932.36			
			87.97	108.57			
			2,304.46	2,339.86			8.40
			4,271.02	26,738.71			8.40
				13,519.58			
				40.70			
				225.00			
				13,785.28			
		\$09.50	2,681.87	26,201.71	\$10.00		
				1,545.92			
\$75.00				78.67			186.55
75.00				75.00			196.52
75.00				217.16			236.95
				18.24			
				142.82			21.25
				13.20			37.25
				130.04			98.45
225.00		69.50	2,681.87	28,420.76	10.00		756.97

C, SUPPLEMENTAL.—Statement showing in detail amounts expended from the various

Division, department, and post.	REGULAR SUPPLIES.					
	Printing.	Lawn mowers.	Engineers.	Watchmen.	Other employes.	Rubber stamps.
<i>Department of Texas.</i>						
Headquarters and depot, San Antonio, Tex.	\$158.35	\$168.78				
Fort Brown, Tex.						
Total	158.35	168.78				
<i>Department of California.</i>						
Headquarters and depot, San Francisco, Cal.	467.88					
Fort Mason, Cal.						
Presidio of San Francisco, Cal.				\$40.00	\$50.00	
Fort Gaston, Cal.						
Fort Bidwell, Cal.						
Benicia Barracks, Cal.						
Alcatraz Island, Cal.						
Angel Island, Cal.						
Total	467.88			40.00	50.00	
<i>Department of Arizona.</i>						
Headquarters, Los Angeles, Cal.	372.06					
Santa Fé, N. Mex.						
Whipple Barracks, Ariz.						
Fort Huachuca, Ariz.						
Fort Wingate, N. Mex.						
Fort Bayard, N. Mex.						
Fort Selden, N. Mex.						
Fort Stanton, N. Mex.						
Fort Union, N. Mex.						
Fort Apache, Ariz.						
Fort Lowell, Ariz.						
Fort McDowell, Ariz.						
Fort Grant, Ariz.						
Fort Bowie, Ariz.						
Fort Verde, Ariz.						
San Carlos, Ariz.						
San Diego Barracks, Cal.						
Fort Thomas, Ariz.						
Total	372.06					
<i>Department of the Columbia.</i>						
Headquarters and depot, Vancouver Barracks, Wash.	131.68					
Portland, Oregon.						
Fort Walla Walla, Wash.						
Boisé Barracks, Idaho.						
Fort Spokane, Wash.					150.00	
Total	131.68				150.00	
<i>Independent posts.</i>						
Atlanta, Ga.	2.00					
West Point, N. Y.						
Columbus Barracks, Ohio						
Davids Island, N. Y.						
Willeys Point, N. Y.						
Jefferson Barracks, Mo.						
Total	2.00					
<i>General depots.</i>						
New York, N. Y.						
Philadelphia, Pa.	7.76					
Washington, D. C.	53.79					
Jeffersonville, Ind.						
San Francisco, Cal.		85.08				
St. Louis, Mo.						
Military Prison, Fort Leavenworth, Kans.						
Total	61.55	85.08				

QUARTERMASTER-GENERAL.

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appropriations made for the Quartermaster's Department, etc.—Continued.

REGULAR SUPPLIES.					INCIDENTAL EXPENSES.		
Forage masters and agents.	Scales.	Type- writer.	All expenses not otherwise enumerated.	Total amounts.	Postage.	Advertis- ing.	Extra duty.
			\$21.40	\$5,390.80		\$42.24	
				60.00			\$85.75
			21.40	6,450.80		42.24	85.75
			30.00	12,137.36			
	\$83.33			175.75			15.00
				260.29			185.95
				200.20			80.35
			2.75	2.75			28.75
				94.98			80.40
	83.33		32.75	12,871.33			390.45
			241.15	36,948.68			
			1,099.00	24,642.31			3.15
\$60.00				60.00			129.00
60.00			198.00	258.00			88.00
60.00				68.41	\$5.00		101.50
60.00				60.00			129.95
60.00				60.00			29.05
60.00				60.00			58.25
60.00			50.00	110.00			59.00
60.00				60.00			178.90
60.00				60.00			43.35
60.00				60.00			36.00
60.00				60.00			88.10
60.00				60.00			70.25
60.00				61.02			44.75
60.00				60.00	2.00		86.95
60.00				60.00			21.00
840.00			1,588.15	62,688.42	7.00		349.23
							1,516.43
			3,419.27	3,580.85			
60.00		\$6.85	878.06	7,313.31			
			85.00	65.00			15.30
				85.00			
				168.24			79.50
60.00		6.85	4,380.33	11,212.40			94.80
				2,930.99			
				45.53			
				294.02			
			1,874.35	1,939.19			
				42.57			
			1,874.35	5,252.30			
			546.30	9,054.60		87.50	
			13,651.50	14,643.45			
			999.99	6,665.56		12.85	
	572.84		1,344.55	25,148.25			
		139.65	791.00	14,643.90			
			3,683.05	3,756.75			
			1,032.23	1,032.23			
	572.82	139.65	21,988.62	74,944.74		100.35	

REPORT OF THE SECRETARY OF WAR.

C, SUPPLEMENTAL.—Statement showing in detail amounts expended from the various

Division, department, and post.	INCIDENTAL EXPENSES.					
	Civilian employés.					
	Clerks.	Messen- gers.	Laborers.	Store- keepers.	Watchmen.	Spies, guides, etc.
<i>Department of the East.</i>						
Headquarters, Governors Isl- and, N. Y.						
Boston, Mass.						
Baltimore, Md.						
New Orleans, La.						
Buffalo, N. Y.						
Washington Barracks, D. C.						
Fort Monroe, Va.						
Newport Barracks, Ky.						
Fort Barrancas, Fla.						
Jackson Barracks, La.						
Fort Trumbull, Conn.						
Fort Adams, R. I.						
Fort Hamilton, N. Y.						
Fort McHenry, Md.						
Fort Wayne, Mich.						
Madison Barracks, N. Y.						
Fort Warren, Mass.						
Fort McPherson, Ga.						
Fort Schuyler, N. Y.						
Mount Vernon Barracks, Ala.						\$100.00
Fort Niagara, N. Y.						
In the field						
Total						100.00
<i>Division of the Missouri.</i>						
Headquarters, Chicago, Ill.						
Fort Sheridan, Ill.						
Total						
<i>Department of the Missouri.</i>						
Headquarters and depot, Fort Leavenworth, Kans., and St. Louis, Mo.	\$200.00	\$45.00	\$30.00	\$100.00	\$120.00	
Denver, Colo.						
Fort Riley, Kans.						
Fort Reno, Ind. T.						
Fort Lyon, Colo.						
Oklahoma City, Ind. T.						
Total	200.00	45.00	30.00	100.00	120.00	
<i>Department of the Platte.</i>						
Headquarters and depot, Omaha, Nebr.						100.00
Fort Robinson, Nebr.						
Fort Washakie, Wyo.						
Fort Douglas, Utah.						
Fort Du Chesne, Utah.						
Fort Niobrara, Nebr.						
Total						100.00
<i>Department of Dakota.</i>						
Headquarters, St. Paul, Minn.						
Helena, Mont.						
Fort Custer, Mont.	100.00					193.33
Fort Meade, S. Dak.						92.00
Fort Keogh, Mont.	100.00					150.00
Fort Buford, N. Dak.						
Fort Yates, N. Dak.						
Fort Maginnis, Mont.	200.00					
Fort Randall, S. Dak.						
Fort Shaw, Mont.						
Fort Pembina, N. Dak.						
Fort Sully, S. Dak.						
Camp Sheridan, Wyo.						
Camp Poplar River.						
Total	400.00					435.33

C, SUPPLEMENTAL.—Statement showing in detail amounts expended from the various

Division, department, and post.	INCIDENTAL EXPENSES.					
	Civilian employés.					
	Clerks.	Messen- gers.	Laborers.	Store- keepers.	Watchmen.	Spies, guides, etc.
<i>Department of Texas.</i>						
Headquarters and depot, San Antonio, Tex.						
Fort Brown, Tex.						
Total						
<i>Department of California.</i>						
Headquarters and depot, San Francisco, Cal.						
Fort Mason, Cal.						
Presidio of San Francisco, Cal.	\$116.67					
Fort Gaston, Cal.						
Fort Bidwell, Cal.						
Benicia Barracks, Cal.						
Alcatraz Island, Cal.						
Angel Island, Cal.						
Total	116.67					
<i>Department of Arizona.</i>						
Headquarters, Los Angeles, Cal.			\$50.00			\$25.00
Santa Fé, N. Mex.						
Whipple Barracks, Ariz.						
Fort Huachuca, Ariz.						
Fort Wingate, N. Mex.						75.00
Fort Bayard, N. Mex.						
Fort Selden, N. Mex.						
Fort Stanton, N. Mex.						
Fort Union, N. Mex.						
Fort Apache, Ariz.						75.00
Fort Lowell, Ariz.						
Fort McDowell, Ariz.						
Fort Grant, Ariz.						
Fort Bowie, Ariz.						
Fort Verde, Ariz.						
San Carlos, Ariz.						75.00
San Diego Barracks, Cal.						
Fort Thomas, Ariz.						
Total			50.00			250.00
<i>Department of the Columbia.</i>						
Headquarters and depot, Vancouver Barracks, Wash.						
Portland, Oregon.						
Fort Walla Walla, Wash.						
Boisé Barracks, Idaho.						
Fort Spokane, Wash.						
Total						
<i>Independent posts.</i>						
Atlanta, Ga.						
West Point, N. Y.						
Columbus Barracks, Ohio.						
Davids Island, N. Y.						
Willets Point, N. Y.						
Jefferson Barracks, Mo.						
Total						
<i>General depots.</i>						
New York, N. Y.		\$39.32				
Philadelphia, Pa.						
Washington, D. C.						
Jeffersonville, Ind.						
San Francisco, Cal.						
St. Louis, Mo.						
Military Prison, Fort Leavenworth, Kans.						
Total		39.32				

appropriations made for the Quartermaster's Department, etc.—Continued.

INCIDENTAL EXPENSES.									
Horse and mule—		Inter- ment of officers.	Telegraph and tele- phone op- erators.	Tele- grams.	Hire of tele- phones.	Affi- davits.	Shoeing.	Office furni- ture.	Other em- ployés.
Shoes and shoe nails.	Recovery of.								
			\$12.00		\$0.80				
	\$5.00					\$3.75			
	5.00		12.00		.80	3.75			
			15.00		21.91	32.00			
									\$130.00
					5.00		\$4.50		
			15.00		26.91	32.00	4.50		130.00
					26.75	33.25 24.00	32.75 1.00		
			25.00			36.00		\$3.00	
	13.78		25.00			36.00			
			4.00				11.90		
	13.78		54.00		26.75	129.25	45.65	3.00	
			1.73						
			11.44		32.20				
			13.17		32.20				
					5.00	4.75			
					5.00	4.75			
\$33.75					26.85	.75 43.00	12.50	193.50 17.65	
8,348.75				\$26.14	115.00 9.28 8.95	4.25	100.80	884.04 172.00	
							11.25		
8,382.50				26.14	160.08	48.00	124.55	1,267.19	

C, SUPPLEMENTAL.—Statement showing in detail amounts expended from the various

Division, department, and post.	INCIDENTAL EXPENSES.			BARRACKS AND QUARTERS.	
	Desert-ers.	All ex-penses not otherwise enumer-ated.	Total amounts.	Pur-chase of tools.	Rent of—
					Quarters— For officers. For enlisted men.
<i>Department of the East.</i>					
Headquarters, Governors Isl- and, N. Y.					
Boston, Mass.	\$60.00		\$138.65		
Baltimore, Md.					
New Orleans, La.		\$77.00	77.00		
Buffalo, N. Y.					
Washington Barracks, D. C.					
Fort Monroe, Va.	30.00		30.00	\$50.48	
Newport Barracks, Ky.			10.00		
Fort Barrancas, Fla.					
Jackson Barracks, La.		90.00	140.50		
Fort Trumbull, Conn.			.25		
Fort Adams, R. I.			91.50		
Fort Hamilton, N. Y.					
Fort McHenry, Md.					
Fort Wayne, Mich.			6.50		
Madison Barracks, N. Y.					
Fort Warren, Mass.					
Fort McPherson, Ga.		225.50	225.50		
Fort Schuyler, N. Y.			66.50		
Mount Vernon Barracks, Ala.			146.05		
Fort Niagara, N. Y.					
In the field.					
Total	90.00	392.50	932.45	50.48	
<i>Division of the Missouri.</i>					
Headquarters, Chicago, Ill.			9.20		
Fort Sheridan, Ill.					
Total			9.20		
<i>Department of the Missouri.</i>					
Headquarters and depot, Fort) Leavenworth, Kans., and St. Louis, Mo.	30.00	16.90 3.00	825.64 237.30		
Denver, Colo.		587.50	928.78		
Fort Riley, Kans.		118.16	963.95		
Fort Reno, Ind. T.			.50		
Fort Lyon, Colo.					
Oklahoma City, Ind. T.					
Total	30.00	725.56	2,956.17		
<i>Department of the Platte.</i>					
Headquarters and depot, Omaha, Nebr.	60.00		162.00		
Fort Robinson, Nebr.					
Fort Washakie, Wyo.		8.50	8.50		
Fort Douglas, Utah.					
Fort Du Chesne, Utah.					
Fort Niobrara, Nebr.					
Total	60.00	8.50	168.50		
<i>Department of Dakota.</i>					
Headquarters, St. Paul, Minn.	30.00	12.00	357.98		
Helena, Mont.					
Fort Custer, Mont.			459.88		
Fort Meade, S. Dak.		5.00	368.52		
Fort Keogh, Mont.			506.95		
Fort Buford, N. Dak.			85.00		
Fort Yates, N. Dak.			9.50		
Fort Maginnis, Mont.			300.25		
Fort Randall, S. Dak.			49.75		
Fort Shaw, Mont.					
Fort Pembina, N. Dak.		38.00	38.00		
Fort Sully, S. Dak.			98.45		
Camp Sheridan, Wyo.					
Camp Poplar River			4.00		
Total	30.00	55.00	2,278.28		

appropriations made for the Quartermaster's Department, etc.—Continued.

BARRACKS AND QUARTERS.									
Rent of—			Adver- tising.	Carpen- ters.	Masons.	Other employés.	Construc- tion and repairs.	All ex- penses not otherwise enumer- ated.	Total amounts.
Offices.	Store- houses.	Stables and grounds.							
							\$1,575.00		\$1,575.00
							212.65		212.65
							168.68		219.16
							471.70		471.70
							2,688.50		2,688.50
							627.00		627.00
							10,738.91		10,738.91
							6.00		6.00
							557.50		557.50
							285.00		285.00
							40.00		40.00
		\$19.00					3,680.94		3,680.94
									19.00
		19.00					21,051.88		21,121.86
							5.00		5.00
							5.00		5.00
\$79.00				\$80.00			308.08		447.08
							14,960.50	\$18.40	14,978.90
79.00				60.00			15,268.58	18.40	15,425.98
							6,575.00		6,575.00
							160.00		160.00
							6,735.00		6,735.00
							1,999.85	375.05	2,374.90
						\$135.00			135.00
				21.00	\$15.00		1,234.00		36.00
						83.33			1,234.00
									83.33
						300.00	1,100.00		1,400.00
				21.00	15.00	518.33	4,333.85	375.05	5,268.23

C, SUPPLEMENTAL.—Statement showing in detail amounts expended from the various

Division, department, and post.	INCIDENTAL EXPENSES.			BARRACKS AND QUARTERS.		
	Desert-ers.	All ex-penses not otherwise enumer-ated.	Total amounts.	Pur-chase of tools.	Rent of—	
					Quarters—	
					For officers.	For enlisted men.
<i>Department of Texas.</i>						
Headquarters and depot, San Antonio, Tex.....			\$55.04			\$48.00
Fort Brown, Tex.....			94.50			
Total			149.54			48.00
<i>Department of California.</i>						
Headquarters and depot, San Francisco, Cal.....		\$23.00	91.91			
Fort Mason, Cal.....			15.00			
Presidio of San Francisco, Cal..			432.62			
Fort Gaston, Cal.....			80.35			
Fort Bidwell, Cal.....			28.75			
Benicia Barracks, Cal.....	\$30.00		119.90			
Alcatraz Island, Cal.....						
Angel Island, Cal.....						
Total	30.00	23.00	768.53			
<i>Department of Arizona.</i>						
Headquarters, Los Angeles, Cal.	80.00	39.50	237.25		\$25.00	
Santa Fé, N. Mex.....			28.15		30.00	55.00
Whipple Barracks, Ariz.....			129.00			
Fort Huachuca, Ariz.....			88.00			
Fort Wingate, N. Mex.....			242.50			
Fort Bayard, N. Mex.....			132.95			
Fort Selden, N. Mex.....			29.05			
Fort Stanton, N. Mex.....			72.03			
Fort Union, N. Mex.....			59.00			
Fort Apache, Ariz.....			314.90			
Fort Lowell, Ariz.....		7.50	50.85			
Fort McDowell, Ariz.....			36.00			
Fort Grant, Ariz.....			88.10			
Fort Bowie, Ariz.....			70.25			
Fort Verde, Ariz.....			44.75			
San Carlos, Ariz.....			163.95			
San Diego Barracks, Cal.....			36.90		132.00	
Fort Thomas, Ariz.....			349.23			
Total	30.00	47.00	2,172.86		187.00	55.00
<i>Department of the Columbia.</i>						
Headquarters and depot, Van-couver Barracks, Wash.....		8.00	9.73			
Portland, Oregon.....	30.00	41.60	103.80			
Fort Walla Walla, Wash.....			26.74			20.00
Boisé Barracks, Idaho.....						
Fort Spokane, Wash.....			79.50			
Total	30.00	49.60	219.77			20.00
<i>Independent posts.</i>						
Atlanta, Ga.....						
West Point, N. Y.....		34.80	34.80			
Columbus Barracks, Ohio.....						
David's Island, N. Y.....			9.75			
Willetts Point, N. Y.....						
Jefferson Barracks, Mo.....						
Total		34.80	44.55			
<i>General depots.</i>						
New York, N. Y.....		8,899.03	9,293.20			
Philadelphia, Pa.....			60.65			
Washington, D. C.....		85.00	339.79			21.00
Jeffersonville, Ind.....		521.47	9,767.79			
San Francisco, Cal.....		1.30	182.25			
St. Louis, Mo.....			11.25			
Military Prison, Fort Leaven-worth, Kans.....						
Total		9,506.80	19,654.93			21.00

appropriations made for the Quartermaster's Department, etc.—Continued.

BARRACKS AND QUARTERS.									
Rent of—			Adver- tising.	Carpen- ters.	Masons.	Other employés.	Construc- tion and repairs.	All ex- penses not otherwise enumer- ated.	Total amounts.
Offices.	Store- houses.	Stables and grounds.							
	\$175.00	\$59.78					\$7,460.76		7,743.54
	175.00	59.78					7,460.76		7,743.54
		26.49					145.00 1,471.00		145.00 1,497.49
							150.00 84.81 127.00	\$500.00	650.00 84.81 127.00
		26.49					1,977.81	500.00	2,504.30
\$680.00 70.00	15.00 15.00	30.00						26.42	776.42 170.00
							744.42		744.42
							73.25		73.25
							8,066.24		8,066.24
				\$80.00			737.32		817.32
								75.00	207.00
750.00	30.00	30.00		80.00			9,621.23	101.42	10,854.65
								1.50	1.50
							17.19		37.19
							5,155.57		5,155.57
							5,172.76	1.50	5,194.26
							321.50		321.50
18.00							483.28 4.00		18.00 483.28 4.00
18.00							813.78		831.78
								21.60	21.60
		145.33	\$25.20				694.00 1,085.00		719.20 1,251.33
	35.58								35.58
							2,691.17		2,691.17
	35.58	145.33	25.20				4,470.17	21.60	4,718.88

C, SUPPLEMENTAL.—Statement showing in detail amounts expended from the various

Division, department, and post.	CAVALRY AND ARTILLERY HORSES.				HOSPITALS.	
	Purchase of cavalry and artillery.	Advertising.	All expenses not otherwise enumerated.	Total amounts.	Extra duty.	Advertising.
<i>Department of the East.</i>						
Headquarters, Governors Isl. and, N. Y.						
Boston, Mass.						
Baltimore, Md.						
New Orleans, La.						
Buffalo, N. Y.						
Washington Barracks, D. C.						
Fort Monroe, Va.						
Newport Barracks, Ky.						
Fort Barrancas, Fla.						
Jackson Barracks, La.						\$97.20
Fort Trumbull, Conn.						
Fort Adams, R. I.						
Fort Hamilton, N. Y.						
Fort McHenry, Md.						
Fort Wayne, Mich.						
Madison Barracks, N. Y.						
Fort Warren, Mass.						
Fort McPherson, Ga.						
Fort Schuyler, N. Y.						
Mount Vernon Barracks, Ala.						
Fort Niagara, N. Y.						
In the field.						
Total						97.20
<i>Division of the Missouri.</i>						
Headquarters, Chicago, Ill.						
Fort Sheridan, Ill.						
Total						
<i>Department of the Missouri.</i>						
Headquarters and depot, Fort Leavenworth, Kans., and St. Louis, Mo.						49.65 81.30
Denver, Colo.						
Fort Riley, Kans.						
Fort Reno, Ind. T.						
Fort Lyon, Colo.						
Oklahoma City, Ind. T.						
Total						130.95
<i>Department of the Platte.</i>						
Headquarters and depot, Omaha, Nebr.						
Fort Robinson, Nebr.						
Fort Washakie, Wyo.						
Fort Douglas, Utah.						
Fort Du Chesne, Utah.						
Fort Niobrara, Nebr.						
Total						
<i>Department of Dakota.</i>						
Headquarters, St. Paul, Minn.						
Helena, Mont.						
Fort Custer, Mont.						
Fort Meade, S. Dak.						
Fort Keogh, Mont.						
Fort Buford, N. Dak.						
Fort Yates, N. Dak.						
Fort Maginnis, Mont.						
Fort Randall, S. Dak.						
Fort Shaw, Mont.						
Fort Pembina, N. Dak.						
Fort Sully, S. Dak.						
Camp Sheridan, Wyo.						
Camp Poplar River						
Total						

appropriations made for the Quartermaster's Department, etc.—Continued.

HOSPITALS.			CLOTHING.						Shooting galleries and ranges.	Hospital stewards' quarters.
Construction and repairs.	All expenses not otherwise enumerated.	Total amounts.	Purchase of material.	Manufacture.	Advertising.	Packers.	Other employees.	Total amt's.		
\$1,550.04		\$1,550.04								
9,925.00		10,022.20								
108.00		108.00								\$5.00
448.90		448.90							\$49.44	
721.96	\$8.90	730.86								73.00
										1,172.32
3,116.44		3,116.44							2.34	
15,870.34	8.90	15,976.44							51.78	1,250.32
1,170.29		1,219.94							160.21	
9,102.09		9,183.30								
378.10		378.10								
					\$4.00			\$4.00	1.64	
10,650.39		10,781.34			4.00			4.00	161.85	
397.25		397.25								63.50
397.25		397.25								63.50
212.02		212.02							30.00	97.22
331.00		331.00								
74.00		74.00							2.09	
145.00		145.00								30.00
762.02		762.02							32.09	127.22

C, SUPPLEMENTAL.—Statement showing in detail amounts expended from the various

Division, department, and post.	CAVALRY AND ARTILLERY HORSES.				HOSPITALS.	
	Purchase of cavalry and artillery.	Advertising.	All expenses not otherwise enumerated.	Total amounts.	Extra duty.	Advertising.
<i>Department of Texas.</i>						
Headquarters and depot, San Antonio, Tex						
Fort Brown, Tex						
Total						
<i>Department of California.</i>						
Headquarters and depot, San Francisco, Cal.	\$1,277.00			\$1,277.00		
Fort Mason, Cal.						
Presidio of San Francisco, Cal.					\$50.00	
Fort Gaston, Cal.						
Fort Bidwell, Cal.						
Benicia Barracks, Cal.						
Alcatraz Island, Cal.						
Angel Island, Cal.						
Total	1,277.00			1,277.00	30.00	
<i>Department of Arizona.</i>						
Headquarters, Los Angeles, Cal.						
Santa Fé, N. Mex.						
Whipple Barracks, Ariz.						
Fort Huachuca, Ariz.						
Fort Wingate, N. Mex.						
Fort Bayard, N. Mex.						
Fort Selden, N. Mex.						
Fort Stanton, N. Mex.						
Fort Union, N. Mex.						
Fort Apache, Ariz.						
Fort Lowell, Ariz.						
Fort McDowell, Ariz.						
Fort Grant, Ariz.						
Fort Bowie, Ariz.						
Fort Verde, Ariz.						
San Carlos, Ariz.						
San Diego Barracks, Cal.						
Fort Thomas, Ariz.						
Total						
<i>Department of the Columbia.</i>						
Headquarters and depot, Vancouver Barracks, Wash.						
Portland, Oregon						
Fort Walla Walla, Wash.						
Boisé Barracks, Idaho						
Fort Spokane, Wash.						
Total						
<i>Independent posts.</i>						
Atlanta, Ga.						
West Point, N. Y.						
Columbus Barracks, Ohio						
Dauids Island, N. Y.						
Willets Point, N. Y.						
Jefferson Barracks, Mo.						
Total						
<i>General depots.</i>						
New York, N. Y.						
Philadelphia, Pa.						
Washington, D. C.						
Jeffersonville, Ind.						
San Francisco, Cal.						
St. Louis, Mo.	7,131.47	\$53.28	\$129.72	7,314.47		
Military Prison, Fort Leavenworth, Kans.						
Total	7,131.47	53.28	129.72	7,314.47		

appropriations made for the Quartermaster's Department, etc.—Continued.

HOSPITALS.			CLOTHING.							Shooting galleries and ranges.	Hospital stewards' quarters.
Construction and repairs.	All expenses not otherwise enumerated.	Total amounts.	Purchase of material.	Manufacture.	Advertising.	Packers.	Other employees.	Total am'ts.			
\$76.00		\$76.00									\$22.90
1,330.72		1,330.72									41.00
1,406.72		1,406.72									* 63.90
29.38		59.38			\$2.00			\$2.00			
429.50		429.50									75.00
17.00		17.00									
475.88		505.88			2.00			2.00			75.00
60.50		60.50									42.02
									2.08		49.25
135.00		135.00									
3,404.45		3,404.45									
3,599.95		3,599.95							2.08		91.87
148.18		148.18									1.21
154.00		154.00									
302.18		302.18									1.21
188.30		188.30									531.50
188.30		188.30									531.50
			\$61,540.82	\$14.50	686.59			62,241.91			
				4,231.04		\$20.13		20.13			
					14.70		\$15.00	4,231.04			
					346.90			29.70			
								346.90			
			61,540.82	4,245.54	1,048.19	20.13	15.00	66,869.68			

C, SUPPLEMENTAL.—Statement showing in detail amounts expended from the various

Division, department, and post.	TRANSPORTATION OF THE ARMY.					
	Rail.		Water.		Express- age.	Wagon.
	Passengers.	Freight.	Passengers.	Freight.		Freight.
<i>Department of the East.</i>						
Headquarters, Governors Isl- and, N. Y.						
Boston, Mass.	\$177.88	\$1,678.59	\$12.00	\$215.02		\$87.40
Baltimore, Md.	4,913.01	2,914.29		113.67		
New Orleans, La.	320.94	2,143.04	2.50	45.00		83.50
Buffalo, N. Y.	161.97	207.51	155.02	52.07		
Washington Barracks, D. C.						
Fort Monroe, Va.						
Newport Barracks, Ky.						
Fort Barrancas, Fla.						
Jackson Barracks, La.						
Fort Trumbull, Conn.						
Fort Adams, R. I.						50.75
Fort Hamilton, N. Y.						
Fort McHenry, Md.						
Fort Wayne, Mich.						
Madison Barracks, N. Y.						
Fort Warren, Mass.						
Fort McPherson, Ga.						
Fort Schuyler, N. Y.					\$1.00	
Mount Vernon Barracks, Ala.						
Fort Niagara, N. Y.						
In the field.						
Total.	5,573.80	6,943.43	169.52	425.76	1.00	221.65
<i>Division of the Missouri.</i>						
Headquarters, Chicago, Ill.	1,331.98	8,157.93				14.00
Fort Sheridan, Ill.						
Total.	1,331.98	8,157.93				14.00
<i>Department of the Missouri.</i>						
Headquarters and depot, Fort) Leavenworth, Kans., and St.) Louis, Mo.	57.30	33.43			.30	79.91 628.36
Denver, Colo.	166.75	9,416.48		45.39		6.00
Fort Riley, Kans.						
Fort Reno, Ind. T.						
Fort Lyon, Colo.						
Oklahoma City, Ind. T.						
Total.	224.05	9,449.91		45.39	.30	714.27
<i>Department of the Platte.</i>						
Headquarters and depot, Omaha, Nebr.	1.25	282.17			24.40	3,218.35
Fort Robinson, Nebr.						
Fort Washakie, Wyo.						
Fort Douglas, Utah.						
Fort Du Chesne, Utah.						
Fort Niobrara, Nebr.						
Total.	1.25	282.17			24.40	3,218.35
<i>Department of Dakota.</i>						
Headquarters, St. Paul, Minn.			2.80			26.39
Helena, Mont.				1.35		224.99
Fort Custer, Mont.						
Fort Mende, S. Dak.						
Fort Keogh, Mont.						
Fort Buford, N. Dak.						
Fort Yates, N. Dak.						
Fort Maginnis, Mont.						
Fort Randall, S. Dak.						

appropriations made for the Quartermaster's Department, etc.—Continued.

TRANSPORTATION OF THE ARMY.								
Stage.	Transportation employees.		Vessels.		Means of transportation: Wagons, carts, drays, ambulances, etc.		Draft horses and mules.	
Passengers.	Civilians.	Enlisted men on extra duty.	For purchasing, operating, and maintaining.	For repairing.	For purchases (including vehicles and parts of vehicles).	For repairing (including services and miscellaneous purchases).	No. of purchases.	Payments.
\$0.50			\$36.69	\$91.77	\$40.00			
	\$90.00	\$33.80						
	220.00	80.00		67.00				
	74.00	31.50						
	20.00	57.50						
	90.25							
.50	494.25	202.80	36.69	158.77	40.00			
					19.75			
					19.75			
15.50	1,171.61				124.10			
9.00					1,499.95			
						\$204.00		
18.00								
42.50	1,171.61				1,624.05	204.00		
84.50								
84.50								
15.50	195.00		84.50		57.70	325.93		
	858.16	50.75						
	680.00	210.40						
	666.66	73.50						
	255.00							

C, SUPPLEMENTAL.—Statement showing in detail amounts expended from the various

Division, department, and post.	TRANSPORTATION OF THE ARMY.					
	Rail.		Water.		Express- age.	Wagon.
	Passengers.	Freight.	Passengers.	Freight.		Freight.
<i>Department of Dakota—Cont'd.</i>						
Fort Shaw, Mont.....						
Fort Pembina, N. Dak.....						
Fort Sully, S. Dak.....						
Camp Sheridan, Wyo.....						\$125.00
Camp Poplar River, Mont.....						
Total.....			\$2.80	\$1.35		376.38
<i>Department of Texas.</i>						
Headquarters and depot, San Antonio, Tex.....	\$746.45	\$6,280.35	16.00	192.18	\$21.10	2,068.97
Fort Brown, Tex.....						92.87
Total.....	746.45	6,280.35	16.00	192.18	21.10	2,161.84
<i>Department of California.</i>						
Headquarters and depot, San Francisco, Cal.....						1,357.73
Fort Mason, Cal.....						
Presidio of San Francisco, Cal..						
Fort Gaston, Cal.....						
Fort Bidwell, Cal.....						
Benicia Barracks, Cal.....						
Alcatraz Island, Cal.....						
Angel Island, Cal.....						
Total.....						1,357.73
<i>Department of Arizona.</i>						
Headquarters, Los Angeles, Cal.....		.25	3.00	658.29		438.50
Santa Fé, N. Mex.....	2.50					787.36
Whipple Barracks, Ariz.....						
Fort Huachuca, Ariz.....						
Fort Wingate, N. Mex.....						
Fort Bayard, N. Mex.....						
Fort Selden, N. Mex.....						
Fort Stanton, N. Mex.....						
Fort Union, N. Mex.....						
Fort Apache, Ariz.....						929.38
Fort Lowell, Ariz.....						
Fort McDowell, Ariz.....						
Fort Grant, Ariz.....						
Fort Bowie, Ariz.....						
Fort Verde, Ariz.....						
San Carlos, Ariz.....						
San Diego Barracks, Cal.....						
Fort Thomas, Ariz.....						
Total.....	2.50	.25	3.00	658.29		2,155.24
<i>Department of the Columbia.</i>						
Headquarters and depot, Vancouver Barracks, Wash.....						
Portland, Oregon.....	133.54	4,589.37	19.75	590.08	.45	1,897.34
Fort Walla Walla, Wash.....						
Boisé Barracks, Idaho.....						
Fort Spokane, Wash.....						
Total.....	133.54	4,589.37	19.75	590.08	.45	1,897.34

C, SUPPLEMENTAL.—Statement showing in detail amounts expended from the various

Division, department, and post.	TRANSPORTATION OF THE ARMY.					
	Rail.		Water.		Express- age.	Wagon.
	Passengers.	Freight.	Passengers.	Freight.		Freight.
<i>Independent posts.</i>						
Atlanta, Ga.....						
West Point, N. Y.....					\$0.85	
Columbus Barracks, Ohio.....	\$308.66	\$59.17				
Dauids Island, N. Y.....						
Willets Point, N. Y.....						
Jefferson Barracks, Mo.....						
Total.....	308.66	59.17			.85	
<i>General depots.</i>						
New York, N. Y.....	4,987.51	9,077.56	\$170.84	\$1,120.99	.70	\$491.07
Philadelphia, Pa.....		49.97	17.00	5.74	1.80	109.50
Washington, D. C.....	6,798.68	2,883.05	183.49	1,839.21	99.49	4,956.52
Jeffersonville, Ind.....	884.16	3,972.62	15.00	4.95		
San Francisco, Cal.....	80.35	58.41	25.00	217.65	43.10	385.44
St. Louis, Mo.....	1,375.75	1,863.65		16.19	148.51	308.57
Military Prison, Fort Leaven- worth, Kans.....						
Total.....	14,126.45	17,905.26	411.33	3,204.73	293.60	6,251.10

appropriations made for the Quartermaster's Department, etc.—Continued.

TRANSPORTATION OF THE ARMY.								
Stage.	Transportation employes.		Vessels.		Means of transportation: Wagons, carts, drays, ambulances, etc.		Draft horses and mules.	
Passengers.	Civilians.	Enlisted men on extra duty.	For purchasing, operating, and maintaining.	For repairing.	For purchases (including vehicles and parts of vehicles).	For repairing (including services and miscellaneous purchases).	No. of purchases.	Payments.
	\$72.60							
	72.60							
	31.66		\$21.64	\$316.52				
\$81.50	92.67							
75.00						\$90.34		
	72.00					22.15		
156.50	196.33		21.64	816.52		112.49		

REPORT OF THE SECRETARY OF WAR.

C, SUPPLEMENTAL.—Statement showing in detail amounts expended from the various

Division, department, and post.	TRANSPORTATION OF THE ARMY.					
	Stabling, watering, attending, etc., public animals.	Harness.		Water supply and sewerage.		
		For purchasing and manufacturing harness and harness material.	For repairing.	For water rents and taxes.	For material purchased.	For constructing and repairing and for digging wells.
<i>Department of the East.</i>						
Headquarters, Governors Island, N. Y.				\$1,481.43		
Boston, Mass.				5.00	\$88.75	
Baltimore, Md.					9.00	
New Orleans, La.						
Buffalo, N. Y.						
Washington Barracks, D. C.						
Fort Monroe, Va.						
Newport Barracks, Ky.		\$4.00				\$4,309.54
Fort Barrancas, Fla.						12.45
Jackson Barracks, La.						
Fort Trumbull, Conn.						
Fort Adams, R. I.				12.50		2,007.40
Fort Hamilton, N. Y.				316.54		
Fort McHenry, Md.						
Fort Wayne, Mich.					61.05	157.92
Madison Barracks, N. Y.						
Fort Warren, Mass.						197.00
Fort McPherson, Ga.						
Fort Schuyler, N. Y.						
Mount Vernon Barracks, Ala.						145.00
Fort Niagara, N. Y.						
In the field.						
Total.		4.00		1,815.47	158.80	6,829.31
<i>Division of the Missouri.</i>						
Headquarters, Chicago, Ill.				48.50		
Fort Sheridan, Ill.					9,700.00	18,269.74
Total.				48.50	9,700.00	18,269.74
<i>Department of the Missouri.</i>						
Headquarters and depot, Fort Leavenworth, Kans., and St. Louis, Mo.		\$9.75			126.20	1,647.75
Denver, Colo.						1,174.69
Fort Riley, Kans.						1,676.75
Fort Reno, Ind. T.						
Fort Lyon, Colo.						
Oklahoma City, Ind. T.						
Total.		9.75			126.20	4,498.69
<i>Department of the Platte.</i>						
Headquarters and depot, Omaha, Nebr.				20.17		11,767.25
Fort Robinson, Nebr.						
Fort Washakie, Wyo.						
Fort Douglas, Utah.						
Fort Du Chesne, Utah.						
Fort Niobrara, Nebr.						62.00
Total.				20.17		11,829.25
<i>Department of Dakota.</i>						
Headquarters, St. Paul, Minn.				44.98	78.13	50.00
Helena, Mont.						
Fort Custer, Mont.	\$45.00					
Fort Meade, S. Dak.						2,595.00
Fort Keogh, Mont.						

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TRANSPORTATION OF THE ARMY.									
Wharves and bridges.		Roads, harbors, and rivers.							
For constructing and repairing.	For rent of wharves and wharfage.	For constructing roads and for repairs and removal of obstructions.	Tolls on turnpikes, ferries, and bridges.	Advertisements, publications, and printing.	For reimbursements of traveling expenses and payments from private funds for public purposes.	Boxes, canvas, and other articles for packing and protecting freight.	All expenses not otherwise enumerated.	Lumber, rope, and purchases of miscellaneous articles.	Total amounts.
				\$37.80					
								\$56.50	\$1,519.23
\$1,173.00								5.00	2,321.14
438.00									7,940.97
									3,861.67
									577.07
		\$6,841.60	\$26.10	104.32					438.00
									91.77
									11,285.56
								40.00	176.25
	\$10.42								
		2,274.50						30.00	2,478.07
							\$2,831.51		5,422.55
			8.70						218.97
									8.70
									197.00
								11.00	11.00
									106.50
								12.00	234.50
			6.46						90.25
									6.46
1,611.00	10.42	9,116.10	41.26	142.12			2,831.51	154.50	36,985.66
		9,851.13		24.50				35.60	9,612.51
								8.20	87,848.82
		9,851.13		24.50				43.80	47,461.33
				110.25	\$7.00		1,615.00		4,887.85
									3,413.25
		1,055.70						27.60	12,403.17
								256.75	460.75
									18.00
		1,055.70		110.25	7.00		1,615.00	284.35	21,183.02
				8.12	12.00			1.40	15,419.61
									62.00
				8.12	12.00			1.40	15,481.61
							546.94	291.22	1,719.09
									226.34
									953.91
								164.27	3,649.67
								462.00	1,202.16

C, SUPPLEMENTAL.—Statement showing in detail amounts expended from the various

Division, department, and post.	TRANSPORTATION OF THE ARMY.				
	Stabling, watering, attending, etc., public animals.	Harness.		Water supply and sewerage.	
		For pur- chasing and manu- facturing harness and harness material.	For repairing.	For water rents and taxes.	For material pur- chased.	For con- structing and repair- ing and for digging wells.
<i>Department of Dakota—Cont'd.</i>					
Fort Buford, N. Dak.....					
Fort Yates, N. Dak.....					
Fort Maginnis, Mont.....	\$36.50				
Fort Randall, S. Dak.....					
Fort Shaw, Mont.....	18.50				
Fort Pembina, N. Dak.....					
Fort Sully, S. Dak.....					
Camp Sheridan, Wyo.....					
Camp Poplar River.....					
Total.....	100.00			\$44.98	\$78.13
<i>Department of Texas.</i>					
Headquarters and depot, San Antonio, Tex.....	187.26				196.32
Fort Brown, Tex.....					
Total.....	187.26				196.32
<i>Department of California.</i>					
Headquarters and depot, San Francisco, Cal.....				2.40	
Fort Mason, Cal.....					
Presidio of San Francisco, Cal.....					
Fort Gaston, Cal.....					
Fort Bidwell, Cal.....					
Benicia Barracks, Cal.....				82.14	
Alcatraz Island, Cal.....					
Angel Island, Cal.....					
Total.....				84.54	
<i>Department of Arizona.</i>					
Headquarters, Los Angeles, Cal.....	163.22	\$4.65		18.40	
Santa Fé, N. Mex.....	74.05				
Whipple Barracks, Ariz.....					266.50
Fort Huachuca, Ariz.....					
Fort Wingate, N. Mex.....					
Fort Bayard, N. Mex.....					
Fort Selden, N. Mex.....					
Fort Stanton, N. Mex.....					
Fort Union, N. Mex.....					
Fort Apache, Ariz.....					
Fort Lowell, Ariz.....					
Fort McDowell, Ariz.....					
Fort Grant, Ariz.....					
Fort Bowie, Ariz.....					
Fort Verde, Ariz.....					
San Carlos, Ariz.....					
San Diego Barracks, Cal.....				61.35	39.50
Fort Thomas, Ariz.....					
Total.....	237.27	4.65		61.35	306.00
<i>Department of Columbia.</i>					
Headquarters and depot, Van- couver Barracks, Wash.....					
Portland, Oregon.....	.75				
Fort Walla Walla, Wash.....		71.05			755.40
Boisé Barracks, Idaho.....					
Fort Spokane, Wash.....					
Total.....	.75	71.05			755.40

appropriations made for the Quartermaster's Department, etc.—Continued.

TRANSPORTATION OF THE ARMY.									
Wharves and bridges.		Roads, harbors, and rivers.			For reim-burse-ments of traveling expenses and pay-ments from pri-vate funds for public purposes.	Boxes, canvas, and other arti-cles for packing and pro-protecting freight.	All ex-penses not other-wise enumer-ated.	Lumber, rope, and pur-chases of miscella-neous articles.	Total amounts.
For con-structing and re-pairing.	For rent of wharves and wharf-age.	For con-structing roads and for re-pairs and removal of ob-struc-tions.	Tolls on turn-pikes, ferries, and bridges.	Adver-tise-ments, publica-tions, and printing.					
			\$7.50		\$3.50				\$291.50
			6.35						7.50
									22.00
			25.50						6.35
									150.50
			39.35		3.50		\$546.94	\$917.49	8,229.02
				\$102.74				3,000.00	13,048.22
									546.37
				102.74				3,000.00	13,594.59
\$16,045.05				47.05	73.00			119.98	21,782.71
387.00									1,762.80
								8.00	285.60
								20.00	130.90
									210.64
16,432.05				47.05	73.00			147.98	24,172.65
			141.67	685.11	20.55			18.74	4,492.46
								17.61	1,256.92
									414.50
									737.45
									684.90
									428.15
								45.00	76.51
									326.85
									279.50
							300.00	1,166.20	3,062.26
					3.65				322.00
									256.15
									490.00
									416.70
									181.00
									296.00
								23.00	155.35
									310.88
			141.67	685.11	24.20		300.00	1,270.55	14,187.58
			3.40					3.50	7,359.58
								67.50	1,473.83
								168.85	757.00
			3.40					239.85	9,590.41

C, SUPPLEMENTAL.—Statement showing in detail amounts expended from the various

Division, department, and post.	TRANSPORTATION OF THE ARMY.					
	Stabling, watering, attending, etc., public animals.	Harness.		Water supply and sewage.		
		For purchasing and manufacturing harness and harness material.	For repairing.	For water rents and taxes.	For material purchased.	For constructing and repairing and for digging wells.
<i>Independent posts.</i>						
Atlanta, Ga.					\$2, 245. 73	\$4, 021. 40
West Point, N. Y.						
Columbus Barracks, Ohio						
Dauids Island, N. Y.				\$323. 26		1, 648. 00
Willets Point, N. Y.						
Jefferson Barracks, Mo.						
Total.....				323. 26	2, 245. 73	5, 669. 40
<i>General depots.</i>						
New York, N. Y.			\$4. 23	2, 125. 74	50. 00	
Philadelphia, Pa.						
Washington, D. C.	\$208. 16					513. 30
Jeffersonville, Ind.						
San Francisco, Cal.				39. 55		
St. Louis, Mo.				144. 50		
Military Prison, Fort Leavenworth, Kans.						
Total.....	208. 16		4. 23	2, 309. 79	50. 00	513. 30

RECAPITULATION.

Divisions, departments, independent posts, and general depots.	Regular supplies.	Incidental expenses.	Barracks and quarters.
Division of the Atlantic and Department of the East	\$24, 630. 14	\$932. 45	\$21, 121. 36
Division of the Missouri	11, 362. 78	9. 20	5. 00
Department of the Missouri	26, 738. 71	2, 956. 17	15, 425. 98
Department of the Platte	13, 785. 28	168. 50	6, 735. 00
Department of Dakota	28, 420. 76	2, 278. 28	5, 263. 23
Department of Texas	6, 450. 80	149. 54	7, 743. 54
Division of the Pacific and Department of California	12, 871. 33	768. 53	2, 504. 30
Department of Arizona	62, 688. 42	2, 172. 86	10, 854. 65
Department of the Columbia	11, 212. 40	219. 77	5, 194. 26
Independent posts	5, 252. 30	44. 55	831. 78
General depots.....	74, 944. 74	19, 654. 93	4, 718. 88
Total	278, 357. 66	29, 354. 78	80, 397. 98

appropriations made for the Quartermaster's Department, etc.—Continued.

TRANSPORTATION OF THE ARMY.

Wharves and bridges.		Roads, harbors, and rivers.							
For constructing and repairing.	For rent of wharves and wharfage.	For constructing roads and for repairs and removal of obstructions.	Tolls on turn-pikes, ferries, and bridges.	Advertisements, publications, and printing.	For reimbursements of travelling expenses and payments from private funds for public purposes.	Boxes, canvas, and other articles for packing and protecting freight.	All expenses not otherwise enumerated.	Lumber, rope, and purchases of miscellaneous articles.	Total amounts.
\$1,600.00								\$31.00	\$7,970.73
									.85
	\$450.00								367.83
								206.94	2,421.26
									206.94
1,600.00	450.00							237.94	10,967.61
40.00	15.00			\$91.00	\$17.85		\$0.50	\$29.96	19,692.77
			\$24.46	21.00	5.45			5.34	240.26
			149.50	28.50	47.20				17,881.27
				51.99		\$778.60		29.43	4,996.50
				14.10				61.81	1,816.90
									3,965.42
40.00	15.00		173.96	206.59	70.50	778.60	.50	726.54	48,593.12

RECAPITULATION.

Cavalry and artillery horses.	Hospitals.	Clothing and equipage.	Shooting galleries and ranges.	Hospital stewards' quarters.	Army transportation.	Totals.
	\$15,976.44		\$51.78	\$1,250.32	\$36,985.66	\$100,948.15
	10,781.34	\$4.00	161.85		47,461.33	58,838.31
	397.25			63.50	21,182.02	77,251.07
	762.02		32.09	127.22	15,481.61	36,631.14
	1,406.72			63.90	8,229.02	45,112.62
\$1,277.00	505.88	2.00		75.00	13,594.59	29,409.09
	3,599.95		2.08	91.87	24,172.65	42,176.69
	302.18			1.21	14,187.58	93,597.41
	188.30			581.50	9,590.41	26,520.23
7,314.47		66,869.68			10,967.61	17,816.04
					48,593.12	222,095.82
8,591.47	33,920.08	66,875.68	247.80	, 204.52	250,446.60	750,396.57

D.—Statement showing the number of civilians employed by the month and paid by the Quartermaster's Department in the divisions departments, and general depots, independent posts, and recruiting depots of the Army, on what duty employed, their grade and monthly pay, and the appropriation from which paid, as reported by officers of the Departments, on their reports of persons and articles hired for June, 1891.

DIVISION OF THE ATLANTIC AND DEPARTMENT OF THE EAST.

Posts.	Regular supplies; for- age master, \$75.	Incidental expenses.											
		Clerks, \$150.	Clerks, \$133.33.	Clerks, \$116.66.	Clerks, \$100.	Draftsman, \$150.	Interpreter, \$100.	Janitor, \$45.	Janitor, \$30.	Laborer, \$55.	Laborer, \$30.	Messenger, \$75.	Messenger, \$50.
Headquarters, Governors Island, N. Y.		4	5	1		1		1	1	1	1	1	
Baltimore, Md.		1	1										
Buffalo, N. Y.		1			1								1
Fort Monroe, Va.	1		1		1								
New Orleans, La.		1		1	1								
Boston, Mass.		1			1								
Atlanta, Ga.		1			1								
Mount Vernon Barracks, Ala.							1						
Total	1	9	7	2	5	1	1	1	1	1	1	1	1

Posts.	Incidental expenses.							Barracks and quarters.		Army transportation.			
	Messenger, \$50.	Messenger, \$45.	Messenger, \$25.	Storekeeper, \$75.	Storekeeper, \$38.	Telegraph operator, \$90.	Watchman, \$45.	Carpenters, \$60.	Painter, \$60.	Blacksmiths, \$60.	Blacksmith, \$35.	Engineer, \$90.	Engineer, \$30.
Headquarters, Governors Island, N. Y.	1		1			1	1	2	1	1	1		
Baltimore, Md.	1												
Fort Monroe, Va.					1					1			
New Orleans, La.		1		1									
Boston, Mass.	1		1										
Atlanta, Ga.	1												
Jackson Barracks, La.												1	
Fort Thomas, Ky.													1
Total	4	1	2	1	1	1	1	2	1	2	1	1	1

D.—Statement showing the number of civilians employed by the month and paid by the Quartermaster's Department, etc.—Continued.

DIVISION OF THE ATLANTIC AND DEPARTMENT OF THE EAST—Continued.

Posts.	Army transportation.									
	Engineers, \$75.	Engineer, \$70.	Engineers, \$60.	Engineer, \$45.	Laborer, \$40.	Mason, \$80.	Mason's helper, \$35.	Packer, \$45.	Plumber, \$80.	Plumber, \$75.
Headquarters, Governors Island, N. Y.				1		1	1			
Fort Monroe, Va.	1		1		1					1
New Orleans, La.								1		
Washington Barracks, D. C.	1									
Fort Porter, N. Y.			1							
Fort Niagara, N. Y.			1							
Fort Wayne, Mich.	1									1
Madison Barracks, N. Y.			1							
Fort Adams, R. I.	1									
Fort Schuyler, N. Y.			1							
Fort Hamilton, N. Y.	1									
Fort Myer, Va.			1							
Fort Preble, Me.		1								
Fort Mackinac, Mich.			1							
Total	5	1	7	1	1	1	1	1	1	2

Posts.	Army transportation.									
	Teamsters, \$30.	Wharfinger, \$85.	Wheelwright, \$60.	Launch Monroe.	Pilot, \$70.	Deck hands, \$45.	Engineers, \$75.	Firemen, \$55.	Master, \$110.	Pilot, \$110.
Headquarters, Governors Island, N. Y.	3					4	2	2	1	1
Fort Monroe, Va.		1	1							
New Orleans, La.	1									
Boston, Mass.										2
Washington Barracks, D. C.	1									
Fort Adams, R. I.				1	1					
Total	5	1	1	1	1	4	2	2	1	1

DIVISION OF THE PACIFIC AND DEPARTMENT OF CALIFORNIA.

Posts.	Regular supplies.			Incidental expenses.							
	Coal, inspector, \$116.66.	Forage master, \$83.33.	Gardeners, \$50.	Clerks, \$150.	Clerks, \$133.33.	Clerks, \$116.66.	Clerk, \$100.	Inspector of animals, \$133.33.	Janitor, \$65.	Laborer, \$75.	Laborer, \$25.
Headquarters, San Francisco, Cal.	1			3	1	2	1	1	1	1	1
Presidio of San Francisco, Cal.		1	1		1						
Fort Mason, Cal.			1								
Total	1	1	2	3	2	2	1	1	1	1	1

D.—Statement showing the number of civilians employed by the month and paid by the Quartermaster's Department, etc.—Continued.

DIVISION OF THE PACIFIC AND DEPARTMENT OF CALIFORNIA—Continued.

Posts.	Army transportation.										
	Blacksmith, \$80.	Blacksmiths, \$90	Blacksmiths helper, \$50.	Draftsman, \$150.	Engineer, \$100.	Farrier, \$80.	Herder, \$50.	Mason, \$90.	Master mechanic, \$125.	Packer, \$60.	Plumber, \$30.
Headquarters, San Francisco, Cal.	1		1	1	1	1	1	1	1		3
Presidio of San Francisco, Cal.		1								1	
Fort Gaston, Cal.	1										
Angel Island, Cal.		1									
Total	1	2	1	1	1	1	1	1	1	1	7

Posts.	Army transportation.									
	Trammaster, \$75.	Transportation agents, \$50.	Transportation agent, \$40.	Watchman, \$15.	Wheelwright, \$80.	Steamer McDowell.				
						Assistant engineer, \$90.	Captain, 133.33.	Deck hand, \$75.	Engineer, \$125.	Firemen, \$80.
Headquarters, San Francisco, Cal.		3	1			1	1	1	1	2
Presidio of San Francisco, Cal.	1			1	1					1
Total	1	3	1	1	1	1	1	1	1	4

DEPARTMENT OF ARIZONA.

Posts.	Regular supplies: for- agameaster, \$60.	Incidental expenses.						Army transportation.				
		Clerks, \$150.	Clerks, \$133.33.	Clerks, \$116.66.	Interpreters, \$75.	Janitor, \$60.	Messengers, \$60.	Messenger, \$40.	Blacksmiths, \$80.	Blacksmiths, \$90.	Engineer, \$100.	Engineer, \$80.
Headquarters, Los Angeles, Cal.	1	1	4	3		1	2		1		1	
Whipple Barracks, Ariz.	1				1				1			
San Carlos, Ariz.	1				1				1			
Fort Apache, Ariz.	1				1				1		1	
Fort Bowie, Ariz.	1								1			
Fort Huachuca, Ariz.	1								1			
Fort Grant, Ariz.	1											
Santa Fé, N. Mex.		1		1				1				
Fort Wingate, N. Mex.	1									1		
Fort Bayard, N. Mex.	1									1		
Fort Stanton, N. Mex.	1									1		
Total	9	2	4	4	2	1	2	1	6	3	1	1

D.—Statement showing the number of civilians employed by the month and paid by the Quartermaster's Department, etc.—Continued.

DEPARTMENT OF ARIZONA—Continued.

Posts.	Army transportation.									
	Engineers, \$80.	Engineers, \$75.	Laborers, \$50.	Saddler, \$75.	Saddler, \$50.	Teamsters, \$50.	Teamsters, \$40.	Teamsters, \$30.	Transportation agents, \$100.	Transportation agents, \$50.
Headquarters, Los Angeles, Cal.			2			3			2	2
San Carlos, Ariz.					1					1
Fort Apache, Ariz.				1						1
Fort Bowie, Ariz.	1									1
Fort Huachuca, Ariz.	1									1
Fort Grant, Ariz.										1
Santo Fé, N. Mex.										
Fort Wingate, N. Mex.		1						3		1
Fort Bayard, N. Mex.								2		1
Fort Stanton, N. Mex.		1						2		1
Total	2	2	2	1	1	3	12	7	2	3

DEPARTMENT OF THE COLUMBIA.

Posts.	Regular supplies.		Incidental expenses.							Army transportation.		
	Foragemasters, \$60.	Foragemen, \$40.	Clerks, \$150.	Clerk, \$133.33.	Clerks, \$116.66.	Clerk, \$100.	Interpreter, \$100.	Messengers, \$60.	Superintendent, \$60.	Telegraph operator, \$63.33.	Blacksmiths, \$80.	Blacksmith, \$75.
Headquarters, Vancouver Barracks, Wash.	1	6	2	1	1	1	1	1	1	1	1	1
Portland, Oregon.			1		1			1				
Fort Spokane, Wash.	1										1	
Fort Walla Walla, Wash.											1	
Total	2	6	3	1	2	1	1	2	1	1	2	1

Posts.	Army transportation.									
	Engineer, \$100.	Engineers, \$80.	Engineer, \$75.	Fireman, \$45.	Packer, \$60.	Stablemaster, \$80.	Teamsters, \$40.	Transportation agents, \$133.33.	Transportation agent, \$83.33.	Warehouseman, \$83.33.
Headquarters, Vancouver Barracks, Wash.	1	1		1		1	7	1		1
Portland, Oregon.								1		1
Fort Spokane, Wash.							2			
Fort Walla Walla, Wash.					1		5		1	
Fort Townsend, Wash.		1								
Boisé Barracks, Idaho.					1		2			
Fort Sherman, Idaho.			1				2			
Total	1	2	1	1	2	1	18	2	1	1

D.—Statement showing the number of civilians employed by the month and paid by the Quartermaster's Department, etc.—Continued.

DIVISION OF THE MISSOURI.

Posts.	Incidental expenses.										Army transportation.							
	Clerks, \$150.	Clerks, \$133.33.	Clerk, \$125.	Clerks, \$116.66.	Clerks, \$100.	Messenger, \$60.	Messenger, \$15.	Porter, \$45.	Watchman, \$50.	Watchman, \$40.	Agent, \$150.	Agent, \$33.33.	Foreman of stables, \$65.	Hostlers, \$52.	Scavenger, \$30.	Teamsters, \$52.	Teamster, \$30.	
Headquarters, Chicago, Ill.	2	4	1	2	2	1	1	1	1	1	1	1	1	2	1	5	1	
Fort Sheridan, Ill.	2	4	1	2	2	1	1	1	1	1	1	1	1	2	1	5	1	
Total	2	4	1	2	2	1	1	1	1	1	1	1	1	2	1	5	1	

DEPARTMENT OF THE MISSOURI.

Posts.	Regular supplies.							Incidental expenses.							
	Engineer, \$100.	Engineer, \$30.	Firemen, \$40.	Forgemasters, \$75.	Forgemaster, \$55.	Foreman, \$100.	Lamplighter, \$30.	Woodrangers, \$40.	Clerks, \$150.	Clerks, \$133.33.	Clerks, \$116.66.	Clerk, \$100.	Guide, \$100.	Horsehoer, \$50.	Interpreters, \$100.
Headquarters, St. Louis, Mo									1	2	2				
Depot, Fort Leavenworth, Kans.							1	1	2	1		1		1	
Military Prison, Fort Leavenworth, Kans.				1		1									
Denver, Colo.									1	1					
Fort Reno, Ind. T.				1											1
Fort Supply, Ind. T.				1									1		
Fort Sill, Ind. T.				1											1
Fort Riley, Kans.	1	1	2	1				1	1						
Fort Logan, Colo.					1										
Total	1	1	2	5	1	1	1	2	6	3	2	1	1	1	2

Posts.	Incidental expenses.								Barracks and quarters: Carpenter, \$60.	Army transportation.				
	Janitor, \$50.	Janitor, \$45.	Labors, \$25.	Messengers, \$50.	Messenger, \$40.	Storekeeper, \$75.	Veterinary surgeon, \$125.	Watchman, \$40.		Blacksmiths, \$60.	Cartman, \$30.	Corralmaster, \$40.	Engineers, \$100.	Engineer, \$80.
Headquarters, St. Louis, Mo.	1	...	2	1	...	...	...	...	...	...	...	...	...	...
Depot, Fort Leavenworth, Kans.	...	1	...	...	...	1	1	1	1	...	1	1	...	...
Denver, Colo.	...	...	...	1	...	...	...	...	...	1	...	...	1	...
Fort Reno, Ind. T.	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Fort Supply, Ind. T.	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Fort Sill, Ind. T.	...	...	...	...	1	...	...	...	...	1	...	...	...	...
Fort Riley, Kans.	...	...	...	...	...	...	...	...	...	1	...	...	1	...
Fort Lewis, Colo.	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Total	1	1	2	2	1	1	1	1	1	5	1	1	2	2

D.—Statement showing the number of civilians employed by the month and paid by the Quartermaster's Department, etc.—Continued.

DIVISION OF THE MISSOURI—Continued.

Posts.	Army transportation.										
	Engineer, \$75.	Engineers, \$80.	Farrier, \$80.	Fireman, \$40.	Firemen, \$30.	Foreman, \$100.	Packers, \$40.	Painter, \$75.	Plumbers, \$80.	Plumber, \$75.	Plumber's helper, \$30.
Headquarters, St. Louis, Mo.											
Depot, Fort Leavenworth, Kans.	1	1			1		1	1	1		1
Military Prison, Fort Leavenworth, Kans.						1					
Denver, Colo.	1										
Fort Reno, Ind. T.	1									1	
Fort Supply, Ind. T.	1										
Fort Sill, Ind. T.	1										
Fort Riley, Kans.	1	1		1	1				1		1
Fort Lewis, Colo.	1						2				
Total	1	6	1	1	2	1	3	1	2	1	1

Posts.	Army transportation.							Clothing and equipage.		
	Teamsters, \$30.	Trainmasters, \$60.	Transportation agent, \$133.33.	Transportation agents, \$116.66.	Transportation agents, \$100.	Transportation agents, \$83.33.	Transportation agent, \$80.	Transportation agents, \$50.	Wagonmasters, \$60.	Warehouseman, \$40.
Headquarters, St. Louis, Mo.				1	3			1		
Depot, Fort Leavenworth, Kans.	10				1		1		1	
Military Prison, Fort Leavenworth, Kans.				1	1					
Denver, Colo.			1	1		1				
Fort Reno, Ind. T.	9								1	
Fort Supply, Ind. T.	5	1							1	
Fort Sill, Ind. T.	7	1							1	
Fort Riley, Kans.	14	1				1			1	
Fort Logan, Colo.	3							1		
Fort Lewis, Colo.	2						1	1		
Total	50	2	1	2	4	2	1	2	3	1

Posts.	Army transportation.							Clothing and equipage.		
	Teamsters, \$30.	Trainmasters, \$60.	Transportation agent, \$133.33.	Transportation agents, \$116.66.	Transportation agents, \$100.	Transportation agents, \$83.33.	Transportation agent, \$80.	Transportation agents, \$50.	Wagonmasters, \$60.	Warehouseman, \$40.
Headquarters, St. Louis, Mo.				1	3			1		
Depot, Fort Leavenworth, Kans.	10				1		1		1	
Military Prison, Fort Leavenworth, Kans.				1	1					
Denver, Colo.			1	1		1				
Fort Reno, Ind. T.	9								1	
Fort Supply, Ind. T.	5	1							1	
Fort Sill, Ind. T.	7	1							1	
Fort Riley, Kans.	14	1				1			1	
Fort Logan, Colo.	3							1		
Fort Lewis, Colo.	2						1	1		
Total	50	2	1	2	4	2	1	2	3	1

D.—Statement showing the number of civilians employed by the month and paid by the Quartermaster's Department, etc.—Continued.

DEPARTMENT OF DAKOTA.

Posts.	Regular supplies.					Incidental expenses.								
	Engineer, \$100.	Engineer, \$75.	Fireman, \$45.	Foragemasters, \$75.	Foragemaster, \$60.	Clerks, \$150.	Clerks, \$133.33.	Clerks, \$116.66.	Clerks, \$100.	Clerks, \$83.33.	Copyist, \$75.	Guide, \$133.33.	Guide, \$60.	Interpreter, \$100.
Headquarters, St. Paul, Minn.	1	1	1	1	1	4	2	2	2	1	1			
Fort Snelling, Minn.		1		1		1	1		1					
Helena, Mont.				1					1			1		
Fort Custer, Mont.									1				1	
Fort Shaw, Mont.										1				
Fort Buford, N. Dak.					1									1
Fort Assiniboine, Mont.										1				
Fort Keogh, Mont.				1					1					
Fort Meade, S. Dak.				1										
Fort Missoula, Mont.										1				
Total	1	1	1	4	1	5	3	2	5	4	1	1	1	1

Posts.	Incidental expenses.										Barracks and quarters.			
	Interpreters, \$75.	Interpreters, \$60.	Janitor, \$60.	Janitor's assistant, \$40.	Messengers, \$50.	Scavengers, \$60.	Scavenger, \$30.	Scout, \$75.	Scrubber, \$35.	Scrubber, \$10.	Watchman, \$35.	Engineer, \$83.33.	Engineers, \$75.	Sawyer, \$60.
Headquarters, St. Paul, Minn.			1	1	2				1	1				
Fort Snelling, Minn.						1					1			
Fort Yates, N. Dak.		1												
Helena, Mont.			2		1	1							1	1
Fort Custer, Mont.														
Fort Shaw, Mont.						1							1	
Fort Buford, N. Dak.						1								
Fort Assiniboine, Mont.		1				1								
Fort Keogh, Mont.	2													
Fort Meade, S. Dak.		1												
Fort Missoula, Mont.						1								
Fort Randall, S. Dak.												1		
Fort Sully, S. Dak.							1							
Fort Yellowstone, Wyo.								1						
Total	2	5	1	1	3	5	1	1	1	1	1	1	2	1

D.—Statement showing the number of civilians employed by the month and paid by the Quartermasters' Department, etc.—Continued.

DEPARTMENT OF DAKOTA—Continued.

Posts.	Army transportation.										
	Blacksmiths, \$83.33.	Blacksmiths, \$80.	Blacksmiths, \$75.	Blacksmiths, \$60.	Blacksmith, \$50.	Carpenter, \$35.	Elevator man, \$40.	Engineer, \$116.66.	Engineers, \$100.	Engineers, \$83.33.	Engineer, \$75.
Headquarters, St. Paul, Minn.							1				
Fort Snelling, Minn.				1		1		1			1
Fort Yates, N. Dak.				1					1		
Fort Custer, Mont.	1										
Fort Shaw, Mont.			1								
Fort Buford, N. Dak.		1									
Fort Assiniboine, Mont.		1							1		
Fort Keogh, Mont.	1	1									1
Fort Meade, S. Dak.				1					1		
Fort Missoula, Mont.	1									1	
Fort Abraham Lincoln, N. Dak.				1							1
Fort Randall, S. Dak.				1							
Fort Pembina, N. Dak.					1					1	
Camp Poplar River, Mont.			1								
Fort Bennett, S. Dak.				1							
Fort Sully, S. Dak.				1						1	
Fort Yellowstone, Wyo.		1									
Total	3	3	2	7	1	1	1	1	3	3	1

Posts.	Army transportation.										
	Engineer, \$50.	Foreman, \$60.	Hostlers, \$40.	Laborer, \$40.	Packer, \$75.	Packers, \$80.	Packers, \$50.	Saddlers, \$80.	Superintendent, \$100.	Teamsters, \$45.	Teamsters, \$40.
Headquarters, St. Paul, Minn.		1	2	1			1			2	
Fort Snelling, Minn.											8
Fort Yates, N. Dak.	1				1	1		1			11
Fort Custer, Mont.										6	
Fort Shaw, Mont.											7
Fort Buford, N. Dak.								1			
Fort Assiniboine, Mont.						1		1			8
Fort Keogh, Mont.							1				
Fort Meade, S. Dak.							1	1			10
Fort Missoula, Mont.										6	
Fort Abraham Lincoln, N. Dak.											1
Fort Randall, S. Dak.											3
Fort Pembina, N. Dak.											4
Camp Poplar River, Mont.											
Fort Bennett, S. Dak.											4
Fort Sully, S. Dak.											4
Fort Yellowstone, Wyo.											
Total	1	1	2	1	1	2	2	4	1	2	24

D.—Statement showing the number of civilians employed by the month and paid by the Quartermaster's Department, etc.—Continued.

DEPARTMENT OF DAKOTA—Continued.

Posts.	Army transportation.									
	Trainmaster, \$75.	Trainmasters, \$60.	Trainmasters, \$50.	Transportation agents, \$133.33.	Transportation agent, \$116.66.	Transportation agents, \$100.	Transportation agents, \$83.33.	Transportation agents, \$75.	Transportation agent, \$40.	Wheelwrights, \$83.33.
Headquarters, St. Paul, Minn....				3	1	1	.....	2	1	.....
Fort Snelling, Minn.....										1
Fort Yates, N. Dak.....		1	.....	.....	.....	.....	1	.....	.....	1
Fort Custer, Mont.....	1	.....	.....	.....	.....	1	.....	.....	.....	.....
Fort Shaw, Mont.....			1	.....	.....	.....	.....	.....	.....	1
Fort Buford, N. Dak.....		1	.....	.....	.....	.....	1	.....	.....	.....
Fort Assiniboine, Mont.....										1
Fort Keogh, Mont.....										1
Fort Meade, S. Dak.....		1	.....	.....	.....	1	.....	.....	.....	1
Fort Missoula, Mont.....			1	.....	.....	.....	.....	.....	.....	1
Fort Abraham Lincoln, N. Dak.....										1
Fort Randall, S. Dak.....										1
Total.....	1	3	2	3	1	3	2	2	1	3

DEPARTMENT OF THE PLATTE.

Posts.	Regular supplies.			Incidental expenses.							
	Agent, \$100.	Foragemasters, \$100.	Foragemasters, \$75.	Clerks, \$150.	Clerks, \$133.33.	Clerks, \$116.66.	Clerk, \$100.	Draftsman, \$133.33.	Draftsman, \$83.33.	Guides, \$150.	Guides, \$100.
Headquarters, fort and depot, Omaha, Nebr.....	1	1	1	4	5	2	1	1	1	.....	.....
Fort McKinney, Wyo.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
Fort Robinson, Nebr.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1
Fort Niobrara, Nebr.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	1	2	2	4	5	2	1	1	1	1	1

Posts.	Incidental expenses.								Barracks and quarters.	
	Interpreter, \$75.	Interpreter, \$60.	Laborers, \$35.	Messenger, \$75.	Messenger, \$60.	Messengers, \$50.	Porter, \$50.	Storekeeper, \$100.	Watchmen, \$45.	Watchmen, \$35.
Headquarters, fort and depot, Omaha, Nebr.....	.....	.....	7	1	1	2	1	1	2	3
Fort McKinney, Wyo.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Fort Robinson, Nebr.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fort Washakie, Wyo.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
Fort Du Chesne, Utah.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1
Fort D. A. Russell, Wyo.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Total.....	1	1	7	1	1	2	1	1	2	4

D.—Statement showing the number of civilians employed by the month and paid by the Quartermaster's Department, etc.—Continued.

DEPARTMENT OF THE PLATTE—Continued.

Posts.	Army transportation.									
	Blacksmiths, \$75.	Blacksmith, \$60.	Cargadores, \$60.	Chief packer, \$133.33.	Corralmaster, \$75.	Engineers, \$33.33.	Hostler, \$40.	Packers, \$80.	Packers, \$50.	Packers, \$40.
Headquarters, fort and depot, Omaha, Nebr.	2	1				1	1	1		2
Fort McKinney, Wyo.	1					1			1	
Fort Robinson, Nebr.	1									
Fort Niobrara, Nebr.	1					1				
Fort Washakie, Wyo.	1					1				
Fort Du Chesne, Utah.	1							2		
Fort D. A. Russell, Wyo.	1		2	1	1				7	2
Fort Douglas, Utah.	1									
Fort Sidney, Nebr.	1									
Total	10	1	2	1	1	4	1	3	8	2

Posts.	Army transportation.									
	Plumber, \$75.	Saddler, \$70.	Teamsters, \$45.	Teamsters, \$40.	Teamsters, \$35.	Transportation agents, \$133.33.	Transportation agent, \$116.66.	Transportation agents, \$100.	Transportation agents, \$83.33.	Wheelwrights, \$75.
Headquarters, fort and depot, Omaha, Nebr.		1	4	4	4	2	1	3	2	1
Fort McKinney, Wyo.					2					1
Fort Robinson, Nebr.	1				6					1
Fort Niobrara, Nebr.			1		2					1
Fort Washakie, Wyo.					1					1
Fort Du Chesne, Utah.					3					1
Fort D. A. Russell, Wyo.				2						1
Fort Douglas, Utah.					3					1
Fort Sidney, Nebr.										1
Total	1	1	5	6	21	2	1	3	2	9

DEPARTMENT OF TEXAS.

Posts.	Regular supplies.						Incidental expenses.					
	Engineer, \$65.	Fireman, \$35.	Forgemaster, \$75.	Forgemaster, \$60.	Lamplighter, \$30.	Woodsawyer, \$30.	Clerks, \$150.	Clerks, \$133.33.	Clerks, \$116.66.	Clerk, \$100.	Copyist, \$83.33.	Draftsman, \$150.
Headquarters, depot and post, San Antonio, Tex.	1	1		1	1	1	2	2	4		1	1
Fort Clark, Tex.			1							1		
Fort Davis, Tex.												
Total	1	1	1	1	1	1	2	2	4	1	1	1

D.—Statement showing the number of civilians employed by the month and paid by the Quartermaster's Department, etc.—Continued.

DEPARTMENT OF TEXAS—Continued.

Posts.	Incidental expenses.							Barracks and quarters.		Army transportation.			
	Laborers, \$30.	Mail carrier, \$45.	Messenger, \$50.	Messenger, \$45.	Storekeeper, \$100.	Veterinary surgeon, \$125.	Watchmen, \$40.	Carpenter, \$79.	Carpenter, \$70.	Blacksmith, \$72.	Blacksmith, \$66.	Blacksmith, \$60.	Corralmaster, \$60.
Headquarters, depot, and post, San Antonio, Tex.	8	1	1	1	1	1	6	1	1	1	1	1	1
Fort Davis, Tex.												1	1
Fort Ringgold, Tex.												1	1
Fort McIntosh, Tex.												1	1
Fort Brown, Tex.												1	1
Fort Sam Houston, Tex.												1	1
Total.....	8	1	1	1	1	1	6	1	1	1	1	5	1

Posts.	Army transportation.												
	Corralmaster, \$50.	Engineers, \$60.	Foreman, \$50.	Packer, \$40.	Scavenger, \$50.	Teamsters, \$35.	Transportation agent, \$133.33.	Transportation agent, \$116.66.	Transportation agent, \$50.	Transportation agent, \$30.	Wagonmaster, \$60.	Wheelwright, \$72.	Wheelwrights, \$60.
Headquarters, depot and post, San Antonio, Tex.	1			1	1	5	1	1	1		1	1	
Fort Clark, Tex.		1	1								1		1
Fort Davis, Tex.		1	1							1			1
Fort Ringgold, Tex.		1				1							1
Fort McIntosh, Tex.		1											1
Fort Brown, Tex.		1											
Camp Pena Colorado, Tex.													1
Total.....	1	5	1	1	1	6	1	1	1	1	1	1	4

GENERAL DEPOTS, AS PROVIDED BY ARMY REGULATIONS, 1065.

Posts.	Regular supplies.							Incidental expenses.						
	Coal heaver, \$65.	Engineer, \$100.	Engineer, \$50.	Fireman, \$65.	Foragema aster, \$100.	Packers, \$65.	Store keeper, \$116.66.	Clerks, \$150.	Clerks, \$133.33.	Clerks, \$116.66.	Clerks, \$100.	Clerks, \$83.33.	Copyists, \$75.	Copyists, \$60.
New York, N. Y.	1			1		2	1	3	2	3	2		1	
Philadelphia, Pa.								4	3	3	1	2	2	
Washington, D. C.					1			5	3	3	1	1	1	
Jeffersonville, Ind.		1	1		1			3	3	1	1	1		2
San Francisco, Cal.								3	3	1	1			
St. Louis, Mo.								4		1		2		
Total	1	1	1	1	1	2	1	20	13	7	6	5	4	2

D.—Statement showing the number of civilians employed by the month and paid by the Quartermaster's Department, etc.—Continued.

GENERAL DEPOTS, AS PROVIDED BY ARMY REGULATIONS, 1065—Continued.

		Incidental expenses.															
Posts.																	
New York, N. Y. Philadelphia, Pa. Washington, D. C. Jeffersonville, Ind. San Francisco, Cal. St. Louis, Mo.	Total	Elevator men, \$4 ^f	2														
		Gardener, \$50.															
		Janitor, \$100.			1												
		Janitor, \$65.															
		Laborer, \$70.															
		Laborer, \$60.															
New York, N. Y. Philadelphia, Pa. Washington, D. C. Jeffersonville, Ind. San Francisco, Cal. St. Louis, Mo.	Total	Laborers, \$45.50.															
		Laborer, \$40.															
		Laborers, \$20.															
		Messengers, \$75.															
		Messengers, \$65.															
		Messengers, \$60.															
New York, N. Y. Philadelphia, Pa. Washington, D. C. Jeffersonville, Ind. San Francisco, Cal. St. Louis, Mo.	Total	Messenger, \$50.															
		Messengers, \$45.															
Posts.																	
New York, N. Y. Washington, D. C. Jeffersonville, Ind. San Francisco, Cal. St. Louis, Mo.	Total	Messenger, \$40.															
		Scrubbers, \$30.															
		Storekeeper, \$133.33.															
		Storekeeper, \$116.66.															
		Storekeeper, \$83.33.															
		Superintendent, \$150.															
New York, N. Y. Washington, D. C. Jeffersonville, Ind. San Francisco, Cal. St. Louis, Mo.	Total	Superintendent, \$70.															
		Telephone operator, \$75.															
		Veterinary surgeon, \$100.															
		Watchmen, \$75.															
		Watchman, \$60.															
		Watchman, \$52.50.															
New York, N. Y. Washington, D. C. Jeffersonville, Ind. San Francisco, Cal. St. Louis, Mo.	Total	Watchman, \$45.															
		Watchmen, \$40.															
Posts.																	
New York, N. Y. Philadelphia, Pa. Jeffersonville, Ind. San Francisco, Cal. St. Louis, Mo.	Total	Cavalry and artillery horses: Inspector, \$150.															
		Barracks and quarters: Carpenters, \$90.															
		Carpenter, \$95.															
		Carpenter, \$75.															
		Carpenters, \$70.															
		Carpenters, \$65.															
New York, N. Y. Philadelphia, Pa. Jeffersonville, Ind. San Francisco, Cal. St. Louis, Mo.	Total	Carpenter, \$60.															
		Chief packer, \$100.															
		Drayman, \$70.															
		Engineer, \$100.															
		Engineer, \$75.															
		Fireman, \$50.															
New York, N. Y. Philadelphia, Pa. Jeffersonville, Ind. San Francisco, Cal. St. Louis, Mo.	Total	Foreman of packers, \$80.															
		Foreman of packers, \$70.															
Army transportation.																	

Incidental expenses.

Army transportation.

D.—Statement showing the number of civilians employed by the month and paid by the Quartermaster's Department, etc.—Continued.

GENERAL DEPOTS, AS PROVIDED BY ARMY REGULATIONS, 1065—Continued.

Posts.	Army transportation.												
	Foreman of stables, \$70.	Hostler, \$60.	Hostlers, \$45.	Hostler, \$40.	Laborers, \$54.	Laborer, \$45. 50.	Marker, \$75.	Marker, \$40.	Master baler, \$75.	Master packer, \$75.	Packers, \$75.	Packers, \$70.	Packers, \$65.
New York, N. Y.		1											
Philadelphia, Pa.					14		1		1	1			
Washington, D. C.	1		4	7								1	1
Jeffersonville, Ind.								1				1	1
San Francisco, Cal.											3		
St. Louis, Mo.						1				1	1		
Total.....	1	1	4	7	14	1	1	1	1	1	4	2	2

Posts.	Army transportation.												
	Packers, \$60.	Packers, \$54.	Packer, \$50.	Packers, \$45. 50.	Packers, \$40.	Painter, \$40.	Saddler, \$75.	Shipper, \$116. 66.	Shippers, \$53. 33.	Stablenaster, \$65.	Storekeeper, \$100.	Superintendent, \$133. 33.	Superintendent, \$85.
New York, N. Y.	7	13						1	2	1			1
Philadelphia, Pa.													
Washington, D. C.			1		17	1	1				1	1	
Jeffersonville, Ind.													
St. Louis, Mo.	1			5									
Total.....	8	13	1	5	17	1	1	1	2	1	1	1	1

Posts.	Army transportation.												
	Superintendent, \$45.	Teamster, \$70.	Teamster, \$65.	Teamsters, \$60.	Teamster, \$55.	Teamsters, \$54.	Teamsters, \$45.	Teamsters, \$40.	Transportation agents, \$133.33.	Transportation agents, \$116.66.	Transportation agent, \$100.	Watchmen, \$45.	Wweighmaster, \$50.
New York, N. Y.				2	1	1	1		1				
Philadelphia, Pa.					1	1	1	8				2	
Washington, D. C.						1	1			1			
Jeffersonville, Ind.							1	4		1			1
San Francisco, Cal.		1	1						1		1		
St. Louis, Mo.	1						2		1	1			
Total.....	1	1	1	2	1	2	5	12	3	2	1	2	1

D.—Statement showing the number of civilians employed by the month and paid by the Quartermaster's Department, etc.—Continued.

GENERAL DEPOTS, AS PROVIDED BY ARMY REGULATIONS, 1065—Continued.

Posts.	Clothing and equipage.										
	Carpenter, \$75.	Carpenter, \$65.	Clerks, \$150.	Clerks, \$133.33.	Clerks, \$116.66.	Clerks, \$100.	Clerks, \$83.33.	Copyist, \$75.	Cutters, \$78.	Engineer, \$100.	Fireman, \$60.
Philadelphia, Pa.				1	1	1		1		1	1
Jeffersonville, Ind.			1		2	1	1				1
San Francisco, Cal.	1		1	1			1		5		
St. Louis, Mo.		1			1	2					7
Total	1	1	2	2	4	4	2	1	5	1	1

Posts.	Clothing and equipage.									
	Inspectors, \$100.	Inspector, \$83.33.	Laborers, \$54.	Packer, \$90.	Packers, \$70.	Packers, \$60.	Trimmer, \$75.	Trimmers, \$60.	Warehousemen, \$133.33.	Warehouseman, \$100.
Philadelphia, Pa.	4		15				1	2	1	
Jeffersonville, Ind.		1						1		1
San Francisco, Cal.			1	3	9				1	
St. Louis, Mo.										1
Total	4	1	15	1	3	9	1	3	2	1

INDEPENDENT POSTS.

Posts.	Incidental expenses.						Army transportation.		
	Clerk, \$133.33.	Clerks, \$116.66.	Clerk, \$28.16.	Clerk, \$25.	Laborer, \$42.50.	Messenger, \$60.	Teamster, \$40.	Teamster, \$35.	Transportation agent, \$83.33.
Springfield Armory, Mass.				1					
Augusta Arsenal, Ga.			1						1
Frankfort Arsenal, Pa.									
Fort Snelling Ordnance Depot, Minn.								1	
West Point, N. Y.	1	1							
Hot Springs, Ark.		1			1	1	1		
Total	1	2	1	1	1	1	1	1	1

D.—Statement showing the number of civilians employed by the month and paid by the Quartermaster's Department, etc.—Continued.

RECRUITING DEPOTS.

Posts.	Regular supplies.			Incidental expenses.				Army transportation.						
	Engineer, \$75.	Fireman, \$35.	Foragemaster, \$75.	Clerks, \$133.33.	Clerk, \$100.	Engineer, \$45.	Farrier, \$120.	Engineer, \$80.	Engineer, \$75.	Plumber, \$75.	Steam launch Hamilton.			
											Deckhand, \$50.	Engineer, \$80.	Fireman, \$50.	Master, \$100.
Columbus Barracks, Ohio.....	1	1	...	1	...	1	...	...	...	...	1	1	1	1
Dauids Island, N. Y.....	...	...	...	1	...	1	...	1	...	1	...	1	1	1
Jefferson Barracks, Mo.....	...	...	1	...	1	...	1	...	1	1	...	...	...	...
Total	1	1	1	2	1	1	1	1	1	1	1	1	1	1

RECAPITULATION.

From what appropriation paid.	Number of employes.	Monthly pay.	Yearly pay.
Division of the Atlantic and Department of the East:			
Regular supplies.....	1	\$75.00	\$900.00
Incidental expenses.....	42	4,109.66	49,315.92
Barracks and quarters.....	3	180.00	2,160.00
Army transportation.....	51	3,131.66	37,579.92
Total.....	97	7,496.32	89,955.84
Division of the Pacific and Department of California:			
Regular supplies.....	4	299.99	3,599.88
Incidental expenses.....	14	1,458.31	17,499.72
Army transportation.....	42	2,953.33	35,439.96
Total.....	60	4,711.63	56,539.56
Department of Arizona:			
Regular supplies.....	9	540.00	6,480.00
Incidental expenses.....	16	1,869.96	22,439.52
Army transportation.....	56	3,265.00	39,180.00
Total.....	81	5,674.96	68,099.52
Department of the Columbia:			
Regular supplies.....	8	420.00	5,040.00
Incidental expenses.....	12	1,279.98	15,359.76
Army transportation.....	37	2,212.99	26,555.88
Total.....	57	3,912.97	46,955.64
Division of the Missouri:			
Incidental expenses.....	16	1,601.64	19,219.68
Army transportation.....	12	722.33	8,667.96
Total.....	28	2,323.97	27,887.64
Department of the Missouri:			
Regular supplies.....	14	900.00	10,800.00
Incidental expenses.....	26	2,008.31	24,099.72
Barracks and quarters.....	1	50.00	600.00
Army transportation.....	106	5,203.31	62,439.72
Clothing and equipage.....	4	416.66	4,999.92
Total.....	151	8,578.28	102,939.36
Department of Dakota:			
Regular supplies.....	8	580.00	6,960.00
Incidental expenses.....	45	3,769.96	45,239.52
Barracks and quarters.....	4	293.33	3,519.96
Army transportation.....	169	8,629.94	103,559.28
Total.....	226	13,273.23	159,278.76

D.—Statement showing the number of civilians employed by the month and paid by the Quartermaster's Department, etc.—Continued.

RECAPITULATION—Continued.

From what appropriation paid.	Number of employés.	Monthly pay.	Yearly pay.
Department of the Platte:			
Regular supplies	5	\$450.00	\$5,400.00
Incidental expenses	39	3,186.63	38,239.56
Barracks and quarters	4	295.00	3,540.00
Army transportation	89	5,456.63	65,479.56
Total	137	9,388.26	112,659.12
Department of Texas:			
Regular supplies	6	315.00	2,580.00
Incidental expenses	32	2,287.63	27,451.56
Barracks and quarters	2	149.00	1,788.00
Army transportation	33	1,824.99	21,899.88
Total	73	4,576.62	53,719.44
General depots:			
Regular supplies	8	626.66	7,519.92
Incidental expenses	103	9,343.28	112,119.36
Cavalry and artillery horses	1	150.00	1,800.00
Barracks and quarters	2	180.00	2,160.00
Army transportation	141	8,192.96	98,315.00
Clothing and equipage	84	6,114.11	76,969.32
Total	339	24,607.01	298,883.60
Independent posts:			
Incidental expenses	7	523.31	6,279.72
Army transportation	3	158.33	1,899.96
Total	10	681.64	8,179.68
Recruiting depots:			
Regular supplies	3	185.00	2,220.00
Incidental expenses	5	531.66	6,379.92
Army transportation	7	510.00	6,120.00
Total	15	1,226.66	14,719.92
Total amount by appropriation:			
Regular supplies	66	4,391.65	51,499.50
Incidental expenses	357	31,970.33	383,643.96
Cavalry and artillery horses	1	150.00	1,800.00
Barracks and quarters	16	1,147.33	13,769.96
Army transportation	746	42,261.47	507,137.12
Clothing and equipage	88	6,530.77	81,969.24
Total	1,274	86,461.55	1,039,819.78

E.—Statement showing the amounts expended by officers of the Quartermaster's Department during and on account of the appropriations for the fiscal year 1891, and balances in their hands so far as shown by accounts received at this office.

Names of officers.	Expenditures.	Balances.
Atwood, E. B., major and quartermaster	\$78,644.15	\$1,535.55
Anderson, H. R., lieutenant Fourth Artillery	4,282.66	
Anglum, D. F., lieutenant Twelfth Infantry	1,568.49	
Atkinson, B. W., lieutenant Sixth Infantry	3,522.75	
Ames, R. F., lieutenant Eighth Infantry	4,435.42	
Adams, G., lieutenant Fifth Artillery	37,055.75	409.46
Albright, F. H., lieutenant Ninth Infantry	8,372.48	300.04
Allen, H. T., lieutenant Second Cavalry	523.20	
Aleshire, J. B., lieutenant First Cavalry	30,519.46	149.13
Andrus, F. B., lieutenant Second Infantry	5,670.22	1,616.64
Arnold, I., jr., major, Ordnance Department	36.14	
Bingham, J. D., colonel and assistant quartermaster-general	8,508.90	26,553.71
Belcher, J. H., major and quartermaster	124,127.40	2,337.79
Barnett, C. R., captain and assistant quartermaster	96,837.60	125.04
Bird, C., captain and assistant quartermaster	42,851.89	5,529.72
Booth, C. A., captain and assistant quartermaster	135,020.94	18,832.04

E.—Statement showing the amounts expended by officers of the Quartermaster's Department during the fiscal year 1891, etc.—Continued.

Names of officers.	Expenditures.	Balances.
Barrett, A., captain and military storekeeper, Quartermaster's Department	\$136,350.47	.....
Baker, F., captain, Ordnance Department	2,873.48	\$9.00
Bryant, C., major, Ordnance Department	1,258.40	.....
Backus, G. B., lieutenant First Cavalry	175.00	238.08
Buck, W. L., lieutenant Thirteenth Infantry	722.30	.....
Beach, F. H., lieutenant Sixth Cavalry	3,655.41	.....
Biddle, W. S., jr., lieutenant Thirteenth Infantry	2,524.32	.....
Brooke, E. H., lieutenant Twenty-first Infantry	1,516.83	.....
Bailey, H. L., lieutenant Twenty-first Infantry	3,977.65	.....
Beach, W. D., lieutenant Third Cavalry	1,596.47	.....
Borden, G. P., lieutenant Fifth Infantry	1,688.44	.....
Brown, R. P., captain Fourth Infantry	793.41	.....
Brown, E. T., lieutenant Fifth Artillery	1,154.00	.....
Browne, E. H., lieutenant Fourth Infantry	5,019.97	.....
Baldwin, J. A., captain Ninth Infantry	777.62	.....
Brett, J. E., lieutenant Twenty-fourth Infantry	492.90	.....
Borup, H. D., captain Ordnance Department	225.05	.....
Barroll, M. K., lieutenant Fourth Artillery	9,196.84	.....
Bennett, W. C., lieutenant Sixth Infantry	4,621.02	93.06
Barbour, J. L., lieutenant Seventh Infantry	643.00	19.26
Blake, E. M., lieutenant Fifth Artillery	470.46	.....
Butler, J. G., major Ordnance Department	1,006.39	7.20
Burnham, W. P., lieutenant Sixth Infantry	7,603.07	7.10
Bigelow, J., jr., lieutenant Tenth Cavalry	5,341.37	377.23
Bingham, T. A., captain Engineer Corps	586.04	42.80
Beckurts, C. L., lieutenant Sixth Infantry	252.75	19.35
Bailey, C. J., lieutenant First Artillery	525.38	5.69
Brant, L. P., lieutenant First Infantry	1,059.60	3.55
Bettens, P. A., jr., lieutenant Ninth Cavalry	.....	957.37
Beall, F. M. M., lieutenant Fifth Infantry	207.82	151.25
Chandler, J. G., lieutenant-colonel and deputy quartermaster-general	297,538.00	30,966.80
Campbell, L. E., captain and assistant quartermaster	204,965.55	34,365.79
Clem, J. L., captain and assistant quartermaster	37,393.46	2,030.62
Chase, C., captain and assistant quartermaster	17,570.94	.....
Comly, C., major Ordnance Department	385.55	.....
Clifford, J. C., captain Ordnance Department	725.12	.....
Cotter, J., lieutenant Second Infantry	12,798.14	.....
Catlin, E. H., lieutenant Second Artillery	2,593.40	.....
Cummins, A. S., lieutenant Fourth Artillery	2,436.40	.....
Cooke, G. F., lieutenant Fifteenth Infantry	9,642.76	19.00
Crawford, C., lieutenant Tenth Infantry	361.20	.....
Clark, S. E., captain Second Infantry	331.09	.....
Cochran, C. H., lieutenant Seventh Infantry	288.62	.....
Chynoweth, E., lieutenant Seventeenth Infantry	18,384.71	.....
Chatfield, W. H., lieutenant Eighteenth Infantry	2,817.85	.....
Clark, W. O., lieutenant Twelfth Infantry	2,216.61	.....
Clark, C. C., lieutenant Ninth Infantry	169.10	.....
Clay, T. J., lieutenant Tenth Infantry	700.15	.....
Clagett, J. R., lieutenant Twenty-third Infantry	423.70	.....
Chandler, E., lieutenant Sixteenth Infantry	1,221.50	.....
Cowles, W. H., lieutenant Sixteenth Infantry	5,457.83	11.33
Coates, E. M., major Nineteenth Infantry	525.50	937.65
Croxton, E. C., lieutenant Fifth Infantry	457.65	24.75
Carleton, G., lieutenant Second Cavalry	4,003.53	19,443.45
Clark, W. F., lieutenant Seventh Cavalry	93.75	106.25
Dandy, G. B., lieutenant-colonel and deputy quartermaster-general	325,088.05	86,690.34
Davis, R. P., lieutenant Second Artillery	17,042.43	2,392.51
Davison, L. P., lieutenant Eleventh Infantry	310.56	.....
Davis, T. F., lieutenant Fifteenth Infantry	406.58	.....
Devol, C. A., lieutenant Twenty-fifth Infantry	7,702.43	.....
Day, M. W., captain Ninth Cavalry	8,081.07	5,064.22
Dougherty, W. E., captain First Infantry	450.72	.....
Ducat, A. C., jr., lieutenant Twenty-fourth Infantry	1,503.00	.....
Daniel, L., lieutenant Sixth Cavalry	1,844.65	48.67
Dunn, B. W., lieutenant Ordnance Department	572.88	.....
Dyer, S. A., lieutenant Twenty-third Infantry	141.90	.....
Dean, J. T., lieutenant Third Infantry	768.72	43.40
Dravo, E. E., lieutenant Sixth Cavalry	.....	100.00
Evans, W. P., lieutenant Nineteenth Infantry	11,256.46	379.64
Edwards, F. A., captain First Cavalry	2,892.53	.....
Elting, O., captain Third Cavalry	763.82	.....
Eldridge, B., lieutenant Tenth Infantry	4,525.99	511.45
Emery, J. A., lieutenant Eleventh Infantry	3,199.32	614.51
Edwards, E. A., lieutenant Twenty-fifth Infantry	2,833.44	51.40
Foster, C. W., major and quartermaster	259,544.42	105,311.84
Furey, J. V., major and quartermaster	274,595.03	92,543.54
Forsyth, L. C., major and quartermaster	38,432.13	606.46
Floyd, D. H., captain and assistant quartermaster	213,455.58	18,117.03
French, F. H., lieutenant Nineteenth Infantry	738.59	.....

E.—Statement showing the amounts expended by officers of the Quartermaster's Department during the fiscal year 1891, etc.—Continued.

Name of officers.	Expenditures.	Balances.
Farnsworth, C. S., lieutenant Twenty-fifth Infantry.....	\$8,954.07	\$49.49
Flynn, W. F., lieutenant Eighth Cavalry	30,361.61	3,166.70
Fuller, E. B., lieutenant Seventh Cavalry	21,886.22	..
Poster, F. W., lieutenant Fifth Cavalry	35,524.16	4,757.75
Febiger, L., lieutenant Twenty-third Infantry	5,442.22	786.78
Finley, L., lieutenant Tenth Cavalry	3,758.19	..
Fenton, C. W., lieutenant Ninth Infantry	508.00	..
Poster, A. B., lieutenant Nineteenth Infantry	3,429.73	..
Farber, C. W., lieutenant Eighth Cavalry	7,151.79	..
French, J. T., Jr., lieutenant Fourth Artillery	226.09	..
Gurovits, O., lieutenant Eleventh Infantry	2,259.85	..
Grealish, M. J., captain Ordnance Department	2,952.88	111.57
Gorgas, W. C., captain Medical Department	876.85	..
Guard, A. Mc. C., lieutenant Nineteenth Infantry	482.56	..
Galbraith, J. G., lieutenant First Cavalry	9,658.12	..
Greene, L. D., lieutenant Seventh Infantry	6,031.36	..
George, C. P., lieutenant Eighth Infantry	14,921.70	420.68
Gallup, C. C., lieutenant Fifth Artillery	6,888.46	472.70
Gerlach, W., captain Third Infantry	1,419.49	349.50
Gatley, G. G., lieutenant Fifth Artillery	1,673.95	61.77
Geary, W., lieutenant Nineteenth Infantry	653.06	..
Getty, R. N., lieutenant Twenty-second Infantry	5,723.72	1,496.86
Hughes, W. B., lieutenant-colonel and deputy quartermaster-general	467,982.87	102,472.07
Humphrey, C. F., captain and assistant quartermaster	46,683.93	9,417.02
Hathaway, F. H., captain and assistant quartermaster	65,878.29	5,608.73
Haynsworth, H. J., captain and assistant quartermaster	34,540.07	242.78
Hoyt, G. S., captain and assistant quartermaster	13,879.04	587.48
Hyde, J. McB., captain and assistant quartermaster	38,675.94	2,914.52
Hull, G. A., captain and military storekeeper, Quartermaster's Department	25,231.49	..
Heath, F., captain Ordnance Department	28,888.89	..
Hinds, E., lieutenant Second Artillery	5,965.19	..
Humphrey, H. D., lieutenant Twentieth Infantry	1,131.08	35.64
Hale, H. C., lieutenant Twelfth Infantry	471.70	..
Hall, C. S., lieutenant Thirteenth Infantry	74.13	..
Hart, W. H., lieutenant Fourth Cavalry	593.08	..
Hersey, M. L., lieutenant Ninth Infantry	389.00	..
Hunter, A. M., lieutenant Fourth Artillery	296.25	..
Hutton, J. A., lieutenant Eighth Infantry	4,732.50	..
Howland, C., lieutenant Fourth Infantry	5,378.88	4,886.47
Hein, O. L., captain First Cavalry	461.50	..
Hubert, E., lieutenant Eighth Infantry	1,470.24	30.08
Hardin, C. B., lieutenant Eighteenth Infantry	1,126.28	..
Hovey, H. W., lieutenant Twenty-Fourth Infantry	1,876.20	315.34
Hobbs, C. W., lieutenant Third Artillery	..	723.76
Hornbrook, J. J., lieutenant Second Cavalry	..	179.19
Ingalls, C. K., captain and assistant quartermaster	89,526.65	591.87
Irwin, F. G., Jr., lieutenant Second Cavalry	1,077.75	..
Jacobs, J. W., captain and assistant quartermaster	130,083.03	26,693.22
Jones, F. B., captain and assistant quartermaster	44,544.13	1,427.50
Johnson, A., lieutenant Eleventh Infantry	64.38	..
Jones, S. R., captain Fourth Artillery	4,059.73	..
Johnson, F. O., lieutenant Third Cavalry	6,469.31	167.24
Jones, W. K., lieutenant Fourteenth Infantry	26.88	..
James, W. H. W., captain Twenty-fourth Infantry	1,065.96	..
Jervcy, H., lieutenant Engineer Corps	2,813.70	3,500.36
Kirk, E. B., major and quartermaster	219,316.64	109,465.48
Kimball, A. S., major and quartermaster	8,926.55	107,590.82
Kress, J. A., major Ordnance Department	48.00	..
Kingsbury, F. W., lieutenant Second Cavalry	5,687.85	..
Kirby, H., lieutenant Tenth Infantry	4,567.29	..
Krug, F. V., lieutenant Eighth Infantry	5,105.41	79.35
Kimball, W. A., lieutenant Fourteenth Infantry	1,560.48	172.36
Kirkman, G. W., lieutenant First Infantry	305.97	..
Koester, F. J., lieutenant Tenth Cavalry	271.90	..
Krayenbuhl, M. G., lieutenant First Artillery	5.25	..
Lee, J. G. C., major and quartermaster	12,851.13	15,221.68
Lord, J. H., major and quartermaster	231,296.98	40,200.62
Loveridge, E. L., lieutenant Eleventh Infantry	7,321.66	503.29
Lewis, E. M., lieutenant Eleventh Infantry	397.19	..
Lloyd, E., lieutenant Fifteenth Infantry	3,714.64	..
London, R., lieutenant Fifth Cavalry	2,825.50	..
Lacey, F. E., Jr., lieutenant Tenth Infantry	854.85	..
Logan, T. H., captain Fifth Infantry	807.00	..
Lassiter, W., lieutenant First Artillery	7,369.95	..
Leavell, B. W., lieutenant Twenty-fourth Infantry	696.95	..
Lyman, C. G., lieutenant Second Cavalry	5,497.02	..
Langhorne, G. T., lieutenant Third Cavalry	3,244.84	201.14
Lewis, T. J., lieutenant Second Cavalry	9,508.33	540.31
Ladd, E. F., lieutenant Ninth Cavalry	6,437.38	209.85

E.—Statement showing the amounts expended by officers of the Quartermaster's Department, during the fiscal year 1891, etc.—Continued.

Names of officers.	Expenditures.	Balances.
Littebrant, W. T., lieutenant Tenth Cavalry	\$5,894.41	\$2,906.41
Moore, J. M., lieutenant-colonel and deputy quartermaster-general	343,071.46	34,300.36
McGonnigle, A. J., major and quartermaster	37,378.25	3,748.86
Marshall, J. M., captain and assistant quartermaster	32,158.27	3,053.01
McCauley, C. A. H., captain and assistant quartermaster	209,710.28	78,623.19
Miller, C. P., captain and assistant quartermaster	190,279.99	.....
Miller, W. H., captain and assistant quartermaster	16,746.98	1,450.17
Morgan, A. S. M., captain Ordnance Department	880.23	54.27
Macklin, J. E., captain Eleventh Infantry	11,645.05	.....
Martin, M. C., lieutenant Twenty-second Infantry	38,602.61	.....
May, W. T., lieutenant Fifteenth Infantry	4,039.67	.....
Moon, H. B., Jr., lieutenant Twentieth Infantry	2,320.84	.....
Mosher, T., lieutenant Twenty-second Infantry	1,293.93	.....
Mann, W. A., lieutenant Seventeenth Infantry	53.10	.....
Mallory, J. S., lieutenant Second Infantry	84.00	.....
Miller, S. W., lieutenant Fifth Infantry	3,619.53	.....
Murphy, J., lieutenant Fourteenth Infantry	7,353.55	357.63
Mason, J. S., Jr., lieutenant First Infantry	768.70	.....
Mott, W., lieutenant Eighth Infantry	2,301.85	.....
Mercer, W. A., lieutenant Eighth Infantry	11,391.29	383.37
Maney, J. A., lieutenant Fifteenth Infantry	6,253.07	.....
McCarthy, D. E., lieutenant Twelfth Infantry	3,412.29	13.27
Miley, J. D., lieutenant Fifth Artillery	3,097.26	.....
Merillat, A. C., lieutenant Fifth Artillery	5.00	.....
McFarland, M., lieutenant Twenty-first Infantry	804.30	.....
Morgan, G. H., lieutenant Third Cavalry	325.22	.....
Mac Nutt, Ira, captain Ordnance Department	137.73	221.66
Niles, L., lieutenant Second Artillery	14,605.65	.....
Neall, J. M., lieutenant Fourth Cavalry	630.48	.....
Normoyle, J. E., lieutenant Twenty-third Infantry	1,052.00	47.89
Osgood, H. B., captain Substance Department	17,773.05	.....
Oyster, J. S., lieutenant First Artillery	9,512.06	.....
O'Brien, M. J., lieutenant Thirteenth Infantry	1,960.49	.....
O'Brien, J. J., lieutenant Fourth Infantry	12,220.84	330.51
O'Neil, J. P., lieutenant Fourteenth Infantry	583.08	.....
Perry, A. J., colonel and assistant quartermaster-general	42,099.87	55,665.19
Pond, G. E., captain and assistant quartermaster	83,285.41	10,489.29
Pullman, J. W., captain and assistant quartermaster	27,414.16	3,287.73
Pope, J. W., captain and assistant quartermaster	96,453.94	1,046.77
Palmer, G., lieutenant Ninth Infantry	8,819.16	727.44
Paxton, A. R., lieutenant Fifteenth Infantry	12,385.10	.....
Peiros, W. S., lieutenant Second Artillery	2,928.31	.....
Patterson, R. H., lieutenant First Artillery	12,709.10	31.31
Pitman, J., captain Ordnance Department	261.00	.....
Powell, P. F., lieutenant Ninth Cavalry	996.77	.....
Pendleton, E. P., lieutenant Twenty-third Infantry	184.55	.....
Palmer, A. M., lieutenant Twenty-fourth Infantry	8,021.43	.....
Post, J. C., major Engineer Corps	506.40	86.51
Fonney, C. G., captain Sixth Infantry	3,155.72	.....
Poore, B. A., lieutenant Twelfth Infantry	5,859.98	.....
Perry, J. A., lieutenant Tenth Infantry	2,722.25	.....
Plummer, E. H., lieutenant Tenth Infantry	68,087.48	.....
Fitcher, W. L., captain Eighth Infantry	3,861.84	.....
Robinson, A. G., lieutenant-colonel and deputy quartermaster-general	35,469.69	6,057.43
Rockwell, A. F., major and quartermaster	220,835.00	3,929.36
Ruhlen, G., captain and assistant quartermaster	8,992.92	61.52
Rockwell, J., Jr., captain Ordnance Department	3,262.04	63.60
Reilly, J. W., major Ordnance Department	581.12	.....
Rogers, J. S., lieutenant Twentieth Infantry	14,932.90	173.63
Rivers, T. R., lieutenant Third Cavalry	1,379.79	6.80
Robertson, E. B., captain Ninth Infantry	4,501.07	63.86
Rexford, W. H., major Ordnance Department	1,513.60	.....
Rowell, C. W., lieutenant Second Infantry	227.91	.....
Reilly, H. J., lieutenant Fifth Artillery	1,901.60	80.85
Robins, E. S., lieutenant Third Cavalry	1,410.00	.....
Rodgers, J. F., captain and military storekeeper, Quartermaster's Department	18,443.11	.....
Reichman, C., lieutenant Twenty-fourth Infantry	3,731.57	113.78
Roach, G. H., lieutenant Seventeenth Infantry	4,636.99	.....
Ripley, H. L., lieutenant Third Cavalry	535.15	148.75
Sawtelle, C. G., lieutenant-colonel and deputy quartermaster-general	559,486.03	31,485.22
Scully, J. W., major and quartermaster	81,930.29	11,766.90
Smith, G. C., major and quartermaster	168,038.21	38,218.32
Simpson, J., captain and assistant quartermaster	74,048.41	1,105.53
Summerhayes, J. W., captain and assistant quartermaster	101,904.59	5,095.06
Stevens, R. R., lieutenant Sixth Infantry	11,928.32	3,291.34
Smith, J. H., captain Nineteenth Infantry	100.65	.....
Smith, E. D., lieutenant Nineteenth Infantry	2,838.40	.....
Sharpe, A. C., lieutenant Twenty-second Infantry	3,080.18	1,084.42
Sickel, H. G., lieutenant Seventh Cavalry	2,044.25	

QUARTERMASTER-GENERAL.

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E.—Statement showing the amounts expended by officers of the Quartermaster's Department, during the fiscal year 1891, etc.—Continued.

Names of officers.	Expenditures.	Balances.
Scott, H. L., lieutenant Seventh Cavalry	\$7,921.30	\$5,876.68
Safford, M. B., lieutenant Thirteenth Infantry	13,466.18	287.19
Stevens, C. J., lieutenant Ninth Cavalry	1,359.66	.....
Sarson, H. R., captain Second Infantry	5,325.33	.....
Sample, W. R., lieutenant Fourteenth Infantry	3,070.16	.....
Starr, C. G., lieutenant First Infantry	16,569.55	453.08
Scott, G. L., lieutenant Sixth Cavalry	861.09	.....
Shollenberger, J. H., lieutenant Tenth Infantry	3,307.05	.....
Stotsenburg, J. M., lieutenant Sixth Cavalry	18,621.82	.....
Smith, W. H., lieutenant Tenth Cavalry	7,209.29	.....
Stottler, V. E., lieutenant Tenth Infantry	968.88	.....
Tompkins, C. H., colonel and assistant quartermaster-general	49,963.21	98,887.61
True, T. E., captain and assistant quartermaster	344,687.46	16,381.16
Turner, R. B., lieutenant Sixth Infantry	52,654.15	43,324.20
Torrey, Z. W., lieutenant Sixth Infantry	10,246.07	200.72
Taggart, E. F., lieutenant Sixth Infantry	617.58	.....
Taylor, C. W., lieutenant Ninth Cavalry	975.93	.....
Trout, H. G., lieutenant Ninth Cavalry	6,038.88	.....
Thurston, W. A., lieutenant Sixteenth Infantry	2,477.32	.....
Thompson, J. K., lieutenant Twenty-third Infantry	6,087.59	.....
Tayman, C. E., lieutenant Twenty-fourth Infantry	1,363.68	.....
Townsend, T. G., captain Sixth Infantry	1,109.19	.....
Tyson, L. D., lieutenant Ninth Infantry	7,901.54	.....
Thompson, C. B., lieutenant Fifth Infantry	1,176.34	.....
Townley, C. P., lieutenant Fourth Artillery	1,945.99	1,147.98
Tillson, J. C. F., lieutenant Fifth Infantry	167.63	.....
Turner, W. J., lieutenant Second Infantry	734.77	.....
Varney, A. L., captain Ordnance Department	2,196.05	.....
Vance, Z. B., jr., lieutenant Nineteenth Infantry	264.28	.....
Von Schrader, F., lieutenant Twelfth Infantry	870.71	.....
Vodges, C. B., lieutenant First Infantry	2,626.45	12.82
Weeks, G. H., lieutenant-colonel and deputy quartermaster-general	197,303.96	57,391.71
Williams, C. W., captain and assistant quartermaster	49,296.34	502.63
Wheeler, D. D., captain and assistant quartermaster	144,851.28	.....
Weston, J. F., captain Subsistence Department	4,405.59	.....
Wilson, J. L., lieutenant Fourth Artillery	1,386.29	.....
Woodward, C. G., lieutenant Third Artillery	5,145.41	158.94
Webster, F. D., lieutenant Sixth Infantry	14,813.64	.....
West, B. K., lieutenant Sixth Cavalry	5,084.83	.....
Williams, A., lieutenant Third Infantry	20,649.03	364.84
Wood, P. G., lieutenant Twelfth Infantry	25,813.38	.....
Wilhelm, W. H., lieutenant Tenth Infantry	153.65	.....
Waterbury, W. M., captain Thirteenth Infantry	132.16	.....
Woodbury, T. C., captain Sixteenth Infantry	5,455.65	.....
Wood, W. T., lieutenant Eighteenth Infantry	8,864.63	.....
Wheeler, W. B., captain Eighteenth Infantry	649.05	.....
Walsh, R. D., lieutenant Fourth Cavalry	13,738.82	248.16
Wever, B. S., lieutenant First Infantry	893.75	.....
Wotherspoon, W. W., lieutenant Twelfth Infantry	2,994.31	2,680.09
Wilson, J. E., lieutenant Eleventh Infantry	406.30	.....
Waring, J. K., captain Second Infantry	3,966.24	.....
Winn, F. L., lieutenant First Infantry	155.16	.....
Witherell, C. T., captain Nineteenth Infantry	406.30	.....
Waltz, M. F., lieutenant Twelfth Infantry	1,105.53	53.19
Wills, J. H., lieutenant Twelfth Infantry	4,400.47	155.50
Warwick, O. B., lieutenant Eighteenth Infantry	681.60	344.04
Weaver, E. M., lieutenant Second Artillery .....	.....	232.36
Yeatman, R. T., lieutenant Fourteenth Infantry	25.17	.....
Zinn, G. A., lieutenant Engineer Corps	7,519.09	.....
Zalinski, M. G., lieutenant Second Artillery	664.49	.....
Total	8,139,312.85	1,428,678.05

4.

WAR DEPARTMENT,
QUARTERMASTER GENERAL'S OFFICE,
Washington, D. C., September 4, 1891.

Report of Lieut. Col. M. I. Ludington, Deputy Quartermaster-General U. S. Army, of the clothing and equipage returns, Branch C, for the fiscal year ending June 30, 1891.

In this branch returns of clothing and equipage are received, registered, and examined. After examination and the correction of errors they are forwarded to the Second Auditor of the Treasury for final settlement.

There were employed during the year nine clerks. The amount of work done in the branch is shown by the following statement:

Work done in Branch C during fiscal year ending June 30, 1891.

Returns on hand June 30, 1890.....	1, 436
Returns received during fiscal year.....	3, 949
	5, 385
Returns examined during fiscal year.....	3, 912
Returns on hand for examination June 30, 1891	1, 473
	6, 169
Letters and indorsements written.....	597
Letters and indorsements recorded	1, 572
Auditor's settlements registered.....	29, 435
Transfers of clothing and equipage verified	1, 622
Sales verified	

Respectfully submitted.

M. I. LUDINGTON,
Deputy Quartermaster-General, U. S. Army.

5.

WAR DEPARTMENT,
QUARTERMASTER-GENERAL'S OFFICE,
September 1, 1891.

SIR: I have the honor to submit the annual report of the clothing and equipage supply branch for the fiscal year ending June 30, 1891.

GENERAL DUTIES.

This branch of the office transacts the business of procuring and issuing to the Army of the United States, and to the militia of the several States and Territories, the clothing and equipage, in accordance with existing laws and regulations.

Such articles of clothing as overcoats, dress coats, blouses, trousers of all kinds, fatigue and summer coats, overalls, stable frocks, dark-blue flannel shirts and drawers are manufactured at the general depots at Philadelphia, Pa., Jeffersonville, Ind., and San Francisco, Cal., from materials purchased under contracts.

The materials are cut at the depots referred to and are given out to tailors and sewing women to be made up into garments.

All the tents required for the Army are manufactured at the Philadelphia depot.

The greater portion of the boots and shoes, as well as the corn brooms (except those required for the Division of the Pacific) and barrack chairs needed for the Army, are manufactured at the United States Military Prison at Fort Leavenworth, Kans., from materials purchased by the commandant of the said prison by contract, after advertisement, from the lowest responsible bidders.

The system adopted by this Department of manufacturing the tents and principal articles of clothing, as above indicated, has proved to be to the best interests of the service, as the work is done under the direct supervision of the officers of the manufacturing depots, thereby insuring satisfactory workmanship.

All other articles of clothing and equipage not enumerated above were purchased under contracts at the general depots of the Quartermaster's Department.

By reference to the accompanying statement, A, all the articles of clothing and equipage purchased and manufactured during the last fiscal year may be ascertained.

RECEIPTS AND EXPENDITURES.

The annual appropriation by Congress for the purchase and manufacture of clothing and equipage; for packing the same for transportation; pay of employes connected with the inspection, preservation, and shipment of supplies; civilian instructors at the United States military prison at Fort Leavenworth, Kans., and all other incidental expenses connected with the supply of clothing and equipage for the Army, amounted to the sum of \$1,150,000. In addition to this sum there was appropriated by Congress (act of March 3, 1891) the further sum of \$187,702.18 on account of deficiencies created by the very large demands occasioned by the Sioux Indian campaign last winter. There were placed to the credit of the appropriation the sums of \$166,035.26 on account of issues of clothing and equipage to the militia, and \$61,664.13 from sales to officers, collections by Pay Department on account of clothing drawn by the enlisted men in excess of allowances, and from miscellaneous sources, making a total of \$1,565,401.57.

The total expenditures amounted to \$1,489,011.31, leaving a balance in the Treasury on the 30th of June last of \$76,390.26, all of which, together with credits yet to be received from collections by the Pay Department, will be needed to meet outstanding indebtedness. The sum of \$10,058.49 remained due at the close of the fiscal year on account of issues to the militia, which, however, has since been placed to the credit of the appropriation.

The accompanying statement, B, shows the receipts and expenditures in a tabulated form.

The following is a statement showing the remittances made on account of clothing and equipage during the last fiscal year:

Division of the Atlantic.....	\$688. 00
Division of the Missouri.....	5, 208. 33
Department of the Missouri.....	33. 50
Department of Texas.....	41. 00
Department of the Platte.....	1, 050. 00
Department of Dakota.....	3, 116. 90
Department of California.....	122. 00
Department of the Columbia.....	31. 00
Department of Arizona.....	68. 00
New York Depot.....	40. 00

Philadelphia Depot	\$1,089,827.05
Jeffersonville Depot.....	133,648.04
St. Louis Depot.....	11,191.78
San Francisco Depot.....	179,494.42
Columbus Barracks	11.50
Willetts Point.....	12.00
Fort Leavenworth.....	64,411.73
To other officers	16.06
Total.....	1,489,011.31

ISSUES TO THE ARMY.

The accompanying statement, A, shows the quantity of each article of clothing and equipage issued to the Army.

All the estimates for supplies received at this office have been filled with promptness and dispatch, so far as the limited working stock would permit.

During the last winter's campaign against the hostile Sioux the resources of the supply depots were severely taxed to meet the urgent needs for tents and extra warm clothing, such as blanket-lined overcoats, blanket-lined caps, fur caps, and gauntlets.

Reports of officers, received since the close of operations, show that the supplies were promptly received in the field and gave good satisfaction.

ISSUES TO THE MILITIA.

The following is a statement of the value of the articles of clothing and equipage, regular supplies, and means of transportation comprising the issues to the militia under the act of Congress amending section 1661 of the Revised Statutes:

States and Territories.	Clothing and equipage.	Regular supplies.	Transportation.
Alabama	\$3,199.29		
Arizona	2,187.28		
Connecticut	5,347.52		
Delaware	2,533.16		
District of Columbia	36.00	\$30.46	
Idaho	4,397.86		
Illinois	16,604.34		
Indiana	7,096.46		
Iowa	97.96		
Kansas	8,072.61		
Kentucky	10,345.00		
Louisiana	3,594.77		
Maine	2,460.71		
Maryland	9,877.31		
Massachusetts	5,785.18		
Michigan	5,698.84		\$243.90
Mississippi	4,558.11		
Minnesota	3,497.53		
Missouri	15,818.67	106.78	
Nevada	1,864.62		
New Hampshire	2,818.22		
New Jersey	1,434.01		
North Carolina	8,513.28		
North Dakota	602.49		
Ohio	19,349.24		
South Carolina	5,500.31		
South Dakota	3,105.45		
Tennessee	4,183.30		
Texas	654.49		
Vermont	644.66		
Virginia	3,625.39		
West Virginia	5,193.31		
Wyoming	6,514.19		
Total.....	175,211.56	137.24	243.90

The cost of packing the clothing and equipage supplies, which is included in the foregoing statement, amounted to \$2,175.45.

The value of the clothing issued to the State of Maine during the past fiscal year under the special acts of Congress, approved May 14 and August 30, 1890, amounted to \$882.19, and this amount has been duly placed on the books of the Treasury to the credit of the appropriation.

There is now on the statute books a law (act of March 1, 1889) which authorizes the issue to the militia of the District of Columbia of quartermaster's and other stores purchased from the appropriations for the support of the Army.

The following is a statement showing the value of the property issued to the militia of the District of Columbia without reimbursement to this Department since the reorganization of said militia:

1889. Clothing and equipage (joint resolution of July 23, 1888).....	\$28,961.01
Clothing and equipage (act of March 1, 1889)	20,417.11
1890. Clothing and equipage (act of March 1, 1889)	18,132.08
Stores (act of March 1, 1889)	1,995.14
1891. Stores (act of March 1, 1889)	886.48
Clothing and equipage (act of March 1, 1889)	7,765.54
Grand total	78,157.36

In view of the limited appropriations for clothing the Army it is thought that no more such issues should be made unless Congress shall appropriate funds to replace the supplies.

ISSUES TO INDIAN PRISONERS.

There were purchased during the last fiscal year for the Indian prisoners of war confined at Mount Vernon Barracks, Alabama, clothing and equipage supplies to the value of \$5,640.35. There were also issued to them from the stock on hand at the general depots articles to the value of \$1,956.57.

None of these amounts have been reimbursed to the appropriation for clothing the Army.

THE FORT LEAVENWORTH MILITARY PRISON.

The following articles of clothing and equipage for supply of the Army were manufactured during the last fiscal year for the quartermaster's department at the military prison at Fort Leavenworth, Kans., from materials purchased under contract, at a cost of \$65,047.20; or, adding the value of prison labor (\$7,039.25), at a total cost of \$72,086.54, viz:

Articles.	Number.	Material.	Prison labor.	Civilian labor.	Royalty.	Total.
Boots:						
Mounted, partly machine-sewed bottoms	3,413	\$10,275.00	\$1,132.96	\$328.50	\$110.98	\$11,847.44
Mounted, partly machine-sewed bottoms, viscolized leather, pairs	151	472.86	60.50	19.20	4.90	557.46
Brass-screwed	129	350.74	26.75	16.36	.33	394.18
Shoes:						
Campaign, partly machine-sewed bottoms	24,560	43,290.13	4,588.04	2,476.51	796.50	51,151.18
Campaign, partly machine-sewed bottoms, viscolized leather	366	726.85	88.00	46.53	11.85	873.23
Post, partly machine-sewed bottoms	25	54.54	5.00	2.15	.83	62.52
Post, brass-screwed	25	49.69	2.50	2.15	.06	54.40
Brass-screwed, old pattern	1	1.53	.25	.08	.....	1.86
Corn brooms	13,981	1,459.58	491.25	.....	.....	1,950.83
Barrack chairs:						
Vulcanized fiber seats	2,534	2,871.19	324.54	.....	.....	3,195.73
Perforated veneer seats	2,487	1,678.25	319.46	.....	.....	1,997.71
Total		61,230.36	7,039.25	2,891.48	925.45	72,086.54

There were also manufactured at the Fort Leavenworth Military Prison, for the Commissary Department of the Army, during the last fiscal year, 10,686 large and small whisk brooms, at a total cost of \$573.29, for which the appropriation has been reimbursed.

There was realized at the Fort Leavenworth Military Prison during the last fiscal year, from the sale of scrap leather, the sum of \$1,152.66, all of which had to be covered into the Treasury of the United States, and could not be used again.

The following is a statement of the quantities of clothing and equipage that were turned over to the Military Prison at Fort Leavenworth, Kans., during the last fiscal year, amounting in value to \$1,031.73, for which the Department will not be reimbursed, viz:

Articles.	No.	Price.	Amount.
Shoes:			
Campaign.....pairs..	232	\$1.98	\$710.82
Campaign, viscolized leather.....do..	14	2.39	53.46
Brass-screwed.....do..	23	1.63	37.49
Boots:			
Brass-screwed.....do..	1	2.29	2.29
Cavalry.....do..	18	3.23	58.14
Cavalry viscolized leather.....do..	1	3.69	3.69
Corn brooms.....	1,032	.12	123.84
Screws.....gross..	62	1.00	62.00
Total			1,031.73

CLOTHING FOR MILITARY PRISONERS AT ALCATRAZ ISLAND, CALIFORNIA.

The War Department having directed that the prisoners confined at the Alcatraz Island Military Prison be clothed in the same manner as those at the military prison at Fort Leavenworth, Kans., there were purchased from the clothing appropriation the necessary materials required in the manufacture of the following garments, amounting in value to \$780.87, exclusive of prison labor, which the prison authorities estimate at \$223.25, viz:

Articles.	No.	Materials.	Cost (labor).	Total.
Coats.....	140	\$208.06	\$70.00	\$278.06
Shirts.....	170	222.66	17.00	239.66
Trousers, pairs.....	177	188.20	88.50	276.70
Drawers, pairs.....	154	35.13	13.00	48.13
Stockings, wool, pairs.....	300	94.00	24.75	118.75
Overalls, pairs.....	100	32.82	10.00	42.82
Total		780.87	223.25	1,004.12

COLLECTIONS BY PAY DEPARTMENT.

It appears, from a statement of the Paymaster-General, U. S. Army, that the collections from the enlisted men by the Pay Department during the last fiscal year on account of clothing drawn in excess of regulation allowances amounted to the sum of \$98,418.30, while the sum of \$269,359.06 was paid to the enlisted men during the same period for clothing undrawn.

Said collections in 1887 amounted to the sum of \$135,068.06. It will be seen that there has been a considerable falling off in these collec-

tions, which demonstrates the advantage to the enlisted men serving their first year's enlistment, of changing the method of settling their clothing accounts, as inaugurated last year.

Formerly the recruits were, in most instances, compelled to overdraw their allowance during the first six months. By giving these men during this period about two-thirds, and during the second six months the other third of the first year's allowance, they were thus enabled to draw from the Pay Department nearly their entire pay, thereby making them more content. It further shows that the quantities of clothing allowed to the men are fully ample for the needs of the service.

SALES TO THE NAVY DEPARTMENT AND MARINE CORPS.

There were sold during the last fiscal year to the Navy Department, for cash, at a total cost of \$875.94, 998 rubber blankets, from surplus stock on hand; and to the United States Marine Corps, 1,000 pairs Berlin gloves and 58 yards kersey, finer quality, at a total cost of \$212.96.

SALES OF CONDEMNED CLOTHING.

There were sold at auction during the last fiscal year, at the general depots at Philadelphia, Pa., Jeffersonville, Ind., San Francisco, Cal., St. Louis, Mo., and the Fort Leavenworth military prison, condemned clothing, equipage, and materials, including cuttings, etc., to the amount of \$16,324.58, which was covered into the Treasury to the credit of miscellaneous receipts.

* RUBBER BLANKETS, PONCHOS, AND OVERCOATS.

The supply of rubber blankets left in store at the close of the late war has become exhausted. There were on hand at the close of the last fiscal year about 10,000 rubber ponchos, which are being issued to troops of all arms of the service, without charge, as heretofore authorized by the Secretary of War.

Reports regarding the 300 rubber overcoats procured and sent out for trial by troops, as indicated in the annual report of the clothing, supply branch for the previous fiscal year, have been received. It would seem that they have not proved entirely satisfactory, especially to the cavalry arm of the service.

TRUMPETS AND BUGLES.

The subject of providing a suitable trumpet will, it is thought, soon be determined. It has been reported that a G trumpet, with an F slide and a detachable F crook, is the best adapted for all arms of the service, except for light artillery, for which a small Bb brass bugle has been suggested as being more suitable. Several of these bugles have been procured and issued for trial; but reports thus far received differ, and it having been suggested that an Ab trumpet would be still better adapted than the Bb bugle, a sample has been purchased and is now on trial in one of the light batteries. It is hoped that a final conclusion will soon be arrived at.

BLANKET-LINED OVERCOATS.

During the last winter campaign an opportunity presented itself to thoroughly try the canvas blanket-lined overcoat adopted as a substi-

tute for the buffalo overcoat. It has been found superior to the latter. It is equally as warm, and not as liable to absorb and retain the water as the pelt or fur.

WOOLEN SOCK-TOPPED BOOTS.

There were purchased for the troops concentrated about the Pine Ridge and Rosebud agencies during last winter 5,000 pairs woollen sock-topped boots, at a cost of \$1.04 per pair. They were issued for wear by such troops as were exposed to severe cold, and are reported to have given satisfaction.

STANDARD SAMPLES OF CLOTHING FOR OFFICERS.

During the past fiscal year the necessary standard samples of uniform clothing for officers of the Army, to complete the records of this office, were procured.

MUSLIN AND SUMMER UNDERSHIRTS.

The muslin and summer undershirts issued for trial by troops stationed in hot climates have given great satisfaction, so much so that it has been determined to procure another supply.

BOOTS AND SHOES.

The Department is still engaged in experimenting, with a view to improve the boots and shoes for the enlisted men of the Army.

The question of what particular kinds are best adapted for the Army is quite a difficult one to solve, and is now being studied.

BARRACK CHAIRS.

Reports from the Army having shown that the barrack chairs require further strengthening, authority has been given to the commandant of the Fort Leavenworth military prison to provide additional iron rods by which the front is more securely fastened to the back of the chair. It is believed that a pattern possessing greater strength and being less costly than the present standard can be obtained. Efforts will be made to procure such pattern.

TENTS.

From the various requisitions received at this office during the last fiscal year, it has been observed that the tendency of the Army is towards the conical wall tent for use of the enlisted men, instead of the common tent. There will be no objections to furnishing these tents after the common tents now in use shall have become unserviceable.

In November last Capt. G. A. Hull, U. S. Army (since retired), submitted to this office the model of a shelter tent which he considered an improvement upon the one heretofore in use.

Each shelter tent half is provided with a flap, and by buttoning two halves together the tent will be closed on one side, thereby giving the occupants partial protection from wind and rain. By buttoning four halves together quite a roomy tent, closed on both sides and affording a perfect protection against inclement weather, is had.

The equipment board of this office having carefully examined into the merits of the same, recommended its adoption in lieu of the shelter tent formerly in use, and orders have been given to manufacture 2,000 for issue.

CLERICAL WORK.

The nature of the clerical work of this branch of the office requires that it be continually kept up to date. The clerical force proper consists of four clerks.

CONCLUSION.

In closing this report the attention of the quartermaster-general is respectfully invited to the accompanying detailed statements, viz:

A.—Statement showing articles of clothing, equipage, and materials on hand at the issuing depots of the Quartermaster's Department June 30, 1890; the quantities purchased, manufactured, received from posts and depots, taken up, sold, transferred to general depots, expended, issued to the Army and the militia, and the quantities remaining in depot June 30, 1891.

B.—Statement of amounts received and remitted on account of clothing and equipage during the fiscal year ending June 30, 1891.

Very respectfully,

M. I. LUDINGTON,
Deputy Quartermaster-General, U. S. Army.

A.—Statement showing articles of clothing and equipage and material on hand at the issuing depots of the Quartermaster's Department June 30, 1890, the quantities purchased, manufactured, received from posts and depots, taken up, sold, transferred to general depots, expended, issued to the Army and the militia, and the quantities remaining in depots June 30, 1891.

Articles.	On hand June 30, 1890.	Pur- chased.	Manu- fac- tured.	Received from general depots.	Received from posts.	Gained.	Total received.	Sold.	Trans- ferred to general depots.	Expended or dropped.	Issued to the militia.	Issued to the Army.	Total issued.	Remain- ing on hand June 30, 1891.
Helmets:														
Untrimmed number..	4,093	12,000	.....	7,893	121	.....	24,107	111	7,998	1	2,762	6,110	16,982	7,125
Cork do.....	1,288	16,485	.....	5,423	649	.....	23,845	192	5,420	.....	8,859	4,845	19,326	4,519
Helmet hair plumes do.....	3,656	5,967	.....	3,303	87	.....	13,013	934	3,205	2	452	1,850	6,452	6,561
cords and bands do.....	6,178	3,977	.....	1,890	36	.....	12,081	1,012	1,885	2	404	1,969	5,272	6,809
top bases do.....	20,915	.....	.....	4,000	65	10	24,990	48	4,000	1	2,969	4,034	11,052	13,938
plume sockets do.....	8,441	998	.....	1,550	65	.....	11,054	129	750	3	486	2,245	3,613	7,441
spikes do.....	11,486	2,000	.....	2,400	72	.....	15,958	18	2,400	.....	2,628	2,839	7,885	8,073
eagles do.....	20,126	3,893	.....	3,300	216	.....	27,540	129	3,300	10	2,786	4,217	10,442	17,098
scrolls and rings do.....	24,805	.....	.....	2,400	4	.....	27,209	.....	3,400	2	608	2,216	6,226	20,983
side buttons do.....	45,896	16,893	.....	7,610	306	.....	70,705	3,639	10,110	3	5,909	7,388	27,049	43,656
numbers do.....	92,530	.....	.....	13,000	2,131	.....	107,661	2	11,500	12	1,964	6,104	19,582	88,079
devices do.....	7,785	977	.....	256	138	.....	9,156	990	258	4	62	1,075	2,389	6,767
chin straps do.....	.....	.....	.....	.....	.....	41	41	41	.....	.....	.....	.....	41	.....
Forage caps do.....	19,857	35,011	.....	20,448	717	.....	76,033	594	19,750	11	9,921	28,417	58,693	17,340
Fur caps do.....	6,572	8,332	.....	2,943	99	.....	17,946	139	4,213	500	.....	7,373	12,225	5,721
Canvas caps do.....	4,334	.....	1,590	781	463	.....	7,118	18	830	.....	1	2,014	2,863	4,255
Campaign hats do.....	19,484	27,162	.....	17,004	366	.....	64,016	43	18,831	1	2,333	18,085	39,293	24,723
cords and tassels do.....	26,583	977	.....	834	1,088	.....	29,482	553	834	1	125	1,581	3,094	26,388
Forage cap crossed do.....	5,648	5,000	.....	1,200	439	.....	12,284	51	1,200	7	319	2,147	3,724	8,563
sabers do.....	5,891	5,000	.....	3,800	4	.....	14,695	8	3,800	6	340	3,442	7,596	7,099
rifles do.....	7,831	25,000	.....	4,000	268	.....	37,099	3	3,000	6	6,795	5,899	15,203	21,896
bustles do.....	729	.....	.....	8	19	27	783	82	22	4	100	479	687	96
shells and flames do.....	453	2,034	.....	113	30	.....	2,630	4	100	1	6	164	275	2,355
crescents do.....	627	2,500	.....	64	22	.....	3,218	547	50	.....	6	57	660	2,553
wreaths do.....	1,451	100	.....	1	51	.....	1,603	33	104	.....	18	213	368	1,235
bugles do.....	31,618	.....	.....	.....	142	.....	31,760	21	.....	.....	17	272	310	31,450
numbers do.....	164,830	.....	.....	8,000	5,723	.....	178,553	404	8,000	201	22,845	13,365	44,815	133,738
lyres do.....	2,857	1,500	.....	60	60	.....	4,417	1	.....	.....	462	208	671	3,746
letters do.....	173,930	.....	.....	2,000	3,434	.....	179,364	62	2,000	159	41,895	17,745	61,861	117,503
Overcoats:														
Kersey, made do.....	10,626	.....	11,980	3,018	386	.....	26,010	100	3,011	1	1,306	8,011	12,429	13,581
unmade do.....	2,253	.....	391	616	368	.....	3,623	21	617	551	.....	780	1,969	1,654
Buffalo do.....	4,225	.....	.....	.....	683	.....	1,108	11	.....	.....	.....	414	425	683
Rubber do.....	124	.....	.....	.....	50	.....	174	.....	.....	.....	.....	170	170	4
Canvas, blanket-lined do.....	2,566	.....	1,723	818	1,679	.....	6,786	25	818	.....	1	8,822	4,666	2,120
Cape linings do.....	45	.....	772	29	8	73	927	89	29	4	100	704	926	1
Uniform dress coats:														
Musicians', made do.....	1,196	.....	832	100	79	.....	2,207	229	100	.....	56	183	568	1,639
unmade do.....	.....	.....	23	.....	20	.....	43	.....	.....	20	.....	23	43	.....

Noncommissioned staff and privates made.....number.....	7,902		8,345	1,316	801		18,364	1,779	1,322	1	1,136	4,166	8,404	9,960
unmade.....do.....	1,329		377	652	970		4,328	78	653	751		635	2,117	2,211
Blouses:														
Made.....do.....	14,194		23,498	6,830	1,163	6	45,691	188	7,362		9,515	16,315	33,380	12,311
Unmade.....do.....	3,740		19,421	10,784	434	1	34,380	70	10,803	1,131	201	17,002	29,207	5,173
Canvas fatigue coats.....do.....	17,070		17,174	3,035	1,330		38,609	49	2,438		76	16,677	17,640	20,969
Summer sack coats.....do.....	691		2,066		748		3,505					2,091	2,091	1,414
Linen collars.....do.....	87,861	124,980		42,980	888		250,709	524	42,980		60	49,023	92,587	104,122
Stable frocks.....do.....	10,192		3,811	5,361	1,351		20,715	62	5,111		20	3,679	8,872	11,843
Overalls:														
Mounted.....pairs.....	10,141		12,122	3,969	3,231		29,463	48	6,677		21	6,998	13,744	15,719
Engineers.....do.....	566				15		581							581
Summer.....do.....					480		480							480
Trousers:														
Summer.....do.....	1,348		1,537		445		3,330					2,204	2,204	1,126
Mounted, made.....do.....	19,175		10,149	6,027	534		35,885	167	5,657		603	8,801	15,128	20,757
unmade.....do.....	5,881		10,683	7,361	266		24,191	109	5,295	1,331		10,123	16,858	7,333
Foot, made.....do.....	18,210		28,622	10,351	1,087		58,270	771	9,605	4	7,289	21,880	39,549	15,721
unmade.....do.....	7,600		13,923	4,513	794		26,830	65	4,560	802		672	13,717	7,014
Canvas fatigue.....do.....	16,586		17,414	3,471	1,247	6	38,724	49	2,800		26	16,566	19,441	19,283
Linen.....do.....	519		34	598	182		1,333		103		4	257	364	969
Leggins, canvas.....do.....	4,690	21,096		9,391	150		35,327	27	8,560		11,738	9,324	29,649	5,678
Lacings for leggins.....do.....	144				350		144			144			144	
Suspenders.....do.....	27,359	22,680		2,900	350		53,289	549	4,400		12	9,613	14,574	38,715
Shirts:														
Flannel, dark blue, made.....number.....	59,085		17,530	5,500	1,810		83,925	54	5,500	1	60	25,044	30,659	53,266
unmade.....do.....	2,341		23	2,410	143		4,917	7	2,410	2,441		31	4,889	28
Undershirts, knit.....do.....	56,041	60,204		30,050	1,645		147,940	371	29,000			43,565	72,940	75,000
Shirts, muslin.....do.....	1,643	7,124			8,767		25			6		5,631	5,662	3,105
Drawers, Canton flannel.....pairs.....	49,604		55,237	24,300	1,290	236	130,697	71	24,300			57,252	81,623	49,044
Stockings:														
Woolen.....do.....	41,425	161,766		68,400	458		272,049	200	68,400			101,852	170,452	101,597
Cotton.....do.....	53,269	220,160		121,451	1,507		396,387	3,576	121,951			141,247	266,774	129,613
Gloves, white, Berlin.....number.....	68,751	680,216		497,000	5,512	1	1,251,480	4,585	528,260		8,388	292,542	833,775	417,705
Mittens:														
Woolen.....do.....	11,340	4,998			774		17,112	242				5,551	5,793	11,319
Canvas.....do.....	6,027		5,300	500	531		12,358		500			2,217	2,717	9,641
Gauntlets:														
Fur.....do.....	5,331	9,078		4,553	94		19,056	142	4,553	1		9,091	13,787	5,269
Leather.....do.....	10,445	8,276		4,474	657		23,852	47	4,952	1	104	9,319	14,423	9,429
Boots:														
Brass screwed.....do.....	8,261		129	411	1,064		9,865	16	402			874	1,292	8,573
Sewed.....do.....	15,193	59	3,564	3,824	4,446		27,086	11	4,724	2	5	5,091	9,833	17,253
Woolen sock top.....do.....		5,000					5,000					5,000	5,000	
Shoes:														
Brass screwed.....do.....	9,688		1	50	2,149		11,838	38	50			478	561	11,327
Post.....do.....	979		59		1,482		2,511	1,181		13		151	1,345	1,166
Field.....do.....	3,306				2,337		5,643	281				308	584	5,059
Campaign.....do.....	62,911	1,009	24,928	20,430	9,398		118,667	27	27,055	3		34,522	61,607	57,060
Overshoes, arctic.....do.....	5,542	9,996		5,020	784		21,344	260	5,099	4		8,033	13,387	7,957
Barrack shoes.....do.....	2,512	30,228		22,201	187		55,127	33	21,501			28,856	45,395	9,732

A.—Statement showing articles of clothing and equipage and material on hand at the issuing depots of the Quartermaster's Department, etc.—Continued.

Articles.	On hand June 30, 1890.	Pur- chased.	Manu- fac- tured.	Received from general depots.	Received from posts.	Gained.	Total received.	Sold.	Trans- ferred to general depots.	Expended or dropped.	Issued to the militia.	Issued to the Army.	Total issued.	Remain- ing on hand June 30, 1891.
Blankets:														
Wool.....number..	9,025	22,976		8,250	208		40,459	28	9,500	368	2,717	17,277	29,890	10,569
Rubber.....do.....	10,200			3,361	119	94	13,774	2,765	4,361		686	5,001	12,813	961
Ponchos, rubber.....do.....	14,336					8	14,344	1,109		1	183	2,571	3,864	10,480
Chevrons:														
Gold lace.....pairs..	4,004		2,432	19	2,427		8,882	150	19		1,167	2,231	3,567	5,315
Cloth.....do.....	7,448		18,636	6,936	1,565	453	35,038	1,867	6,761	1	4,490	8,604	21,723	13,315
Brassards.....number..	88		1,477		80		1,645				48	1,362	1,410	235
Aiguillettes and shoulder knots.....do.....	692	150			31		873				213	203	416	457
Hospital Corps devices.....do.....	38			10	3		51		2			42	44	7
Trouser stripes:														
Noncommissioned staff.....pairs..	369		462	125	61		1,017		131		29	574	734	283
Sergeants.....do.....	3,277		4,964	1,456	146		9,843	445	1,453		1,447	4,603	7,948	1,895
Corporals.....do.....	3,491		9,559	3,928	391	803	18,170	1,196	3,533		1,702	8,141	14,572	8,598
Officers.....do.....	59		872				931	869			7	20	896	35
Hospital Corps.....do.....					15		15					10	10	5
Facings for dress coats.....sets..	6,605		1,274	745	1,957	384	11,055	3,590	702	1	384	873	5,500	5,555
Blouse trimmings.....do.....			257				257	2			254	1	257	
Trouser trimmings.....do.....			746				746	37			704	5	746	
Bar rack bags.....number..	1,122		4,366	2,150	315		7,953	11	1,880			4,103	5,994	1,959
Bunks, iron.....do.....	1,574				2,819		4,393	629		7		1,846	2,482	1,911
Bunk slats.....do.....	614				18		632						632	
bottoms, woven wire.....do.....	2,112	2,000		1,900	2,902		8,914	1,699	1,600			2,338	5,637	3,277
Iron bedsteads with bunk bottoms														
number.....	709	1,999		120	108		2,936	13	170		200	2,551	2,934	2
Mattresses.....do.....	4,998	3,000		1,300	149		9,447	33	1,300		250	2,834	4,417	5,030
Mattress covers.....do.....	16,143		2,100	241			18,484	10	2,100			6,608	8,718	9,766
Pillows.....do.....	1,510	8,500	3,500	195			13,705	28	3,000		50	4,129	7,207	6,498
Pillowcases.....do.....	2,439	26,122	12,255	15,250	115		56,181	236	15,450		50	25,932	41,668	14,513
Pillow sacks.....do.....	2,081		400	452			2,933		400	163	200	129	892	2,041
Bed sacks.....do.....	2,313		2,702	1,000	596		6,611	407	1,000		750	3,413	5,570	1,041
Bed sheets.....do.....	14,089	11,961	1,000	4,000	996		32,046	132	3,500		50	15,199	18,881	13,165
Mosquito bars.....do.....	8,274		3,000	341			11,615	21	3,000			5,473	8,494	3,121
Mosquito head nets.....do.....	774			20			794	3				211	214	580
Pots, iron.....do.....	877			60			937				2	15	17	
Kettles, camp.....do.....	1,467	3,700		10	71		5,248	25		5	98	1,298	1,426	3,822
Pans, mess.....do.....	49,586		600	27	283		50,496	10	600	1	74	1,602	2,287	48,209
Axes.....do.....	1,263	5,998		63			9,374	1	2,050	7	79	3,455	5,592	3,782
Ax helves.....do.....	2,331	15,501		4,950	249		23,031	1	4,950	27	79	8,627	13,684	9,847
Ax slings.....do.....	816			176			992				6	26	32	960
Hatchets.....do.....	13,423	981		1,500	4	9	15,917	17	1,500	18	25	1,696	8,256	12,661

Hatchet helves.....do.....	10,093	2,000	2,000	110	14,203	54	2,000	29	25	3,215	5,323	8,880
Hatchet slings.....do.....	891			47	938				12	11	23	915
Spades.....do.....	12,452	250		39	12,741	2		17	119	940	1,078	11,563
Spade helves.....do.....	47				47			6			6	41
slings.....do.....	54	100	20	45	219	15	20		6	12	53	166
Shovels.....do.....	2,338	3,198	1,150	104	6,790	10	1,150	7	31	2,286	3,484	3,306
Shovel handles.....do.....	56			21	77							77
Pickaxes.....do.....	5,991	500	350	22	6,952	6	350		76	1,201	1,633	5,319
Pickax helves.....do.....	3,473	3,600	1,700	98	8,930		1,700		76	3,037	4,813	4,117
slings.....do.....	78	100	10	16	204		10		6	9	25	179
Drums.....do.....	235		10	36	281	21	10		131	38	200	81
Drumheads:												
Batter.....do.....	557	6		125	688	20		1	20	143	184	504
Snare.....do.....	1,965	6		117	2,088	48			20	147	215	1,873
Drum slings.....do.....	111			61	172	25		10	42	20	97	75
rods.....do.....	211			116	327			44		2	46	281
sticks.....pairs.....	8,920		1	89	3,981	238		2	55	27	322	3,649
stick carriages.....number.....	2,425		50	50	2,525		50	1	8	10	69	2,456
snare.....do.....	3,854			92	3,946	24		6		38	68	3,878
cases.....do.....	53		10	23	90	7		5	39	10	61	29
knee rests.....do.....	9			1	10							10
Trumpets.....do.....	442	450	223	43	1,158	14	200	1	262	423	900	258
Trumpet mouthpieces.....do.....	54			6	60	2		6			8	52
crooks.....do.....	230	200	153	33	616	14	125	6	3	133	281	335
cords and tassels.....do.....	1,746	525	1,605	51	3,987	82	1,665	1	137	452	2,337	1,650
Fifes.....do.....	2,106			51	2,157	60		4	37	53	154	2,003
Music pouches.....do.....	110	253	13	85	461		13		32	131	176	285
Books:												
Company, letters sent.....do.....	109	150	130	9	398		130		7	133	270	128
index.....do.....	92	220	130	5	447		92		7	185	284	163
Company, letters received.....do.....	135	100	85	9	329		91		11	97	199	130
index.....do.....	147	80	91	10	328		85	1	11	108	205	123
Company order.....do.....	46	450	360	3	859		360	1	14	195	570	289
Post, letters sent.....do.....	82	150	110	3	345		110			81	191	154
index.....do.....	80	110	100	3	293		100	4		76	180	113
Post, letters received.....do.....	97	130	110	4	341		110			95	205	136
index.....do.....	76	150	92	1	319		90	1		85	178	143
Post order.....do.....	96	200	55	8	359		55			71	126	233
Post council of administration, number.....do.....	85	50	30		165		30			30	60	105
Regimental, order.....number.....	35	20	30	4	105		24	4	2	28	58	47
letters sent.....do.....	54	20	35	2	111		35	2	2	25	64	47
letters sent, index, number.....do.....	67	20	35	2	124		35		2	28	65	59
letters received, number.....do.....	53	20	35	2	110		34		4	28	66	44
letters received, index, number.....do.....	67	20	40	2	129		40		4	30	74	55
Tents:												
Conical wall.....number.....	161	530	559	56	1,314	1	579	10		381	971	343
Sibley.....do.....	25	198	96	18	338		96			77	173	165
Hospital.....do.....	148	78	63	67	371	4	69		34	42	143	228

A.—Statement showing articles of clothing and equipage and material on hand at the issuing depots of the Quartermaster's Department, etc.—Continued.

Articles.	On hand June 30, 1890.	Pur- chased.	Manu- fac- tured.	Received from general depots.	Received from posts.	Gained.	Total received.	Sold.	Trans- ferred to general depots.	Expended or dropped.	Issued to the Militia.	Issued to the Army.	Total issued.	Remain- ing on hand June 30, 1891.
Tents—Continued.														
Wall.....number.....	754		982	220	154		2,110	98	200	25	469	798	1,590	520
Common.....do.....	2,722		722	700	736		4,880	36	700	25	629	549	1,939	2,941
Shelter halves.....do.....	21,790			6,000	1,183	2,574	31,547	292	6,000	2,405		12,280	20,977	10,570
Tent flies:														
Hospital.....do.....	182		156	84	63		485	2	84		97	107	290	195
Wall.....do.....	800		986	201	125		2,112	80	182	1	485	661	1,409	703
Tent poles:														
Conical wall and Sibley.....number.....	501	883		204	51		1,699	1	264	10		401	676	1,023
Shelter.....do.....	10,829			116	420	74	11,439		116	267		5,180	5,563	5,876
Hospital, upright.....do.....	624	100			176	185	1,085	8			324	102	434	651
ridge.....do.....	508	50			100	34	692	4		21	162	55	242	450
Wall, ridge.....do.....	1,769	300		671	187	60	2,987	13	671	32	331	452	2,099	888
upright.....do.....	3,778	600		1,442	333	53	6,206	107	1,442	50	1,862	794	4,255	1,951
Common, upright.....do.....	16,705	1,000			1,627		19,332	161		87	1,678	743	2,669	16,663
ridge.....do.....	2,235	500			811	14	10,610	79		86	839	373	1,377	9,233
Tent pins, all kinds.....do.....	165,058	191,977		43,096	4,864	1,634	406,629	3,410	40,086	2,079	72,230	194,340	312,155	94,474
straps.....do.....	332	1,150		397	25		1,904	1	397	10		360	768	1,136
slips, metal.....do.....	17,380	40,100		72			57,552		72	43,447	200	2,339	46,058	11,494
rings.....do.....	7,436			50	7		7,493		75	795		9	879	6,614
Sibley.....do.....	46			25			71					4	4	67
stoves.....do.....	408	1,050			32		1,490					590	590	900
stovepipe joints.....do.....	1,821	5,048		260	256	276	7,661			527		4,739	5,266	2,395
tripods.....do.....	858	810		337	51		2,056	1	337	10		350	693	1,358
chains.....sets.....	164	1,312		390	4		1,870		390	795		18	1,203	667
pole sockets.....number.....	55	200		92	4	4	355		92			31	123	232
Flags:														
Post.....do.....	19	214		51	157	1	442	13	58	16	24	270	381	61
Garrison.....do.....	77				50	1	128			33	1	54	88	40
Storm and recruiting.....do.....	47	530		101	225	10	913	11	115	26	5	527	684	229
Field hospital.....do.....	120	58		43	3		224	122	33		8	15	178	46
General hospital.....do.....	24	12					36	23	10			1	34	2
Colors:														
National.....do.....	9	11			2		22				8	5	13	9
Regimental.....do.....	10	5					15				5		5	10
Camp.....do.....	81	25		50	17	54	227	1	50	4	8	69	132	95
Guidons:														
Artillery and cavalry.....do.....	9	134		20	1		164			6	4	109	119	45
Ambulance.....do.....	4	48					52		20			22	42	10
Cases.....do.....	9					7	16	8				6	14	2
Standards.....do.....	1	1					2				1		1	1

Standard pikes.....	number.....	1					1	1				1	
Color cords and tassels.....	do.....	150				51	201	200	1			201	
cases.....	do.....	82				2	2	2				2	
slings and belts.....	do.....	82				2	84	2				8	5
stuffs.....	do.....	97	119			68	353	8	50		25	101	79
Halyards:				50	19							244	109
Garrison and post.....	do.....	143	201	105	8		457	3	102	8	9	127	249
Storm and recruiting.....	do.....	2,171			3		2,174	2		5		85	41
Devices.....	do.....	440	500				940	1		400		50	450
Stencils, complete.....	sets.....	60		123	5		188					72	72
Stencil plates.....	do.....	165			1		166	1	96	5	4	12	118
Company marking stamps.....	number.....	3	6	2	3		14	2	2			6	10
Corn brooms.....	do.....	10,905	5,000	13,981	44		44,930		11,358	469		26,216	38,043
Scrubbing brushes.....	do.....	7,677	8,000	1,000	220		16,897		1,000	146		10,808	11,454
Alphabets:													
1-inch.....	sets.....	32		3	1	5	41		12			2	14
½-inch.....	do.....	19			1	5	25		5	1		3	9
Numbers:													
1-inch.....	sets.....	21			2	7	30		8			4	12
½-inch.....	do.....	25		6	2	6	39		11	1		4	16
Barrack chairs.....	number.....	616		5,021	2,014		7,651	10	2,112	4		4,290	6,416
Card-holders.....	do.....	1,849	10,020	2,900	121		14,890		2,900			3,872	6,272
Hand litters.....	do.....	235			2		237					20	73
Buttons, coat, large and small.....	do.....	171,648	1,137,744	333,299	5,875	33,264	1,681,630	6,480	311,699	942,275	3,888	31,104	1,295,446
Cloth:													
Dark blue, 6-4.....	yards.....	8,216	20,804	1,586	580	144	81,330	346	856	17,493	2,554	2,614	23,863
Facing.....	do.....	1,247	3,964				5,211	192	859	3,001	125	56	4,233
Italian.....	do.....	1,734	7,430				9,164	26		4,781	1,850	11	6,668
Blanket lining.....	do.....	2,100	3,055				5,155			5,100			5,100
Doeskin, sky blue.....	do.....	4	1,004				1,008	794	100				894
Drilling, sky blue.....	do.....	11,478	51,761		3,108		66,347	1		58,788	500	55	59,341
Duck:													
Cotton.....	do.....	123,781	179,010	21,360		7,425	331,576	1		224,409		283	224,693
Brown.....	do.....	15,351	88,257	50			103,658	29	50	84,740		64	84,883
White.....	do.....	59,232	40,004			41	99,277		18,325	77,800		3,111	99,236
Flannel:													
Canton.....	do.....	25,218	147,963	3,707	220	10,364	187,472	114	3,707	138,591		9,605	152,077
Dark blue blouse (as. fine).....	do.....	28,221	96,935	21,534	1,228	956	148,874	103	1,534	100,020	5,644	5,364	112,665
lining.....	do.....	3,717	78,961	1,001	170	1,188	80,037	7	402	74,784	125	516	75,834
Dark blue shirting and cape lining.....	yards.....	50,667	84,766	1,054	156	93	136,736	125	21,654	26,591		965	49,355
Jeans, corset.....	do.....	52,853	39,692		308		92,848	9		56,410	1,806	1,508	59,728
Kersey:													
Sky blue, 6-4.....	do.....	32,989	116,290	2,478	1,546	3,166	156,469	132	1,776	128,638	13,068	1,635	145,239
Dark blue.....	do.....		2,499				2,499		602	1,191			1,794
Gray.....	do.....		4,204				4,204	13		3,215			3,228
Lace, gold.....	do.....	6,267		2,019			8,286		2,019	1,130			3,149
Leather:													
Counter.....	pounds.....	2,799	17,493				20,292	40		18,826			18,860
Viscolized.....	do.....		1,130				1,130	10		1,019			1,029
Sole, cropped.....	do.....	33,708	49,488				83,196	495		51,447			51,942
Wax upper.....	square feet.....	44,651	133,000				177,651	16		140,858			31,254

A.—Statement showing articles of clothing and equipage and material on hand at the issuing deposits of the Quartermaster's Department, etc.—Continued.

Articles.	On hand June 30, 1890.	Pur- chased.	Manu- fac- tured.	Received from general depots.	Received from posts.	Gained.	Total received.	Sold.	Trans- ferred to general depots.	Expended or dropped.	Issued to the Militia.	Issued to the Army.	Total issued.	Remain- ing on hand June 30, 1891.
Leather—Continued.														
Pebble grain.....square feet..	4, 120	20, 200					24, 320	20		23, 515			23, 535	785
Welt.....pounds..	7, 214	1, 500					8, 714	55		7, 568			7, 623	1, 091
Muslin, unbleached.....yards..	12, 421	70, 448		18, 887		2, 114	103, 870	5	18, 886	55, 053		6, 065	80, 009	23, 861
Padding.....do..	5, 655	65, 376		19, 632		2, 962	93, 625	23	19, 633	63, 293	125	23	83, 097	10, 528
Silesia.....do..	13, 205	46, 630		8, 000		442	68, 277	18	8, 000	38, 984	62	84	47, 148	21, 129
Band instruments.														
Altos.....number..	4	27					31					31	31	
Bassos, Eb.....do..	16	4					20					20	20	
Baritones.....do..	1	17					18					17	17	1
Clarinets.....do..	34	37					71					68	68	3
Trombones.....do..	8	34			2		44					30	30	14
Cornets.....do..	12	29			1		42					39	39	3
Piccolos.....do..	19						19					17	17	2
Flutes.....do..	7	19					26					20	20	6
Bass drums.....do..		12					12					10	10	2
Cymbals.....pairs..		11					11					10	10	1
Triangles.....number..		9					9					8	8	1
Bass-drum heads.....do..		34					34					30	30	4
cords.....do..		13					13					9	9	4
Reeds.....do..		1, 920					1, 920					1, 201	1, 201	719
Bags.....do..	31		140				171					171	171	
Cases.....do..	21					97	118					118	118	
Pads.....do..		5, 280					5, 280					3, 203	3, 203	2, 077
Springs.....do..	8	1, 509				16	1, 533					879	879	654
Lyres and rings.....do..		8					8					8	8	
Music stands.....do..		277					277					253	253	24

Respectfully submitted.

WAR DEPARTMENT, QUARTERMASTER-GENERAL'S OFFICE,
Washington, D. C., September 1, 1891.

M. I. LUDINGTON,
Deputy Quartermaster-General, U. S. A.

B.—Statement of amounts received and remitted by the Quartermaster's Department on account of clothing and equipage during the fiscal year ending June 30, 1891.

Appropriated by Congress:		Remitted for purchase and manu-	
Annual appropriation	\$1,150,000.00	ufacture of clothing and equi-	
Deficiency		page	\$1,489,011.31
Act of March 3, 1891	187,702.18	Balance in Treasury and due on	
Received from issues of clothing		contracts not yet complete	76,390.26
and equipage made to the militia			
of the States and Territories	166,035.26		
Received from other resources	61,664.13		
Total	1,565,401.57	Total	1,565,401.57

Respectfully submitted.

M. I. LUDINGTON,
Deputy Quartermaster-General, U. S. A.

WAR DEPARTMENT,
QUARTERMASTER-GENERAL'S OFFICE,
Washington, D. C., September 1, 1891.

QUARTERMASTER GENERAL'S OFFICE,
Washington, D. C., August 31, 1891.

GENERAL: I have the honor to submit the following report, pertaining to the national military cemeteries, for the fiscal year ending June 30, 1891.

At the commencement of the year there were eighty-two national cemeteries, and no changes having occurred, the number remains the same.

Number of interments to June 30, 1891—

Known	178,957
Unknown	149,158
Total	328,115

At the close of the last fiscal year there were 74 superintendents in service. During the year 2 other superintendents have been appointed, 3 resigned, 1 has been discharged, and 1 died; leaving the number in service at the close of the year, 71. There are also 2 assistant superintendents on probation, whose terms of probationary service will expire at an early date.

Removals of remains of officers and soldiers have been made from abandoned posts to other post or national cemeteries, as follows, viz: From Fort Lapwai, Idaho, to Fort Walla Walla, Wash., post cemetery. From Fort Yuma, Ariz., to San Francisco, Cal., national cemetery. From Forts Bridger and Laramie, Wyo., including the remains of those killed in the Grattan massacre, near Fort Laramie, August 19, 1854, to the Fort McPherson, Nebr., national cemetery. From Fort Warren, Mass., to Fort Winthrop, Mass., post cemetery.

Remains of United States soldiers, discovered from time to time in places not set apart for burial purposes, have also been removed to the nearest national cemetery; other removals have been authorized but have not yet been reported, viz, from Fort McGinnis and Camp Poplar River, Mont.; Forts Abraham Lincoln, Totten, Pembina, and Rice, N. Dak., and Fort Bennett, S. Dak., to the Custer Battlefield, Mont., national cemetery; and from Fort Hale, S. Dak., to the Fort McPherson, Nebr., national cemetery.

Headstones.—During the year 9,977 headstones to mark the graves of United States soldiers, sailors, and marines buried in national, post, private, city, and village cemeteries were provided from the appropriations for that purpose, completing the contract made June 1, 1890, with Messrs. Gross Bros., of Lee, Mass. Proposals have been invited for furnishing 15,000 additional headstones.

On Memorial Day, May 30, appropriate services were held in nearly all the national cemeteries and the graves decorated with flags and flowers. Large numbers of persons were in attendance and good order prevailed.

At the Arlington, Va., national cemetery, necessary repairs have been made to the lodge, outbuildings, and drainage. The inclosing wall on the east, south, and west sides of the extension of that cemetery has been completed and the grounds cleared, laid out, drained, and seeded. Driveways have been laid out, guttered, and graveled.

At the Brownsville, Tex., national cemetery, a contract has been made for the construction of the levee, authorized by act of Congress (sundry civil) approved August 30, 1890, for the protection of that cemetery from overflow of the Rio Grande, and the work will be commenced at an early date.

At the Chalmette, La., national cemetery, the inclosing walls at the entrance to the cemetery have been extended to the roadway and the front iron fence removed and reset.

At the Chattanooga, Tenn., national cemetery, a new entrance has been constructed in the north wall, and provided with a pair of ornamental wrought-iron drive gates, with walk gates to match.

A beautiful and appropriate monument has been erected in this cemetery by the State of Ohio, in memory of the Ohio soldiers who were executed at Atlanta, Ga., in 1862, for having accompanied J. J. Andrews on a secret military expedition. This monument is constructed of blue Westerly granite, and is surmounted by a facsimile in United States standard bronze of the locomotive "General," captured by the "Andrews raiders" at Big Shanty, Georgia.

Under the act of Congress approved October 1, 1890, that portion of the military reservation lying outside of the national cemetery inclosure has been transferred to the city of Chattanooga, for use as a public park.

At the Fayetteville, Ark., national cemetery, necessary repairs have been made to the lodge and outbuildings and a portion of the inclosing wall repointed. A new tool house 20 by 10 by 10 feet has been constructed of brick with stone foundations, and in keeping with the structures in the cemetery.

At Fort Gibson, Ind. T., national cemetery, the north wing of the superintendent's lodge has been taken down and rebuilt.

At Fort McPherson, Nebr., national cemetery, a barbed wire fence has been erected around the reserved lot outside the inclosing walls, and the burial sections within the cemetery inclosure enlarged to receive the remains of the United States officers and soldiers ordered to be removed there from abandoned posts in the Department of the Platte.

At Fort Smith, Ark., national cemetery, an additional water supply has been obtained by connecting with the city mains.

At the Gettysburg, Pa., national cemetery, a new brick outbuilding of appropriate design has been erected.

The site for the monument to be erected in that cemetery by the State of New York, in memory of the dead of that State, has been selected, and the work is now in progress.

At the Hampton, Va., national cemetery, arrangements are in progress for the purchase of 8 acres of additional land, authorized by acts (sundry civil) approved August 30, 1890, and March 3, 1891, for the enlargement of that cemetery.

At the Mound City, Ill., national cemetery, a new brick latrine has been erected for public use.

At the Nashville, Tenn., national cemetery, the rebuilding of the remainder of the inclosing wall (1,400 linear feet) has been completed.

At Shiloh, Tenn. (Pittsburg Landing), national cemetery, about 450 feet of the inclosing wall along the road to the river landing has been reinforced by the construction of a wall of rubble stone $1\frac{1}{2}$ feet high, laid in cement mortar; and for the convenience of visitors by boat a flight of iron steps has been erected at the southeast corner of the cemetery, near the landing, and a brick walk laid from that point to the terrace, a distance of 154 feet.

At the St. Augustine, Fla., national cemetery, a contract has been made for the construction of an inclosing wall of concrete. The work is now in progress, and will be completed at an early date.

At the San Francisco, Cal., National Cemetery the necessary repairs have been made to the lodge and the grounds properly cared for. At the commencement of the year work was continued on the tunnel in the ravine above the catchment basin; total length of tunnel, 121 feet 6 inches. The quantity of water obtained from this source being without favorable indications, the work was discontinued. Test holes were bored for water in close proximity to the water hole on the flat above and south of the tunnel. At a depth of 21 feet a water-bearing strata was reached, which proved to be 25 feet 6 inches thick, the water flowing over the top of the well at the rate of 7,200 gallons per day. At this place a windmill and pump have been erected, and a reservoir is in course of construction of 40,000 gallons capacity, and there is every reason to believe that a permanent supply of water for all purposes for the national cemetery has been obtained.

Soldiers' lots.—In the soldiers' lot in the Alton, Ill., City Cemetery, an appropriate monument has been erected (by the G. A. R.), consisting of a Parrott gun mounted on a rough granite base, inscribed "The Union Dead," 1890.

Burial of indigent soldiers.—Under the acts of Congress (sundry civil) approved March 2, 1889, and August 30, 1890, and deficiency, approved March 3, 1891, making appropriations for expense of burying in the Arlington National Cemetery, or in the cemeteries of the District of Columbia, indigent ex-Union soldiers, sailors, and marines of the late civil war who died in the District of Columbia, accounts have been paid during the fiscal year for the burial of 49 such persons, at a total cost of \$2,092.

Roadways.—By act of Congress approved December 11, 1890, an appropriation of \$7,000 was made for the construction of a gravel or macadam road and approaches from the national cemetery near Alexandria, Va., to that city. Route, from the intersection of Wilkes and Alfred streets in the city of Alexandria, Va., thence by said Wilkes street to the corporation boundary, and thence, by extension of same street, to the national cemetery. Distance, 2,200 feet.

Measures have been taken looking to the acquirement by the United States of the necessary right of way, and it is believed that the matter will be settled satisfactorily at an early date.

Under the act (sundry civil) approved August 30, 1890, an additional appropriation of \$5,000 was made for completion of the road from

Antietam Station, on the Shenandoah Valley Railroad, via the turnpike, through the village of Sharpsburg, Md., to the Antietam, Md., National Cemetery. Length of road, 9,300 feet.

The construction has been completed at a cost of \$5,199.60, which included a portion of the unexpended balance of previous appropriations.

The road to the Corinth, Miss., National Cemetery, for the construction of which an appropriation of \$10,000 was made by act of Congress approved April 2, 1888, has been completed, with exception of an additional layer of gravel 3 inches thick and 12 feet wide, to be placed the entire length of the road later in the season. Length of road, 4,864 feet, extending from the north gate of the cemetery to the intersection of Filmore and Wicks streets, in the city of Corinth. Amount expended, \$8,756.33. Estimated cost of additional layer of gravel, \$1,015.20.

Under the act (sundry civil) approved August 30, 1890, an appropriation of \$4,500 was made for purchase of right of way and improvement of the means of approach to the Culpeper, Va., National Cemetery.

Route from the cemetery entrance, by a 30-foot lane, to the Richmond and Danville Railroad crossing, thence by Stevens street extended to its intersection with East street, a distance of 825 feet, exclusive of railroad crossing. Expenditures, \$4,050.33, including \$1,800 for purchase of right of way. The work is now in progress, and will be completed within the amount available for that purpose.

The road to the Florence, S. C., National Cemetery was practically completed during the previous fiscal year. The only work done on it during the present year was placing a layer of red clay 1 inch thick over the entire surface, at a cost of \$283.75.

Under the act (sundry civil) approved August 30, 1890, an appropriation of \$8,000 was made for macadamizing and permanently improving the public road leading from the railroad depots in the city of Fredericksburg, Va., to the national cemetery near that city. Route, from the cemetery via Frederick street to its intersection with Princess Anne street. Distance, 3,500 feet. The work is now in progress, and will be completed at an early date, at a cost within the amount appropriated. Expenditures during the fiscal year, \$4,167.82.

The road to the Marietta, Ga., National Cemetery, for the completion of which an appropriation of \$8,264.77 was made by act (sundry civil) approved August 30, 1890, has been completed. This road is 1,676 feet in length, and extends from the gate of the National Cemetery to the court-house in the public square at Marietta, Ga. One thousand one hundred and thirty linear feet of this road, with exception of sidewalks, was constructed during the fiscal year ending June 30, 1889. The remaining 546 feet, with the sidewalks, the entire length of the road, and the rebuilding of the retaining walls, have been completed, at a total cost of \$8,254.60.

The extension of the road to the Natchez, Miss., National Cemetery from the intersection of Oak and Cemetery streets to the intersection of Pearl and Monroe streets, in the city of Natchez, and for the construction of which an appropriation of \$6,000 was made by act of Congress approved February 1, 1888, has also been completed, at a total cost of \$5,988.12.

An appropriation of \$13,500 having been made by act of Congress approved May 14, 1890, for the construction of a road to the Port Hudson, La., National Cemetery, the necessary right of way has been obtained and a contract made, the work to be commenced July 15, 1891, and pushed to completion as rapidly as possible.

By act approved April 9, 1890, an appropriation of \$11,000 was made for

the purpose of constructing a macadamized road from the city of Staunton, Va., to the national cemetery, in the county of Augusta, in that State. Route, from railroad station at intersection of Greenville avenue and county road; thence by said road to the southeast corner of the cemetery grounds; distance, 6,100 feet. The work is now in progress, and will be completed within the amount appropriated. Expenditures during the year, \$1,690.46.

An appropriation of \$10,000 has also been made by act (sundry civil) approved March 3, 1891, "for constructing and completing a gravel road and the necessary bridges from the national cemetery near Mound City, Ill., to Mounds Junction, on the Illinois Central Railroad. The necessary survey has been made since the close of the fiscal year and plans and specifications for the work prepared.

Under the acts (sundry civil) approved March 2, 1889, and August 30, 1890, making appropriations for "repairs to roadways to national cemeteries which have been constructed by special authority of Congress," necessary repairs have been made to the roads leading to the Antietam, Md.; Chalmette, La.; Natchez, Miss.; New Berne, N. C.; Richmond, Va., and Vicksburg, Miss., national cemeteries. Of these repairs the most extensive have been the following, viz:

Antietam, Md.—Amount expended, \$1,358.02. This road is now in fairly good condition, but about 1,115 feet of coping is required for retaining walls, at a probable cost of \$800. Other repairs of a miscellaneous character, amounting to about \$230, are also necessary.

New Berne, N. C.—Amount expended, \$2,222.59. There is still some work to be done, mainly resurfacing with shell rock, for which, in part at least, funds are on hand.

Vicksburg, Miss.—Amount expended, \$4,059.50. Three thousand five hundred and fifty cubic yards of gravel were placed upon the road and thoroughly rolled, a drain of vitrified pipe, with brick headings, put in, and the ditches and drains thoroughly cleaned. Five hundred cubic yards of gravel will be required to complete the repairs to this road.

A statement showing the expenditures on account of the national cemeteries during the year is submitted herewith.

Very respectfully,

M. I. LUDINGTON,
Deputy Quartermaster-General, U. S. Army.

The QUARTERMASTER-GENERAL U. S. ARMY.

A.—Statement of disbursements of appropriation for national cemeteries during the fiscal year ending June 30, 1891.

Name of cemetery.	Employés.	Tools, stores, and miscellaneous expenditures.	Improvement of grounds.	Inclosures.			Repair of lodges.	Outhouses (sheds, stables, etc.).	Trees, plants, etc.	Drainage.	Barrack and office furniture and stoves.
				Construc-tion.	Repair.	Gates.					
Alexandria, La.	\$300.00	\$12.95	\$64.92					\$57.60	\$20.15		
Alexandria, Va.	367.00	26.00	50.00		\$180.00					\$25.00	\$35.00
Andersonville, Ga.	618.79	61.00	354.52		209.38		\$75.21	8.77	60.00	509.93	48.00
Annapolis, Md.	74.00	31.51	4.00				6.72		11.50		1.50
Antietam, Md.	416.00	53.75	33.00					42.00			
Arlington, Va.	7,360.00	822.60	5,386.23	10,849.69			100.00	200.00	500.00	500.00	
Balls Bluff, Va.	25.00										
Barrancas, Fla.	305.00	17.88	50.00						31.30		2.25
Baton Rouge, La.	360.00	20.00	8.00				10.00	180.00	14.70	4.04	
Battle Ground, D. C.		13.38	30.37		10.00						
Beaufort, S. C.	588.00	215.00	149.75		131.15						
Beverly, N. J.		7.10	24.00		180.00						
Brownsville, Tex.	420.00	37.50					150.00				
Camp Butler, Ill.	323.87	45.95	3.00		13.36		20.00	175.00	25.00		28.88
Camp Nelson, Ky.	215.00	77.74					19.90		14.95	15.00	
Cave Hill, Ky.	62.99	1.00	137.50		19.04		242.55	50.00		.70	
Chalmette, La.	918.25	22.87	203.50				25.00	21.25	25.00		
Chattanooga, Tenn.	2,382.33	81.71	231.15		116.20	595.00					
City Point, Va.	270.00	26.30	52.00				12.00	3.75	4.10		32.25
Cold Harbor, Va.		15.30	44.50		87.75		8.25		7.91	10.00	25.75
Corinth, Miss.	758.00	235.00	195.00				50.00	50.00		30.00	10.00
Crown Hill, Ind.									10.00		
Culpeper, Va.	179.00	30.73	11.50								8.50
Custer Battlefield, Mont.											
Cypress Hills, N. Y.	960.73	100.00	55.00		25.00		44.90	25.00	125.00		
Danville, Ky.	100.00										
Danville, Va.	131.00	29.55	64.00		30.00		13.83		7.50		26.50
Daytonville, Ark.	216.00	95.05	95.05		65.00		266.44	154.00	15.40		21.00
Finns Point, N. J.		92.47	50.00								12.00
Florence, S. C.	147.64	30.00	50.00				25.00	30.00	15.00		25.00
Fort Donelson, Tenn.	120.00	33.90	100.00				42.50	50.00			
Fort Gibson, I. T.	200.00	74.95	25.00				433.00	9.90	13.00		3.00
Fort Harrison, Va.	25.00	8.43	45.00		4.00		10.00	37.72	8.35		3.75
Fort Leavenworth, Kans.	500.00	10.34	100.00		2.50				10.00		24.75
Fort McPherson, Nebr.	200.00	45.90	47.50	199.52	19.00		6.95				7.70
Fort Scott, Kans.	240.00	87.75	20.00				19.50	15.10			7.25
Fort Smith, Ark.	275.00	112.63	54.00				38.45		30.70		23.55
Fredericksburg, Va.	554.00	28.74	53.00				33.00	24.25			12.80
Gettysburg, Pa.	471.50	76.66	259.50				19.50	1,288.00	24.75		
Glendale, Va.		16.10	15.40			3.00		37.05		78.00	
Grafton, W. Va.	180.00	44.45	*17.50				15.00	5.00	4.40		4.05

Hampton, Va.	481.00	41.33	55.00			7.00	25.00	25.00	21.15	30.00	1.50
Jefferson Barracks, Mo.	1,120.50	28.10	26.70	7.50	5.00		14.10	43.00	5.99		
Jefferson City, Mo.	100.00	12.66	17.40				94.00		10.00		28.00
Keokuk, Iowa.	87.00	21.19	15.00	15.00			24.00		7.80		
Knoxville, Tenn.	189.00	23.86	44.84				45.00	11.85			
Lebanon, Ky.	119.00	15.00					4.00				
Lexington, Ky.	60.00										
Little Rock, Ark.	433.75	48.52	133.75	10.00			135.00		18.85		20.90
Loudon Park, Md.	196.62	6.99					39.75				8.75
Marietta, Ga.	1,032.98	63.70	300.00				50.00	50.00	75.00	200.00	
Memphis, Tenn.	1,220.00	39.66	50.00	68.00			22.00				5.75
Mexico City, Mex.	264.00	25.11					30.00				30.00
Mill Springs, Ky.	104.00	38.11		84.25			124.94				20.00
Mobile, Ala.	66.00	42.35	41.50						35.00		
Mound City, Ill.	447.50	16.70	16.50					262.30		16.90	
Nashville, Tenn.	1,830.83	27.53	300.00	2,898.80			37.60	20.00	45.00	30.25	20.00
Natchez, Miss.	568.00	42.14	19.00		16.00		5.00	5.00	8.88	8.25	
New Albany, Ind.	248.75	36.69	15.60						7.00		18.50
New Berne, N. C.	180.00	17.60	27.50				24.00	9.00			
Philadelphia, Pa.	810.00	79.36	9.07				171.00				50.00
Poplar Grove, Va.	270.00	44.97	32.80				172.00				56.10
Port Hudson, La.	299.00	53.15	27.00				49.22		20.25		
Quincy, Ill.	25.00		20.00	152.00							
Raleigh, N. C.	200.00		30.00	14.60			19.66		15.00	9.65	
Richmond, Va.	440.00	17.89	51.60		4.80		14.33		11.35		
Rock Island, Ill.				134.00							
Salisbury, N. C.	210.24	31.07	30.00				24.30	3.80	18.00		
San Antonio, Tex.	89.50	8.00	69.50	13.62			40.00	50.00	30.00		.70
San Francisco, Cal.	500.00	25.00	24.92	30.00			80.00				
Seven Pines, Va.	2.00	4.18	16.80				21.00	19.70	5.50		
Shiloh, Tenn.	348.00	40.00	163.50	30.00			24.70	49.58	14.25	25.00	5.00
Soldiers' Home, D. C.	900.00	69.20	200.00	100.00			15.00	10.00	100.00		
Springfield, Mo.	249.37	77.00	91.05				5.50	19.00	20.00		1.50
St. Augustine, Fla.	75.00			24.00							
Staunton, Va.	55.25	23.20	14.75	298.55							
Stone River, Tenn.	555.57	28.11									
Vicksburg, Miss.	2,829.00	71.25	200.00	203.00			265.00	24.95	50.00	75.00	
Wilmington, N. C.	109.00	43.00	43.60					20.00	21.85		
Winchester, Va.	240.50	31.45	34.00	10.00			4.00	20.00			17.50
Woodlawn, N. Y.	120.00										
Yorktown, Va.	78.00	8.17	6.00				3.00				
Soldiers' lots	218.15	15.75									
Miscellaneous		309.93									
Total	87,636.61	4,325.11	10,211.87	13,948.01	2,252.90	614.80	3,275.80	3,107.57	1,518.58	1,567.72	640.68

A.—Statement of disbursements of appropriation for national cemeteries during the fiscal year ending June 30, 1891—Continued.

Name of cemetery.	Flagstaffs and monuments.	Water supply.	Interments.	Fuel.	Forage.	Shoeing animals.	Transportation, tolls, etc.	Repairs to harness.	Lawn-mowers.	Flags.	Total.
Alexandria, La.	\$6.85	\$5.00		\$32.90	\$98.23		\$8.00				\$606.60
Alexandria, Va.		50.00		90.00							773.00
Andersonville, Ga.	240.00	59.79			228.25	\$16.80	35.00				2,525.44
Annapolis, Md.	5.00	85.00		57.12			5.00				231.35
Antietam, Md.	10.00		\$8.00	74.10			14.00				650.85
Arlington, Va.		360.00		350.00							26,428.52
Balls Bluff, Va.											25.00
Barrancas, Fla.		5.00									411.43
Baton Rouge, La.	9.60			55.00	95.36	6.00		\$3.75			766.45
Battle Ground, D. C.		15.00		90.00							158.75
Beaufort, S. C.				63.00	185.68	1.50	12.00	19.00			1,365.08
Beverly, N. J.		438.67		55.86							855.63
Brownsville, Tex.	6.00			70.00		14.00					796.38
Camp Butler, Ill.		5.00	12.00	34.76							487.79
Camp Nelson, Ky.				72.00	61.40						426.14
Cave Hill, Ky.	20.00	12.25		45.75							591.78
Chalmette, La.	110.00			73.50	120.26	10.25					1,529.88
Chattanooga, Tenn.				42.63	299.33	27.00					3,775.35
City Point, Va.	10.00	3.00		96.80	125.14	2.50					637.84
Cold Harbor, Va.	3.00	6.00		47.20							255.66
Corinth, Miss.	10.00	7.00		49.30	240.26	24.00		13.00			1,671.56
Crown Hill, Ind.											10.00
Culpeper, Va.				43.40			6.00				279.13
Custer Battlefield, Mont.											
Cypress Hills, N. Y.		50.00		60.70							1,446.33
Danville, Ky.											100.00
Danville, Va.	5.00	40.00		63.10							416.08
Fayetteville, Ark.		51.25	17.75	36.80			6.50				1,040.24
Finns Point, N. J.				81.62							236.09
Florence, S. C.	65.00	10.00		33.50							431.14
Fort Donelson, Tenn.	8.00			29.50							383.90
Fort Gibson, I. T.	4.88	10.01		33.60			1.25				808.59
Fort Harrison, Va.	10.00			67.20							219.45
Fort Leavenworth, Kans.		11.00		95.19	77.80						831.58
Fort McPherson, Nebr.	5.00	24.40		184.33							740.30
Fort Scott, Kans.		5.90		45.18							420.68
Fort Smith, Ark.	16.44	248.25		45.46							844.48
Fredericksburg, Va.	12.00			66.64	85.38	2.50					872.31
Gettysburg, Pa.				67.32			17.00				2,224.23
Glendale, Va.	3.00			52.00							204.55
Grafton, W. Va.	5.00			25.98							301.38
Hampton, Va.	17.50	15.00		66.00			11.00				796.48

Jefferson Barracks, Mo.	9.00	7.50		67.68	105.47						1,440.54
Jefferson City, Mo.		41.00		60.00							363.08
Keokuk, Iowa	12.00	39.00	78.90	68.00							367.39
Knoxville, Tenn.				39.13							403.68
Lebanon, Ky.				45.97							183.97
Lexington, Ky.	10.00										70.00
Little Rock, Ark.	10.00	56.00	15.75	55.29	107.60	10.00	5.50				1,060.91
London Park, Md.	2.25	5.00		59.64							314.20
Marietta, Ga.		10.00		64.00	267.30	17.35		21.65			2,151.98
Memphis, Tenn.	8.00	9.00		19.50	200.00	16.00	2.00				1,659.71
Mexico City, Mex.	9.50	50.81		140.00							539.92
Mill Springs, Ky.				31.20							412.00
Mobile, Ala.	39.40	48.70		38.75							311.70
Mound City, Ill.	61.87			37.49	72.50	8.40	1.00				941.16
Nashville, Tenn.	20.83	25.00		57.97	189.85	12.50	10.00				5,526.16
Natchez, Miss.	13.46	9.75		60.83	97.33	4.50		4.50			862.14
New Albany, Ind.		42.00		33.25							399.79
New Berne, N. C.	5.00	5.00		52.50	109.40	9.00					439.00
Philadelphia, Pa.			31.50	106.36	115.77	8.70	50.00				1,451.76
Poplar Grove, Va.	6.75	12.50		41.60	94.25	5.00					735.97
Port Hudson, La.				38.50	155.04						642.16
Quincy, Ill.	8.00										205.00
Raleigh, N. C.	5.00	5.00	15.00	44.45			7.56				390.92
Richmond, Va.	1.25			65.28	82.81	8.75					698.06
Rock Island, Ill.											134.00
Salisbury, N. C.	1.50			32.41	55.74	2.30					409.36
San Antonio, Tex.	48.00		5.00								354.32
San Francisco, Cal.	10.00	26.00		158.57							854.49
Seven Pines, Va.				50.88							120.06
Shiloh, Tenn.				37.80	117.71	3.50					859.04
Soldiers' Home, D. C.	15.00	15.00		90.00							1,514.20
Springfield, Mo.	7.00	2.64		56.00							529.06
St. Augustine, Fla.											99.00
Staunton, Va.		10.00		39.52							441.27
Stone River, Tenn.				58.02	99.55	4.10	12.00				757.35
Vicksburg, Miss.		135.00	10.00	99.80	199.38	23.25	35.00				4,220.63
Wilmington, N. C.		8.50		51.80							297.75
Winchester, Va.		10.00		73.44			4.50				445.39
Woodlawn, N. Y.											120.00
Yorktown, Va.				36.00							131.17
Soldiers' lots											233.90
Miscellaneous			3.57					1,184.82	391.50		1,889.82
Total	886.08	2,040.92	197.47	4,509.07	3,686.79	237.90	242.31	61.90	1,184.82	391.50	92,539.41

The balance of the appropriation (\$100,000) is in the hands of officers of the Quartermaster's Department, and is required for the payment of outstanding indebtedness.

7.

Report of Maj. James Gilliss, Quartermaster, U. S. Army.

WAR DEPARTMENT,
QUARTERMASTER-GENERAL'S OFFICE,
Washington, September 7, 1891.

GENERAL: I have the honor to report that during the fiscal year ending June 30, 1891, I have been on duty in this office in charge of matters pertaining to transportation, regular supplies, contracts, and the adjustment of claims against the Quartermaster's Department which accrued during the war of the rebellion, and respectfully submit the following reports of the branches of the office in which work pertaining to these matters has been performed:

TRANSPORTATION BRANCH.

The Quartermaster-General, through this branch of the office, exercises a supervision over all matters connected with transportation for the Army, both for its troops and supplies, whether by rail, water, wagon, or stage. Transportation for the other Executive Departments is also provided by the Quartermaster's Department when called upon. The officers of the Department are kept advised of all legislation, decisions, and regulations affecting the transportation service, and the proper methods for the statement and settlement of transportation accounts. Such accounts as can not be paid by disbursing officers for any reason, technical or legal, are adjusted through this branch. The interests of the United States growing out of Army transportation over the lines of the bonded Pacific railroads are supervised, and the accounts therefor, involving over half a million dollars annually, are settled through this branch of the office. Here all estimates of funds required for the transportation service, and all reports of the expenditure of same, are prepared for Congress, and numerous calls of the Court of Claims and the other Departments as to alleged services of claimants upon vessels and military railroads during the rebellion are answered. This branch has also charge of such matters as remain unadjusted pertaining to United States military railroads and to Southern railroad companies which became indebted to the United States for railway material purchased at the close of the war.

The following table shows that during the year the Quartermaster's Department has provided transportation for 362,715 persons, 9,930 animals, and 113,152 tons of material.

The cost of this transportation, as shown by the aggregate of accounts paid by disbursing quartermasters (see report of accounts branch under this head), and the sum of the accounts, including those of the bond-aided Pacific railroads, settled through the transportation branch, and cost of maintaining and chartering vessels, was \$2,140,693.04.

	Railroad.	Water.	Wagon.	Stage.	Government vessel.	Total.
<i>Passengers.</i>						
Officers	1, 875	134	1	30	44, 276	46, 316
Men	34, 208	2, 840	5	1, 915	277, 431	316, 399
Total	36, 083	2, 974	6	1, 945	321, 727	362, 715
<i>Animals.</i>						
Horses	5, 968	280	33	.....	159	6, 440
Mules	3, 326	105	47	.....	12	3, 490
Total	9, 294	385	80	.....	171	9, 980
<i>Stores.</i>						
Subsistence	31, 360, 035	2, 406, 686	20, 311, 428	113, 683	2, 763, 114	56, 954, 946
Quartermaster's	40, 881, 822	1, 423, 740	34, 583, 138	46, 984	2, 580, 807	79, 516, 491
Ordnance	11, 020, 972	2, 558, 628	2, 731, 214	1, 122	2, 325, 504	18, 637, 440
Medical	1, 340, 665	176, 381	1, 766, 907	2, 472	51, 338	3, 337, 763
Signal Service	518, 789	79, 162	195, 433	37	1, 265	794, 686
Miscellaneous	18, 750, 125	2, 911, 858	39, 248, 519	62, 766	6, 090, 079	67, 063, 347
Total	103, 872, 408	9, 556, 455	98, 836, 639	227, 064	13, 812, 107	226, 304, 673

PRINCIPAL MOVEMENTS OF TROOPS.

The principal movements of troops during the year, with cost of same, exclusive of deductions on account of land-grant and bonded railroads, have been as follows:

Troops.	Movement.	Cost.
1st Artillery...	Light Battery E, from Department Platte to Department of the Missouri.	\$569. 13
2d Artillery...	Battery F, from Fort Leavenworth to Excelsior Springs, Mo	144. 56
4th Artillery...	Five batteries, changing station in Department of the East	4, 277. 40
1st Cavalry...	Three companies, changing station in Department of Dakota	556. 28
2d Cavalry...	One company, from Department of Dakota to Department of the East	2, 770. 58
3d Cavalry...	Headquarters and six companies changing station in Department of Arizona.	10, 466. 27
4th Cavalry...	Three companies, changing station in Department of Texas	1, 175. 81
5th Cavalry...	One company from Department of California to Department of the Columbia.	319. 59
6th Cavalry...	Two companies, changing station in Department of California	5, 583. 33
7th Cavalry...	One company, from Department of the East to Department of California	1, 563. 50
8th Cavalry...	One company, changing station in Department of the Missouri, and two companies, changing station from Department of Texas to Department of the Missouri.	1, 996. 60
9th Cavalry...	One company, from Department of the East to Department of the Platte	3, 299. 50
10th Cavalry...	Two companies, changing station in Department of the Missouri	1, 152. 23
11th Cavalry...	One company, changing station in Department of Dakota	921. 04
12th Cavalry...	One company, from Department of Dakota to Department of the East	3, 429. 44
13th Cavalry...	Seven companies, changing station in Department of the Platte	5, 886. 12
14th Cavalry...	One company, from Department of the Platte to Department of the Missouri.	233. 14
15th Cavalry...	One company, from Department of the Platte to Department of the East	4, 015. 00
16th Cavalry...	Headquarters and six companies, changing station in Department of Arizona.	1, 974. 04
17th Cavalry...	Two companies, changing station in Department of California	1, 622. 73
18th Cavalry...	Four companies, changing station in Department of Dakota	6, 141. 06
19th Cavalry...	Three companies, changing station in Department of Texas	3, 942. 58
20th Cavalry...	Headquarters and six companies, from Department of Texas to Department of the East.	6, 537. 39
21st Cavalry...	Headquarters and nine companies, from Department of the Missouri to Department of the East.	9, 469. 69
22nd Cavalry...	Five companies, from Department of the Platte to Department of the Missouri.	2, 355. 35
23rd Cavalry...	Two companies, changing station in Department of the Platte	2, 002. 22
24th Cavalry...	Four companies, changing station in Department of Arizona	7, 268. 45
25th Cavalry...	Four companies, changing station in Department of the Missouri, and headquarters and three companies, changing station in Department of Arizona.	6, 551. 15
26th Cavalry...	One company, changing station in Department of the East	340. 94
27th Cavalry...	Headquarters and one company, from Department of Dakota to Department of the Missouri.	2, 163. 04
28th Cavalry...	Six companies, changing station in Department of the Missouri	2, 057. 61
29th Cavalry...	One company, Department of the Columbia to Department of the Missouri, and one company changing station in Department of the Missouri.	51. 77
30th Cavalry...	Headquarters and two companies from Department of Dakota to Department of the Missouri, and five companies from Department of the East to Department of the Missouri.	10, 240. 68
31st Cavalry...	Two companies, changing station in Department of the Platte	99. 94
32nd Cavalry...	One company, changing station in Department of the East	469. 51

REPORT OF THE SECRETARY OF WAR.

Troops.	Movement.	Cost.
20th Infantry ..	Two companies, changing station in Department of Dakota	\$310. 09
21st Infantry ..	Five companies, changing station in Department of the Platte	1, 250. 74
22d Infantry ..	Two companies, changing station in Department of Dakota	1, 272. 92
23d Infantry ..	Four companies, changing station in Department of Texas	2, 646. 76
24th Infantry ..	Four companies, changing station in Department of Arizona	1, 272. 56
25th Infantry ..	One company, changing station in Department of Arizona	490. 38
	Transportation of troops in Department of the Missouri to funeral of Gen. Sherman at St. Louis	15, 952. 08
	Total	134, 843. 40
In addition to the foregoing, the cost of transportation of troops and stores to seat of Indian war, and return of troops to their respective posts, aggregated		543, 324. 00
Showing total amount expended in the principal movement of troops during the year		678, 167. 40

BONDED PACIFIC RAILROADS.

Fifteen thousand and sixty-eight persons, 5,708 animals, and 49,940,112 pounds of freight were transported over the bond-aided Pacific railroads, their branches and leased lines, during the year.

The service performed by each road is shown in the following table:

Company.	Persons transported.	Animals transported.	Freight transported.
	<i>Number.</i>	<i>Number.</i>	<i>Pounds.</i>
Union Pacific	8, 583	4, 231	23, 473, 025
Central Branch, Union Pacific, operated by the Missouri Pacific system	2		326
Central Pacific (branches and leased lines), operated by the Southern Pacific Co	3, 461	684	15, 606, 690
Sioux City and Pacific	3, 022	793	5, 860. 131
Total	15, 068	5, 708	49, 940, 112

One thousand four hundred and sixty-five accounts of these railroads aggregating \$512,547.47, were received at this office during the year for settlement through the Treasury, as required by law. Of this amount \$296,548.99 inured to the Union Pacific, \$214,208.40 to the Central Pacific (branches and leased lines, operated by the Southern Pacific Company), and \$1,790.08 to the Sioux City and Pacific.

Of these accounts 429, aggregating \$38,052.72, were for transportation performed for other Departments of the Government under law of July 5, 1884, and of this amount \$23,191.14 was for service over Union Pacific, \$14,848.13 over Central Pacific with leased lines and branches (operated by Southern Pacific Company), and \$13.45 for service by Sioux City and Pacific Railroad.

The following is a statement of the analysis of the accounts of these companies for the year, showing amounts for troops and stores and for bonded and nonbonded service respectively:

Company.	Amount of accounts received in Quarter-General's office.	Estimated amount of accounts not rendered.	Portion inuring for troops.	Portion inuring for stores.	Proportion subsidized.	Proportion unsubsidized.	Total amount.
Union Pacific	\$296, 548. 99	\$66, 919. 93	\$169, 312. 72	\$194, 156. 20	\$289, 535. 87	\$73, 933. 05	\$363, 468. 92
Southern Pacific Co., operating the Central Pacific R. R.	214, 208. 40	108, 961. 41	128, 379. 74	194, 790. 07	124, 809. 88	108, 359. 93	323, 169. 81
Sioux City and Pacific ..	1, 790. 08	2, 055. 83	2, 450. 27	1, 395. 64	3, 449. 03	396. 88	3, 845. 91
Total	512, 547. 47	177, 937. 17	300, 142. 73	390, 341. 91	417, 794. 78	272, 689. 86	690, 484. 64

Settlement of the accounts of the bond-aided Pacific railroads has continued to be made during the year under the provisions of the circular of the honorable the Secretary of the Treasury of June 23, 1887, published in the Report of the Quartermaster-General for 1889.

VESSELS IN THE SERVICE OF THE QUARTERMASTER'S DEPARTMENT.

This Department has kept in its service, for use at points where constant service is required, nine steamboats owned by the Department, the cost of maintaining which, including repairs, for the year, was \$86,706.79, as will appear from the following statement:

Name.	Class.	Tonnage.	When purchased or built.	Estimated cost or value.
General McDowell.....	Propeller.....	160.00	Nov. 17, 1886	\$56,150.00
Chester A. Arthur.....	Steamer.....	178.70	June 30, 1876	26,000.00
Ordnance.....	Propeller.....	75.00	do.....	18,000.00
General Wool*.....	do.....	97.00	Sept. 1, 1883	27,870.80
Monroe.....	Steam launch.....	82.35	Nov. 30, 1875	15,200.00
Resolute.....	Steam tug.....	70.30	Nov. 14, 1879	17,947.46
Hamilton.....	Steam launch.....	37.68	Feb. 1, 1875	7,800.00
Atlantic.....	Steam tug.....	60.31	Oct. 15, 1878	13,865.56
Thayer.....	Steam launch.....	32.36	Oct. 8, 1874	7,200.00
Belle of the Bay.....	Sloop.....	16.00	July 25, 1882	275.00

Name.	By whom employed.	Where employed.	Amount paid for repairs.	Amount paid for running expenses, including crews' wages.	Total expenses.
General McDowell	Chief quartermaster Division Pacific.	San Francisco Harbor, Cal.	\$3,904.63	\$24,262.31	\$28,166.94
Chester A. Arthur.	Depot quartermaster.	New York Harbor.....	278.00	12,365.56	12,643.56
Ordnance.....	do.....	do.....	821.37	14,432.27	5,253.64
General Wool*.....	Post quartermaster.	Fort Monroe, Va.....	307.36	2,250.76	2,558.12
.....	Depot quartermaster.	New York Harbor.....	1,091.00	3,274.01	4,365.01
Monroe.....	Post quartermaster.	Fort Adams, R. I.....	34.94	5,260.07	5,295.01
Resolute.....	Depot quartermaster.	Boston, Mass.....	1,091.95	\$7,913.65	9,005.60
Hamilton.....	Post quartermaster.	Davids Island, N. Y. H.....	343.39	3,390.00	3,733.39
Atlantic.....	do.....	Governors Island, N. Y. H.....	2,195.00	11,585.56	13,780.56
Thayer.....	do.....	(Davids Island, N. Y. H.) (Fort Hamilton, N. Y. H.)	1,075.00	829.96	1,904.96
Belle of the Bay.....	do.....	(Fort Wadsworth, N. Y. H.) St. Francis Barracks, Fla.....	(||)	(||)	(||)
Total.....			11,142.64	75,564.15	86,706.79

* Transferred to the depot quartermaster, New York City, January 12, 1891. Crew paid to January 31, 1891.

† Crew, \$12,131.96; dockage, \$1,440; water, \$360; coal, \$9,018.55; stores, \$1,311.80. Paid for temporary hire of substitute, \$895, not included.

‡ Paid for temporary hire of substitute \$235, while under repair. Boat transferred April 4, 1891, to Engineer Department.

§ \$625.44 paid for substitute while repairing.

|| None reported.

In the spring of 1891 it was found that the services of the steamer *General Wool* could be dispensed with at Fort Monroe, Va., with a saving to the United States, and she was ordered to New York Harbor to replace the steamer *Ordnance*, a smaller and less efficient boat, which was kept in service of the Ordnance Department exclusively, but maintained by the Quartermaster's Department.

The steamer *Ordnance*, with all her appurtenances, was, on March 31, 1891, transferred to the Engineer Department for work connected with

the construction of fortifications and for general duty upon river and harbor improvements, to be kept without expense to the Quartermaster's Department.

In June, 1891, by direction of the honorable Secretary of War, a contract was entered into with John A. Dialogue, of Camden, N. J., for the construction for use of this Department in New York Harbor of a new steel hull, twin-screw steamer of 500 horse-power engines, upon plans and specifications prepared by Mr. Edward Burgess, of Boston, Mass., to cost \$57,000.

This new boat is required to take the place of the steamer *Chester A. Arthur*, which has been in use by this Department in New York Harbor since June 30, 1876, when she was purchased, secondhand, for \$26,000, and which, through constant service, has become unfitted for the work required of her, especially in winter time, and the cost of her annual repairs made it a matter of economy to replace her with a new boat, which has been specially designed for the work required by the Department, and will be completed under contract in the spring of 1892.

The following is a list of vessels temporarily used during the year by charter, showing cost of such service to be \$6,386.75:

Name.	Class.	Tonnage.	When chartered.	Period of service.	
				From—	To—
Sonoma	Steamboat	305.00	Oct. 31, 1890	Nov. 24, 1890	Nov. 27, 1890
Wizard	Steam tug	75.00	Mar. 30, 1891	Mar. 30, 1891	Apr. 4, 1891
Relief	do	102.14	Apr. 4, 1891	Apr. 6, 1891	Apr. 7, 1891
Vigilant	do	88.00	Apr. 7, 1891	Apr. 8, 1891	Apr. 8, 1891
Assistance	do	100.29	July 21, 1890	July 21, 1890	Aug. 13, 1890
Baltic	do	63.60	Oct. 18, 1890	Oct. 18, 1890	Oct. 18, 1890
Edwin Hawley	do	55.65	Oct. 21, 1890	Oct. 21, 1890	Oct. 30, 1890
Thomas Hunt	Steamboat	429.52	Feb. 19, 1891	Feb. 19, 1891	Feb. 19, 1891
Black Bird	do	339.48	May 30, 1891	May 30, 1891	May 30, 1891
Princess Ida	Sloop	10.00	July 1, 1890	July 1, 1890	June 30, 1891
Florence	Steam launch	28.01	do	do	do
Kate Carmon	Steam tug	Unknown	June 6, 1891	June 6, 1891	do
Oclemena	Steamboat	do	Aug. 25, 1890	Aug. 25, 1890	Aug. 25, 1890

Where charter money is payable.	By whom employed.	Rate of pay.	Total earnings.	Remarks.
<i>Per day.</i>				
San Francisco, Cal...	Chief quartermaster Division of the Pacific.	\$55.00	\$220.00	Employed as substitute for <i>General McDowell</i> .
Do	do	70.00	420.00	Do.
Do	do	90.00	180.00	Do.
Do	do	75.00	75.00	Do.
New York City	Depot quartermaster.	\$57 for 12 hours, \$15 for each additional hour.	2,088.00	In place of steamer <i>Atlantic</i> , including engineer and fireman.
Do	do	57.00	57.00	In place of steamer <i>Ordinance</i> .
Do	do	57.00	228.00	
Do	do	\$150 for 12 hours, \$15 for each additional hour.	202.50	
Do	do	\$200 for 12 hours, \$15 for each additional hour.	230.00	
Fort Adams, R. I.	Post quartermaster.	\$2.75	52.25	When steam launch was not running.
Fort Barrancas, Fla	do	\$200 per month.	2,400.00	Freight and passengers between Forts Barrancas, Pickens, and Pensacola.
Fort Monroe, Va	do	\$4 per hour.	84.00	Employed at intervals setting targets.
New York City	Post quartermaster, Fort Ontario, N. Y.	\$150 per trip.	150.00	Transporting Companies A, C, Eleventh Infantry, from Fort Ontario to Fort Niagara, N. Y.
			6,386.75	

SUMMER ENCAMPMENTS AND RIFLE COMPETITION.

From reports received it is shown that there was expended during the fiscal year 1891, in the transportation of troops in connection with summer encampments, practice marches, field maneuvers, and instructions the sum of \$33,898.35.

Also for the transportation of enlisted men to engage in target practice and rifle competition the sum of \$30,325.98.

Where expended.	Summer camps.	Rifle competition.
Department of the East.....	\$7,784.81	\$8,549.44
Department of Missouri.....	171.76	2,904.80
Department of the Platte.....	2,776.64	6,123.02
Department of Dakota.....	6,199.24	8,100.99
Department of Texas.....	14,765.03	1,791.03
Department of Arizona.....	1,008.22	2,015.17
Department of California.....	12.10	52.17
Department of the Columbia.....	1,180.55	789.36
Total	33,898.35	30,325.98

TELEGRAPHING ON ARMY BUSINESS.

This service has continued during the year without actual cash outlay to the Department, owing to the fact that the Western Union Telegraph Company, which exercises a practical monopoly in services rendered, has refused to accept the rates fixed by the Postmaster-General for Government telegrams sent during the fiscal year 1891, and has presented no accounts for these services.

The rates fixed by the Postmaster-General, which were published in last annual report of the Quartermaster-General, have remained the same during the year 1891.

INCREASED EXPENDITURES FOR ARMY TRANSPORTATION.

The extra expenditures on this account have grown out of the Indian outbreak, the massing of troops and munitions of war at Rushville, Nebr., and the return of these troops to their proper station; the building of a new steamer for use in New York Harbor, the supply of the more important permanent military posts with roads, water, and sewerage. These have, however, been all met by the funds appropriated, so that no deficiency exists on account of this service for the fiscal year 1891.

ACCOUNTS AND CLAIMS FOR TRANSPORTATION.

The records show that 3,913 accounts and claims, amounting to \$950,012.05, were received and examined for settlement in this branch during the year.

Of these 1,747, amounting to \$417,369.59 were chargeable to the appropriation for army transportation for the several years in which the services were performed; 1,465, amounting to \$512,547.47, were for transportation over the bond-aided Pacific railroads, their leased lines and branches; 654, amounting to \$19,037.73, exclusive of 429 accounts of the bond-aided Pacific roads, amounting to \$38,052.72, were for transportation for other departments and payable by the several departments interested, and 47, amounting to \$1,057.26, were for the transmission

of telegrams on official military business, principally over lines of the bond-aided Pacific railroads and chargeable to the appropriation for incidental expenses.

REGULAR SUPPLIES BRANCH.

This branch has charge of all matters relating to the procurement and distribution of supplies, including means of transportation, stoves, and heating apparatus, and repair and maintenance of same, for heating barracks and quarters; of ranges, stoves, and apparatus for cooking; of fuel and lights for enlisted men, guards, hospitals, storehouses and offices, and for sales to officers; of equipment of bakehouses to carry on post bakeries; of the necessary furniture, text-books, paper, and equipments for the post schools; for the tableware and mess furniture for kitchens and mess halls for enlisted men; of forage and bedding for the public animals of the Quartermaster's Department, and for the authorized number of officers' horses; of straw for soldiers bedding; of stationery and blank books for the Quartermaster's Department, certificates for discharged soldiers, blank forms for the Paymaster's and Quartermaster's Departments, and of the necessary correspondence connected with the work of this branch.

This branch has also charge of matters relating to all contracts to which the Quartermaster's Department is a party.

The following statement shows the number of cavalry and artillery horses purchased during the fiscal year, their aggregate cost, average cost, and place of purchase:

Cavalry and artillery horses purchased (by department or post).

For what department, depot, or post.	Cavalry.	Artillery.	Total cost.	Average cost.	Where purchased.
Division of the Atlantic	40	34	\$11,832.67	\$159.90	St. Louis, New York, and Boston.
Department of the Missouri ..	169	64	36,559.55	150.90	St. Louis, Mo.
Department of Dakota	224	.....	23,696.00	105.78	In department.
Department of Texas	86	.....	10,750.00	125.00	Do.
Department of the Columbia ..	39	.....	5,208.00	133.54	Do.
Department of Arizona	*264	.....	33,576.44	127.18	St. Louis, Mo.
Department of California	47	34	13,281.91	163.97	San Francisco, Cal.
Department of the Platte	195	.....	24,464.00	125.45	In department.
West Point, N. Y.	35	.....	5,343.82	152.68	St. Louis, Mo.
Jefferson Barracks, Mo	37	.....	5,503.75	148.75	Do.
Total	1,136	132	170,216.14	134.24	

* Includes fifty ponies purchased in department.

The following statement shows the number of cavalry and artillery horses purchased during the fiscal year, their aggregate cost and average cost:

Cavalry and artillery horses purchased.

For what military division .	No.	Total cost.	Average cost.
Division of the Atlantic	109	\$17,176.49	\$117.58
Division of the Missouri	775	100,973.30	142.06
Division of the Pacific	384	52,066.35	105.59
Total	1,268	170,216.14	134.24

Average cost of cavalry horses \$129.38
 Average cost of artillery horses 175.91

The following statement shows the number of draft and pack animals purchased during the fiscal year, their distribution, aggregate cost, and average cost:

Mules and team horses purchased.

For what department, depot or post.	Horses.			Mules.		
	No.	Total cost.	Average cost.	No.	Total cost.	Average cost.
Division of the Atlantic	14	\$2,580.25	\$184.30	13	\$2,090.40	\$160.80
Department of the Missouri	2	450.00	225.00	100	15,185.00	151.85
Department of Dakota	2	450.00	225.00	300	56,856.00	189.52
Department of Texas	3	289.00	144.50	50	7,225.00	144.50
Department of the Columbia	—	—	—	47	7,173.07	152.61
Department of Arizona	1	175.00	—	201	31,255.00	155.49
Department of the Platte	2	337.00	168.50	301	42,320.00	140.59
Department of California	—	—	—	50	8,941.25	178.82
Washington depot	4	860.00	215.00	2	297.00	148.50
Jeffersonville depot	1	180.00	—	—	—	—
Philadelphia depot	1	225.00	—	—	—	—
San Francisco depot	1	225.00	—	—	—	—
New York depot	4	900.00	225.00	—	—	—
Hot Springs, Ark.	1	175.00	—	—	—	—
Jefferson Barracks, Missouri	—	—	—	16	2,356.00	147.30
West Point, N. Y.	3	582.00	194.00	—	—	—
Headquarters Division Missouri	2	388.00	194.00	1	148.00	—
Willetts Point, New York Harbor	3	600.00	200.00	—	—	—
Columbus Barracks, Ohio	—	—	—	1	172.50	—
Fort Sheridan, Ill.	1	175.00	—	—	—	—
Total	44	8,591.25	195.25	1,082	174,019.22	160.83

The following is a statement of the sales of public animals in the different departments and at general and other depots during the fiscal year, as reported to this office, showing the number of each class and the total amount realized:

Where sold.	Cavalry and artillery horses.		Draft horses.		Mules.	
	No.	Amount.	No.	Amount.	No.	Amount.
Division of the Atlantic	42	\$2,150.90	9	\$288.10	2	\$31.00
Department of the Missouri	318	10,829.95	3	202.00	123	4,629.50
Department of Dakota	194	6,242.50	2	109.00	90	2,533.00
Department of Texas	131	3,963.65	—	—	78	3,377.00
Department of the Columbia	66	1,806.00	7	162.00	77	1,572.75
Department of Arizona	272	11,718.40	—	—	145	7,210.50
Department of California	28	1,229.60	4	197.00	35	939.00
Department of the Platte	104	3,154.75	—	—	90	2,849.75
Washington depot	—	—	5	617.00	4	194.00
Philadelphia depot	—	—	1	10.00	—	—
Willetts Point, New York Harbor	—	—	3	117.00	—	—
West Point, N. Y.	15	889.50	1	16.00	2	54.00
San Francisco depot	—	—	1	24.00	—	—
Hot Springs, Ark.	—	—	—	—	1	42.00
Atlanta, Ga.	—	—	—	—	1	40.00
Jefferson Barracks, Mo.	3	74.00	—	—	—	—
New York depot	11	528.50	3	93.00	1	12.00
Total	1,184	42,587.15	39	1,835.10	649	23,484.50

The following is a summary of the number of animals purchased, sold, died, etc., during the fiscal year and remaining on hand at its close, as indicated by reports received at this office:

	Cavalry and artillery horses.	Team horses.	Mules.
On hand July 1, 1890.....	5,945	281	4,151
Purchased.....	1,268	44	1,082
Taken up.....	3		3
Total to be accounted for.....	7,216	325	5,236
Sold.....	1,184	39	649
Died.....	248	10	142
Lost and stolen.....	2		3
Total sold, died, etc.....	1,434	49	794
On hand July 1, 1891.....	5,782	276	4,442

WAGONS, CARTS, ETC.

During the fiscal year ended 1890-'91 there were purchased:

Kind.	No.	Total cost.	Kind.	No.	Total cost.
Buckboards.....	7	\$615.00	Wagons:		
Hand carts.....	69	957.77	Escort.....	80	\$7,700.00
Wagons:			Army.....	80	7,836.00
Spring.....	8	1,753.00	Dump carts.....	25	899.75
Delivery.....	2	200.00	Sleigh.....	1	27.00
Express.....	1	138.30	Travois.....	1	50.00
Depot.....	1	185.00	Total.....		23,656.82
Ambulance.....	15	3,195.00			

ILLUMINATING SUPPLIES.

During the fiscal year 1,018 lamps (pendent and bracket), 1,226 lanterns (assorted), 138 street lamps, 192 lamps (assorted), 25 lamp posts, and the necessary chimneys, wicks, and the various parts required for expenditure and repairs, were purchased at general depots at a cost of \$10,627.98. Fifteen thousand two hundred and seventy-seven gallons of gasoline were purchased at a cost of \$2,316.74. Four hundred and sixteen thousand eight hundred and forty gallons of mineral oil were purchased at a cost of \$58,157.34. Expenditure for gas and matches, \$3,253.16. The aggregate expenditure on account of said illuminating supplies was \$74,355.22.

The money received from sales of illuminating supplies to officers reverts to the appropriation for regular supplies.

VETERINARY SUPPLIES.

During the fiscal year veterinary supplies were purchased as follows:

New York depot.....	\$3,729.31
Washington depot.....	7.35
Total.....	3,736.66

Estimates for annual supplies and miscellaneous requisitions have been received and acted upon during the fiscal year as follows:

From Division of the Atlantic.....	\$958
From Division of the Missouri.....	1, 170
From Division of the Pacific.....	510
Total.....	2, 638

CONTRACTS.

During the fiscal year ended June 30, 1891, 1,402 contracts were received, examined, and filed in this office. Six hundred and thirty were for 54,200 cords of wood, 161,047,475 pounds of coal, 20,540 bushels of charcoal, 17,450,090 pounds of corn, 22,660,070 pounds of oats, 6,023,000 pounds of barley, 3,449,100 pounds of bran, 63,238,600 pounds of hay, 5,902,000 pounds of straw, 50,000 pounds of middlings, and 50,000 pounds of shorts; 4 for indefinite quantities of fuel, forage, and straw; 29 for horses and mules; 7 for grading; 21 for printing; 146 for construction and repairs of buildings; 87 for transportation; 122 for leases; 25 for water and water supply; 6 for wagons and carts; 8 for wagon parts, etc.; 1 for manning pack train; 146 for clothing, camp and garrison equipage; 3 for books; 29 for services; 12 for shoeing public animals; 1 for meals, lodgings, and stabling; 27 for plumbing; 5 for fences, etc.; 17 for roads and walks; 3 for harness materials, etc.; 8 for building materials; 7 for telephones; 2 for natural gas; 9 for table ware and kitchen utensils; 1 for gravel; 7 for mineral oil; 13 for heating apparatus; 4 for gas; 2 for lamp chimneys; 1 for cooking apparatus; 2 for sinking wells; 2 for paulins; 2 for navigating steamers; 1 for army ranges, etc.; 1 for plumbing materials; 1 for coffins, carts, and wagon parts; 4 for work on national cemeteries; 2 for rubber hose; 3 for lockers, and 1 for lamps, etc.

Stoves and ranges and extra parts therefor were purchased at general depots during the fiscal year to extent of \$43,611.57, as follows:

Kind.	No.	Total cost.
Cooking stoves.....	45	\$1, 405.68
Heating stoves.....	259	2, 858.55
Ranges.....	187	15, 101.55
Furnaces and heaters.....	11	3, 241.50
Cost of repairs of stoves, etc.....		21, 004.29
Total.....		43, 611.57

Statement of horse and mule shoes, horseshoe nails, and shoeing tools purchased during the fiscal year, as follows:

Articles.	Pounds.	Total cost.
Horseshoes.....	144, 077	\$6, 146.33
Muleshoes.....	95, 325	4, 662.45
Horseshoe nails.....	47, 725	7, 430.93
Toe calks.....	12, 875	584.40
Shoeing tools.....		861.48
Total.....		19, 685.59

The following-described articles of tin and sheet-iron ware were, under authority of the Secretary of War, manufactured at the Fort Leavenworth Military Prison during fiscal year ending June 30, 1891:

Furniture for stoves and ranges.

Articles.	No.	Material.	Civilian labor.	Prison labor.	Total cost.
Boilers:					
Wash (army range)	1,161	\$1,172.27	\$199.52	\$145.00	\$1,516.79
Coffee (army range)	427	153.26	73.27	53.25	279.78
Round	318	395.23	82.35	60.88	538.46
Square	935	1,170.26	258.01	187.25	1,615.52
Bake pans:					
Army range	1,033	225.94	85.99	62.50	374.43
Tin	18	1.24	1.05	.75	3.04
Sheet iron	546	160.78	39.90	28.74	229.42
Teakettles (army range)	718	328.07	81.87	59.50	469.44
Steamers:					
Army range	216	32.56	18.57	13.50	64.63
Boiler	29	10.65	5.73	4.13	20.51
Pots:					
Coffee	295	45.99	37.13	27.00	110.12
Tea	20	4.25	2.46	1.75	8.46
Tin	24	8.84	2.80	2.00	13.64
Pot covers (army range)	84	8.52	1.03	.75	5.30
Dish pans	30	23.23	7.21	5.25	35.69
Suacepans	25	5.36	2.23	1.63	9.22
Stewpans	4	.68	.55	.37	1.60
Steamer lids	12	.47	.17	.13	.77
Dippers	129	10.83	7.21	5.25	23.29
Coffee urns	48	75.73	14.86	10.75	101.34
Strainers	6	.14	.36	.25	.75
Cooking vessels	24	15.45	7.08	5.00	27.53
Stovepipe (joints)	12,375	1,200.29	107.42	78.07	1,385.78
Stovepipe (elbows)	3,501	215.48	150.49	109.37	475.34
Flue stoppers (assorted)	60	2.35	1.72	1.25	5.32
Collars	312	4.13	2.42	1.75	8.30
Stove drums, sheet iron	12	10.23	3.00	2.00	15.23
Buzzacott ovens, sheet iron	3	9.92	5.50	4.00	19.42
Total					7,359.12

HARNESSES.

Under authority of the Secretary of War harness was manufactured at Fort Leavenworth Military Prison for the Quartermaster's Department during fiscal year ending June 30, 1891, as follows, viz:

Articles.	No.	Material.	Civilian labor.	Prison labor.	Total cost.
Single sets harness:					
Ambulance, wheel	260	\$3,248.81	\$421.82	\$617.50	\$4,288.13
Ambulance, lead	213	2,371.15	291.00	426.00	3,088.15
Wagon, wheel	367	5,125.09	172.33	252.25	5,549.67
Wagon, lead	668	6,261.03	228.17	339.00	6,828.20
Sets harness, cart	50	629.50	38.26	56.25	724.01
Extra parts for same		850.16	48.42	171.30	1,069.88
Total					21,548.04

Statement showing payments made by quartermasters for purchases for the Army at general depots for use thereat, and for shipment elsewhere, during the fiscal year ending June 30, 1891, from appropriations pertaining to that period:

Depots.	Regular supplies.	Incidental expenses.	Barracks and quarters.	Army transportation.	Total.
Jeffersonville	\$50,646.23	\$8,468.65	\$1,304.01	\$77,464.83	\$137,883.72
St. Louis	11,368.93	799.13	4,708.74	146,629.28	163,506.08
New York	45,399.68	2,783.19	1,451.28	26,074.78	75,708.93
Philadelphia	16,594.99	272.06	972.52	13,600.77	31,440.34
San Francisco	31,716.50	9,435.82	60.40	53,230.31	94,443.12
Total	155,726.33	21,758.85	8,497.04	316,999.97	502,982.19

Purchases have been made in the departments and at general depots for post bakeries, schools, and gardens as follows:

For bakeries	\$296.23
For schools	5, 244.42
For gardens	8.97
Total	5, 549.62

Statement showing the total cost of all tableware and kitchen utensils purchased.

Philadelphia depot	\$29, 434.25
St. Louis depot	358.73
Total	29, 792.98

MESS TABLES, BENCHES, MESS STOOLS, STABLE BROOMS, COMPANY FIELD DESKS, AND ROPE MATS.

There were manufactured during the fiscal year ended June 30, 1891, at Fort Leavenworth Military Prison, viz:

Articles.	No.	Material.	Prison labor.	Total.
Mess tables.....	347	\$1, 482.98	\$320.75	\$1, 803.73
Mess benches.....	110	161.24	49.00	210.24
Mess stools.....	1, 978	561.35	44.50	605.85
Stable brooms.....	400	104.64	20.00	124.64
Company field desks.....	48	268.53	70.00	338.53
Mess-table legs and braces, sets.....	6	7.32	3.00	10.32
Mats (rope), assorted.....	152	19.09	90.13	109.22
Total				3, 202.53

CLAIMS UNDER ACT JULY 4, 1864.

The duties of this branch are as follows:

First. The investigation and adjudication of claims for quartermaster stores taken, or furnished, for the use of the Army during the war of the rebellion, in States not in insurrection, as provided for in act of July 4, 1864, section 300 A, Revised Statutes of the United States.

Second. Many of these claims are being called up by the Department of Justice and by the Court of Claims under the provisions of the act of March 3, 1883, commonly known as the "Bowman Act," and this office is called upon to furnish the evidence in these cases and to transmit the papers when they are on file. The time of the clerical force of the branch is largely occupied in replying to these calls, 600 of which were received and disposed of during the fiscal year. Besides this, many inquiries from members of Congress, claimants, and others are received, to which appropriate replies are made.

Third. The examination of certain miscellaneous claims, consisting of (1) cases based on certified accounts and known as "regular-purchase vouchers," and (2) cases known as "soldiers' claims," being for private horses turned into regiments and appropriated to the public service, or for horses lost in the service by officers and soldiers.

Most of these miscellaneous claims are referred to this office by the Third Auditor of the Treasury, and after receiving an administrative examination in this branch are returned with an appropriate report in each case for settlement by the accounting officers of the Treasury under any law applicable.

The third section of the act of March 3, 1879, provides that all claims

not presented and filed under the act of July 4, 1864, prior to January 1, 1880, shall be forever barred. Consequently no new claims under the act of July 4, 1864, are being received.

During the war, however, many claims were presented to certain military boards and commissions appointed by department and district commanders, and received a greater or less investigation but no final and complete action. The Quartermaster-General in 1880 held that the presentation of claims before such boards and commissions was such a presentation and filing as to save them from being barred under the third section of the act of March 3, 1879. During the past fiscal year two of this class of claims have been called up in this office by the parties interested.

Many claims were filed prior to January 1, 1880, and returned for informality or additional evidence. These claims can still be refiled or revived by additional evidence in case the original papers have been lost. Five claims of this character received final action during the past fiscal year.

The clerical force in this branch at the commencement of the fiscal year consisted of one clerk of class two, one of class one, and one at \$1,000, the clerk of class one being on temporary duty. He returned to the branch to which he belonged October 1, 1890. Another clerk of class one was transferred to this branch August 21, 1890, and remained until the 21st of November following, when she was transferred to another branch of the office, leaving the force of the branch during the remainder of the fiscal year, one clerk of class two and one at \$1,000.

The following statement shows the number of claims reported on hand July 1, 1890; number of claims presented to military boards and commissions and called up in the Quartermaster General's Office during the fiscal year; number of claims adjudicated by the Quartermaster General; the amounts approved in whole or in part; the amounts disallowed, and the number and amount of those remaining on hand July 1, 1891:

Number of claims remaining on hand July 1, 1890.....	46
Amount	\$66,634.32
Military board claims called up	2
Amount	900.00
Number of claims refiled or revived	5
Amount	1,431.80
Total on hand and received during the year	53
Amount	68,966.12
Upon the foregoing, action was taken as follows:	
Approved in whole or in part	8
Amount	2,161.30
Upon these claims there was allowed.....	1,687.20
And disallowed	474.10
Rejected.....	6
Amount	1,995.00
Total on which action was had.....	14
Amount	4,156.30
Remaining on hand July 1, 1891.....	39
Amount	64,809.82

On the claims (39) reported as on hand no final action has been taken, because in most cases neither the address of the claimant nor of any attorney in the case is known. But few of these claims are likely ever to be called up. Some, however, have been suspended at the request of claimants to afford them an opportunity to furnish additional evidence.

Respectfully,

JAMES GILLISS,
Major and Quartermaster, U. S. Army.

The QUARTERMASTER-GENERAL, U. S. ARMY.

8.

WAR DEPARTMENT,
QUARTERMASTER-GENERAL'S OFFICE,
Washington, D. C., September 15, 1891.

GENERAL: I have the honor to submit a report of the operations of the mail and record division, records and files and miscellaneous claims branches for the year ending June 30, 1891.

MAIL AND RECORD DIVISION.

This division commenced operations on November 15, 1890, it being the desire of the Quartermaster-General to discontinue the keeping of a separate record in each of the twelve branches of his office by consolidating all into one set of records.

After careful study and consideration it was determined that this could be best accomplished by a system of card-records similar to that successfully employed by Maj. Ainsworth in the record and pension division of the War Department.

All necessary cards and blanks having been previously prepared and arrangements made, on the 15th of November last the various branches discontinued keeping any record, and all record has since been kept by this division.

The card or slip upon which the record is made accompanies the case from its entry in the office until action is completed or the case again leaves the office, acquiring in its progress through the office a complete history of all action taken.

Upon action being taken, or the case leaving the office, the slips are filed as the record, the case card having been previously stamped with the same number given to the case when received.

One series of numbers was adopted, to be continued without regard to year.

All original papers, maps, plans, documents, etc., pertaining to any case are filed separately from the record but under the same number taken by that particular case.

A card index is used, the cards being filed alphabetically.

Cases are indexed under station, subject, name, or any or as many heads as seem desirable in a particular case.

Where a case is purely personal it is sufficient to index it under the name, the index card being filed in its dictionary order.

The method of subject index is best explained by supposing a case, as of plumbing in hospital at Fort Sheridan.

The general index card, corresponding to the case card, would be headed—

Sheridan, Fort, Ill.,
Hospital,
Plumbing.

Two cross-reference cards would be made, one—

Hospital,
Plumbing,
Sheridan, Fort;

and the other—

Plumbing,
Sheridan, Fort, Ill.,
Hospital.

The general index and cross-reference cards being filed, the case would be indexed in three places, namely:

Under S: Sheridan, Fort; in the subdivision, hospital; subdivision, plumbing.

Under H: Hospital; in the subdivision, plumbing; subdivision, Sheridan.

Under P: Plumbing; in the subdivision, Sheridan, Fort; subdivision, hospital.

The general index card is never placed in the index case until the case has been acted upon. Its presence in a special file, kept for the purpose, indicates that the case is still unfinished, and by these cards the condition of the office as to unfinished business can always be ascertained.

In cases where no cross-reference cards are made a duplicate general index card takes the place on the file, temporarily, of the general index card.

All mail for the Quartermaster-General's Office is received by this division, opened, stamped, briefed, entered, and indexed, after which each case as ready is sent, accompanied by its record card, to the branch to which it pertains. After the action has been determined in the branch and, as in the case of a letter or indorsement, the same written in rough upon a slip attached to the card, the case is returned to the mail room, where the action, as indicated, is put in form of letter or indorsement. For this purpose the copyists and typewriters are in one room under charge of a competent clerk.

The letter or indorsement having been written, it is sent to the officer for signature, returned to the mail room, press-copied, and mailed, the record at the mailing desk showing by what mail the communication leaves the office.

The communication having been disposed of the record card, with slips attached, is filed in its numerical order. Any further correspondence in connection with this case that may arise will call out the same record card, and upon it will be continued the record of any further action taken in the case, and as it always accompanies the case through the office, record of all previous action is at hand. This is a manifest advantage over the book system where the record would have to be copied from several entries made in different portions of a book with no assurance that all were found. The card when filed is a little record book of its own case and nothing else.

To accomplish the rapid movement of papers through the office a six-minute messenger or mail service has been provided in connection with this division. The work is accomplished by five messengers.

There are about forty stations, consisting of boxes divided into three compartments each, and marked "in," "up," and "down," placed upon the desks of clerks. These are visited every six minutes by a messenger, affording means of frequent and rapid communication between all parts of the office.

Each station is supplied with a box containing jackets or cards, upon which are printed in black the number of other stations, while the number of the sending station is printed in red, to insure the return of the jacket.

At the time of the change the files of the office, in many of its branches, were incumbered with cases not disposed of—laid aside for future consideration, or buried under later accumulations. The disposition of these cases, in connection with the current work, and the hesitation inevitable upon the discarding of old and the adoption of new methods, taxed the clerical force of the office quite severely for a time, until the routine became familiar and the work was brought up to date. All classes of business now receive the prompt attention and action formerly accorded to "special cases."

During the seven and one-half months this division has been in opera-

tion the following is the number of communications received and the number of indorsements and letters sent out:

Original cases	18,316
Received back	8,876
Letters and indorsements written	25,648

RECORDS, FILES, AND CLAIMS BRANCH.

This branch is charged with the care and preservation of the general records and files of the office, from the date of its organization, June 15, 1818, and takes administrative action upon miscellaneous claims and accounts presented for payment for services rendered as civilian employes, and for extra-duty pay of enlisted men employed in the Quartermaster's Department; reimbursement of expenses incurred by officers, soldiers, and civilian employes, for which the appropriations of the Quartermaster's Department are accountable; expenses of burial of officers and soldiers; rewards for apprehension and delivery of deserters, and the expenses incident to their pursuit; rewards for recovery of lost or stolen public animals, and such other claims and accounts as do not specifically pertain to other branches of the office.

It is charged with the supply of reading matter to military post-libraries for the use of enlisted men of the Army, and with the preparation and record of requisitions for printing and binding for the Quartermaster's Department.

MISCELLANEOUS CLAIMS AND ACCOUNTS.

At the beginning of the fiscal year there were on hand, awaiting action, 193 miscellaneous claims and accounts, amounting to \$42,765.70; there were received during the year 1,176 claims and accounts, amounting to \$261,034.33.

During the year final action was taken in the office upon 1,106 claims and accounts, amounting to \$241,183.35, leaving on hand at the close of the year, awaiting action, 263 claims and accounts, amounting to \$62,616.68.

The following is a statement showing in detail the number and amount of the claims and accounts received and acted upon during the fiscal year:

	Number.	Amount.
On hand July 1, 1890, awaiting action:		
187 claims amounting to.....\$42,662.33	} 193	\$42,765.70
6 accounts amounting to.....\$103.37		
There were received during the fiscal year:		
882 claims amounting to.....\$211,342.58	} 1,176	261,034.33
294 accounts amounting to.....\$49,691.75		
Total on hand and received.....	1,369	303,800.03
Final action was taken during the fiscal year as follows:		
Claims approved	8	1,132.12
Claims referred to other Departments	17	4,940.27
Claims referred to Third Auditor for action of accounting officers	463	77,539.25
Reduction on claims approved and referred		23,566.34
Claims rejected.....	333	89,048.44
Accounts approved.....	209	16,625.15
Reduction on accounts approved.....		135.51
Accounts referred to other departments	67	27,621.72
Accounts rejected	9	574.55
Total upon which final action has been taken	1,106	241,183.35
Remaining on hand July 1, 1891:		
Claims	248	57,778.49
Accounts	15	4,838.19
Total	263	62,616.68

During the fiscal year fifty-one miscellaneous claims, amounting, as presented, to \$9,134.76, which had been filed in the office prior to July 1, 1888, and are not included in the foregoing statement, were finally acted upon.

NEWSPAPERS AND PERIODICALS.

There was expended during the fiscal year for the supply of newspapers and periodicals for military post-libraries, the sum of \$4,155.75, and arrangements were made for the supply of reading matter to military post-libraries during the current fiscal year at a cost of \$3,737.55, a reduction of \$418.20 in the cost of supply during the present fiscal year.

This reduction is due to the abandonment of several military posts, and the reduced number of companies composing the several regiments of cavalry and infantry.

Reading matter is now being supplied to 117 military posts garrisoned by 398 companies or detachments of troops.

Selections of newspapers and periodicals are made by the post authorities from a list of all the popular current publications, and the following is a list for which the most numerous requests for supply were received, viz:

	Copies
Army and Navy Register.....	95
Harper's Weekly.....	80
Puck.....	66
Frank Leslie's Illustrated Newspaper.....	42
Judge.....	35
Daily Kansas City Times.....	33
Daily New York Herald.....	27
Daily St. Louis Globe-Democrat.....	25
Monthly Cosmopolitan.....	30
Scribner's Magazine.....	29
Century Magazine.....	28
Frank Leslie's Monthly.....	27
Harper's Monthly.....	22

PRINTING AND BINDING.

There were 483 requisitions issued on the Public Printer for printing and binding required during the fiscal year, and the cost for the work done in the office of the Public Printer for the Quartermaster's Department was \$9,993.24.

Very respectfully,

WM. S. PATTEN,
Captain and Assistant Quartermaster, U. S. Army.

The QUARTERMASTER-GENERAL.

9.

WAR DEPARTMENT,
QUARTERMASTER-GENERAL'S OFFICE,
Washington, D. C., September 17, 1891.

GENERAL: I have the honor to submit the following report of the work done by the barracks and quarters branch of this office within the fiscal year ending June 30, 1891:

Under the head of barracks and quarters, Congress provided by the act making appropriations for the support of the Army, approved June 13, 1890	\$725,000.00	
Add amount credited to the appropriation during the year	948.29	
Total to be accounted for		725,948.29
Remitted to officers for rent	\$118,655.22	
Remitted to officers for repairs, constructions, labor, etc.	579,240.56	
		697,895.78
Balance in Treasury June 30, 1891		28,052.51

NEW CONSTRUCTIONS.

During the year there has been authorized from the appropriation for barracks and quarters the construction of public buildings at different military posts, consisting of barracks, officers' and non-commissioned officers' quarters, storehouses, stables, etc., at an estimated cost of \$290,863.47.

For the construction and repair of hospitals there has also been authorized from the appropriation for that purpose expenditures amounting to \$100,000, and for the construction and repair of hospital stewards' quarters, from the appropriation "for construction of quarters for hospital stewards," \$12,500.

REPAIRS.

Based upon proper estimates, there has been authorized for repairs, alterations, and improvements to public buildings, and for the purchase of building materials and tools at various posts, expenditures amounting to \$264,836.86.

The manner in which this money has been distributed to the different military departments and divisions is set forth in the annexed statement:

Recapitulation of the expenditures authorized for construction, repairs, etc., from the appropriation for barracks and quarters 1890-1891.

Designation.	Construction.	Repairs.	Total.
Division of the Atlantic	\$93,154.67	\$88,195.71	\$181,350.38
Department of Dakota	40,167.73	30,221.12	70,388.85
Department of the Platte	48,672.73	27,615.31	76,288.04
Department of the Missouri	30,753.10	25,258.89	56,011.99
Division Headquarters and Fort Sheridan	87.00	3,048.50	3,135.50
Total, Division of the Missouri	119,680.56	86,143.82	205,824.38
Department of the Columbia	10,788.36	16,580.30	27,368.66
Department of California	4,874.83	22,681.51	27,556.34
Total, Division of the Pacific	15,663.19	39,261.81	54,925.00
Department of Texas	36,486.00	12,691.86	49,177.86
Department of Arizona	25,879.05	38,543.66	64,422.71
Grand total	290,863.47	264,836.86	555,700.33

In addition thereto, expenditures were authorized for barracks and quarters construction, repairs, etc., at the independent posts, recruiting stations, depots, etc., as shown in the following table:

Designation.	Construction.	Repairs.	Total.
Columbus Barracks		\$3,981.64	\$3,981.64
David's Island	\$3,400.00	4,327.54	7,727.54
Jefferson Barracks	9,740.00	4,706.38	14,446.38
Hot Springs Army and Navy Hospital		176.05	176.05
Willetts Point	199.00	3,320.68	3,519.66
Jeffersonville depot		1,694.00	1,694.00
Philadelphia depot	1,200.00	1,024.00	2,224.00
New York depot		491.95	491.95
San Francisco depot		108.00	108.00
St. Louis clothing depot	2,365.00	757.55	3,122.55
Total	16,904.00	20,587.77	37,491.77

The following list shows the different buildings which have been authorized to be built at various posts, the expenditures therefor being included in the foregoing statements under the head of construction:

Post.	Designation.	Material.	Amount authorized.
Division of the Atlantic:			
Fort Adams	Band stand	Frame	\$475.00
Fort Barrancas	Two instrument houses on target range	do	176.13
Fort Columbus	Quarters for two officers outside of fort	do	9,617.00
Fort Hamilton	Shelter for range finders	do	155.00
Madison Barracks	Stable	do	1,730.20
Fort McHenry	Three single sets non-commissioned staff-officers' quarters	do	3,427.64
Fort McPherson	Building for rock crusher	do	208.18
Do	Shelter for wood saw	do	181.04
Do	Covering for garbage furnace	do	485.50
Fort Monroe	Two double sets officers' quarters	do	16,705.03
Mount Vernon Barracks	Converting married men's quarters into officers' quarters	do	640.48
Do	Water-closets for officers' quarters	do	156.16
Do	Kitchen and mess room for Indian prisoners	do	1,444.58
Do	Storehouse for Indian prisoners	do	751.22
Do	Bakehouse for Indian prisoners	do	383.00
Do	One hundred cabins, superintendent's house and office, and guardhouse, for Indian prisoners	do	5,175.00
Do	Converting storehouse into captain's quarters	do	2,361.05
Fort Myer	Servants' quarters	do	280.74
Do	Addition to non-commissioned staff-officers' quarters	do	515.72
Do	Two double sets officers' quarters	Brick	29,628.00
Fort Thomas	Band stand	Frame	425.00
Fort Niagara	Wagon shed	do	745.00
Fort Ontario	Porches for officers' quarters	do	279.00
Fort Schuyler	Extension of officers' quarters	do	3,467.00
Fort Wayne	Stable	Brick	2,100.00
Fort Wood	One double set officers' quarters, and one double set non-commissioned staff-officers' quarters	Frame	12,206.00
Total			98,154.67
Department of Dakota:			
Fort Assiniboine	Reconstruction of granary	Brick	571.35
Fort Buford	Stable guardhouse	Frame	616.42
Do	School and chapel building	do	3,171.43
Fort Custer	Cavalry stable	do	1,258.35
Do	Addition to double barracks	do	1,135.03
Do	Guardhouse	Brick	4,987.56
Do	Post hall and school building	Frame	808.26
Do	Root house	do	383.00
Fort Keogh	Quarters for Indian scouts	Log	2,563.62
Do	Addition to cavalry barracks	Frame	1,596.02
Do	Root house	do	590.64
Do	Oil and lime house	Brick	559.44

Post.	Designation.	Material.	Amount authorized.
Department of Dakota—Cont'd			
Fort Meade	Addition to barracks	Frame	\$4,206.29
Do	Chapel	do	1,197.14
Do	Non-commissioned staff-officers' quarters	do	849.35
Do	Root house	do	628.00
Fort Pembina	Completion of store-house	do	324.27
Fort Snelling	Powder magazine	Brick	836.47
Do	Bakehouse	do	1,917.17
Do	Guardhouse	do	11,425.00
Fort Yates	Quarters for Indian soldiers	Frame	503.82
Fort Yellowstone	Root house	do	49.10
	Total		40,167.73
Department of the Platte:			
Fort Douglas	3 sets non-commissioned staff officers' quarters	Frame	5,580.00
Do	Raising wings of 10 sets officers' quarters	Stone	13,900.00
Do	Building for officers' mess and bachelor officers' quarters	Frame	9,743.00
Fort Niobrara	Converting old storehouse into gymnasium	do	434.99
Do	Root house	do	298.63
Fort Omaha	do	Brick	38.74
Fort Robinson	Construction and extension of cavalry stables	Frame	2,940.00
Do	Guardhouse	do	8,470.00
Do	Infantry barracks	do	6,664.77
Fort Sidney	Root house	do	199.50
Fort Washakie	do	Stone	268.75
Fort McKinney	do	Frame	134.35
	Total		48,672.73
Division of the Missouri:			
Fort Sheridan	Temporary gun shelter	Frame	87.00
Department of the Missouri:			
Fort Leavenworth	Kitchen and addition to officers' mess building.	Brick	6,856.00
Fort Reno	Bathhouse	do	1,516.19
Do	2 double sets non-commissioned staff officers' quarters	Frame	3,196.00
Do	Guardhouse	Stone	4,077.00
Do	Cavalry stable	Frame	2,818.00
Do	Gun shed	do	493.99
Fort Riley	Icehouse	Frame	995.00
Fort Sill	Bakehouse	do	1,141.70
Do	Double set non-commissioned staff officers' quarters	Frame	2,000.00
Fort Supply	Administration building, barrack building and bathhouse.	do	7,659.22
	Total		30,753.10
Department of the Columbia:			
Boisé Barracks	Wash and bath house for cavalry barracks	Frame	585.00
Do	1 set officers' quarters	Stone and brick	5,560.22
Do	Roothouse	Stone	348.92
Fort Canby	do	Frame	182.73
Fort Sherman	do	do	400.00
Fort Spokane	Quartermasters' storehouse	Brick	1,498.50
Fort Townsend	Roothouse	Frame	15.00
Vancouver Barracks	do	do	232.58
Vancouver depot	Additions to officers' quarters	do	1,474.41
Fort Walla Walla	Roothouse	do	491.00
	Total		10,788.36
Department of California:			
Alcatraz Island	Storehouse addition	Frame	785.28
Do	Gun shed	do	467.00
Do	Ordnance storehouse	do	817.00
Fort Mason	Shelter for siege guns	do	112.55
Do	Quarters for post quartermaster sergeant	do	1,200.00
Presidio of San Francisco	Gun shed	do	1,493.00
	Total		4,874.83
Department of Texas:			
Fort Clark	6 double company privies	Frame	1,564.07
Do	Shop building	Stone	3,000.00
Fort Hancock	Root house	Brick	101.18
Fort McIntosh	Double set officers' quarters	Frame	8,895.00
Camp Pena Colorado	Root house	do	85.00

Post.	Designation.	Material.	Amount authorized.
Department of Texas—Cont'd.			
Fort Ringgold	1 set officers' quarters	Brick	8,125.00
Do.	Shop building	do	1,250.00
Fort Sam Houston	3 cavalry stables	Frame	8,400.00
Do.	Gun shed	Brick	6,340.45
Do.	Railing and lattice work for new mess hall .....	.....	725.30
	Total		36,486.00
Department of Arizona:			
Fort Apache	Guardhouse	Stone	2,000.00
Fort Hnachuca	Addition to officers' quarters	Adobe	631.56
San Carlos	Gun shelter	Frame	320.50
Do.	2 temporary storehouses	Frame and canvas	774.50
Do.	9 sets temporary quarters for officers	Frame	905.00
Do.	6 dormitories for troops	do	500.00
Do.	12 sets temporary quarters for officers	Adobe	5,000.00
Fort Stanton	Shelter for ice machine	Frame	289.93
Fort Wingate	Guardhouse	Brick	9,510.00
Do.	2 cavalry stables	Frame	3,099.84
Do.	Addition to subsistence storehouse	Adobe	2,347.72
Do.	Pump and boiler house	Brick	500.00
	Total		25,879.05
Recruiting stations, depots, etc.:			
Dayids Island	Stable	Frame	3,400.00
Jefferson Barracks	Cavalry stables	Brick	9,740.00
Philadelphia depot	Alterations in officers' quarters at Schuylkill Arsenal	do	1,200.00
St. Louis depot	Converting shed into stable for sick horses	do	2,365.00
Willets Point	Addition to officers' quarters	Frame	199.00
	Total		16,904.00

Authorizations have also been made from the appropriations for Army transportation and regular supplies for construction of buildings pertaining to these appropriations as follows:

From the appropriation for Army transportation.

Post.	Designation.	Material.	Amount authorized.
Division of the Atlantic:			
Jackson Barracks	Boathouse	Frame	\$425.00
Fort Mackinac	Addition to wagon shed	do	90.37
Madison Barracks	Addition to boathouse	do	65.00
Fort McPherson	Garbage furnace	Brick	1,500.00
Fort Niagara	Addition to engine house	do	476.85
Fort Wadsworth	Latrine	do	1,656.00
	Total		4,213.22
Department of the Platte:			
Fort Douglas	2 company water-closets	Brick	2,058.58
Department of the Missouri:			
Fort Riley	Shelter for rock crusher and engine	Frame	179.00
Fort Supply	7 latrine buildings	do	831.23
	Total		1,010.23
Division of the Missouri:			
Fort Sheridan	Garbage furnace	Brick	997.00
Department of Texas:			
Fort Clark	Double bathhouse	Frame	1,371.75
Department of Arizona:			
Fort Apache	Bathhouse	Adobe	1,860.75
Fort Grant	Company bathhouse	Stone	632.55
	Total		2,493.30
Independent posts, etc.:			
Willets Point	Wagon shed	Frame	66.00
	Grand total		12,210.08

From the appropriation for regular supplies.

Post.	Designation.	Material.	Amount authorized.
Division of the Atlantic:			
Fort Adams	Coal shed	Frame	\$800. 00
Jackson Barracks	Oil and paint house	Brick	525. 00
Madison Barracks	Oil-house	Stone	698. 00
Mount Vernon Barracks	Coal shed	Frame	324. 50
Fort Thomas	Coal bunker	Stone and wood	3,500. 00
Do	Oil-house	Stone and brick	750. 00
	Total		6,597. 50
Department of the Missouri:			
Fort Riley	Grainhouse	Stone	4,800. 00
Division of the Missouri:			
Fort Sheridan	Forage storehouse	Brick	14,873. 00
Department of the Columbia:			
Fort Sherman	Coal and wood shed	Frame	951. 50
Vancouver depot	Hay barn	do	1,510. 00
	Total		2,461. 50
Independent posts, etc.:			
Jefferson Barracks	Coal and wood shed	Frame	80. 50
Willets Point	Wood shed	do	66. 00
	Total		146. 50
	Grand total		28,878. 50

MILITARY POSTS.

For the construction of buildings at and the enlargement of such "military posts as in the judgment of the Secretary of War may be necessary," Congress appropriated in the act making appropriations for sundry civil expenses of the Government for the fiscal year ending June 30, 1891, approved August 30, 1890, the sum of \$690,000, which has been apportioned as follows:

Post.	Designation.	Allowance.
Fort Logan	For one set commanding officer's quarters, two cavalry stables, and advertising.	\$28,191.80
Fort McPherson	For two double sets officers' quarters, one single set field officers' quarters, two single sets non-commissioned staff officers' quarters, and miscellaneous expenses.	47,094.17
Fort Riley	For cavalry drill hall, magazine, two double sets noncommissioned staff officers' quarters, and miscellaneous expenses.	40,513.90
Fort Sheridan	For cavalry barrack wing, two sets captains' quarters, two sets lieutenants' quarters, two cavalry stables, one mess hall, one double set non-commissioned staff officers' quarters, services of architect and inspector, payment of balance due on contracts of Reichelt & Co., Treasury settlement No. 5741, and miscellaneous expenses.	202,057.81
Fort Sam Houston	One set line officers' quarters, two barrack buildings, one mess hall and kitchen, and advertising.	57,266.10
Fort Thomas	For two single and two double sets officers' quarters, one mess hall and kitchen, one set of quarters for engineer, extra masonry for officers' quarters, printing, and advertising.	52,133.36
Fort Yellowstone	For two double sets officers' quarters, two single sets non-commissioned staff officer's quarters, one barrack building, one commissary and one quartermaster's storehouse, one cavalry stable, one granary, one guardhouse, one office building, one bake house, five dry earth closets, and miscellaneous expenses.	57,961.68
Fort Niobrara	For one school and chapel building, one double set officers' quarters, and miscellaneous expenses.	7,693.51
Fort Robinson	For one single and five double sets officers' quarters	38,850. 00
Fort Snelling	For six single sets officers' quarters and services of architect ..	24,041. 50
Fort Warren	For one set field officers' quarters and one double set officers' quarters	26,000. 00
Fort Myer	For one cavalry drill hall	20,150. 00
Fort Niagara	For two single barracks, two double sets officers' quarters, one water-closet building, and advertising.	38,117.83
	Miscellaneous expenditures	200. 00
	Balance, June 30, 1891	49,728.34
Total		690,000.00

The cost of the new constructions authorized during the year at the different military posts, hereafter designated, is chargeable to the \$690,000 above referred to, except for the plumbing, heating, and gas-piping, which, unless otherwise stated, is to be taken from other appropriations of the Quartermaster's Department.

FORT LOGAN, COLO.

Work of construction has been continued at this post as follows, with the view to its enlargement:

One commanding officer's quarters, No. 20 (brick), plumbing included	\$12,947
Heating	700
	13,647
Two cavalry stables, Nos. 61 and 62 (brick), plumbing included	15,200
Total	28,847

FORT MCPHERSON, GA.

During the year the following-named buildings, which were contracted for prior to July 1, 1890, from funds of other fiscal years, have been completed at the cost named below:

One administration building, No. 21 (brick)	\$10,998
Plumbing	328
Heating and gas-piping	85
	11,411
Four double sets company officers' quarters, Nos. 11, 12, 13, and 14 (brick), each	\$13,850
Plumbing in each	710
Heating and gas-piping in each	1,300
	5,200
	63,440
One double barrack, No. 26 (brick)	\$25,855
Plumbing	1,980
Ranges and gas-piping	500
	28,335

The following were unfinished at the close of the fiscal year, but work upon them is progressing, viz:

One field officer's quarters, No. 5 (brick)	\$10,830
One double set company officer's quarters, No. 9 (brick)	14,842
One commanding officer's quarters, No. 10 (brick)	12,789
One double barrack, No. 24 (brick)	24,710

The Secretary of War allotted for the erection at this post of one set of field officers' quarters \$10,000, two double sets of company officers' quarters \$30,000, and two single sets non-commissioned staff officers' quarters \$3,600; total, \$43,600. The contract for the work was not, however, let during the fiscal year.

FORT RILEY, KANS.

At this post the following-named buildings have been contracted for:

One cavalry drill hall (stone)	\$29,955
One magazine (brick)	2,990
Two double sets non-commissioned staff officers' quarters (brick)	6,530
Plumbing in quarters	1,171
Total	40,646

Of these only the magazine has been completed.

FORT SHERIDAN, ILL.

Work at this post has been continued during the year and the buildings named below, which were contracted for from the special appropriation of \$300,000, provided in act of September 22, 1888, have been completed:

Barrack wing for six companies, No. 48	\$63, 102
Storehouse, No. 35	12, 700
Guardhouse, No. 33	13, 340
Quartermasters' stables, No. 38	8, 280
Two sets field officers' quarters, Nos. 8 and 9	20, 502
Seven sets captains' quarters, Nos. 10, 11, 12, 13, 18, 19, 20	51, 051
Fourteen sets lieutenants' quarters, Nos. 3, 4, 5, 6, 7, 15, 16, 21, 22, 23, 24, 25, 26, 27	93, 646
Shops, No. 36	6, 821
Bakery, No. 34	4, 356

These figures do not include cost of heating, plumbing, and gas-piping.

This post is to be enlarged by the erection of the buildings enumerated below, for which contracts have been made during the fiscal year, and the structures are now in progress of construction.

Cavalry barrack wing for six companies, No. 50 (brick)	\$68, 510. 00
Plumbing	10, 940. 00

79, 450. 00

Two sets captains' quarters, Nos. 53 and 54 (brick), at \$9,702	19, 404. 00
Plumbing in each, \$795	1, 590. 00
Heating in each, \$1,085	2, 170. 00

23, 164. 00

Two sets lieutenants' quarters, Nos. 17 and 56 (brick), each \$7,997	15, 994. 00
Plumbing in each, \$808	1, 616. 00
Heating in each, \$889	1, 778. 00

19, 388. 00

One mess hall, No. 47 (brick)	42, 402. 00
Plumbing	2, 233. 08
Cooking apparatus	2, 825. 00

47, 460. 08

The steam heating plant for this building was constructed at a cost of \$23,358, which also supplies the heat for infantry wing of barracks.

Two cavalry stables Nos. 42 and 43 (brick), at \$21,000	42, 000. 00
Plumbing in each, at \$735	1, 470. 00

43, 470. 00

One double set non-commissioned staff officers' quarters, No. 52 (brick) ..	6, 783. 00
Plumbing	687. 21

7, 470. 21

FORT SAM HOUSTON, TEX.

By General Orders No. 99, dated September 11, 1890, the military post at San Antonio, Tex., was, by direction of the President, to be thereafter designated as "Fort Sam Houston."

The buildings authorized and contracted for at this post during the year were the following:

One mess hall and kitchen, No. 15 (brick), including plumbing	\$22, 131
Additional cost of foundation	3, 600
Heating and cooking apparatus	12, 892
	38, 623
One set line officers' quarters with outbuildings, No. 25 (brick).....	} 31, 500
Two barracks and outbuildings, Nos. 9 and 10 (brick).....	
Plumbing in all.....	
	1, 775
	33, 275

The mess hall has been completed.

FORT THOMAS, KY.

By the orders referred to above, the new military post near Newport, Ky., was designated as "Fort Thomas," in honor of the late Maj. Gen. George H. Thomas, U. S. Army.

This post is to be enlarged by the erection of the buildings here named, contracts for which have been executed during the fiscal year:

Two single sets officers' quarters, Nos. 30 and 31 (brick), each \$6,249.....	\$12, 498. 00
Two double sets officers' quarters, Nos. 32, 33, 34, and 35 (brick), each \$10,412.....	20, 824. 00
Plumbing and gas-piping in all.....	2, 820. 00
Steam heating and ranges.....	4, 554. 00
	40, 696. 00
One set engineers' quarters, No. 25 (brick)	1, 705. 00
	16, 247. 50
One mess hall and kitchen, No. 26 (brick).....	618. 00
Plumbing and gas-piping.....	3, 735. 00
Steam heating and cooking.....	20, 600. 50

The engineers' quarters have been completed.

FORT YELLOWSTONE, WYO.

By direction of the President, communicated in General Orders No. 45, of May 11, 1891, the military post at Mammoth Hot Springs, in the Yellowstone Park, heretofore styled Camp Sheridan, is to be hereafter known and designated as Fort Yellowstone.

The following buildings at this post have been authorized during the year and are now under construction:

Two double sets officers' quarters (frame).	One cavalry stable (frame.)
Two single sets non-commissioned staff officers' quarters (frame).	One guardhouse (frame).
One barrack (frame).	One office building (frame).
One commissary storehouse (frame).	One bakehouse (frame).
One quartermaster's storehouse (frame).	One granary (frame).
	Two earth closets (frame).

The total contract cost of these buildings is \$57,461.68.

FORT NIOBRARA, NEBR.

At this post there has been contracted for during the year—

One school and chapel building, No. 61 (frame).....	\$1, 593. 35
One double set officers' quarters, No. 62 (frame).....	5, 946. 00

The first named building has been completed.

FORT ROBINSON, NEBR.

At Fort Robinson there have been authorized and contracted for during the year—

One set field officers' quarters (frame)	}	\$38,850
Five double sets officers' quarters (frame)		
Plumbing in all		3,547
		42,397

FORT SNELLING, MINN.

There are being constructed here, under contracts made during the year at the prices stated below—

Six single sets officers' quarters (brick)	\$23,894
Plumbing	3,330
Heating	930
	28,154

FORT WARREN, MASS.

For the construction of one set field officers' quarters and one double set line officers' quarters, the Secretary of War authorized an expenditure of \$26,000, but all bids received being excessive, no contract was made for the work during the year.

FORT NIAGARA, N. Y.

During the fiscal year just closed there were contracted for at Fort Niagara, and are now being built:

Two single barracks, Nos. 33 and 34 (brick)	\$19,764.00
One water-closet building, No. 35 (brick)	1,750.00
Plumbing in all	1,156.00
Heating and ventilating in all	3,024.00
	25,694.00
Two double sets officers' quarters, Nos. 31 and 32 (frame)	16,547.50
Plumbing	1,702.48
Heating	1,486.16
	19,736.14

FORT MYER, VA.

There is being built at this post under contract made in this year, from the \$690,000 appropriated for military posts.

One cavalry drill hall (brick)	\$20,150
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For the enlargement of Fort Myer, to accommodate two additional companies of cavalry, Congress provided by act of June 13, 1890, \$32,600. With this money there are being constructed—

One double barrack (frame)	\$17,990
Two stables, Nos. 4 and 5 (brick)	14,610
	32,600

FORT HAMILTON, NEW YORK HARBOR.

The two brick barracks which were contracted for at this post prior to July 1, 1890, have been completed at a cost of \$28,098.40.

FORT CROOK, NEBR.

By act of Congress approved March 3, 1891, the name of the new post of Fort Omaha, the construction of which was authorized by the act of July 25, 1888, was changed to Fort Crook, and the total cost of the same was limited to \$500,000 by the former act.

No buildings have yet been constructed at this post, but the work of preparing plans and estimates therefor has been in progress. A fence has been built around the reservation costing \$2,035.15.

NEW POST OF FORT BRADY, MICH.

The act of July 8, 1886, appropriated \$120,000 for the construction of a new post near the village of Sault Ste. Marie, to be known as Fort Brady, the cost of which being limited to \$250,000 by the act of March 3, 1891.

During the year the land purchased for the site has been cleared and the necessary excavating and filling done, requisite to the commencement of building operations.

Bids for the following-named buildings have been invited and opened during the year and their construction authorized:

One set field officers' quarters No. 2	\$7, 611. 00
Two sets captains' quarters Nos. 1 and 4	13, 792. 00
Two double sets officers' quarters Nos. 3 and 5	20, 097. 00
Mess hall with one wing of barrack No. 12	35, 125. 00
Shops No. 16	2, 648. 00
Scale house No. 24	525. 00
Total	79, 798. 00

These figures do not include plumbing or heating.

For a sewer system there has also been authorized	5, 004. 27
And for water-supply system	2, 880. 31

NEW POST OF FORT BLISS, TEX.

The act of March 1, 1890, provides for the sale of the site of Fort Bliss, Tex., and the purchase of a new site within a distance of 10 miles of the limits of El Paso, and the construction of a new post to be known as Fort Bliss, and appropriates \$150,000 for the purpose. Nothing has been done during the year in way of building, but the preparation of plans and estimates has favorably progressed.

The act of March 3, 1891, limits the total cost of this post to \$300,000.

PLATTSBURG BARRACKS, N. Y.

The act of Congress approved February 16, 1891, provides as follows:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That to enable the Secretary of War to enlarge the military post at Plattsburg, N. Y., to the capacity of twelve companies, and for beginning the construction of the necessary buildings, barracks, quarters, kitchen, mess hall, stables, storehouses, and magazines, there is hereby appropriated, from any money in the Treasury of the United States not otherwise appropriated, the sum of \$200,000.

SEC. 2. That the Secretary of War is hereby authorized to accept, free of cost to the United States, a donation of a tract of not less than 500 acres of land for a target range and other military purposes at or near the post of Plattsburg Barracks, New York: *Provided*, That in his judgment the said tract of land is found to be in all respects adequate and suitable to meet the wants of the post and that the title shall have been declared valid by the Attorney-General of the United States: *And provided further*, That no part of said sum hereby appropriated shall be expended until the aforesaid tract of land shall have been conveyed to and accepted by the United States.

The land for a target range and other military purposes has been selected, and as soon as the Government is given a clear title thereto, the work of construction will commence.

RESERVATION OF THE PRESIDIO OF SAN FRANCISCO, CAL.

By act approved June 4, 1888, Congress appropriated \$10,000 for construction and repair of the roads leading from the entrance to the reservation of the Presidio at San Francisco, Cal., to the national cemetery on the same, and the fencing and protection of the reservation; and by act of March 2, 1889, an additional sum of \$38,000 was appropriated for continuing the work, and for planting trees and construction of a roadway connecting the Fort Mason Reservation with reservation of the Presidio.

The expenditures made from these appropriations and the work accomplished during the year, according to the report of Maj. J. H. Lord, quartermaster, U. S. Army, are as follows:

The balance on hand July 1, 1890, of the \$10,000 appropriation, was \$786.44, which was all expended during the fiscal year in cultivating trees, fencing, and boring test holes for water supply for the national cemetery.

From the appropriation of \$38,000 the sum of \$22,770.43 was expended during the year. The entire balance remaining on hand June 30, 1891, amounting to \$8,662.89, will be required to meet outstanding indebtedness. The expenditures made during the year and outstanding indebtedness, amounting altogether to \$31,433.32, have been incurred as follows:

For the construction and improvement of roadways.....	\$17, 109. 06
For cultivation of trees and for fencing	10, 640. 63
For water supply for national cemetery.....	3, 368. 90
For miscellaneous work	314. 73
Total	31, 433. 32

Work on the roadway, commencing "at the westerly line of Walnut street and extending westerly and parallel to the southern boundary of said reservation to the easterly line of First avenue," was continued during the year and completed in January, 1891.

Final payment was made February 3, 1891, the total cost of the work being \$5,650.

Another roadway, 800 feet in length, was constructed, "to connect road built on southern line of reservation with road leading to Central avenue," at a cost of \$1,590. It was completed in January and final payment made February 3, 1891. At the end of the year both of these new roads were reported in good condition.

The work of macadamizing a roadway "on Lombard street, in the city of San Francisco, extending from the east line of the Presidio Reservation to the west line of and connecting with the macadamized roadway on Van Ness avenue," was commenced January, 1891, and continued as fast as the city authorities had the road sewered, graded, and prepared for macadamizing. At the end of the year five blocks had been completed, and the work on the remaining seven blocks was being rapidly pushed to completion. The total cost of this work is estimated at \$9,286.59, of which \$3,329.22 had already been paid to the contractors at the end of the fiscal year.

The sum of \$792 was paid during the year for the services of an inspector of construction and repair of roads.

Fifty thousand trees were purchased and planted during the year, and are doing well. The trees previously planted are reported in a flourishing condition. A large number of the Catalpa variety, however, have mysteriously disappeared. The seedlings in the nursery have done well during the year and are being transplanted.

Three thousand six hundred feet of barbed-wire fence have been built along the line of new roadway, 3,000 feet taken down and reconstructed, and 6,000 feet erected for the protection of young trees, besides various repairs to reservation fences.

Expenditures authorized for wharves, roads, walks, grading, bridges, and various other expenditures, chargeable to the appropriation for Army transportation.

Post.	Roads, walks, grading, and bridges.	Wharves.	Miscella- neous.
Fort Adams, R. I.	\$815.00		
Fort Barrancas, Fla.	1,182.25	\$710.75	
Fort, Columbus, N. Y.	80.00		
Governors Island, New York Harbor	173.00	440.00	
Fort Hamilton, New York Harbor	950.49	736.00	
Jackson Barracks, La.	238.10	515.00	\$424.00
Fort Mackinac, Mich.	347.50		90.37
Madison Barracks, N. Y.	245.00	270.00	590.00
Fort McPherson, Ga.	15,698.00		1,500.00
Fort Monroe, Va.	1,000.00	513.50	100.00
Mount Vernon Barracks, Ala.			112.00
Fort Myer, Va.	8,508.00		10.00
Fort Thomas, Ky.	33,731.33		
Fort Niagara, N. Y.	126.00		593.85
Fort Ontario, N. Y.	260.00		
Plattsburg Barracks, N. Y.	330.00		
Fort Preble, Me.	163.50		
Fort Schuyler, N. Y.	100.55	522.50	
Fort Wadsworth, N. Y.	108.00		1,650.00
Fort Warren, Mass.			524.75
Washington Barracks, District of Columbia.			1,890.00
Fort Wayne, Mich.	379.65		
Fort Wood, New York Harbor	58.13	15.00	50.00
Arlington Reservation, Va.	5,500.00		
Fort Leavenworth, Kans.	560.60		
Fort Logan, Colo.	4,522.50		
Fort Reno, Okla.	1,662.00		
Fort Kiley, Kans.	5,442.44		600.00
Fort Sheridan, Ill.	39,995.00		1,035.00
Fort Sill, Ind. T.	265.31		
Fort Supply, Ind. T.			855.00
Fort D. A. Russell, Wyo.			235.00
Fort Douglas, Utah.	9.00		2,053.58
Fort Duchesne, Utah.	1,500.00		
Fort Abraham Lincoln, N. Dak.	266.40		
Fort Pembina, N. Dak.	295.76		
Fort Snelling, Minn.	5,229.02		755.00
Fort Yates, N. Dak.	71.25		
Fort Clark, Tex.	120.84		1,400.00
Fort Davis, Tex.	60.05		
Fort McIntosh, Tex.			1,102.52
Alcatraz Island, Cal.	570.00	3,700.00	
Benicia Barracks, Cal.	146.55		
Presidio of San Francisco, Cal.	125.00		
Fort Apache, Ariz.			1,968.90
Fort Grant, Ariz.			632.55
Fort Wingate, N. Mex.			3,198.00
Fort Canby, Wash.		17.00	
Fort Sherman, Idaho.	30.00		
Fort Spokane, Wash.	473.87		
Fort Townsend, Wash.		1,000.00	
Vancouver Barracks, Wash.	488.16		
Vancouver Depot, Wash.		3,000.00	
Dauids Island, New York Harbor.	5,950.00	1,866.00	
Jefferson Barracks, Mo.	578.25		
West Point, N. Y.		60.00	
Willets Point, New York Harbor.	690.00		66.00
Jeffersonville Depot, Ind.	12.00		
Philadelphia Depot, Pa.	1,233.50		310.00
Total	140,352.00	13,365.75	21,751.52

"For shelter and shooting galleries and ranges, and repairs thereof," Congress granted \$10,000 in the act making appropriation for support of the Army, June 13, 1890, which sum was apportioned in the following manner:

Station.	Designation.	Amount.	Station.	Designation.	Amount.
Division of the Atlantic.	Apportionment...	\$1,700.46	Bellevue Range, Nebr.	Mineograph for use on range.	\$26.50
Department of Dakota.	...do	1,084.96	Do	Office tables, tools, lumber, flour, etc.	102.00
Department of the Platte.	...do	594.64	Presidio of San Francisco.	Repairs.....	196.50
Department of the Missouri.	...do	1,539.89	St. Francis Barracks.	...do	8.00
Department of Texas.	...do	897.94	Fort Niagara.....	Hire of saddle horses.	64.00
Department of the Columbia.	...do	455.09	Do	Repairs.....	204.50
Department of California.	...do	485.22	Fort Ringgold....	Flour.....	6.19
Department of Arizona.	...do	1,323.07	Fort Hancock....	Do	3.67
Division of the Atlantic.	Cardboard	8.10	Do	Repairs.....	25.00
Bellevue Range, Nebr.	Rent of range....	600.00	Fort Logan	Lease of range...	100.00
			Fort Snelling....	Do	200.00
			Washington Barracks.	Repairs.....	80.16
			Fort McPherson...	Do	98.00
			Fort McHenry....	Do	196.20
			Total		10,000.00

In the above-mentioned act, Congress also made a special appropriation of \$10,000 for the rifle range at Fort Sheridan. From this fund the following expenditures have been authorized:

Grading and seeding grounds	\$300.00
Excavation of target trench and construction of rubble wall, target-house and two visitors' stands.....	5,821.00
Construction of range house.....	3,627.00
Purchase of lumber for use on range.....	59.42
Balance June 30, 1891.....	192.58
Total	10,000.00

The trench, wall, target house, and visitors' stands were completed during the fiscal year.

HOSPITALS.

For construction and repair of hospitals, including the extra-duty pay of enlisted men employed on the same, Congress in the army appropriation act of June 13, 1890, provided \$100,000. This fund has been disbursed by officers of the Quartermaster's Department on estimates approved by the Surgeon-General of the Army, as follows:

Department and post.	Amount.	Department and post.	Amount.
Division of the Atlantic:		Division of the Atlantic—Continued:	
Fort Adams	\$400.00	Fort Porter	\$268.00
Fort Barrancas	348.15	St. Francis Barracks.....	371.85
Fort Columbus	49.65	Fort Schuyler	206.95
Jackson Barracks.....	896.54	Fort Thomas	18,444.05
Fort McPherson	1,909.00	Fort Trumbull	77.76
Fort Mackinac	171.25	Fort Wadsworth.....	690.50
Madison Barracks	107.09	Fort Warren	137.61
Mount Vernon Barracks.....	48.29	Fort Wayne	204.99
Fort Myer	192.00	Fort Wood	3,835.00
Newport Barracks.....	180.73		
Fort Niagara.....	302.00	Total	29,299.04
Fort Ontario.....	133.63		
Plattsburg Barracks.....	374.00		

Department and post.	Amount.	Department and post.	Amount.
Department of Dakota:		Department of Texas—Continued.	
Fort Assiniboine	\$696.80	Fort Ringgold	\$389.36
Fort Buford	450.00	Fort Sam Houston	7,985.74
Fort Custer	671.93		
Fort Keogh	97.86	Total	8,336.31
Fort Meade	900.00		
Camp on Poplar River	69.59	Department of Arizona:	
Fort Pembina	135.02	Fort Apache	1,375.00
Fort Snelling	500.00	Fort Bayard	743.10
Fort Totten	9.94	Fort Grant	207.00
Fort Yates	337.27	Fort Huachuca	541.19
Fort Yellowstone	74.44	Fort Lowell	40.00
Total	3,942.85	San Carlos	7.44
		San Diego Barracks	253.03
Department of the Platte:		Fort Stanton	167.39
Fort Duchesne	175.00	Whipple Barracks	334.25
Fort McKinney	211.26	Fort Wingate	270.00
Fort Niobrara	20.00	Total	3,938.40
Fort Omaha	6.50		
Pine Ridge Agency	214.91	Department of California:	
Fort Randall	36.44	Alcatraz Island	501.18
Fort Robinson	2,557.13	Fort Gaston	250.00
Rosebud Agency	375.13	Camp at Monterey	3.00
Fort D. A. Russell	3,300.00	Presidio of San Francisco	900.00
Fort Sidney	30.00	Total	1,654.18
Fort Washakie	325.00		
Total	7,251.42	Department of the Columbia:	
		Boise Barracks	500.00
Department of the Missouri:		Fort Sherman	900.00
Fort Leavenworth	1,013.00	Fort Spokane	1,109.00
Fort Logan	975.40	Fort Townsend	323.05
Camp at Oklahoma City	69.40	Vancouver Barracks	32.50
Fort Reno	3,377.40	Fort Walla Walla	106.40
Fort Riley	4,992.10	Total	2,970.95
Fort Sill	800.00		
Fort Supply	21.00	Independent posts, etc.:	
Total	11,248.30	Columbus Barracks	24,537.00
		David's Island	687.52
Department of Texas:		Hot Springs Army and Navy Hos- pital	4,544.00
Fort Clark	48.00	Jefferson Barracks	120.73
Fort Davis	111.49	West Point Cadet Hospital	269.80
Camp Del Rio	40.20	Wilets Point	699.50
Camp at Eagle Pass	61.52	Total	30,858.55
Fort McIntosh	200.00	Grand total	100,000.00

Included in the foregoing are new hospital constructions at the following posts:

Fort Logan, deadhouse, etc., brick	\$960.00
Fort McPherson, laundry building	1,390.00
Fort D. A. Russell, addition to hospital, brick	2,230.00
Fort Robinson, isolation ward, frame	2,484.33
Fort Sam Houston, summer ward, frame	5,387.00
Fort Sam Houston, dispensary wing, frame	1,075.00
Fort Reno, deadhouse, frame	550.00
Fort Spokane, deadhouse, laundry, and wood house building, frame	934.00
Fort Riley, laundry building, stone	2,847.00
Fort Riley, deadhouse, stone	1,265.00
Fort Wood, provisionary hospital, frame	3,835.00
Fort Barrancas, stable and storeroom, frame	265.75
Fort Thomas, 24-bed hospital, brick	18,244.00
Columbus Barracks, 48-bed hospital, brick	24,537.00
Pine Ridge Indian Agency, field hospital, frame	186.06
Rosebud Indian Agency, field hospital, frame	375.13

Of the buildings enumerated above the following have been completed during the fiscal year: the deadhouse at Fort Logan; summer ward and dispensary wing at Fort Sam Houston; dead-house at Fort Riley, and the field hospitals at Pine Ridge and Rosebud agencies.

The act of August 30, 1890, authorized an expenditure of not exceeding \$25,000 for the erection of a hospital at Columbus Barracks, Ohio.

HOSPITAL STEWARDS' QUARTERS.

In the Army appropriation act of June 13, 1890, the sum of \$12,500 was also provided for the construction of hospital stewards' quarters, including the extra-duty pay of enlisted men employed thereon.

This money has been apportioned by the Secretary of War to the posts named below under the provision of law "that the cost of construction of quarters at any one post shall in no case exceed \$800, except where a post is situated at a city of more than 50,000 inhabitants the cost of construction of such quarters may be not to exceed \$1,200."

Station.	Amount.	Station.	Amount.
Fort Bowie	\$9.50	Fort Reno	\$800.00
Fort Brown	90.00	Fort Robinson	300.00
Fort Buford	516.25	Fort Sam Houston	1,390.00
Jackson Barracks	1,200.00	Fort Schuyler	1,200.00
Fort Keogh	175.00	Fort Sherman	250.00
Fort Leavenworth	45.00	Fort Snelling	22.35
Fort Logan	1,154.00	Fort Thomas	1,197.92
Madison Barracks	39.48	Fort Townsend	75.00
Fort Mason	1,200.00	Fort Trumbull	3.54
Fort McPherson	53.50	Fort Wayne	164.38
Fort Meade	450.00	Willetts Point	190.25
Fort Monroe	50.00	Fort Wingate	75.00
Fort Niagara	800.00	Balance, June 30, 1891	222.58
Fort Ontario	26.25		
Fort Preble	800.00	Total	12,500.00

Losses by fire.

Post.	Building.	Extent of damage.
Fort McIntosh	Pump and boiler house	Partially destroyed.
Fort Grant	Officers' quarters	About \$475.
Jefferson Barracks	Cavalry stable	Destroyed.
Fort Abraham Lincoln	Building No. 11	Do.
David's Island	Shop building	Do.
Fort Apache	Five sets officers' quarters	Do.
Vancouver Barracks	Barn	Do.
Fort Sheridan	Infantry barracks	About \$2,150.
Fort Snelling	Barracks	Destroyed, with exception of kitchen in rear.
Fort Spokane	Officers' quarters, No. 14	About \$400.

A statement is herewith submitted, marked A, of the property rented by the Quartermaster's Department during the fiscal year as shown by estimates of funds.

Very respectfully,

C. P. MILLER,
Captain and Assistant Quartermaster, U. S. Army.

A.—Statement showing property rented by the Quartermaster's Department during the fiscal year ending June 30, 1891, and total amount paid, as shown by estimates of funds.

DIVISION OF THE ATLANTIC.

Post or station.	Designation.	Amount.
Fort McPherson, Ga.....	Quarters for one major.....	\$528. 00
	Quarters for one hospital steward.....	126. 00
	Quarters for two musicians.....	280. 00
Yorktown, Va.....	Quarters for one musician, from August to March.....	84. 00
Columbia Arsenal, Tenn.....	Quarters for soldier in charge of monument.....	60. 00
Southport, N. C.....	Quarters for ordnance sergeant.....	120. 00
New Orleans, La.....	do.....	96. 00
	Storehouse for quartermaster's and subsistence departments.....	1, 800. 00
	Offices for quartermaster's, subsistence, and pay departments.....	1, 080. 00
Baltimore, Md.....	do.....	1, 000. 03
	Office of paymaster at Pittsburg, Pa.....	300. 00
Boston, Mass.....	Offices for quartermaster's, subsistence, ordnance, and pay departments.....	1, 629. 96
	Offices for inspector of ordnance.....	175. 00
Providence, R. I.....	do.....	125. 00
Buffalo, N. Y.....	Offices for quartermaster's department.....	750. 00
Atlanta, Ga.....	Offices for pay department.....	300. 00
	Offices for quartermaster's department.....	300. 00
Madison Barracks, N. Y.....	Hire of grounds, on practice march of troops.....	45. 00
Newport Barracks, Ky.....	Hire of stable.....	7. 50
Sault Ste. Marie, Mich.....	Office for constructing quartermaster new Fort Brady.....	270. 00
Total Division of the Atlantic.....		9, 076. 49

DIVISION OF THE MISSOURI.

Chicago, Ill.....	Offices for headquarters and depot quartermaster, and storeroom for depot quartermaster.....	14, 472. 00
	Offices and storeroom for depot commissary of subsistence.....	3, 600. 00
	Stables for quartermaster's department.....	1, 800. 00
Highland Park, Ill.....	Office and stable for constructing quartermaster at Fort Sheridan, Ill.....	240. 00
Fort Sheridan, Ill.....	Quarters for post hospital.....	84. 00
	Quarters for post quartermaster sergeant.....	36. 00
	Quarters for post surgeon.....	245. 00
	Quarters for post commander.....	260. 00
Total for Headquarters Division of the Missouri.....		20, 737. 00

DEPARTMENT OF THE MISSOURI.

St. Louis, Mo.....	Headquarters Department of the Missouri.....	10, 800. 00
Denver, Colo.....	Stable for Headquarters Department of Missouri.....	500. 00
	Office for quartermaster's department.....	960. 00
	Office for pay department.....	480. 00
	Office for subsistence department.....	480. 00
Leavenworth, Kans.....	Office for pay department.....	300. 00
	Office for tactical board.....	378. 00
El Reno, Ind. T.....	Office for transportation agent, quartermaster's department.....	10. 00
Miami, Tex.....	Office for transportation agent, quartermaster's department.....	20. 00
Minco, Ind. T.....	do.....	126. 00
Pauls Valley, Ind. T.....	do.....	14. 00
Woodward, Ind. T.....	do.....	240. 00
Camp Wade, Okla.....	Accommodation for the sick.....	20. 00
	Quarters for three officers in Kingfisher.....	140. 00
	Quarters for officers in Kingfisher.....	10. 00
	Quarters for hospital in Kingfisher.....	10. 00
Guthrie, Okla.....	Quarters for three officers.....	485. 00
Oklahoma City, Okla.....	Quarters for three officers and one noncommissioned staff officer.....	533. 00
Sheridan, Col.....	Quarters for commissary sergeants and sergeant major stationed at Fort Logan, Colo.....	60. 00
Total Department of the Missouri.....		15, 566. 00

A.—Statement showing property rented by the Quartermaster's Department during the fiscal year ending June 30, 1891, etc.—Continued.

DEPARTMENT OF THE PLATTE.

Post or station.	Designation.	Amount.
Headquarters Department, Platte.	Offices, etc	\$9,360.00
Salt Lake City, Utah	Stable lot	500.04
Cheyenne, Wyo.	Paymaster's office	360.00
Omaha, Nebr	do	480.00
Ogden, Utah	Office rooms for Capt. C. F. Humphrey, assistant quartermaster.	175.00
Price, Utah	Quartermaster's storehouse, etc	335.00
Carter, Wyo.	do	360.00
Fort Douglas, Utah	do	66.68
Rushville, Nebr	Hire of camping ground at Murray, Utah, on practice march.	11.00
	Quartermaster's warehouse	36.00
	Total Department of the Platte	11,683.72

DEPARTMENT OF DAKOTA.

Helena, Mont	Offices for paymaster and quartermaster, storehouse for quartermaster's department, and stable for quartermaster's department.	880.00
Department of Dakota	Quarters for officers and men on detached service	50.00
	Camping ground for troops on detached service	50.00
	Total Department of Dakota	980.00

DEPARTMENT OF TEXAS.

Pena Station, Tex.	Office of quartermaster's agent	96.00
San Antonio, Tex.	Quarters for two commissary sergeants	288.00
	Quarters for quartermaster sergeant	24.00
	Quarters for chief musician	144.00
	Quarters for post quartermaster sergeant	96.00
	Quarters for two principal musicians	288.00
	Quarters for ordnance sergeant	144.00
Edinburg, Tex.	Storeroom	180.00
Fort Davis, Tex.	Site	900.00
Camp Del Rio, Tex.	Part of site	219.23
Camp Pena Colorado, Tex.	Site	600.00
Camp Eagle Pass, Tex.	do	900.00
Camp Langtry, Tex.	do	91.63
Camp Santa Maria, Tex.	do	150.00
Camp Nevill Springs, Tex.	do	275.00
Fort Bliss, Tex.	Barracks, quarters, etc	2,100.00
El Paso, Tex.	Office for constructing quartermaster	104.00
	Paymaster's office	212.00
Marfa, Tex.	Stabling public animals	102.00
Presidio Del Norte, Tex.	Shelter for troops	90.00
Point Isabel, Tex.	Convalescent camp	157.50
Camp Polvo, Tex.	Site	10.00
	Total, Department of Texas	7,171.36

HEADQUARTERS DIVISION OF THE PACIFIC AND DEPARTMENT OF CALIFORNIA.

Headquarters Division of the Pacific and Department of California.	Offices for headquarters	12,000.00
Mojave, Cal	Stabling	1,083.00
	Office for quartermaster's agent	60.00
	Total	13,143.00

A.—Statement showing property rented by the Quartermaster's Department during the fiscal year ending June 30, 1891, etc.—Continued.

DEPARTMENT OF THE COLUMBIA.

Post or station.	Destination.	Amount.
Portland, Oregon	Offices for quartermaster and paymaster	\$840.00
	Storehouse for quartermaster's department	720.00
	Offices for depot and purchasing commissary of subsistence	560.00
Walla Walla, Wash	Offices for paymaster	240.00
Spokane Falls, Wash	Quarters for enlisted men traveling on orders	13.50
	Lodging men	19.50
Waiteburg, Wash	Camping ground	20.00
Boisé Barracks, Idaho	Quarters for lieutenant	50.00
	Total Department of the Columbia	2,463.00

DEPARTMENT OF ARIZONA.

Seligman, Ariz	Office for quartermaster's agent	\$45.00
Wilcox, Ariz	do	60.00
Bowie Station, Ariz	do	30.00
Holbrook, Ariz	do	45.00
Phoenix, Ariz	do	45.00
Hackberry, Ariz	Storeroom for quartermasters agent	60.00
Tucson, Ariz	Office for quartermaster's department	60.00
	Stable for quartermaster's department	124.00
Carthage, N. Mex	Office for quartermaster's agent	45.00
	Storehouse for quartermaster's department	30.00
Albuquerque, N. Mex	Office for quartermaster's agent	45.00
	Office for paymaster	360.00
Silver City, N. Mex	Office for quartermaster's agent	45.00
Los Angeles, Cal	Office headquarters Department of Arizona	7,200.00
	Stable and grounds for quartermaster's department	360.00
	Office of attending surgeon	175.00
Santa Fé, N. Mex	Quarters for commissary sergeant	135.00
Santa Fé, N. Mex	Quarters for hospital steward	30.00
	Quarters for non-commissioned staff officers	630.00
	Office for disbursing quartermaster	225.00
San Diego Barracks, Cal	Building for hospital	900.00
	Quarters for officers	2,100.00
	Total Department of Arizona	12,749.00

GENERAL DEPOTS, ETC., OF THE QUARTERMASTER'S DEPARTMENT.

Philadelphia depot	Part of building, No. 1423 Arch street, offices and stable	\$2,150.04
	Office of attending surgeon	36.00
	Total for Philadelphia depot	2,186.04
New York depot	Quarters for two hospital stewards at medical purveying depots, at \$14 each per month	336.00
	Quarters for hospital steward in attending surgeon's office	168.00
	Stable at No. 122 West Eighteenth street	1,350.00
	Total for New York depot	1,854.00
Washington depot	Lots 9 and 10, square 231, occupied by Subsistence Department	\$243.96
	Lots 50 to 58, inclusive, square 100, occupied by Quartermaster's Department	1,500.00
	Quarters for hospital steward, Army Medical Dispensary	252.00
	Lots 49 and 63, square 100 occupied by Quartermaster's Department	125.00
	Office for military attaché, London, England	144.00
	Office for military attaché, Berlin, Germany	360.00
	Office for military attaché, Dusseldorf, Germany	60.00
	Office for military attaché, St. Petersburg, Russia	403.20
	Office for military attaché, Paris, France	120.00
	Office for military attaché, Vienna, Austria	144.00
	Total for Washington depot	3,352.16

A.—Statement showing property rented by the Quartermasters Department during the fiscal year ending June 30, 1891, etc.—Continued.

GENERAL DEPOTS, ETC., OF THE QUARTERMASTER'S DEPARTMENT—Continued.

Post or station.	Designation.	Amount.
San Francisco depot	Offices and storerooms for Medical, Subsistence, and Quartermaster's Departments.	\$9,999.96
	Storeroom for quartermasters' supplies	1,500.00
	Storage for turpentine, oils, etc.....	720.00
	Total for San Francisco depot	12,219.96
St. Louis depot	Office and storeroom, Medical Department	2,058.37
	Offices, storerooms, and stables for pay and Quartermaster's Department.	3,107.12
	Office and storerooms for Subsistence Department.....	\$100.00
	Office, storerooms, and corral for Subsistence Department.	160.00
	Total for St. Louis depot	5,425.49
West Point, N. Y.	Quarters for one lieutenant	48.00
	Total for West Point	48.00

RECAPITULATION.

Division, Department, etc.	Amount.
Division of the Atlantic	\$9,076.49
Headquarters, Division of the Missouri	20,737.00
Department of the Missouri	15,566.00
Department of the Platte	11,683.72
Department of Dakota	980.00
Department of Texas	7,171.36
Headquarters, Division of the Pacific and Department of California	13,143.00
Department of the Columbia	2,463.00
Department of Arizona	12,749.00
Philadelphia depot	2,186.04
New York depot	1,854.00
Washington depot, D. C.	3,352.16
St. Louis depot	5,425.49
San Francisco depot	12,219.96
West Point, New York	48.00
	118,655.22

10.

WAR DEPARTMENT,
QUARTERMASTER-GENERAL'S OFFICE,
Washington, D. C., September 14, 1891.

GENERAL: I have the honor to submit a report of the operations of the reservation branch of this office for the fiscal year ending June 30, 1891.

To this branch is assigned the duty of collecting, recording, and filing complete title papers of all lands under charge of the War Department, purchased or appropriated for barracks, posts, cantonments, or other military uses except such as are designed for permanent military fortifications, or for armories, arsenals, and ordnance depots; also collecting and compiling such information in regard to each reservation and station as is considered particularly useful or interesting as a permanent record for future reference. It also has charge of all matters relating to waterworks, and water supply, sewers, sewerage, baths, laundries, and plumbing sanitation as applied to the use of

water; also heating, lighting, fire protections, military post records, maps, topography and surveys, and of conducting all correspondence in connection therewith.

At the close of the last fiscal year the question of the acquisition of about 101 acres of land adjoining or near the post of Madison Barracks, N. Y., for a rifle range and for drill and camping grounds, was pending, and the purchase has not yet been completed, though the several tracts required have been selected, most of the deeds procured and submitted to the Attorney-General for his consideration, with request that other deeds be obtained if those submitted are not sufficient, and that the necessary steps be taken to obtain proper title (by condemnation, if necessary) to the remaining tracts. While the negotiations were pending Congress, by act of February 24, 1891 (General Order 27, 1891), increased the appropriation of \$7,000 provided in act of March 2, 1889 (General Order 26, 1889), for the acquisition of land to \$10,000.

The question of the acquisition of land in Campbell County, Ky., for a rifle range for Fort Thomas, Ky., which was pending at the close of the last fiscal year, has been concluded by the purchase of 169 acres of William Taliaferro, for \$11,830. The title has been approved by the Attorney-General, the deed recorded in Campbell County, Ky., and the title papers filed in this office.

By act of May 21, 1890 (Public No. 125), the Secretary of War was authorized to sell—

all that certain parcel of ground belonging to the United States situate in the city of Pittsburg, Pa., at the northwest corner of Penn avenue and Garrison alley, in the Fourth ward of said city, fronting 100 feet on the west side of Penn avenue and extending northwardly, preserving the same width, to low-water line of the Allegheny River, subject however to such public easements as exist thereon and thereover.

The Secretary of War, having obtained the opinion of the Attorney-General as to the title of the United States to the easements referred to, directed the Quartermaster-General to carry out the provisions of the law. In compliance therewith the depot quartermaster, Washington, D. C., was directed, on June 19, 1891, to take the necessary action.

Mr. John Twohig having offered to sell to the United States for \$20,000 the site of Eagle Pass, Tex. (62.94 acres), part of old Fort Duncan, that amount was asked of Congress, and accordingly the sundry civil act of March 3, 1891, appropriates \$20,000, "to enable the Secretary of War, in his discretion, to purchase a site for a military post at Eagle Pass, Tex." Protest having been made against the purchase of that particular tract, on May 22, 1891, the Secretary of War suspended action in securing title.

The act of March 1, 1890 (General Order, No. 25, Adjutant-General's Office), authorizes the Secretary of War to select and acquire title to suitable grounds of not less than 1,000 acres within 10 miles of the city of El Paso, Tex., and to construct thereon a military post to be known as Fort Bliss, and appropriates \$150,000 to enable the Secretary to comply therewith: *Provided, however*, That title to the land shall be obtained without expense to the United States. In compliance therewith title has been acquired to 1,268.18 acres, without cost, and provision has been made for a temporary water system payable from said appropriation.

The appropriation of \$16,500 by act of June 27, 1890 (General Order 69, Adjutant-General's Office, 1890), for purchase of land for target ranges at Fort McPherson, Ga., remains unexpended. The amount appropriated was less than the amount for which estimate was made, and

no action has been taken by the War Department so far as known to this office.

The act of February 7, 1891 (General Order 19, Adjutant-General's Office, 1891), authorizes the Secretary of War to accept, free of cost, a tract of not less than 500 acres of land for a target range and for other military purposes at or near the post of Plattsburg Barracks, N. Y. The act of March 3, 1891 (General Order, No. 35), authorizes the Secretary of War to proceed, in accordance with sections 4, 5, and 6 of the act of February 22, 1867, to secure the land; all expense, however, to be borne by the citizens of New York.

The site has been selected, and on May 22, 1891, the Secretary of War requested the Attorney-General to take early action to acquire title by condemnation.

Leases of land for military reservations in Texas have been vacated as follows: Fort Davis, 640 acres, of John James, at \$900 per annum; Camp Del Rio, 2,391.5 acres, of John Twohig and the Beauregard heirs, at \$239.15 per annum; Camp Langtry, parts of surveys 619, 620, and 621, Presidio County, of C. Torres, at \$100 per annum.

During the year reservations have been turned over to the Interior Department for disposition under the act of July 5, 1884, or as otherwise provided by law, as follows:

Fort Maginnis, Mont., containing 31,059.21 acres, by General Order 91, Adjutant-General's Office, August 15, 1890.

Hot Springs, Ark., containing all of square or block No. 94 on the official survey of Hot Springs, Ark., by General Order, No. 96, Adjutant General's Office, August 28, 1890.

Point Roberts, Wash., containing 1,472 acres, by General Order, No. 107, Adjutant General's Office, September 25, 1890.

Fort Mojave, Ariz., containing 14,697 acres, for Indian-school purposes, so long as it may not be required for military occupation by General Order, No. 111, Adjutant General's Office, September 29, 1890.

Fort McDowell, Ariz., post, buildings, etc., for Indian-school purposes, so long as not required for military occupation by General Order, No. 115, Adjutant General's Office, October 4, 1890.

Fort Totten, N. Dak., post, buildings, etc., for Indian-school purposes, so long as not required for military occupation, by General Order, No. 115, Adjutant General's Office, October 4, 1890.

Fort Bridger, Wyo., containing 10,240 acres, by General Order, No. 123, Adjutant General's Office, October 15, 1890.

Fort Verde, Ariz., containing 9,293.79 acres, by General Order, No. 123, Adjutant General's Office, October 15, 1890.

Fort Elliott, Tex., containing 2,560 acres, by General Order, No. 123, Adjutant General's Office, October 15, 1890.

Little Rock Barracks, Ark., containing 36.01 acres, by General Order, No. 123, Adjutant General's Office, October 15, 1890.

Fort Bidwell, Cal., containing 3,090 acres, by General Order, No. 135, Adjutant General's Office, November 22, 1890. (Garrison has not yet been withdrawn.)

Greenwood Island, Miss., containing 100 acres, for disposition under act of July 5, 1884 (or as may be otherwise provided by law), by General Order, No. 147, Adjutant General's Office, December 26, 1890.

Fort Crawford, Colo., containing 5,472 acres for disposition under act of July 5, 1884 (or as may be otherwise provided by law), by General Order 148, Adjutant-General's Office, December 31, 1890.

Fort Gibson, Ind. T., containing 5,541 acres, for disposition under act of July 5, 1884 (or as may be otherwise provided by law), ex-

cept the national cemetery in the southwest corner, 600 by 500 feet, by General Order 15, Adjutant-General's Office, February 13, 1891.

Fort McDowell, Ariz., containing 25,628 acres for disposition under act of July 5, 1884 (or as may be otherwise provided by law), by General Order 22, Adjutant-General's Office, 1891.

Fort Lowell, Ariz., area not stated, for disposition under act of July 5, 1884 (or as may be otherwise provided by law), by General Order 24, Adjutant-General's Office, March 6, 1891.

Other general orders affecting military reservations have been published during the year as follows:

No. 99, Adjutant-General's Office, September 11, 1890, designates the new military post near Newport, Ky., as "Fort Thomas," in honor of the late Gen. George H. Thomas, U. S. A., and the post at San Antonio, Tex., as "Fort Sam Houston," in honor of Gen. Sam Houston, the first governor of the State of Texas.

No. 119, Adjutant-General's Office, October 7, 1890, directs that the military works at Forts Pike and Macomb, La., be abandoned and the reservations and buildings thereon turned over to the Quartermaster's Department. What action if any has been taken under this order does not appear. Fort Pike is in charge of a corporal of Company B, Fifth Infantry, and Macomb is in charge of an ordnance sergeant.

No. 35, deficiency act of March 3, 1891, provides that the total cost of Fort Bliss, Tex., shall not exceed \$300,000; Fort Brady, Mich., \$250,000; Fort Omaha, Nebr., \$500,000; changes the name of Fort Omaha to Fort Crook and appropriates the sum of \$20,000 to enable the Secretary of War, in his discretion, to purchase a site for a military post at Eagle Pass, Tex. (old Fort Duncan).

No. 37, page 5, publishes act of February 27, 1891, granting right of way to the Junction City and Fort Riley Street Railway Company into and upon the Fort Riley, Kans., military reservation.

No 45, of May 11, 1891, changes the name of Camp Sheridan, in the Yellowstone National Park, Wyoming, to "Fort Yellowstone."

No. 50, of May 28, 1891, directs the withdrawal of the garrisons and the abandonment of Fort Abraham Lincoln, N. Dak.; Fort Lewis, Colo., and Fort Shaw, Mont.

No. 53, of June 4, 1891, enlarges the military reservation of Fort Sherman, Idaho, by the addition of an adjoining tract, containing 42.65 acres.

Act of February 21, 1891 (Public No. 88), authorizes and directs the Secretary of War to cause an examination to be made for a suitable site for a military post and harbor defenses at or near the city of San Diego, Cal., and to report to Congress, etc.

Act of February 28, 1891 (Public No. 104) incorporates the Washington and Arlington Railway Company and grants it right of way through the Arlington estate, outside of the cemetery grounds, Fort Myer.

In compliance with the request of the Secretary of War, the Secretary of the Interior, on the 27th of February, 1891, assigned a tract of land containing about 22.5 acres in the Yellowstone Park, Wyoming, for the use of the military authorities for the purpose of the erection of buildings for shelter for a troop of cavalry, and gave permission to use the water from Clematis Creek in the Park to supply the garrison. The buildings are in course of construction, but no provision has been made for a water system.

Owing to lack of funds for the purpose by the Interior Department, custodians were employed and paid by this Department to the close of

the fiscal year, for the care of reservations that have been turned over to that Department, as follows:

	Per month.
Fort Bridger, Wyo.....	\$75
Fort Maginnis, Mont.....	100
Fort Crawford, Colo.....	45
Fort Elliott, Tex.....	60
Fort Gibson, Ind. T.....	60
Little Rock Barracks, Ark.....	60
Fort Verde, Ariz.....	60
Fort Lowell, Ariz.....	60
Yuma Depot, Ariz.....	25

The Secretary of the Interior has been requested to relieve this Department from any further charge on account of these custodians, and as funds are now available, it is presumed that no further payments will be required by the Quartermaster's Department.

In addition to the foregoing, custodians are employed and paid by this Department as follows:

	Per month.
Camp Del Rio, Tex.....	\$30
Yerba Buena Island, Cal.....	25
Fort Union, N. Mex.....	60
Camp at Kingfisher, Okla.....	45

The garrison has been withdrawn from Del Rio, and the lease of 2,391.5 acres of land, on which most of the buildings are located, was vacated May 1, 1891. The United States owns 407.93 acres. What disposition is to be made of it is not yet known at this office.

Yerba Buena Island is an engineer station. It has not been occupied by troops for many years, and the sale or other disposition of the buildings was authorized ten years ago.

Fort Union reservation appears to be owned by private parties—Moro grant. The question of its disposition is now under consideration, this office having recommended to the Secretary of War that the question be referred to General Land Office for the settlement.

Instructions have been given to discharge the agent at Kingfisher.

Fort Marcy, N. Mex., is not to be turned over to the Interior Department and an agent is in charge of the reservation without pay.

Forts Selden and Cummings, N. Mex., are in charge of enlisted men. The latter has not been garrisoned for several years, and its transfer to the Interior Department has been recommended by this office.

Attention is invited to statements A, B, C, and D, accompanying this report.

A shows the expenditures that have been authorized for water, sewerage, plumbing, etc., chargeable to appropriation for Army transportation.

B shows the expenditures that have been authorized for lighting, heating, etc., chargeable to the appropriation for regular supplies.

C is an alphabetical list of the military reservations that have been turned over by the War Department to the Interior Department, or otherwise disposed of by the War Department, since 1858, with date of relinquishment, authority therefor, etc.

D is an alphabetical list of military reservations, showing location, size, how occupied, accommodations for officers, men, etc., on June 30, 1891.

C. P. MILLER,

Captain and Assistant Quartermaster, U. S. Army.

The QUARTERMASTER-GENERAL, U. S. ARMY.

A.—Expenditures authorized for water, sewerage, plumbing, etc., chargeable to the appropriation for Army transportation for 1890-91.

Station.	Amount.	Station.	Amount.
<i>Division of the Atlantic.</i>		<i>Department of the Missouri—Cont'd.</i>	
Fort Warren, Mass.....	\$9,121.55	Fort Leavenworth, Kans.....	\$4,971.38
Fort Columbus, N. Y. Harbor.....	4,774.56	Fort Sill, Ind. T.....	1,022.96
Fort Monroe, Va.....	4,619.90	Fort Lewis, Colo.....	172.00
Fort Schuyler, N. Y. Harbor.....	5,524.76		
Fort Hamilton, N. Y. Harbor.....	1,985.94	Total.....	56,929.42
St. Francis Barracks, Fla.....	1,219.87		
Fort Wadsworth, N. Y. Harbor.....	4,440.12	<i>Department of Texas.</i>	
Fort Preble, Maine.....	401.19	Fort Sam Houston, Tex.....	9,393.16
Madison Barracks, N. Y.....	674.63	Fort McIntosh, Tex.....	996.72
Fort Thomas, Ky.....	9,042.07	Fort Brown, Tex.....	115.72
Fort Niagara, N. Y.....	6,125.06	Fort Davis, Tex.....	550.88
Jackson Barracks, La.....	1,846.78	Fort Ringgold, Tex.....	468.11
Fort Wayne, Mich.....	1,410.37	Fort Clark, Tex.....	1,176.02
Washington Barracks, D. C.....	1,725.94	Fort Hancock, Tex.....	72.91
Newport Barracks, Ky.....	422.26	Camp Pena Colorado, Tex.....	71.20
Fort McPherson, Ga.....	7,081.97		
Fort Trumbull, Conn.....	491.27	Total.....	12,844.72
Mount Vernon Barracks, Ala.....	1,724.00		
Fort Barrancas, Fla.....	2,985.50	<i>Department of Arizona.</i>	
Fort McHenry, Md.....	487.70	Fort Marcy, N. Mex.....	434.00
Fort Myer, Va.....	3,024.40	Fort Apache, Ariz.....	328.11
Fort Adams, R. I.....	803.75	Whipple Barracks, Ariz.....	145.39
Plattsburg Barracks, N. Y.....	100.26	Fort Huachuca, Ariz.....	1,085.78
Fort Porter, N. Y.....	1,535.45	Fort Thomas, Ariz.....	23.78
Fort Mackinac, Mich.....	869.61	Fort Bowie, Ariz.....	774.18
Fort Ontario, N. Y.....	795.01	Fort Grant, Ariz.....	216.65
Fort Wood, N. Y. Harbor.....	1,584.60	Fort Mohave, Ariz.....	13.00
Fort Brady, Mich.....	568.90	Fort Bayard, N. Mex.....	948.68
Fort Montgomery, N. Y.....	7.50	Fort Stanton, N. Mex.....	156.98
		Fort Wingate, N. Mex.....	1,217.58
Total.....	75,398.02	San Carlos, Ariz.....	6,200.00
<i>Department of Dakota.</i>		Total.....	11,544.13
Fort Assiniboine, Mont.....	1,085.88		
Fort Randall, S. Dak.....	170.40	<i>Department of California.</i>	
Fort Pembina, N. Dak.....	249.02	Benicia Barracks, Cal.....	260.24
Fort Keogh, Mont.....	2,491.89	Alcatraz Island, Cal.....	564.30
Fort Buford, N. Dak.....	413.17	Fort Mason, Cal.....	1,653.50
Fort Meade, S. Dak.....	913.38	Angel Island, Cal.....	628.65
Fort Snelling, Minn.....	12,711.29	Presidio of San Francisco, Cal.....	1,309.65
Fort Custer, Mont.....	2,287.98	Fort Gaston, Cal.....	47.01
Fort Missoula, Mont.....	950.80		
Fort Totten, N. Dak.....	40.48	Total.....	4,463.35
Fort Shaw, Mont.....	123.55		
St. Paul, Minn.....	6.65	<i>Department of the Columbia.</i>	
Fort Yates, N. Dak.....	1,280.39	Vancouver Barracks, Wash.....	8,533.99
Fort Sully, S. Dak.....	1,947.72	Fort Sherman, Idaho.....	1,064.83
Camp on Poplar River, Mont.....	13.50	Fort Townsend, Wash.....	1,439.07
Fort Abraham Lincoln, N. Dak.....	8.71	Fort Walla Walla, Wash.....	399.55
		Fort Canby, Wash.....	1,921.67
Total.....	24,694.81	Fort Spokane, Wash.....	1,197.90
<i>Department of the Platte.</i>		Boisé Barracks, Idaho.....	1,751.21
Fort D. A. Russell, Wyo.....	1,112.65	Total.....	11,308.22
Fort Niobrara, Nebr.....	301.66		
Fort Douglas, Utah.....	9,893.15	<i>Independent posts.</i>	
Fort Sidney, Nebr.....	98.65	Allegheny Arsenal, Pa.....	27.00
Fort Omaha, Nebr.....	745.54	Jefferson Barracks, Mo.....	616.20
Fort Robinson, Nebr.....	5,000.03	David's Island, N. Y. Harbor.....	8,224.90
Camp Pilot Butte, Wyo.....	54.50	Columbus Barracks, Ohio.....	3,323.10
Fort Bridger, Wyo.....	26.50	Jeffersonville Depot, Ind.....	395.29
Omaha Depot, Nebr.....	139.73	Philadelphia Depot, Pa.....	1,610.60
Fort Du Chesne, Utah.....	13.00	San Francisco, Cal.....	210.00
Fort Washakie, Wyo.....	2,495.38	St. Louis Depot, Mo.....	561.13
Fort McKinney, Wyo.....	265.00	West Point, N. Y.....	500.00
		Willetts Point, N. Y.....	8,185.11
Total.....	20,145.79	Chicago, Ill.....	50.00
<i>Department of the Missouri.</i>		Total.....	23,703.33
Fort Sheridan, Ill.....	23,522.56	Aggregate.....	241,031.79
Fort Logan, Colo.....	2,314.62		
Fort Riley, Kans.....	3,969.91		
Fort Supply, Ind. T.....	12,603.20		
Fort Reno, Ind. T.....	8,352.79		

B.—Expenditures authorized for lighting, heating, etc., chargeable to the appropriation for regular supplies for 1890-'91.

Station.	Amount.	Station.	Amount.
Madison Barracks, N. Y	\$3,880.67	Fort Sheridan, Ill.	\$50,353.00
Fort Warren, Mass	98.70	Fort Logan, Colo	866.50
Governors Island, N. Y	2,589.00	Fort Riley, Kans	2,023.30
Fort Schuyler, N. Y., Harbor	1,272.00	Fort Reno, Ind. T	52.60
Fort Hamilton, N. Y., Harbor	351.50	Fort Leavenworth, Kans	1,733.81
Fort Wadsworth, N. Y., Harbor	57.50	Fort Sill, Ind. T	114.00
Fort Thomas, Ky	4,585.88	Fort Clark, Tex	324.00
Washington Barracks, D. C	120.32	Presidio of San Francisco, Cal	60.00
Newport Barracks, Ky	18.65	Jefferson Barracks, Mo	45.60
Mount Vernon Barracks, Ala	84.00	Davids Island, N. Y., Harbor	869.05
Fort Porter, N. Y	63.20	Columbus Barracks, Ohio	620.70
Fort Ontario, N. Y	41.77	Jeffersonville Depot, Ind	1,334.45
Fort Assiniboine, Mont	12.82	Willets Point, N. Y., Harbor	9.50
Fort Totten, N. Dak	5.00	Boisé Barracks, Idaho	195.00
St. Paul, Minn	86.46		
Omaha Depot, Nebr	690.00	Total	72,558.98

C.—List of military reservations turned over by the War Department to the Interior Department, or otherwise disposed of by the War Department, since 1858, with date of relinquishment, authority therefor, etc.

Name of post.	Date of relinquishment.	Authority for relinquishment.	Remarks.
Abercrombie, Fort, Dak	Mar. 25, 1871	Act Feb. 24, 1871	Portion east of the Red River of the North. G. O. 19, A. G. O., 1871.
Do	July 14, 1880	Act June 10, 1880	Reservation abolished. G. O. 55, A. G. O., 1880.
Do		Act July 15, 1882	Reservation abolished. G. O. 85, A. G. O., 1882.
Arbuckle, Fort, Ind. T	July 9, 1870	Indian treaty of Apr. 28, 1866.	
Atkinson, Fort, Iowa		Act June 7, 1860	12 Statute, 28.
Austin, Tex		Act Mar. 5, 1868	Arsenal block. For educational purposes only. G. O. 30, A. G. O., 1868.
Baton Rouge Barracks, La	Aug. 22, 1884	Act July 5, 1884	44.17 acres. G. O. 102, A. G. O., 1884.
Do		Act June 12, 1886	By Secretary Interior to State University. G. O. 55, A. G. O., 1886.
Benton, Fort, Mont	Jan. 5, 1883	Act Aug. 4, 1882	G. O. 110, A. G. O., 1882.
Bidwell, Fort, Cal	Feb. 13, 1885	Act July 5, 1884	Portion, 123.26 acres. G. O. 16, A. G. O., 1885.
Do	Nov. 19, 1890	do	Remainder, 3,090 acres. G. O. 135, A. G. O., 1890. Garrison not withdrawn.
Bois Blanc Island, Mich	July 22, 1884	do	9,199.43 acres. G. O. 80, A. G. O., 1884.
Boisé, Fort, Idaho	Sept. 19, 1874		Wood and saw mill reservation. Not formally reserved.
Do	Apr. 19, 1884	Act Feb. 14, 1853. Sec. 9, 10 Stat., 159.	Hay reservation in excess of 640 acres.
Bragg, Fort, Cal		Act July 27, 1868	On Mendocino Indian Reservation. G. O. 74, A. G. O., 1868.
Brady, Fort, Mich	Jan. 21, 1878	Act Mar. 1, 1869	Not to exceed 1 acre to Baptist Missionary Society. G. O. 23, A. G. O., 1869.
Do		Act Mar. 3, 1875	Grants 1.26 acres for school purposes. G. O. 41, A. G. O., 1875.
Bridger, Fort, Wyo	Mar. 25, 1871	Act Feb. 24, 1871	Portion, 496 square miles. G. O. 19, A. G. O., 1871.
Do	Feb. 15, 1872	do	Modifies G. O. 19, A. G. O., 1871.
Bridger, Fort, Wyo	July 22, 1884	Act July 5, 1884	Coal reservation. 99.17 acres. G. O. 80, A. G. O., 1884.
Bridger, Fort, Wyo	Oct. 14, 1890	do	10,240 acres. G. O. 123, A. G. O., 1890.
Brooke, Fort, Fla	Jan. 4, 1883	Act Aug. 18, 1856	148.11 acres. 11 stat. p. 87.
Butler, Fort, N. Mex	July 22, 1884	Act July 5, 1884	76,800 acres. G. O. 80, A. G. O., 1884.
Cady, Camp, Cal	do	do	1,562 acres. G. O. 80, A. G. O., 1884.
Cameron, Fort, Utah	July 2, 1885	do	23,378 acres. War Dept. circular, July 9, 1885.

C.—List of military reservations turned over by the War Department to the Interior Department, etc.—Continued.

Name of post.	Date of relinquishment.	Authority for relinquishment.	Remarks.
Cantonment, Ind. T.	Sept. 7, 1882	Act July 31, 1882.	For Indian schools.
Carlin (near), Nevada	Mar. 20, 1888	Act July 5, 1884.	920 acres. War Dept. Circular, March 26, 1888.
Cascades, Fort, Wash.	Feb. 2, 1867	.....	Private claim.
Churchill, Fort, Nev.	June 15, 1871	.....	No formal reservation.
Collins, Fort, Dak.	July 10, 1872	Act May 15, 1872.	G. O. 35, A. G. O., 1872.
Colville, Fort, Wash.	Feb. 26, 1887	Act July 5, 1884.	1,070 acres. War Dept. Cir. March 1, 1887.
Covington, Fort, Md.	Jan. 1869	Act June 25, 1868	G. O. 39, A. G. O., 1868.
Coeur d'Alene, Fort, Idaho	April 27, 1886	Act July 5, 1884.	Winter pasturage, 640 acres. War Dept. circular, May 3, 1886.
Craig, Fort, N. Mex.	Mar. 3, 1885	do	24,895 acres. G. O. 21, A. G. O., 1885.
Crawford, Fort, Iowa	.....	Act July 1, 1884.	.....
Crawford, Fort, Colo.	July 22, 1884	Act July 5, 1884.	Portion. G. O. 80, A. G. O., 1884.
Crawford, Fort, Colo.	Dec. 30, 1890	do	Remainder, 5,472 acres. G. O. 148, A. G. O., 1890.
Crawford, Fort, Wis.	.....	Act March 3, 1862.	.....
Crittenden, Fort, Utah.	July 22, 1884	Act July 5, 1884.	94,550 acres. G. O. 80, A. G. O., 1884.
Crittenden, Camp, Ariz.	do	do	3,278.08 acres. G. O. 80, A. G. O., 1884.
Crook, Fort, Cal.	.....	Act Feb. 15, 1881.	Act restores to public domain. G. O. 25, A. G. O., 1881.
Dakota, Fort, Dak.	.....	Act July 14, 1870.	.....
Dalles, Fort, Oregon	Mar. 28, 1877	Act Mar. 3, 1877	G. O. 24, 1877.
Date Creek, Camp, Oregon	Dec. 7, 1874	Act June 22, 1874.	G. O. 88, A. G. O., 1874.
Dodge, Fort, Kans.	Jan. 12, 1885	Act July 5, 1884.	12,000 acres. G. O. 6, A. G. O., 1885.
Douglas, Fort, Utah.	.....	Act May 16, 1874.	Not to exceed 20 acres for a public cemetery. G. O. 47, A. G. O., 1874.
Do.	Apr. 17, 1885	Act Jan. 21, 1885. (21 Stat., 284.)	Portion (151.81 acres), private claim. G. O. 35, A. G. O., 1885.
Drum Barracks, Cal.	.....	Act Feb. 25, 1873.	To be reconveyed to Banning and Wilson.
Ellis, Fort, Mont.	July 26, 1886	Act July 5, 1884.	32,116.10 acres. War Dept. circular, July 29, 1886.
Elliott, Fort, Tex.	Oct. 14, 1890	do	2,560 acres. G. O. 123, A. G. O., 1890.
Fayette, Fort, Pa.	.....	Act May 21, 1890.	Public, No. 125.
Fetterman, Fort, Wyo.	July 22, 1884	Act July 5, 1884.	45,085.56 acres. G. O. 80, A. G. O., 1884.
Fred Steele, Fort, Wyo.	Aug. 9, 1886	do	24,833.20 acres. Except cemetery site. War Dept. circular, August 12, 1886.
Galveston, Tex.	.....	Act July 15, 1870.	Lands donated to city. G. O. 100, A. G. O., 1870.
Gibson, Fort, Ind. Ter.	.....	Act July 5, 1884.	5,541 acres. National cemetery excepted. G. O. 15, A. G. O., 1891.
Goodwin, Camp, Ariz.	July 22, 1884	do	5,760 acres. G. O. 80, A. G. O., 1884.
Grant (old), Camp, Ariz.	July 22, 1884	do	2,031.70 acres. G. O. 80, A. G. O., 1884.
Green, Fort, R. I.	.....	Act Feb. 23, 1887.	To city of Newport as a public park. G. O. 25, A. G. O., 1887.
Gratiot, Fort, Mich.	Nov. 9, 1880	Act July 20, 1868.	Portion. G. O. 60, A. G. O., 1868.
Do.	.....	Act Mar. 18, 1870. Amends act July 20, 1868.	20.9 acres. G. O. 49, A. G. O., 1870.
Do.	.....	Act of Mar. 3, 1873.	Cemetery grounds. G. O. 45, A. G. O., 1873.
Do.	.....	Act June 16, 1880.	Remainder. G. O. 55, A. G. O., 1880.
Greenwood Island, Miss.	Dec. 26, 1890	Act July 5, 1884.	100 acres. G. O. 147, A. G. O., 1890.
Hall, Fort, Idaho.	Apr. 26, 1883	Act July 31, 1882.	For Indian schools.
Halleck, Fort, Nev.	Oct. 11, 1886	Act July 5, 1884.	10,900.93 acres. War Dept. circular, Oct. 28, 1886.
Hamer, Fort, Fla.	Feb. 26, 1876	Act Aug. 18, 1856.	.....
Hancock Barracks, Mo.	.....	Act Mar. 14, 1872.	Sale authorized.
Harker, Fort, Kans.	July 12, 1880	Act June 15, 1880.	G. O. 55, A. G. O., 1880.
Hartsuff, Fort, Nebr.	July 22, 1884	Act July 5, 1884.	8,251.41 acres. G. O. 80, A. G. O., 1884.
Hays, Fort, Kans.	May 13, 1886	Act June 11, 1884.	Portion, not to exceed 165 acres. G. O. 53, A. G. O., 1884.
Do.	Nov. 2, 1889	Act July 5, 1884.	Remainder, 7,600 acres. G. O. 81, A. G. O., 1889.
Hoskins, Fort, Oregon.	Feb. 16, 1891	.....	No formal reservation.
Hot Springs, Ark.	Aug. 27, 1890	Act July 5, 1884.	All of square or block 94. G. O. 96, A. G. O., 1890.
Houston, Fort, Tenn.	.....	Act June 23, 1874.	Donated to Fisk University for educational purposes. G. O. 86, A. G. O., 1874.

C.—List of military reservations turned over by the War Department to the Interior Department, etc.—Continued.

Name of post.	Date of relinquishment.	Authority for relinquishment.	Remarks.
Howard, Fort, Wis.....	.....	Act Mar. 3, 1863.....	Portion.
Do.....	.....	Act July 4, 1866.....	Remainder.
Hualpai, Fort, Ariz.....	Apr. 22, 1874.....	.....	No formal reservation.
Humboldt, Fort, Cal.....	Apr. 6, 1870.....	.....	No formal reservation.
Independence, Camp, Cal.....	July 22, 1884.....	Act July 5, 1884.....	5,210.38 acres. G. O. 80, A. G. O., 1884.
Jesup, Fort, La.....	Mar. 25, 1871.....	Act Feb. 24, 1871.....	G. O. 19, A. G. O., 1871.
Jones, Fort, Cal.....	May 27, 1870.....	.....	No formal reservation.
Jupiter, Fort, Fla.....	Mar. 16, 1880.....	Act Aug. 18, 1856. (11 Stat. 87).	9,088.38 acres. Except light-house lot.
Kearney, Fort (old), Iowa.....	.....	Act Apr. 15, 1874.....	.....
Kearney, Fort, Nebr.....	Dec. 2, 1876.....	Act July 21, 1876.....	G. O. 111, A. G. O., 1876.
Keogh, Fort, Mont.....	.....	Act July 30, 1890. Public 218.	Portion, east of Tongue River.
Key Blacaine, Fla.....	July 9, 1870.....	Act Aug. 18, 1856.....	.....
Klamath, Fort, Oregon.....	May 4, 1886.....	Act July 5, 1884.....	3,335.68 acres. War Dept. circular, May 6, 1886.
Lane, Fort, Oregon.....	Mar. 25, 1871.....	Act Feb. 24, 1871.....	G. O. 19, A. G. O., 1871.
Lapwai, Fort, Idaho.....	June 5, 1882.....	Act July 31, 1882.....	Post reserve for Indian schools.
Do.....	May 7, 1884.....	Act Feb. 14, 1853. (10 Stat., 159).....	Hay reservation in excess of 640 acres.
Laramie, Fort, Wyo.....	.....	Act Aug. 14, 1876.....	Restores a portion to public domain. G. O. 90, A. G. O., 1876.
Do.....	June 9, 1890.....	Act July 5, 1884.....	G. O. 60, A. G. O., 1890.
Larned, Fort, Kans.....	Mar. 26, 1883.....	Act Aug. 4, 1882.....	G. O. 110, A. G. O., 1882.
Leavenworth, Fort, Kans.....	Dec. 23, 1868.....	Act July 2, 1868.....	Sale of 20 acres in southeast corner to Leavenworth Coal Co.
Do.....	.....	Act Feb. 9, 1871.....	Sale of 128.82 to Kansas Agricultural and Mechanical Association. G. O. 14, A. G. O., 1871.
Do.....	.....	Act Mar. 2, 1889.....	Lease of 9.75 acres to Leavenworth Water Co. while lands are used as a military site. G. O. 39, A. G. O., 1889.
Little Rock Barracks, Ark.....	Oct. 14, 1890.....	Act July 5, 1884.....	86.01 acres. G. O. 123, A. G. O., 1890.
Logan, Fort, Mont.....	June 4, 1881.....	Act May 8, 1880.....	Sale at auction. G. O. 38, A. G. O., 1880.
Louisiana, State of.....	Sept. 23, 1886.....	Act July 5, 1880.....	Ten reservations on Gulf Coast, 6,170.79 acres. War Dept. circular, Sept. 28, 1886.
Lowell, Fort, Ariz.....	Mar. 5, 1891.....	Act July 5, 1884.....	Area not stated. G. O. 24, A. G. O., 1891.
Lyon, Fort (old), Colo.....	July 22, 1884.....	do.....	38,000 acres. G. O. 80, A. G. O., 1884.
Lyon, Fort, Colo.....	Dec. 2, 1889.....	do.....	5,874 acres. G. O. 9, A. G. O., 1890.
McDermitt, Fort, Nev.....	Dec. 1, 1886.....	do.....	Hay reservation, 6,400 acres. War Dept. circular, Dec. 3, 1886.
Do.....	July 24, 1889.....	do.....	Post reserve, 3,974.40 acres. G. O. 67, A. G. O., 1889.
McGarry, Camp, Nev.....	Mar. 25, 1871.....	Act Feb. 24, 1871.....	G. O. 19, A. G. O., 1871.
McDowell, Fort, Ariz.....	Oct. 1, 1890.....	Act July 31, 1882. (22 Stat., 181).....	Post, buildings, etc., for Indian school purposes until required for military purposes. G. O. 115, A. G. O., 1890.
McDowell, Fort, Ariz.....	Mar. 2, 1891.....	Act July 5, 1884.....	Containing 25,028 acres. G. O. 22, A. G. O., 1891.
McHenry, Fort, Md.....	.....	Act June 19, 1878.....	Site for a dry dock to Baltimore Dry Dock Co. G. O. 44, A. G. O., 1878.
McKinney, Fort, Wyo.....	Jan. 16, 1889.....	Act July 5, 1884.....	Portion, estimated 640 acres. G. O. 5, A. G. O., 1889.
McPherson, Fort, Nebr.....	Jan. 5, 1887.....	do.....	19,500 acres, all except national cemetery tract. War Dept. circular Jan. 10, 1887.
McRea, Fort, N. Mex.....	July 22, 1884.....	do.....	2,560 acres. G. O. 80, A. G. O., 1884.
Mackinac, Fort, Mich.....	.....	Act Mar. 1, 1879.....	Portion, to Messrs. Wendell, Van Allen & Bailey. G. O. 19, A. G. O., 1879.
Maginnis, Fort, Mont.....	Aug. 14, 1890.....	Act July 5, 1884.....	31,059.21 acres. G. O. 91, A. G. O., 1890.
Mason, Fort (Point San José), Cal.....	.....	Act July 1, 1870.....	Portion, to the city and county of San Francisco, Cal. G. O. 87, A. G. O., 1870.
Missouri River, island in, Mo.....	July 22, 1884.....	Act July 5, 1884.....	G. O. 80, A. G. O., 1884.

C.—List of military reservations turned over by the War Department to the Interior Department, etc.—Continued.

Name of post.	Date of relinquishment.	Authority for relinquishment.	Remarks.
Mojave, Fort, Ariz.....	Sept. 29, 1890	Act July 31, 1882 (22 Stat., 181).	14,697 acres. Indian school purposes until required for military occupation. G. O. 111, A. G. O., 1890.
Oglethorpe Barracks, Ga.....	Apr. 7, 1884	Act Apr. 7, 1882	G. O. 46, A. G. O., 1882.
Pagosa Springs (old Fort Lewis), Colo.	July 22, 1884	Act July 5, 1884	21,838.08 acres. G. O. 80, A. G. O., 1884.
Pikes Peak, Colo.	Jan. 16, 1889	do	8,192 acres. G. O. No. 5, of 1889.
Plattsburg Barracks, N. Y.	.....	Act June 8, 1872	25 acres to the N. York and Canada R. R. Co. G. O. 66, A. G. O., 1872.
Do.....	.....	Act June 30, 1879	2 acres etc. to R. R. Co. G. O. 70, A. G. O., 1879.
Point Roberts, Wash.....	Sept. 23, 1890	Act July 5, 1884	1,472 acres. G. O. 107, A. G. O., 1890.
Presidio of San Francisco, Cal.	.....	Act May 9, 1876	Portion to city of San Francisco. G. O. 44, A. G. O., 1876.
Randall, Fort, Dak	.....	Act May 18, 1874	Portion. G. O. 47, A. G. O., 1874.
Do.....	July 22, 1884	Act July 5, 1884	Portion (24,503.53 acres north of Missouri River), not already transferred under act of May 18, 1874. G. O. 80, A. G. O., 1884.
Randall, Fort, S. Dak	.....	Act Oct. 1, 1890. (Public 343.)	Portion opened to settlers.
Ransom, Fort, N. Dak	July 14, 1880	Act June 10, 1880	G. O. 55, A. G. O., 1880.
Reading, Fort, Cal	.....	Act Feb. 15, 1881	Restores to public domain. G. O. 25, A. G. O., 1881.
Reynolds, Fort, Colo	July 18, 1874	Act June 19, 1874	G. O. 88, A. G. O., 1874.
Rice, Fort, S. Dak	July 22, 1884	Act July 5, 1884	Estimated at 102,400 acres. G. O. 80, A. G. O., 1884.
Ridgely, Fort, Minn.....	.....	Act July 1, 1870	G. O. 87, A. G. O., 1870.
Riley, Fort, Kans	.....	Joint resolution of Mar. 2, 1867.	Reduces area, etc. G. O. 29, A. G. O., 1867.
Ripley, Fort, Minn.....	.....	Act Feb. 28, 1873	Portion. G. O. 28, A. G. O., 1873.
Do.....	July 2, 1880	Act Apr. 1, 1880	Restored to public domain. G. O. 22, A. G. O., 1880.
Rush Lake Valley, Utah	July 22, 1884	Act July 5, 1884	5,131.47 acres. G. O. 80, A. G. O., 1884.
Sabine, Fort, La.....	Mar. 25, 1871	Act Feb. 24, 1871	G. O. 19, A. G. O., 1871.
St. Augustine, Fla	Oct. 15, 1883	Act Aug. 18, 1856. (11 Stat. 87.)	.1619 and .12786 acres. Hospital lot and blacksmith's shop lot.
Do.....	Mar. 18, 1886	Act July 5, 1884	Old powder-house lot, or governor's garden lot, 10.29 acres.
Do.....	Nov. 18, 1886	do	Dragon barracks lot, 1.15 acres. War Dept. circular, Nov. 20, 1886.
Sanders, Fort, Wyo	.....	Act June 9, 1874	Reduces area. G. O. 60, A. G. O., 1874.
Do.....	Aug. 22, 1884	Act July 5, 1884	19,342 acres. G. O. 102, A. G. O., 1884.
Sedgwick, Fort, Colo. and Nebr	July 22, 1884	do	40,960 acres. G. O. 80, A. G. O., 1884.
Selden, Fort, N. Mex	Apr. 9, 1890	Act July 31, 1882. (22 Stat., 181.)	G. O. 44, A. G. O., 1890.
Seward, Fort, Dak	July 14, 1880	Act June 10, 1880	G. O. 55, A. G. O., 1880.
Sheridan, Camp, Nebr.....	July 22, 1884	Act July 5, 1884	18,225 acres. G. O. 80, A. G. O., 1884.
Smith, Fort, Ark.....	Mar. 25, 1871	Act Feb. 24, 1871	G. O. 19, A. G. O., 1871.
Sisseton, Fort, Dak	Apr. 22, 1889	Act July 5, 1884	81,920 acres. War Dept. circular, May 1, 1889.
Snelling, Fort, Minn	Dec. 23, 1873	Act May 7, 1870	Reduced to 1,531.21 acres. G. O. 66, A. G. O., 1870.
Soldiers' Key, Fla.....	July 9, 1870	Act Aug. 18, 1856	No formal reservation.
Stambaugh, Camp, Wyo	May 3, 1881	.....	Reduces reservation. G. O. 35, A. G. O., 1872.
Stanton, Fort, N. Mex	Aug. 7, 1872	Act May 21, 1872	Donates portion to Washington, for use of insane asylum. G. O. 32, A. G. O., 1874.
Stellacoom, Fort, Wash	.....	Act Apr. 15, 1874	289 acres. G. O. 80, A. G. O., 1884.
Do.....	July 22, 1884	Act July 5, 1884	For Indian schools.
Stevenson, Fort, Dak	Apr. 19, 1883	Act July 31, 1882	12.5 acres. G. O. 80, A. G. O., 1884.
Sullivan, Fort, Me	July 22, 1884	Act July 5, 1884	Except national cemetery. G. O. 19, A. G. O., 1871.
Sumner, Fort, N. Mex	Mar. 25, 1871	Act Feb. 24, 1871	Coal reservation. G. O. 80, A. G. O., 1884.
Sulphur Creek, Wyo.....	July 22, 1884	Act July 5, 1884	21,851 acres. G. O. 80, A. G. O., 1884.
Thornburg, Fort, Utah	do	do	4,800 acres. G. O. 80, A. G. O., 1884.
Three Forks Owyhee, Camp, Idaho.	do	do	1884.

C.—List of military reservations turned over by the War Department to the Interior Department, etc.—Continued.

Name of post.	Date of relinquishment.	Authority for relinquishment.	Remarks.
Totten, Fort, Dak.....	Oct. 1, 1890	Act July 31, 1882. (22 Stat. 181.)	Post, buildings, etc., for Indian school purposes, until required for military purposes. G. O. 115, A. G. O., 1890.
Uncomphagre cantonment on Colorado.	July 22, 1884	Act July 5, 1884.....	Portion 4,000 acres. G. O. 80, A. G. O., 1884.
Verde, Fort, Ariz.....	do	do	Garden tract, 3,000 acres. G. O. 80, A. G. O., 1884.
Do.....	Oct. 14, 1890	do	2,293.79 acres. G. O. 123, A. G. O., 1890.
Wallace, Fort, Kans.....	July 22, 1884	do	8,926.09 acres. G. O. 80, A. G. O., 1884.
Walla Walla, Fort, Wash....	Oct. 26, 1875	Act Apr. 29, 1872.....	Portion of hay reserve. G. O. 35, A. G. O., 1872.
Do.....	do	Act June 8, 1872.....	Timber reserve. G. O. 66, A. G. O., 1872.
Do.....	May 3, 1880	do	Remainder of hay reserve.
Do.....	do	do	Portion of post reservation.
Wallen, Camp, Ariz.....	Apr. 22, 1874	do	No formal reservation.
Washita, Fort, Ind. T.....	July 1, 1870	do	Do.
Waterford, Pa.....	do	Act Mar. 4, 1868.	do
Wayne, Fort, Ark.....	Mar. 29, 1871	Act Feb. 24, 1871.....	G. O. 19, A. G. O., 1871.
Whipple Barracks, Ariz.....	Oct. 21, 1875	Act June 22, 1874.....	Portion. G. O. 88, A. G. O., 1874.
Do.....	July 22, 1884	Act July 5, 1884.....	Timber reserve, 720 acres. G. O. 80, A. G. O., 1884.
White River, Camp on, Colo.....	do	do	40,990 acres. G. O. 80, A. G. O., 1884.
Wilkins, Fort, Mich.....	do	do	148.35 acres. G. O. 80, A. G. O., 1884.
Willow Grove, Camp, Ariz....	Apr. 22, 1874	do	No formal reservation.
Wilmington Depot, Cal.....	do	Act Feb. 25, 1873.....	To be reconveyed to Banning and Wilson. G. O. 45, A. G. O., 1873.
Yuma, Fort, Ariz.....	Dec. 7, 1874	Act June 22, 1874.....	Portion. G. O. 88, A. G. O., 1874.
Yuma, Fort, Ariz. and Cal....	Jan. 9, 1884	do	Indian school purposes.
Do.....	July 22, 1884	Act July 5, 1884.....	Inoperative. G. O. 80, A. G. O., 1884.
Zarah, Fort, Kans.....	Mar. 25, 1871	Act Feb. 24, 1871.....	G. O. 19, A. G. O., 1871.

D.—Military reservation showing location, size, how occupied, etc., on June 30, 1891.

Abraham Lincoln, Fort, N. Dak.—Latitude, $46^{\circ} 47'$; longitude, $100^{\circ} 50'$. On the Missouri River $6\frac{1}{2}$ miles from Mandan, on Northern Pacific Railroad, and 9 miles from Bismarck. Contains $23\frac{1}{2}$ square miles. Accommodations for 11 officers and 210 men. At late ordnance depot one additional set of quarters and barrack accommodations for 17 men. Water supply pumped from Missouri River. Surface drainage. No sewer system. Not garrisoned. In charge of paid custodian. (August, 1891.)

Adams Fort, R. I.—Latitude, $41^{\circ} 28'$; longitude, $71^{\circ} 22'$. On Brenton's Point, 3 miles from Newport, which is the post-office, railroad, and telegraph station, and from which the post is reached by boat or road. Contains $138\frac{1}{2}$ acres. Present garrison headquarters and 4 batteries of artillery. Accommodations for 16 officers in cottages and 7 in casemates. Accommodations for 208 men. One barrack building for light battery outside of fort and casemates, occupied by 3 foot batteries. Water supply from Newport city waterworks. Sewer system.

Alcatraz Island, Cal.—Latitude $37^{\circ} 49'$; longitude $122^{\circ} 27'$. In the Bay of San Francisco, 4 miles northeast from the city. Post-office at the post. Railroad and telegraph station, San Francisco. Government steamer to post daily except Sunday. Reservation, the whole island, about 12 acres. Present garrison, two batteries of artillery. Accommodations for 10 officers and 73 men, one double barrack. Salt water supply pumped from the bay by steam power. Fresh water brought from San Francisco on steamer and stored in cisterns. Sewer system.

Angel Island, Cal.—Latitude $37^{\circ} 48'$; longitude $122^{\circ} 28'$. In the bay of San Francisco, 7 miles northeast from the city. Post-office and telegraph station at the post. Railroad station San Francisco. Government steamer to post daily except Sunday. Reservation, the entire island, about 640 acres. Present garrison, headquarters and 5 companies of infantry. Accommodations for 13 officers and 204 men, six barracks. Water supply from springs conducted by gravity to reservoirs, whence distribution is made to all parts of the post. Sewer system.

Apache, Fort, Ariz.—Latitude $33^{\circ} 40'$; longitude $109^{\circ} 55'$. On White Mountain River, in Apache County, 90 miles from Holbrook, on Atlantic and Pacific Railroad, and 339 miles from Prescott. Post-office and telegraph station at the post. Buck-

board daily except Sunday from Holbrook. Reservation, 7,421 acres. Present garrison, 4 troops cavalry and 1 of infantry. Accommodations for 17 officers and 420 men, seven barracks. Water supply pumped from east fork of White River to a reservoir and distributed by pipes. Partial sewer system.

Assiniboine, Fort, Mont.—Latitude, $48^{\circ} 30'$; longitude, $109^{\circ} 45'$. On Beaver Creek, $1\frac{1}{2}$ miles from station of same name, on Great Northern Railroad, 209 miles from Helena and 996 from St. Paul; post-office, telegraph, and railroad station at the post; reservation, about 704,000 acres; present garrison, 2 troops of cavalry and headquarters and 7 companies infantry; accommodations for 36 officers and 605 men; ten barracks; water supply from Beaver Creek, forced by steam power into a distributing tank; no sewer system, natural drainage; night soil removed by scavengers.

Barrancas, Fort, Fla.—Latitude, $30^{\circ} 19'$; longitude, $87^{\circ} 16'$. On north side of Pensacola Harbor, 9 miles southwest of Pensacola; post-office, Warrington, Fla.; telegraph station, Pensacola navy-yard; railroad station at Pensacola, special boat to post; reservation contains about 2,500 acres; present garrison, 2 batteries artillery; accommodations for 11 officers and 186 men; one barrack building designed for 4 companies; water supply from well and bisters very deficient, new system by artesian well being constructed; no sewer system.

Bayard, Fort, N. Mex.—Latitude, $32^{\circ} 47'$; longitude, $108^{\circ} 11'$. Nine miles from Silver City, on Atchison, Topeka and Santa Fé Railroad; post-office and telegraph station at the post; railroad station, Silver City, stage daily except Sunday; reservation, 13 square miles and 520 acres; present garrison, headquarters, 4 companies infantry, and 2 troops cavalry; accommodations for 19 officers and 400 men; 6 barracks; water supply pumped from springs to reservoir and distributed through iron pipes by gravity; sewer system.

Benicia Barracks, Cal.—Latitude $38^{\circ} 2'$; longitude $122^{\circ} 7'$. Post-office, telegraph, station, and boat landing, Benicia, distance 1 mile. Railroad station, Central Pacific, Army Point, distance $\frac{1}{2}$ mile. Reservation 98.78 acres. Present garrison, 2 companies infantry. Accommodations for 8 officers and 122 men; four barracks. Water supply from Benicia Water Company; sewer system.

Bennett, Fort, S. Dak.—Latitude $44^{\circ} 43'$; longitude $100^{\circ} 39'$. On the Missouri River, 7 miles above Fort Sully and 30 miles from Pierre, S. Dak., on the Chicago and Northwestern Railroad; 455 miles from St. Paul, and 781 from Chicago. Post-office at the post, telegraph station Fort Sully; stage from Pierre daily except Sunday. On Indian reservation. Present garrison, 1 company infantry, and 1 company cavalry. Accommodations for 4 officers and 61 men; one barrack. Water supply hauled from Missouri River by water wagons; no sewer system. To be abandoned under General Orders, No. 79, Adjutant-General's Office, 1891.

Bidwell, Fort, Cal.—Latitude $41^{\circ} 52'$; longitude $120^{\circ} 6'$. In Surprise Valley, 193 miles from Reno, Nev., on Central Pacific Railroad, 452 miles from San Francisco, 8 miles from the Oregon line, and same distance from the Nevada line; post-office at the post; telegraph station Alturas, Cal.; daily stage from Amedee Station, Cal., distance 135 miles. Reservation, 3,091 acres. Present garrison, 1 company of cavalry, and 1 company of infantry. Accommodations for 8 officers, and 127 men; two barracks. Water supply from a mountain stream, distributed by gravity; natural drainage. This reservation was turned over to Interior Department by General Order 135, Adjutant-General's Office, 1890, but the garrison has not yet been withdrawn.

Bliss, Fort, Tex.—Latitude, $31^{\circ} 44'$; longitude, $106^{\circ} 29'$. On the Rio Grande, $1\frac{1}{2}$ miles above El Paso, on the Atchison, Topeka and Santa Fé Railroad. Post-office, telegraph, and railroad station, El Paso, Tex. Reservation, 134.85 acres. Present garrison, 2 companies infantry. Accommodations for 7 officers and 130 men, 2 barracks. Water supply from El Paso City water works. Sewer system. Title has been acquired to 1,268.18 acres for a new post.

Boisé Barracks, Idaho.—Latitude, $42^{\circ} 32'$; longitude, $116^{\circ} 10'$. On the Boisé River, 2 miles from Boisé city, and 36 miles from Idaho City. Post-office, telegraph, and railroad station, Boisé City. Reservation, 640 acres. Present garrison, 1 troop cavalry and 1 company infantry. Accommodations for 7 officers and 130 men, 2 barracks. Water supply from reservoir, fed by springs, distributed through iron pipes by gravity. Authority given to connect with Boisé City water works. Sewer system.

Bowie, Fort, Ariz.—Latitude, $32^{\circ} 10'$; longitude, $109^{\circ} 23'$. In Apache Pass, 13 miles from Bowie Station, on the Southern Pacific Railroad. Post-office and telegraph station at the post. Daily buckboard from Bowie Station. Reservation, 36 square miles, or 23,040 acres. Present garrison, 2 troops cavalry. Accommodations for 10 officers and 160 men, 3 barracks. Water supply from Bear Springs, pumped by steam power to reservoir, and distributed by gravity. Sewer system.

Brady, Fort, Mich.—Latitude, $46^{\circ} 30'$; longitude, $84^{\circ} 20'$. Within limits of city of Sault St. Marie, on right bank of St. Marys River. Post-office, telegraph, and railroad station, Sault St. Marie. Boat lands at post in summer. Reservation, $26\frac{1}{2}$ acres.

Present garrison, 2 companies infantry. Accommodations for 6 officers and 73 men, one double and one single barrack. Water supply from Sault St. Marie water works, hauled by teamsters. Reservation on which to construct new post, 75 acres, purchased in compliance with act of July 8, 1886. New post in course of construction, and an expenditure of \$2,880.31 has been authorized for a water system, and \$5,004.27 for a sewer system, from the appropriation of July 8, 1886, General Orders 52 of 1886.

Brown, Fort, Tex.—Latitude, $25^{\circ} 53'$; longitude, $97^{\circ} 21'$. On the Rio Grande, adjoining the city of Brownsville. Post-office, telegraph, and railroad station, Brownsville. Reservation, $358\frac{1}{2}$ acres, owned by private parties. Occupied and used by the United States since March, 1846, without payment of rent or taxes. Appropriation for purchase at \$160,000. Payment suspended by authority of resolution of Congress. Suit pending in court of claims to compel payment. Present garrison, 1 troop cavalry. Accommodations for 20 officers and 244 men, 4 barracks. Water supply pumped from Rio Grande into distributing tanks. No sewer system. Open drains.

Buford, Fort, N. Dak.—Latitude, $47^{\circ} 59'$; longitude, $103^{\circ} 58'$. On Missouri River, 2 miles below the mouth of the Yellowstone, on the line of the Great Northern Railroad, 660 miles from St. Paul. Post-office, telegraph, and railroad station at the post. Reservation, about 506,042 acres. Reduced by General Orders 68, of 1891, and area not stated. Present garrison, 1 troop (cavalry) and 2 companies (infantry). Accommodations for 20 officers and 326 men, 6 barracks. Water supply pumped from the Missouri River into an elevated tank and distributed by iron pipes. Partial sewer system.

Canby, Fort, Wash.—Latitude, $46^{\circ} 17'$; longitude, $124^{\circ} 3'$. At the mouth of Columbia River, on the north bank, 14 miles from Astoria, 7 miles from Fort Stevens, Oreg., 98 miles from Portland, Oreg., and 130 miles from Fort Vancouver. Post-office and telegraph station at the post; daily steamer from Portland to Astoria, and thence by steam tug to post. Reservation, 588.2 acres. Present garrison, 2 batteries of artillery. Accommodations for 7 officers and 120 men, 2 barracks. Water supply from springs pumped to reservoir and distributed by gravity; sewer system.

Carroll, Fort, Md.—Latitude, $39^{\circ} 15'$; longitude, $76^{\circ} 35'$. Post-office and telegraph station Baltimore, distant $6\frac{1}{2}$ miles from Light-street wharf. Reservation, 4 acres. Not garrisoned. In charge of Engineer Department.

Caswell, Fort, N. C.—Latitude, 34° ; longitude, $78^{\circ} 1'$. Oak Island, North Carolina, 2 miles from Southport and 22 miles from Wilmington. Post-office and telegraph station, Southport, N. C. Steamer daily from Wilmington to Southport. Reservation about 2,325 acres. Not garrisoned. In charge of ordnance sergeant.

Clark, Fort, Tex.—Latitude, $29^{\circ} 17'$; longitude, $100^{\circ} 25'$. On Las Moras Creek, adjoining the town of Brackettville, 9 miles from Spofford Junction on Southern Pacific Railroad, and 143 miles from San Antonio. Post-office, Brackettville, Tex.; telegraph station, Fort Clark, via Spofford Junction; daily stage from Spofford Junction. Reservation, 3,963.2 acres. Present garrison, all of the Eighteenth Infantry. Accommodation for 35 officers and 748 men, 13 barracks. Water supply from Las Moras Springs pumped into tanks and distributed by iron pipes. Partial sewer system.

Clark's Point, Mass.—Latitude, $41^{\circ} 35'$; longitude, $90^{\circ} 54'$. Four miles from New Bedford, which is the post-office and telegraph station. Reservation, 60 acres. Not garrisoned. In charge of ordnance sergeant.

Clinch, Fort, Fla.—Latitude, $30^{\circ} 41'$; longitude, $81^{\circ} 28'$. On Amelia Island, Florida, 3 miles from Fernandina, which is the post-office, telegraph, and railroad station. Reservation, 400 acres. Not garrisoned. In charge of ordnance sergeant.

Columbus Barracks, Ohio.—Latitude, $39^{\circ} 57'$; longitude, $82^{\circ} 59'$. Post-office and railroad station, Columbus, Ohio, telegraph station at the post. Reservation, 77 acres, 3 roads, 8 perches. Recruiting depot. Accommodations for 15 officers and 555 men, 3 barracks, 1 of which will accommodate 400 men. Water supply, Columbus city waterworks. Sewer system.

Columbus, Fort, N. Y. H.—Latitude, $40^{\circ} 42'$; longitude, $74^{\circ} 9'$. On Governors Island at junction of North and East rivers, $1\frac{1}{2}$ miles from New York City. Post-office, New York City; telegraph station, Governors Island. Government steamer from New York City. Contains about $65\frac{1}{2}$ acres. Present garrison, 3 batteries of artillery. Fort Columbus will accommodate 7 officers and 174 men, barracks for 3 small companies. Governors Island (Headquarters Division of Atlantic) has accommodations for 18 officers. Water supply from Brooklyn city waterworks. Sewer system.

Constitution, Fort, N. H.—Latitude, $43^{\circ} 4'$; longitude, $70^{\circ} 49'$. On Great Island, N. H., 3 miles from Portsmouth; post-office, New Castle, N. H.; telegraph and railroad station, Portsmouth. Stage or steamer from Portsmouth. Reservation, $3\frac{1}{2}$ acres. Not garrisoned. In charge of ordnance sergeant.

Cummings, Fort, N. Mex.—Latitude, $32^{\circ} 27'$; longitude, $107^{\circ} 35'$. Situated in Grant County, N. Mex., 5 miles from Florida, on Atchison, Topeka and Santa Fé Railroad. Reservation, 36 square miles. Not garrisoned. In charge of enlisted man.

Custer, Fort, Mont.—Latitude, $45^{\circ} 44'$; longitude, $107^{\circ} 31'$. On the Big Horn River, 33 miles from Custer Station, on the Northern Pacific Railroad, 838 miles from St. Paul. Post-office and telegraph station at the post. Daily stage and mail from Custer station. Reservation, 36 square miles. Custer battlefield 1 square mile. Present garrison, headquarters 4 troops cavalry and 2 companies infantry. Accommodations for 22 officers and 565 men, 10 barracks. Water pumped from Little Big Horn River by steam power to an elevated tank and distributed by a system of iron pipes. Natural drainage. Partial sewer system.

D. A. Russell, Fort, Wyo.—Latitude, $41^{\circ} 8'$; longitude, $104^{\circ} 50'$. On Crow Creek, 3 miles west of Cheyenne, which is on Union Pacific Railroad. Post-office, telegraph, and railroad station (Cheyenne and Northern) at the post. Post reservation, 4,512 acres. Hay reservation, 2,540.64 acres. Present garrison, all of 17th Infantry. Accommodations for 33 officers and 439 men, 9 barracks. The water supply system is received from Crow Creek by percolation through the gravel strata into five wells, from whence it is pumped into two reservoirs and distributed to the post. Sewer system.

David's Island, N. Y.—Latitude, $40^{\circ} 53'$; longitude, $73^{\circ} 48'$. At the southwestern extremity of Long Island Sound, 3 miles from New Rochelle, Westchester County, N. Y.; 22 miles from New York City. Post-office at the post. Telegraph station, New Rochelle, N. Y. Horse cars and boat to the post. Reservation, the entire island, about 86½ acres. Recruiting depot. Accommodations for 10 officers and 632 men, 12 barracks. Water supply from New Rochelle waterworks. Sewer system.

Davis, Fort, Tex.—Latitude, $30^{\circ} 36'$; longitude, $103^{\circ} 36'$. In Jeff Davis County, Tex., in a pass of the Acahu Mountains, 22 miles from Marfa, on the Galveston, Harrisburg and San Antonio Railroad. Reservation, 300 acres, owned by the United States. Accommodations for 21 officers and 296 men, 8 barracks. Water pumped from Limpia Creek to tanks and distributed through iron pipes. Sewer system. Not garrisoned. In charge of paid custodian. (July 20, 1891.)

Delaware, Fort, Del.—Latitude, $39^{\circ} 35'$; longitude, $76^{\circ} 34'$. On Pea Patch Island, Delaware, 1½ miles from Delaware City and 42 miles from Philadelphia. Post-office and telegraph station, Delaware City. Daily steamer from Philadelphia to Delaware City. Reservation, about 90 acres. Not garrisoned. In charge of ordnance sergeant.

Del Rio Camp, Tex.—Latitude, $29^{\circ} 22'$; longitude, $100^{\circ} 46'$. On Galveston, Harrisburg and San Antonio Railroad, 1 mile from the station. Reservation, 407.93 acres, owned by the United States. Accommodations for 4 officers and 40 men. (Estimated.) Not garrisoned. In charge of paid custodian.

Douglas, Fort, Utah.—Latitude, $40^{\circ} 46'$; longitude, $111^{\circ} 56'$. East of and overlooking Salt Lake City. Distance, 3 miles. Post-office, telegraph and railroad station, Salt Lake City, which is on Utah Central and Rio Grande Western Railroads, 37 miles from Ogden on Union Pacific Railroad. Horse cars from Salt Lake City to post. Post is also reached from Salt Lake City by trains on Salt Lake and Fort Douglas Railroad. Reservation, 4 square miles, less 151 acres surrendered by act of Congress. Present garrison, headquarters and 9 companies infantry. Accommodations for 27 officers and 534 men, 11 barracks. Water supply piped by gravity to reservoir at post and distributed through iron pipes. Sewer system.

Duchesne, Fort, Utah.—Latitude, $40^{\circ} 16'$; longitude, $109^{\circ} 52'$. On the right bank of the Uintah River, about 8 miles above its confluence with the Duchesne River, and on the road between Ouray, about 20 miles distant, and White Rocks, about 15 miles distant. Post reached by wagon and stage from Price Station, distance 88 miles, on Denver and Rio Grande Western Railroad. Freight goes by this route. Post-office and telegraph station at the post. Reservation provisional, 6 square miles, within the limits of the Uintah Indian Reservation. Present garrison, 2 troops cavalry and 3 companies infantry. Accommodations for 19 officers and 315 men, 6 barracks. Water supplied by water wagon. No sewer system.

Dutch Island, R. I.—Latitude, $41^{\circ} 30'$; longitude, $71^{\circ} 24'$. Five miles from Newport. Post-office, Jamestown, R. I. Telegraph station, Newport. Steam ferry from Newport to Jamestown, 4 miles, and private boat thence to post, 1 mile. Reservation, 75 acres. Not garrisoned. In charge of ordnance sergeant.

Eagle Pass, Tex.—Latitude, $28^{\circ} 42'$; longitude, $100^{\circ} 30'$. In Maverick County, part of old Fort Duncan. Reservation, 62.94 acres, leased. Present garrison, 1 troop cavalry. Accommodations for 8 officers and 61 men, 2 barracks.

Finns Point, N. J.—Latitude, $39^{\circ} 32'$; longitude, $75^{\circ} 45'$. On the Delaware River, 6 miles from Salem, N. J., which is the post-office, telegraph, and railroad station. Reservation, 104.35 acres. Not garrisoned. In charge of Engineer Department.

Foot's, Fort, Md.—Latitude, $38^{\circ} 48'$; longitude, $77^{\circ} 41'$. On the Potomac River, 9 miles from Washington. Post-office, at the post. Telegraph station, Alexandria, Va. Steamer from Washington, D. C. Reservation, about 66½ acres. Not garrisoned. In charge of ordnance sergeant.

Gaines, Fort, Ala.—Latitude, $30^{\circ} 15'$; longitude, $88^{\circ} 4'$. On Dauphin Island, Ala.,

30 miles from Mobile by boat, which is the post-office, telegraph, and railroad station. Reservation, about 983.9 acres. Not garrisoned. In charge of ordnance sergeant.

Gaston, Fort, Cal.—Latitude, $41^{\circ} 4'$; longitude, $123^{\circ} 37'$. In Hoopa Valley, Humboldt County. Post-office, Hoopa Valley, Cal. Telegraph station, Eureka, Cal. Bi-weekly steamer from San Francisco to Arcata, distance 204 miles; thence by wagon road via Willow Creek, distance 53 miles. Reservation, $451\frac{1}{2}$ acres. Present garrison, 1 company infantry. Accommodations for 5 officers and 64 men, 1 barrack. Water supply from a mountain stream by iron pipes, distributed by gravity. Natural drainage. Post recommended for abandonment.

Goose Island, Wash.—Latitude, $48^{\circ} 31'$; longitude, $122^{\circ} 58'$. In the Strait of San Juan de Fuca.

Gorges, Fort, Me.—Latitude, $43^{\circ} 39'$; longitude, $70^{\circ} 13'$. On Hog Island, Portland Harbor, Maine, 2 miles from Portland, which is the post-office, telegraph, and railroad station. Reservation, about $1\frac{1}{2}$ acres. Not garrisoned. In charge of ordnance sergeant.

Grant, Fort, Ariz.—Latitude, $32^{\circ} 37'$; longitude, $109^{\circ} 45'$. In Pima County, 27 miles from Wilcox, on the Southern Pacific Railroad. Post-office and telegraph station, at the post. Daily stage, except Sunday, from Wilcox. Reservation, 42,341 acres. Present garrison, headquarters, 3 troops cavalry, and 2 companies infantry. Accommodations for 23 officers and 240 men, 7 barracks. Water supply piped from reservoir fed by streams. Sewer system.

Griswold, Fort, Conn.—Latitude, $41^{\circ} 22'$; longitude, $81^{\circ} 8'$. Groton Heights, 1 mile from New London. Post-office, Groton, Conn. Telegraph and railroad station, New London. Ferry from New London to post. Reservation, 14 acres. Not garrisoned. In charge of ordnance sergeant.

Hamilton, Fort, N. Y.—Latitude, $40^{\circ} 37'$; longitude, $74^{\circ} 1'$. On shore of Long Island, $5\frac{1}{2}$ miles south of New York City, commanding the Narrows. Post-office and telegraph station, at the post. City railroad from Brooklyn, distance 6 miles. Reservation, 98 acres. Present garrison, headquarters and 4 companies artillery. Accommodations for 19 officers (2 in casemates) and 250 men, 4 barracks. Water supply from Brooklyn City waterworks. Sewer system.

Hancock, Fort, Tex.—Latitude, $31^{\circ} 20'$; longitude, $105^{\circ} 55'$. Situated on the Rio Grande, 54 miles southeast of El Paso, and $1\frac{1}{2}$ miles from Hancock Station, on the Southern and Texas Pacific Railroad. Post-office, at the post. Telegraph and railroad station, Fort Hancock Station, distance 14 miles. Reservation, 469.2 acres. Present garrison, 1 company cavalry. Accommodations for 4 officers and 63 men, 1 barrack. Water supply pumped from a well into settling tanks and distributed by iron pipes. Tile drains leading to cesspools; no other sewerage.

Huachuca, Fort, Ariz.—Latitude, $31^{\circ} 33'$; longitude, $110^{\circ} 16'$. In Cochise County, 7 miles from Huachuca siding, on the New Mexico and Arizona Railroad. Post-office and telegraph station, at the post. Daily buckboard from Huachuca siding. Reservation, 70 square miles. Present garrison, 2 troops cavalry and 2 companies infantry. Accommodations for 22 officers and 360 men, 6 barracks. Water supply piped from springs 3 miles distant to distributing reservoirs. Sewer system.

Independence, Fort, Mass.—Latitude, $42^{\circ} 21'$; longitude, 71° . On Castle Island, Boston Harbor, 3 miles from Boston, which is the post-office, telegraph, and railroad station. Government tug from Boston. Reservation, 12 acres. Not garrisoned. In charge of ordnance sergeant. Accommodations for 1 field and 6 company officers in cottages outside the fort, and for 80 men, 2 batteries, in casemates.

Jackson Barracks, La.—Latitude, $29^{\circ} 57'$; longitude, 90° . On the east bank of the Mississippi River, 6 miles below the city of New Orleans, which is the post-office and railroad station. Telegraph station, slaughter house, St. Bernard Parish, La., street cars from New Orleans pass the post. Reservation, 87.87 acres. Present garrison, 2 companies infantry. Accommodations for 11 officers and 96 men, 4 barrack buildings accommodate 24 men each. Water supply pumped from the Mississippi River. Surface drainage by brick-lined drains.

Jackson, Fort, La.—Latitude, $29^{\circ} 21'$; longitude, $89^{\circ} 26'$. Seventy-three miles from New Orleans; post-office, Neptune, La. Telegraph station, Quarantine, La. Steamer tri-weekly from New Orleans. Reservation, 740.97 acres. Not garrisoned. In charge of ordnance sergeant.

Jefferson Barracks, Mo.—Latitude, $38^{\circ} 28'$; longitude, $90^{\circ} 17'$. In South St. Louis, on the Mississippi River. Post-office, telegraph, and railroad station, at the post. Reservation, 1,379.06 acres, with 118.15 acres in adverse possession by different parties. Recruiting depot. Accommodations for 14 officers and 437 men, 5 barracks. Water supply from St. Louis waterworks. Sewer system.

Jefferson, Fort, Fla.—Latitude, $24^{\circ} 38'$; longitude, $82^{\circ} 52'$. Garden Key, 71 miles from Key West. Post-office and telegraph station, Key West, Fla. Boat from Key West to post. Reservation, 5 acres. Not garrisoned. In charge of ordnance sergeant. There are two substantial three-story brick buildings; one for officers' quarters, 63 rooms; the other for soldiers, 50 rooms.

Johnston, Fort, N. C.—Latitude, 34° ; longitude, $78^{\circ} 5'$. Twenty-six miles from Wilmington. Post-office and telegraph station, Southport, N. C. Steamer daily from Wilmington. Reservation, 43,560 square feet. Not garrisoned. In charge of ordnance sergeant. One set of officers' quarters used as signal office. No barracks.

Keogh, Fort, Mont.—Latitude, $46^{\circ} 23'$; longitude, $105^{\circ} 57'$. On the Northern Pacific Railroad, 747 miles from St. Paul. Post-office, telegraph, and railroad station, at the post. Reservation about 90 square miles. Present garrison, 2 troops cavalry and headquarters and 8 companies infantry. Accommodations for 27 officers and 535 men, 9 barracks. Water supply pumped from a well near the Yellowstone River and distributed through iron pipes by direct pressure. Partial sewer system.

Key West Barracks, Fla.—Latitude, $24^{\circ} 33'$; longitude, $81^{\circ} 48'$. Post-office, telegraph station, and boat landing, Key West. Reservation, 22.79 acres. Not garrisoned. In charge of ordnance sergeant. Five sets of officers' quarters and two barracks. Four sets quarters and one barrack in good condition. Others need repairs.

Knox, Fort, Me.—Latitude, $44^{\circ} 34'$; longitude, $68^{\circ} 48'$. In Hancock County, $\frac{1}{2}$ mile from Bucksport by ferry. Post-office, Prospect Ferry, Me. Telegraph and railroad station, Bucksport. Reservation, 150 acres. Not garrisoned. In charge of ordnance sergeant. No quarters for men or officers.

Lafayette, Fort, N. Y. H.—Latitude, $40^{\circ} 37'$; longitude, $74^{\circ} 2'$. Six miles from Brooklyn. Post-office and telegraph station, at the post. City railroad from Brooklyn. Reservation about 2 acres. Not garrisoned. In charge of commanding officer at Fort Hamilton, N. Y.

Leavenworth, Fort, Kans.—Latitude, $39^{\circ} 21'$; longitude, $94^{\circ} 55'$. On the Missouri River, above and adjoining Leavenworth City. Post-office, telegraph, and railroad station, at the post. Post reservation, about 5,960 acres; timber reservation across the river of about 939 acres. Present garrison, 1 battery of artillery, 4 troops cavalry, headquarters and 7 companies infantry. Accommodations for 88 officers and 685 men, 11 barracks. Water supply, Fort Leavenworth Water Company.

Leavenworth Military Prison, Kans.—Latitude, $39^{\circ} 21'$; longitude, $94^{\circ} 55'$. On the Fort Leavenworth Reservation. Post-office, telegraph, and railroad station, Fort Leavenworth.

Lewis, Fort, Colo.—Latitude, $37^{\circ} 1'$; longitude, $108^{\circ} 1'$. On Rio de La Plata, in La Plata County, 12 miles west of Durango, on the Denver and Rio Grande Railroad. Post-office and telegraph station, at the post. Stage from Durango. Reservation, 47.4 square miles. Present garrison, 1 company infantry. Accommodations for 21 officers and 290 men, 8 barracks. Water supply raised from La Plata River by steam pump to reservoir and distributed by iron pipes. Surface drainage, except partial underground sewer system for hospital. Garrison to be withdrawn by October 1, 1891.

Livingston, Fort, La.—Latitude, $29^{\circ} 15'$; longitude, 90° . On Grande Terre Island. Post-office, Grand Isle, La. Telegraph and railroad station, New Orleans. Steamer weekly from New Orleans, distance 95 miles. Reservation, 610 acres. Not garrisoned. Turned over to Quartermaster Department in 1883, and now in charge of light-house keeper.

Logan, Fort, Colo.—Latitude, $39^{\circ} 40'$; longitude, $105^{\circ} 1'$. On Bear Creek, $\frac{7}{8}$ miles south of Denver. Post-office, telegraph, and railroad (Denver and Rio Grande) station, at the post. Reservation, 640 acres. Present garrison, headquarters and 6 companies infantry. Accommodations for 19 officers and 289 men, 6 barracks. Water supply pumped from an artesian well to a reservoir and distributed through iron pipes. Sewer system.

Mackinac, Fort, Mich.—Latitude, $45^{\circ} 51'$; longitude, $84^{\circ} 41'$. On Mackinac Island, in the Straits of Mackinac, overlooking the village of Mackinac. Post-office and telegraph station, Mackinac Island, Mich. Boat from Mackinaw City (11 miles) and from St. Ignace (5 miles). Steamboats from Chicago, Detroit, and other lake ports arrive daily. Military reservation proper, 103.41 acres. National park, under the immediate control of the military authorities, 821 acres. Present garrison, 2 companies infantry. Accommodations for 7 officers and 92 men, 1 barrack for 2 companies. Water supply pumped from springs to reservoir and distributed by iron pipes, Sewer system.

Macomb, Fort, La.—Latitude $30^{\circ} 5'$; longitude $89^{\circ} 51'$. One and a half miles from Chef Menteur. Post-office, Lee La. Telegraph station, Chef Menteur, La. Reservation, 1,364.71 acres. Not garrisoned. In charge of ordnance sergeant.

Macon, Fort, N. C.—Latitude $30^{\circ} 41'$; longitude $76^{\circ} 40'$. Two miles from Morehead City. Post-office, Beaufort, N. C. Telegraph and railroad station, Morehead City. Reservation, $1\frac{1}{2}$ square miles. Not garrisoned. In charge of ordnance sergeant. Four sets of officers' quarters, and two sets of non-commissioned officers' quarters, all in bad condition.

Madison Barracks, N. Y.—Latitude $43^{\circ} 57'$; longitude $76^{\circ} 15'$. On the south shore of Black River Bay, about 10 miles from Lake Ontario, at the town of Sacketts Harbor, which is the post-office, telegraph, and railroad station. Reservation, 39 $\frac{1}{2}$ acres.

(Purchase of additional ground pending). Present garrison, headquarters and 6 companies infantry. Accommodations for 18 officers and 381 men; one barrack for 3 companies and one for 3 companies and band. Water supply pumped from the bay. Sewer system.

Marcoy, Fort, N. Mex.—Latitude $35^{\circ} 41'$; longitude $105^{\circ} 57'$. Situated in the town of Santa Fé, which is the post-office, telegraph, and railroad station. Reservation, about $17\frac{1}{2}$ acres. Accommodations for 9 officers and 123 men. Water supply from Santa Fé Water and Improvement Company. Partial sewer system. Not garrisoned. In charge of paid custodian.

Marion, Fort, Fla.—Latitude $29^{\circ} 53'$; longitude $81^{\circ} 17'$. Situated in the town of St. Augustine, Fla., which is the post-office, telegraph, and railroad station. Reservation, about $22\frac{1}{2}$ acres. Not garrisoned. In charge of commanding officer, St. Francis Barracks.

Mason, Fort, Cal.—Latitude $37^{\circ} 1'$; longitude $122^{\circ} 20'$. At Point San José, or Black Point, on San Francisco Bay, within the limits of San Francisco. Post-office, Station A, San Francisco. Telegraph station at the post. Railroad station, San Francisco, distance 3 miles. Street cars to post. Reservation, $55\frac{1}{2}$ acres. Present garrison, 1 company artillery. Accommodations for 6 officers and 66 men; 1 barrack. Water supply from the Spring Valley Water Company. Sewer system.

McClary, Fort, Me.—Latitude $43^{\circ} 5'$; longitude $70^{\circ} 45'$. On Kittery Point, Me., $4\frac{1}{2}$ miles from Portsmouth, N. H. Post-office, telegraph, and railroad station, Kittery Point, Me. Reservation, 15 acres. Not garrisoned. In charge of ordnance sergeant.

McHenry, Fort, Md.—Latitude $30^{\circ} 15'$; longitude $76^{\circ} 35'$. On Whetstone Point, in the city of Baltimore, which is the post-office, telegraph, and railroad station. Reservation, $34\frac{1}{2}$ acres. Present garrison, 3 batteries of artillery. Accommodations for 13 officers and 174 men; 3 barracks; 3 sets of quarters within and 10 sets without the fort. Water supply from Baltimore City waterworks. Sewer system.

McIntosh, Fort, Tex.—Latitude $27^{\circ} 30'$; longitude $99^{\circ} 29'$. In Will County, on the Rio Grande, 1 mile from Laredo, which is the post-office, telegraph, and railroad station. Reservation, about 208 acres. Present garrison, headquarters, 1 troop cavalry and 2 companies infantry. Accommodations for 12 officers and 184 men; 3 barracks. Water pumped from well on river bank to an elevated tank and distributed through iron pipes. Surface drainage.

McKinney, Fort, Wyo.—Latitude $44^{\circ} 23'$; longitude $106^{\circ} 46'$. On Clear Fork of Powder River, at base of Big Horn Mountains, 148 miles from Douglas City, on Fremont, Elkhorn and Missouri Valley Railroad. One hundred and sixty miles from Custer Station, Montana, on Northern Pacific Railroad, and 90 miles from Moorcroft, Wyo., on Burlington and Missouri Railroad. Daily stage from each. Post-office and telegraph station at the post. Reservation, 39 square miles. Present garrison, headquarters, 3 companies infantry and 3 companies cavalry. Accommodations for 20 officers and 378 men; 7 barracks. Water pumped from Clear Fork of Powder River into a tank and distributed by pipes. Surface drainage. Post recommended for abandonment.

McPherson, Fort, Ga.—Latitude $33^{\circ} 48'$; longitude $84^{\circ} 31'$. Situated south of and 4 miles from the center of the city of Atlanta, Ga., which is the post-office, telegraph, and railroad station. Reservation, 236.41 acres. Present garrison, headquarters and 7 batteries artillery. Accommodations for 22 officers and 404 men; 8 barracks. Water supply pumped from two nonflowing artesian wells to elevated tank and distributed by system of iron pipes. Sewer system.

Meade, Fort, S. Dak.—Latitude $44^{\circ} 25'$; longitude $103^{\circ} 28'$. In Meade County, 3 miles from Sturgis, on the Fremont, Elkhorn and Missouri Valley Railroad, and 797 miles from St. Paul. Post-office at the post. Telegraph and railroad station, Sturgis, S. Dak. Post reservation, about $12\frac{1}{2}$ square miles. Wood and timber reservation of 27,293 acres. Small addition to reservation purchased in 1889 for increasing water supply. Present garrison, headquarters and 7 troops cavalry. Accommodations for 25 officers and 566 men; 11 barracks. Water comes from 2 springs, and is pumped into a reservoir and distributed by iron pipes. Surface drainage.

Mifflin, Fort, Pa.—Latitude $39^{\circ} 53'$; longitude $75^{\circ} 13'$. On Mud Island, Delaware River, 5 miles from Philadelphia, which is the post-office, telegraph, and railroad station. Reservation, about 317 acres. Not garrisoned. In charge of ordnance sergeant.

Missoula, Fort, Mont.—Latitude $46^{\circ} 50'$; longitude $114^{\circ} 50'$. On Bitter Root River, 1 mile from Bitter Root, on the Missouri and Bitter Root Valley branch of the Northern Pacific Railroad, 4 miles from Missoula, Mont., on the Northern Pacific Railroad, and 1,254 miles from St. Paul. Post-office at the post; telegraph and railroad (Northern Pacific) station, Missoula. Reservation, 640 acres, and 560 acres not reserved, held by military occupancy. Present garrison, headquarters and 3 companies infantry. Accommodations for 13 officers and 243 men; 4 barracks. Water supply pumped from Bitter Root River and distributed through pipes by direct pressure or from a tank. Surface drainage.

Monroe, Fort, Va.—Latitude 37° ; longitude $76^{\circ} 18'$. Situated at Old Point Comfort, commanding the entrance to Hampton Roads. Post-office and telegraph station at the post. Steamers daily from Baltimore, Washington, Norfolk, and New York, and railroad (Chesapeake and Ohio) from Richmond. Reservation, about 267 acres. Present garrison, 6 batteries artillery. Accommodations for 45 officers, 14 in casemates, and 366 men; 1 barrack for 6 batteries. Two double sets officers' quarters in course of construction. Water supply pumped from a system of driven wells. Sewer system constructed by engineers considered defective. Act of March 2, 1889, appropriated \$25,000 for a new sewer system, but no action has been taken so far as known to this office.

Montgomery, Fort, N. Y.—Latitude 45° ; longitude $73^{\circ} 20'$. Situated on Rouses Point, N. Y., 191 miles from Albany, N. Y. Post-office, telegraph, and railroad station, Rouses Point, N. Y., $1\frac{1}{2}$ miles from the post. Reservation, 600 acres. Not garrisoned. In charge of ordnance sergeant.

Morgan, Fort, Ala.—Latitude $30^{\circ} 14'$; longitude 88° . Situated on Mobile Point, 30 miles from Mobile. Post-office, Herndon, Ala. Telegraph station at the post. Steamer from Mobile. Reservation, 322.42 acres. Not garrisoned. In charge of ordnance sergeant.

Moultrie, Fort, S. C.—Latitude $32^{\circ} 45'$; longitude $79^{\circ} 51'$. On Sullivans Island, 5 miles from Charleston. Post-office, Moultrieville, S. C. Telegraph and railroad station, Charleston, S. C. No reservation; 4 acres held. Not garrisoned. In charge of ordnance sergeant.

Mount Vernon Barracks, Ala.—Latitude $31^{\circ} 12'$; longitude $88^{\circ} 2'$. At the town of Mount Vernon, 28 miles north of Mobile. Post-office, telegraph, and railroad station, Mount Vernon, Ala., one-half mile from the post. Reservation, about 2,160 acres. Present garrison, three companies infantry. Accommodations for 11 officers and 124 men; 2 barracks. Water supply raised by steam pump from reservoir fed by springs and distributed by iron pipes. Sewer system.

Myer, Fort, Va.—Latitude $38^{\circ} 53'$; longitude $77^{\circ} 3'$. On Arlington Heights, 4 miles from the Capitol building, Washington. Post-office and railroad station, Washington, D. C. Telephone to post. Reservation for the post, 186 acres, a portion of the Arlington estate, the area of which is 1,073.4 acres. Present garrison, 3 troops of cavalry. Accommodations for 10 officers and 289 men; 4 barracks. Four additional sets of officers' quarters in course of construction. Sewer system. Water supply from 3 dug and 12 driven wells.

Newport Barracks, Ky.—Latitude $39^{\circ} 5'$; longitude $84^{\circ} 29'$. On the south bank of the Ohio River, at the junction of the Licking River, in the city of Newport. Post-office, telegraph, and railroad station, Newport. Reservation, about 6 acres. Present garrison, 1 company infantry. Accommodations for 5 officers and 62 men; 1 barrack for 2 companies; originally quarters for 10 officers and 2 companies infantry. Sale of old post authorized by Congress. Water supply, Newport City waterworks. Sewer system.

Niagara, Fort, N. Y.—Latitude $43^{\circ} 18'$; longitude $79^{\circ} 8'$. On the Niagara River, at its junction with Lake Ontario, 14 miles below Niagara Falls, 7 miles from Lewiston, N. Y., and 36 miles from Buffalo, N. Y. Post-office, Youngstown, N. Y. Telegraph and railroad station, Lewiston, N. Y. Reservation, 288 $\frac{1}{2}$ acres. Present garrison, 2 companies infantry. Accommodations for 9 officers and 122 men; 2 barracks. Water supply pumped from the Niagara River and distributed through a system of iron pipes. Drainage into Niagara River from each building.

Niobrara, Fort, Nebr.—Latitude, $42^{\circ} 53'$; longitude, $100^{\circ} 46'$. On the Niobrara River, $4\frac{1}{2}$ miles from Valentine, on the Fremont, Elkhorn and Missouri Valley Railroad. Post-office and telegraph station at the post. Reservation, 54 square miles, 452 acres. Present garrison, headquarters, 6 companies cavalry and 2 infantry. Accommodations for 25 officers and 461 men; 9 barracks. Two additional sets of officers' quarters in course of construction. Water comes from springs and is pumped into tanks and distributed by pipes. Partial system of sewerage.

Oglethorpe, Fort, Ga.—Latitude, $32^{\circ} 2'$; longitude, $80^{\circ} 34'$. On the west bank of the Savannah River, 3 miles below the city of Savannah, which is the post-office, telegraph, and railroad station. Reservation 200 feet on the Savannah River, running back 345 feet. Not garrisoned. In charge of ordnance sergeant.

Oklahoma, Camp at, Okla.—Latitude, $35^{\circ} 27'$; longitude, $97^{\circ} 30'$. On Southern Kansas branch of Atchison, Topeka and Santa Fé Railroad, 32 miles from Fort Reno. Post-office, telegraph, and railroad station, Oklahoma City. Reservation, 160 acres. Present garrison, 1 company infantry. Accommodations for 4 officers and 71 men; 1 barrack. No water or sewer system.

Omaha, Fort, Nebr.—Latitude, $41^{\circ} 20'$; longitude, 96° . Four miles from the city of Omaha. Post-office and telephone at the post. Railroad station, Omaha. Reservation, (old), 82.50 acres. Present garrison, all of Second Infantry. Accommodations for 25 officers and 487 men; 10 barracks. Water supply from Omaha City waterworks. Partial sewer system. Act of July 23, 1888, authorized sale of Fort Omaha

and purchase of a new site of not less than 320 nor more than 640 acres, and appropriated \$200,000 for the new post, not more than one-third of which shall be expended for the site. A site of about 546 acres has been acquired. Buildings not yet erected. Test wells are being sunk preliminary to provision of a water system.

Omaha, Depot, Nebr.—Latitude, $41^{\circ} 20'$; longitude, 96° . In Omaha City. Reservation, 5 acres.

Ontario, Fort, N. Y.—Latitude, $43^{\circ} 27'$; longitude, $76^{\circ} 30'$. On the Oswego River, at its junction with Lake Ontario, adjoining the city of Oswego, which is the post-office, telegraph and railroad station. Reservation about 76 acres. Present garrison, 1 company infantry. Accommodations for 4 officers and 63 men; 1 barrack. Water supply from Oswego waterworks. Sewer system.

Pembina, Fort, N. Dak.—Latitude, $48^{\circ} 57'$; longitude $97^{\circ} 12'$. On the Red River of the North, 2 miles from Pembina, on the Winnipeg branch of the Northern Pacific Railroad. Post-office, telegraph, and railroad station, Pembina. Reservation, about 1,920 acres. Accommodations for 7 officers and 104 men; 2 barracks. Water supply pumped to tank and distributed through iron pipes. Surface drainage. Garrison withdrawn. In charge of a detachment.

Pena Colorado, Camp, Tex.—Latitude, $30^{\circ} 15'$; longitude $103^{\circ} 13'$. In Presidio County, 4 miles from Marathon, on Galveston, Harrisburgh and San Antonio Railroad. Post-office, telegraph, and railroad station, Marathon. Reservation rented by the United States. Present garrison, 1 troop cavalry. Accommodations for 4 officers and 41 men; 1 barrack.

Phoenix, Fort, Mass.—Latitude, $41^{\circ} 38'$; longitude, $70^{\circ} 55'$. At Fort Point, Mass. Post-office, telegraph, and railroad station, Fairhaven, Mass. Reservation, 2 acres. Not garrisoned. In charge of ordnance sergeant.

Pickens, Fort, Fla.—Latitude, $30^{\circ} 19'$; longitude, $87^{\circ} 17'$. On Santa Rosa Island, 10 miles from Pensacola. Post-office, Warrington, Fla. Telegraph station, Pensacola navy yard. Railroad station, Pensacola. Reservation, all of Santa Rosa Island (unsurveyed). Not garrisoned. In charge of ordnance sergeant.

Pike, Fort, La.—Latitude, $30^{\circ} 11'$; longitude, $89^{\circ} 38'$. On Petites Coquille Island, 7 miles from Lake Catherine station, on the Louisville and Nashville Railroad. Post-office at the post. Telegraph station, Millers Bayou, La. Reservation, all the public land within 1,200 yards of the post. Not garrisoned. In charge of corporal of the Fifth Infantry.

Pittsburg, Pa.—Latitude, $40^{\circ} 32'$; longitude, $80^{\circ} 5'$. Reservation part of old site of Fort Fayette. Fronts over 100 feet on Penn street, running back to the Allegheny River. Sale authorized by act of May 21, 1890. (Public No. 125.) Depot quartermaster directed to take necessary action.

Pilot Butte, Camp, Wyo.—Latitude, $41^{\circ} 12'$; longitude, 111° . Post-office, telegraph, and railroad station, Rock Springs, Wyo. No reservation. Present garrison, 1 company infantry. Accommodations for 6 officers and 96 men; 2 barracks. Buildings belong to and are kept in repair by the Union Pacific Railroad Company. Water furnished by Green River Water Company and paid for by the Union Pacific Railroad Company.

Plattsburg Barracks, N. Y.—Latitude, $44^{\circ} 41'$; longitude, $73^{\circ} 25'$. On west shore of Lake Champlain, at the town of Plattsburg. Post-office, telegraph, and railroad station, Plattsburg, N. Y. Reservation, about 173 acres. Present garrison, 1 company infantry. Accommodations for 4 officers and 100 men; 1 barrack for 2 companies. Water supply, Plattsburg waterworks. Sewer system.

Popham, Fort, Me.—Latitude, $43^{\circ} 50'$; longitude, $69^{\circ} 55'$. On Hunniwell Point, 12 miles by water and 15 by land from Bath. Post-office, Popham Beach, Me. Telegraph and railroad station, Bath. Reservation, $2\frac{1}{2}$ acres. Not garrisoned. In charge of ordnance sergeant.

Poplar River, Camp, Mont.—Latitude, $48^{\circ} 6'$; longitude, $105^{\circ} 12'$. Situated at Montana, Poplar River station of Great Northern Railroad. Seven hundred and thirty miles from St. Paul. Post-office, telegraph, and railroad station, Poplar River Station. On Indian reservation. Present garrison, 3 companies infantry. Accommodations for 6 officers and 102 men; 2 barracks. No water system.

Porter, Fort, N. Y.—Latitude, $42^{\circ} 53'$; longitude, $78^{\circ} 52'$. On the right bank of the Niagara River, within the limits of the city of Buffalo, which is the post-office, telegraph, and railroad station. Reservation, about $28\frac{1}{2}$ acres. Present garrison, 2 companies infantry. Accommodations for 9 officers and 124 men; 1 barrack for 2 companies. Water supply, Buffalo city waterworks. Sewer system.

Preble, Fort, Me.—Latitude, $43^{\circ} 3'$; longitude, $70^{\circ} 14'$. On the east side of Portland Harbor, at Spring Point. Two miles from the city of Portland, which is the post-office, telegraph, and railroad station. Reservation, about 24 acres. Present garrison, 1 battery artillery. Accommodations for 5 officers and 65 men; 4 barracks, 1 used as post hospital and 1 as storehouse. Water supply pumped from springs. Sewer system.

Presidio of San Francisco, Cal.—Latitude, $37^{\circ} 47'$; longitude, $122^{\circ} 26'$. In the north-

western suburbs of San Francisco. Post-office and telegraph station at the post. Railroad station, San Francisco, $4\frac{1}{2}$ miles from the post. City railway to the post. Reservation, 1,465.81 acres. Present garrison, headquarters, 6 batteries of artillery, 1 troop cavalry, and 2 companies infantry. Accommodations for 39 officers and 562 men; 12 barracks. Water supply from the Spring Valley Water Company, pumped by steam power and windmills to reservoir. Sewer system.

Pulaski, Fort, Ga.—Latitude, $32^{\circ} 2'$; longitude, $80^{\circ} 34'$. On Cockspur Island, 14 miles from Savannah, which is the post-office, telegraph, and railroad station. Reservation not surveyed. Not garrisoned. In charge of ordnance sergeant.

Randall, Fort, S. Dak.—Latitude, $43^{\circ} 1'$; longitude, $98^{\circ} 35'$. On the Missouri River, opposite White Swan, 24 miles from Armour, S. Dak., and 45 miles from Springfield, on the Chicago, Milwaukee and St. Paul Railroad. Post-office at the post. Telegraph and railroad station, Armour. Stage and mail daily, except Sunday, from Armour. Communication with Running Water, S. Dak. (36 miles), by wagon transportation. Reservation, about 144 square miles. Present garrison, 1 company infantry. Accommodations for 14 officers and 244 men; 5 barracks. Water for domestic purposes pumped from the river and distributed by water wagons. Water for other purposes supplied from artesian well. Surface drainage.

Led Bank, N. J.—Latitude, $40^{\circ} 25'$; longitude, $74^{\circ} 1'$. On east shore of Delaware River, 8 miles below Philadelphia. Reserve, 100 acres.

Reno, Fort, Okla.—Latitude, $35^{\circ} 35'$; longitude, $98^{\circ} 1'$. On the North Fork of the Canadian River, 32 miles from Oklahoma Station, on the Atchison, Topeka and Santa Fé Railroad. Post-office and telegraph station at the post. Daily stage from El Reno, Okla., on Chicago, Rock Island and Pacific Railroad, $5\frac{1}{2}$ miles from the post. Reservation, 9,493 acres, and wood reserve of 9 square miles. Present garrison, headquarters, 6 companies cavalry and 1 company infantry. Accommodations for 18 officers and 394 men; 7 barracks. Water supply pumped from North Fork of the Canadian River into wooden tanks and distributed through iron pipes. Artesian well has been authorized. Sewer system.

Riley, Fort, Kans.—Latitude, $39^{\circ} 4'$; longitude, $96^{\circ} 47'$. On Kansas River, $3\frac{1}{2}$ miles from Junction City, on the Missouri, Kansas and Texas Railroad. Post-office, telegraph, and railroad station at the post. Reservation, 19,899.22 acres. Present garrison, headquarters, 8 troops cavalry and 3 batteries artillery. Accommodations for 46 officers and 736 men; 14 barracks. Water pumped from 8 Wagner tubular wells to reservoir and distributed by a system of iron pipes. Sewer system.

Ringgold, Fort, Tex.—Latitude, $26^{\circ} 23'$; longitude, $98^{\circ} 47'$. On the Rio Grande, 23 miles from Sam Miguel, on Mexican National Railroad. Post-office, Rio Grande City, Tex. Telegraph station at the post. Stage from Brownsville, 117 miles; from Pena, 76 miles, on Texas Midland Railroad, and from Sam Miguel, Mexico. Reservation, 350 acres. Present garrison, 1 company infantry and 1 troop cavalry. Accommodations for 10 officers and 203 men; 4 barracks. Water supply is pumped from the Rio Grande to reservoirs and distributed through pipes. Sewer system.

Robinson, Fort, Nebr.—Latitude, $42^{\circ} 40'$; longitude, $103^{\circ} 28'$. On White River, on line of Fremont, Elkhorn and Missouri Valley Railroad. Post-office, telegraph, and railroad station at the post. Post reserve, 20 square miles. Wood and timber reserve, 16 square miles. Present garrison, headquarters, 6 troops cavalry and 2 companies infantry. Accommodations for 24 officers and 486 men; 9 barracks. One field and 10 company officers' quarters, and 1 infantry barrack in course of construction. Water pumped from spring to an elevated tank and distributed by iron pipes. Sewer system.

St. Francis Barracks, Fla.—Latitude, $29^{\circ} 53'$; longitude, $81^{\circ} 17'$. Southeast of and adjoining St. Augustine, Fla., near the Matanzas River. Post-office, telegraph, and railroad station, St. Augustine. Reservation proper, about $5\frac{1}{2}$ acres. Present garrison, headquarters and 2 companies infantry. Accommodations for 9 officers and 99 men; 3 barracks. Water supply raised from an artesian well by hydraulic ram; 5 cisterns also in use. Sewer system.

St. Louis Arsenal, Mo.—Latitude, $38^{\circ} 28'$; longitude, $90^{\circ} 17'$. In the city of St. Louis, on the Missouri River. Reservation, 31.8 acres. St. Louis clothing depot. Water supply from city of St. Louis waterworks.

St. Philip, Fort, La.—Latitude, $29^{\circ} 25'$; longitude, $89^{\circ} 30'$. Post-office, Neptune, La.; telegraph station, Quarantine, La. Steamer triweekly from New Orleans, 73 miles, and from Bohemia, on New Orleans and Gulf Railroad; distance, 25 miles. Reservation, 640 acres. Not garrisoned. In charge of ordnance sergeant.

Sam Houston, Fort, Tex.—Latitude, $29^{\circ} 27'$; longitude, $98^{\circ} 28'$. In Bexar County 1 mile north of San Antonio, which is the post-office, telegraph and railroad station. Reservation, 472.21 acres. Present garrison, 4 troops cavalry, 2 batteries artillery, headquarters, and 4 companies infantry. Accommodations for 26 officers and 742 men, 13 barracks. Additional quarters for 15 officers at department headquarters. Water supply, San Antonio Water Company. Drainage by means of a system of vitrified pipes.

San Carlos, Ariz.—Latitude, $33^{\circ} 10'$; longitude, $110^{\circ} 25'$. On the Gila River, within the limits of the White Mountain Indian Reservation, 102 miles from Bowie and 106 miles from Wilcox on the Southern Pacific Railroad. Post-office and telegraph station at the post. Daily stage, except Sunday, from Bowie, via Fort Thomas, and triweekly from Wilcox, via Forts Grant and Thomas. Present garrison, 2 troops of cavalry and 2 companies of infantry. Temporary quarters for 12 officers. Accommodations for 200 men, 4 barracks (dormitory for 50 men in course of construction). Water supply hauled from a well 1 mile north of the post, and distributed by water wagons. Six thousand two hundred dollars authorized for a water-supply system. Natural drainage.

San Diego Barracks, Cal.—Latitude, $32^{\circ} 43'$; longitude, $117^{\circ} 9'$. In city of San Diego, Cal. Post-office, telegraph, railroad station and boat landing, San Diego. Reservation, 2 blocks, 200 by 300 each, and wharf lot, 75 by 1,000. Present garrison, 1 company infantry; accommodations for 52 men, 1 barrack. Officers' quarters rented in San Diego. Water supply from San Diego Water Company. Sewer system connected with city sewers.

Sandy Hook, Fort at, N. J.—Latitude, $40^{\circ} 25'$; longitude, $74^{\circ} 1'$. Post-office, New York City; distance, 22 miles. Telegraph, railroad station, and steamboat landing, Sandy Hook, distance 2 miles. Reservation, about 1,366 acres. Not garrisoned. In charge of ordnance sergeant.

San Juan Island, Wash.—Latitude, $48^{\circ} 37'$; longitude, 123° . Reservation, about 640 acres.

San Pedro, Cal.—Latitude, $33^{\circ} 40'$; longitude, $118^{\circ} 40'$. In San Pedro Bay. Reservation, 44.25 acres, more or less.

Scammel, Fort, Me.—Latitude, $43^{\circ} 39'$; longitude, $79^{\circ} 13'$. In Portland Harbor, 2 miles from Portland, which is the post-office, telegraph, and railroad station. Reservation, 11 acres. Not garrisoned. In charge of ordnance sergeant.

Schuyler, Fort, N. Y.—Latitude, $40^{\circ} 49'$; longitude, $73^{\circ} 48'$. On Throggs Neck, $3\frac{1}{2}$ miles from Westchester and 17 miles from New York City. Post-office, telegraph, and railroad station, Westchester, N. Y. Reservation, 52 acres. Present garrison, 2 batteries artillery. Accommodations for 9 officers and 63 men, 1 barrack, 20 men in tents. Water supply from New York and Westchester Water Company. Sewer system.

Sequoia National Park, Cal.—(Camp at Mineral King). Post-office, Three Rivers, Cal. Telegraph station Visalia, Cal. Private conveyance to camp from Exeter station, 48 miles, on Southern Pacific Railroad. Present garrison, 1 troop cavalry.

Sewall, Fort, Mass.—Latitude $42^{\circ} 30'$; longitude $70^{\circ} 33'$. Situated $1\frac{1}{4}$ miles from Marblehead, which is the post-office, telegraph, and railroad station. Reservation, small tract and in litigation. Not garrisoned. In charge of town of Marblehead, Mass., by authority of act of Congress (Public, No. 19 of 1890).

Shaw, Fort, Mont.—Latitude $47^{\circ} 30'$; longitude $111^{\circ} 48'$. On the Sun River, $17\frac{1}{2}$ miles from Ulm and 24 miles from Great Falls, on the Montana Central Railroad. Post-office and telegraph station at the post. Daily stage from Ulm. Reservation, about 29,843 acres. Present garrison, 3 companies infantry. Accommodations for 13 officers and 132 men, 4 barracks. Water supply pumped from Sun River into a tank and hauled to posts in wagons. No sewer system. Garrison to be withdrawn by August 1, 1891. Chief quartermaster authorized to appoint a custodian.

Sheridan, Fort, Ill.—Latitude $42^{\circ} 14'$; longitude $89^{\circ} 30'$. On Lake Michigan, 25 miles north of Chicago. Post-office, telegraph, and railroad station at the post. Reservation, 632 $\frac{1}{2}$ acres. Present garrison, headquarters and 8 companies infantry. Accommodations for 23 officers and 362 men, 6 barracks. Quarters for 4 officers and a barrack for 6 companies, nearly completed. Water supply pumped from Lake Michigan into reservoir and distributed by a system of iron pipes. Sewer system.

Sherman, Fort, Idaho.—Latitude, $47^{\circ} 42'$; longitude, $116^{\circ} 38'$. On Cœur d'Alene Lake, at its outlet, Spokane River, one-half mile from the Cœur d'Alene branch of Northern Pacific Railroad. Post-office, Sherman; telegraph and railroad station, Cœur d'Alene, Idaho. Reservation, 682.65 acres. Present garrison, headquarters, 2 troops cavalry, and 4 companies infantry. Accommodations for 18 officers and 264 men, 6 barracks. Water supply pumped from Spokane River. No sewer system.

Ship Island, Fort at, Miss.—Latitude, $30^{\circ} 20'$; longitude, $89^{\circ} 7'$. Situated 15 miles from Biloxi, which is on the Louisville and Nashville Railroad. Post-office, telegraph, and railroad station, Biloxi, Miss. Special boat to post. Not garrisoned. In charge of ordnance sergeant.

Sidney, Fort, Nebr.—Latitude, $41^{\circ} 9'$; longitude, $102^{\circ} 58'$. On Lodge Pole Creek, adjoining the town of Sidney, Cheyenne County, on the Union Pacific Railroad. Post-office, telegraph, and railroad station, Sidney, Nebr. Post reservation, 1 square mile. Timber reservation, 5 square miles. Present garrison, headquarters and 3 companies infantry. Accommodations for 15 officers and 245 men, 5 barracks. Water supply pumped from a well to a tank and distributed by iron pipes. Surface drainage.

Sill, Fort, Okla.—Latitude $34^{\circ} 40'$; longitude $98^{\circ} 23'$. On Medicine Bluff Creek, 65 miles from Henrietta, Tex., on the Denver and Fort Worth Railroad. Post-office and telegraph station at the post. Daily stage except Sunday, from Henrietta; and from Minco, on the Chicago, Rock Island and Pacific Railroad, distance 57 miles. On Indian lands, 36 square miles reserved. Present garrison, 5 troops cavalry and 4 companies infantry. Accommodations for 20 officers, 9 companies, 1 single and 4 double barracks. Water supply raised by steam pump from a reservoir fed by springs and distributed from tanks by a system of pipes. Sewer system.

Snelling, Fort, Minn.—Latitude $44^{\circ} 53'$; longitude $93^{\circ} 11'$. At the junction of the Minnesota and Mississippi Rivers, on Chicago, Milwaukee and St. Paul Railroad, 7 miles from St. Paul and 8 miles from Minneapolis by the course of the river. Post-office, telegraph, and railroad station at the post. Reservation, 1,531.21 acres. Present garrison, headquarters and 8 companies infantry. Accommodations for 30 officers (1 additional at ordnance depot) and 486 men, 8 barracks. Six company officers' quarters in course of construction. Water supply pumped from a spring by steam pump, and distributed from reservoir by system of iron pipes. Sewer system.

Spokane, Fort Wash.—Latitude $47^{\circ} 50'$; longitude $118^{\circ} 18'$. On the Spokane River, three-fourths of a mile from its junction with the Columbia, near Miles, Wash., 25 miles from Davenport and 50 miles from Sprague on Northern Pacific Railroad. Post-office and telegraph station, Miles, Wash. Daily stage except Sunday from Davenport. Reservation, 640 acres. Present garrison, 4 companies infantry. Accommodations for 19 officers and 364 men, 6 barracks. Water supply pumped from Spokane River. Sewer system.

Stanton, Fort, N. Mex.—Latitude $33^{\circ} 29'$; longitude $105^{\circ} 28'$. On the Rio Bonito, Lincoln County, 8 miles from Lincoln, and 100 miles from Carthage, on Atchison, Topeka and Santa Fé Railroad. Post-office and telegraph station at the post. Daily stage from Carthage. Reservation 16 square miles. Present garrison, 1 troop cavalry, headquarters and 1 company infantry. Accommodations for 13 officers and 292 men, 5 barracks. Water supply pumped from a deep well and distributed from a reservoir by iron pipes. Partial sewer system.

Stevens, Fort, Oregon.—Latitude $46^{\circ} 31'$; longitude $125^{\circ} 1'$. On Point Adams, Columbia River, 7 miles from Astoria, 105 from Portland. Post-office, telegraph station, Astoria, Oregon, telephone to post. Steamer daily from railroad station, Portland, to Astoria, thence by steam tug daily except Sunday, to post. Reservation, 640 acres. Not garrisoned. Transferred to Engineer Department and in charge of ordnance sergeant. Four sets officers' quarters and one barrack.

Sully, Fort, S. Dak.—Latitude, $44^{\circ} 20'$; longitude, $100^{\circ} 10'$. On the Missouri River, 23½ miles from Pierre, on the Chicago and Northwestern Railroad; post-office and telegraph station at the post; railroad station, Pierre, daily stage except Sunday to post; reservation, about 27,000 acres; present garrison, 4 companies infantry; accommodations for 13 officers and 203 men; 4 barracks; water supply pumped from a drive-well gallery to a reservoir, and distributed through iron pipes; surface drainage.

Sumter, Fort, S. C.—Latitude, $32^{\circ} 45'$; longitude, $79^{\circ} 51'$. In Charleston Harbor, 5 miles from Charleston; post-office, Moultrieville, S. C.; telegraph and railroad station, Charleston; reservation, about 125 acres; not garrisoned; in charge of ordnance sergeant.

Supply, Fort, Ind. T.—Latitude, $36^{\circ} 30'$; longitude, $99^{\circ} 30'$. Fifteen miles from Woodward, on the Southern Kansas Railroad; post-office and telegraph station at the post; railroad station, Woodward, daily stage to post; post reservation, 36 square miles; wood and water reservation, 27 square miles, all on Indian lands; present garrison, headquarters and 2 troops of cavalry, and 4 companies infantry; accommodations for 17 officers and 390 men; 7 barracks; water supply from springs on Water Cress Cañon; sewer system.

Taylor, Fort, Fla.—Latitude, $24^{\circ} 33'$; longitude, $81^{\circ} 49'$. Near Whitehead Point, 1 mile from Key West, which is the post-office, telegraph station, and boat landing. Reservation about 200 acres. Not garrisoned. In charge of ordnance sergeant.

Thomas, Fort, Ariz.—Latitude, $32^{\circ} 51'$; longitude, $109^{\circ} 48'$. On the Gila River, 35 miles west of San Carlos. Post-office and telegraph station at the post. Daily stage, except Sunday, from Bowie station, on Southern Pacific Railroad, distance 70 miles, and from Wilcox, 69 miles. Reservation, 10,487 acres. Accommodations for 11 officers and 96 men. Three barracks. Recommended for abandonment, but held as an outpost to Fort Grant. Water supply.

Thomas, Fort, Ky.—Latitude, $39^{\circ} 5'$; longitude, $84^{\circ} 29'$. Three miles from Newport, on the highlands overlooking the Ohio River. Post-office, telegraph and railroad station, Newport. Reservation, 111 acres, 2 roads, 39 poles. Rifle range, 169 acres. Present garrison, headquarters and 2 companies of infantry. Accommodations for 9 officers and 192 men. Two double barracks. When mess-hall, 1 double barrack, and 2 single and 2 double sets of officers' quarters now in course of construc-

tion are completed, there will be accommodations for 15 officers and 360 men. Water supplied by Covington City waterworks. Sewer system.

Townsend, Fort, Wash.—Latitude, $48^{\circ} 7'$; longitude, $122^{\circ} 44'$. At the entrance to Puget Sound, 3 miles from Port Townsend, 66 miles from Seattle, and 93 from Tacoma, and 130 from Olympia. Post-office and telegraph station, Port Townsend. Reservation, 615.1 acres. Present garrison, 2 companies infantry. Accommodations for 5 officers and 87 men, 2 barracks. Water supply pumped from springs by steam power. Natural drainage.

Trumbull, Fort, Conn.—Latitude, $41^{\circ} 21'$; longitude, $72^{\circ} 6'$. On the right bank of the Thames River, 1 mile below the city of New London, which is the post-office, telegraph, and railroad station. Reservation, $13\frac{1}{2}$ acres. Present garrison, 1 battery artillery. Accommodations for 8 officers and 71 men, 2 barracks. Water supply from New London city waterworks. Sewer system.

Union, Fort, N. Mex.—Latitude, $35^{\circ} 54'$; longitude, $105^{\circ} 9'$. In Moro County, 9 miles from Watrous, on the Atchison, Topeka and Santa F6 Railroad. Post reservation, $51\frac{1}{2}$ square miles. Timber reservation, 53 square miles. Accommodations for 30 officers and 349 men; additional accommodations at arsenal for 3 officers and 1 troop cavalry. Water supply pumped by steam power. Natural drainage.

The reservation is within the limits of the Moro grant, for which a land patent was issued to claimants in 1876. Not garrisoned. In charge of a paid custodian.

Vancouver Barracks, Wash.—Latitude, $45^{\circ} 40'$; longitude, $125^{\circ} 32'$. On the north bank of the Columbia River, 18 miles by water and 6 miles in a direct line from Portland. Post-office and steamboat landing at Vancouver. Reservation, 640 acres. Present garrison, 1 troop cavalry, headquarters, and 6 companies infantry. Accommodations for 26 officers and 528 men, 10 barracks; additional accommodations for 14 officers and 2 noncommissioned officers at department headquarters and depot. Water supply pumped from an artesian well to a reservoir and distributed by gravity. Sewer system.

Wadsworth, Fort, New York Harbor.—Latitude, $40^{\circ} 37'$; longitude, $74^{\circ} 3'$. On Staten Island, commanding the Narrows, entrance to New York Harbor. Post-office, Rosebank, Staten Island, N. Y. Telegraph and quarantine station, Clifton, Staten Island. Reservation, about 100 acres. Present garrison, 3 batteries of artillery. Accommodations for 15 officers and 183 men. No barracks, batteries quartered in casemates. Water supply from springs pumped to a distributing reservoir. Sewer system.

Walla Walla, Fort, Wash.—Latitude, $46^{\circ} 6'$; longitude, $118^{\circ} 24'$. One mile from Walla Walla, on the Northern Pacific Railroad. Post-office, telegraph, and railroad station, Walla Walla, Wash. Reservation, about 613 acres. Present garrison, headquarters and 3 troops cavalry. Accommodations for 16 officers and 260 men, 6 barracks. Water supply from springs distributed by gravity. Sewer system.

Warren, Fort, Mass.—Latitude, $42^{\circ} 19'$; longitude, $70^{\circ} 59'$. On Georges Island, in Boston Harbor, 7 miles from Boston. Post-office and telegraph station, Boston. Daily steamer. Reservation, the whole island, about 18 acres. Present garrison, 2 batteries artillery. Accommodations for 11 officers (8 in casemates) and 100 men in casemates. Water supply, from 10 cisterns and 4 wells. Sewer system.

Washakie, Fort, Wyo.—Latitude, $42^{\circ} 59'$; longitude, $108^{\circ} 54'$. On the Little Wind River, 147 miles from Rawlins, on the Union Pacific Railroad. Post-office and telegraph station at the post. Daily stage from Rawlins. Reservation, 1,405 acres, on Indian lands. Present garrison, 1 troop cavalry and 2 companies infantry. Accommodations for 9 officers and 158 men, 3 barracks. Water pumped to tank by steam power from south fork of Little Wind River, and distributed by iron pipes. No sewer system.

Washington Barracks, D. C.—Latitude, $38^{\circ} 53'$; longitude, $77^{\circ} 3'$. On Greenleaf's Point, D. C. Post-office, telegraph, and railroad station, Washington, D. C. Reservation, about 69 acres. Present garrison, headquarters and 6 batteries artillery. Accommodations for 26 officers and 312 men, 2 barracks for 3 batteries each. Water supply, Washington City waterworks, owned by United States. Sewer system.

Washington, Fort, Md.—Latitude, $38^{\circ} 43'$; longitude, $77^{\circ} 6'$. On the Potomac River, 13 miles from Washington, D. C. Post-office at the post. Telegraph and railroad station, Alexandria, Va. Steamboat from Washington. Reservation, about 50 acres. Not garrisoned. In charge of ordnance-sergeant.

Wayne, Fort, Mich.—Latitude, $42^{\circ} 23'$; longitude, $82^{\circ} 58'$. On Detroit River, $3\frac{1}{4}$ miles from city hall in Detroit, which is the post-office and telegraph station. City railway to the post. Reservation, about 63 acres. Present garrison, headquarters, and 4 companies infantry. Accommodations for 15 officers and 231 men, 1 barrack for 5 small companies. Water supply from Detroit city water works. Sewer system.

West Point, N. Y.—Latitude, $41^{\circ} 23'$; longitude, $74^{\circ} 41'$. On the west bank of the Hudson River, 51 miles above New York City. Post-office, telegraph, and railroad station at the post. Reservation, 2,330 acres. United States Military Academy. Accommodations for 50 officers and 312 men, 5 barracks. Water supply piped from

springs by gravity, and distributed from reservoir through iron pipes. Sewer system. Present garrison, E, Engineer battalion and detachments.

Whipple Barracks, Ariz.—Latitude, $34^{\circ} 29'$; longitude, $112^{\circ} 30'$. One mile from Prescott, Ariz. Post-office, Whipple; telegraph and railroad station, Prescott. Reservation, about 1,730 acres. Present garrison, headquarters and 6 companies infantry. Accommodations for 20 officers and 203 men, 5 barracks. Water supply pumped from a well on Granite Creek to a reservoir, and distributed by iron pipes; sewer system.

Willels Point, N. Y.—Latitude, $40^{\circ} 47'$; longitude, $73^{\circ} 47'$. On the East River, $2\frac{1}{2}$ miles from Whitestone, Queen's County, 17 miles from New York City. Post-office and telegraph station at the post. Railroad station, Whitestone, N. Y. Reservation, about 136.35 acres; engineer station. Accommodations for 29 officers and 400 men, 3 double barracks and 1 band barrack. Present garrison, headquarters, A, B, C, and D, Engineer battalion. Water supply from Flushing village water works; sewer system.

Winfield Scott, Fort, Cal.—Latitude, $37^{\circ} 49'$; longitude, $122^{\circ} 48'$. Golden Gate, San Francisco, Cal. Post-office and railroad station, San Francisco. Telegraph station, Presidio of San Francisco. On the Presidio reservation. Not garrisoned.

Wingate, Fort, N. Mex.—Latitude, $35^{\circ} 30'$; longitude, $108^{\circ} 27'$. Situated on Bear Spring, 3 miles from Wingate, on the Atlantic and Pacific Railroad. Post-office and telegraph station at the post. Reservation, 130 square miles. Present garrison, headquarters, 4 companies cavalry, and 2 companies infantry. Accommodations for 22 officers and 386 men, 8 barracks. Water supply pumped from a spring into a reservoir and distributed by iron pipes. Sewer system.

Winthrop, Fort, Mass.—Latitude, $42^{\circ} 21'$; longitude, $70^{\circ} 1'$. On Governors Island, Boston Harbor, 2 miles from Boston, which is the post-office, telegraph, and railroad station. Steamboat to post. Reservation, about 60 acres. Not garrisoned. In charge of ordnance-sergeant.

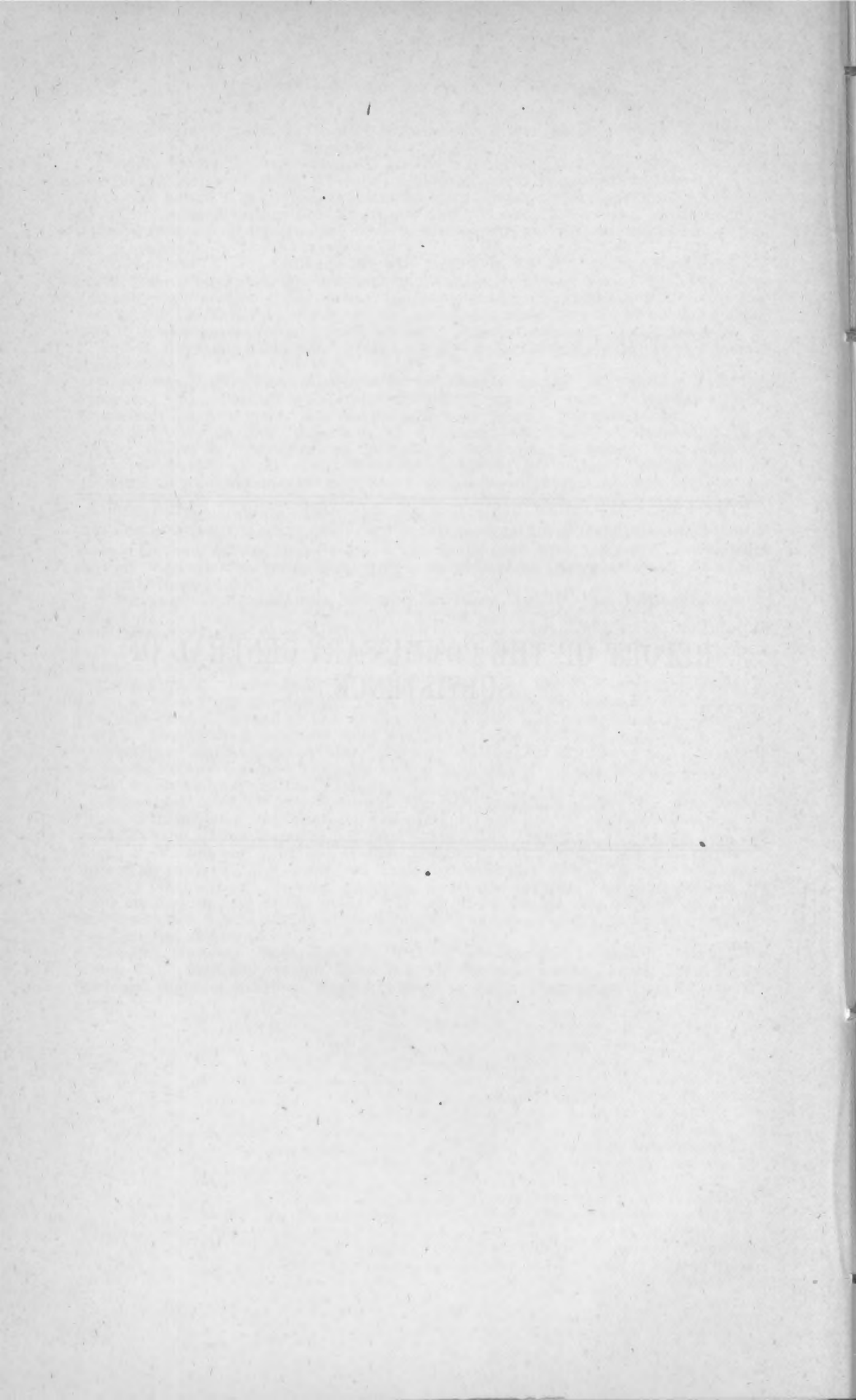
Wood, Fort, N. Y.—Latitude, $40^{\circ} 41'$; longitude, $74^{\circ} 11'$. On Bedloe Island, in New York Harbor, 3 miles from New York City, which is the post-office, telegraph, and railroad station. Reservation, about 12 acres. Present garrison, 1 company infantry. Accommodations for 4 officers and 52 men, one barrack. Water supply, 4 cisterns. Sewer system.

Yates, Fort, N. Dak.—Latitude, $46^{\circ} 11'$; longitude, $100^{\circ} 34'$. Standing Rock, N. Dak., 58 miles from Mandan and 60 from Bismarck, on Northern Pacific Railroad. Post-office and telegraph station at the post. Daily stage, except Sunday, from Bismarck. Reservation, 1 square mile, on Indian lands. Present garrison, 3 companies infantry and 2 troops cavalry. Accommodations for 19 officers and 322 men, 6 barracks. Water pumped by steam power from 22 drive wells to tank and distributed by iron pipes. Surface drainage.

Yellowstone, Fort, Wyo.—Latitude, $42^{\circ} 51'$; longitude, $102^{\circ} 39'$. On Beaver Creek, 8 miles from Cinnabar, on Yellowstone Park line of Northern Pacific Railroad. During winter trains run on this branch line Tuesdays, Thursdays, and Fridays. Post-office and telegraph station, Mammoth Hot Springs. Old reservation, 25 square miles; new, 22.5 acres, set aside by Secretary of the Interior for use of military authorities. Present garrison, 2 troops cavalry. Accommodations for 2 officers and 60 men at old post, 1 barrack. Two double sets officers' quarters, 2 single sets non commissioned officers' quarters, and one cavalry barrack in course of construction at new post.

Yosemite National Park, Camp in, Cal.—Post-office and telegraph station, Wawona, Cal. Railroad station, Raymond, via Barends station, on Southern Pacific Railroad, distance 40 miles; triweekly stage to camp. Present garrison, 1 troop cavalry.

REPORT OF THE COMMISSARY-GENERAL OF
SUBSISTENCE.



REPORT

OF THE

COMMISSARY-GENERAL OF SUBSISTENCE.

WAR DEPARTMENT,
OFFICE COMMISSARY-GENERAL OF SUBSISTENCE,
Washington, D. C., October 6, 1891.

SIR: I have the honor to submit the following report of the operations of the Subsistence Department for the fiscal year ending June 30, 1891.

RESOURCES AND EXPENDITURES.

The following statement exhibits the aggregate fiscal resources and expenditures of the Department for the year mentioned and the balances at the close of the fiscal year:

RESOURCES.

Amounts in the Treasury to the credit of appropriations of the Subsistence Department on June 30, 1890, as follows:

Subsistence of the Army, 1889	\$195,934.59	
Subsistence of the Army, 1890	164,367.67	
Commutation of rations to prisoners of war in rebel States and soldiers on furlough, certified claims, acts March 2, 1889, and April 4, 1890	7.50	
Relief of Peter Marck and others, act April 4, 1888	2,541.41	
Relief of sufferers from overflow of Mississippi River and its tributaries, joint res. of April 25, 1890	40,000.00	
		\$402,851.17

Amounts to credit of officers of the Subsistence Department and of officers doing duty in the Subsistence Department, with the Treasurer, assistant treasurers, and designated depositaries, and in their personal possession on June 30, 1890, as follows:

Subsistence of the Army, 1889	\$2,380.03	
Subsistence of the Army, 1890	265,438.72	
Commutation of rations to prisoners of war in rebel States and soldiers on furlough prior to July 1, 1885, acts February 1 and March 30, 1888	1,036.37	
Commutation of rations to prisoners of war in rebel States and soldiers on furlough prior to July 1, 1886, act of October 19, 1888	492.50	
Commutation of rations to prisoners of war in rebel States and to soldiers on furlough, certified claims, acts March 2, 1889, and April 4, 1890	4,239.87	
Commutation of rations to prisoners of war in rebel States and to soldiers on furlough, certified claims, act April 5, 1890	8,897.75	
Relief of sufferers from overflow of Mississippi River and its tributaries, joint res. of April 25, 1890	8,535.38	
		291,020.62

Amounts refunded to the Treasury near close of fiscal year 1890, since carried to the credit of the appropriation, as follows:

Subsistence of the Army, 1889	129.42
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Amounts appropriated for the Subsistence Department for the fiscal year ending June 30, 1891, as follows:

Subsistence of the Army, 1891, act June 13, 1890 . . .	\$1,745,000.00
Subsistence of the Army, 1891, deficiency act of March 3, 1891	200,000.00
Subsistence of the Army, certified claims, deficiency act September 30, 1890, and act March 3, 1891 . . .	8,025.22
Twenty per cent. additional compensation, certified claims, deficiency act September 30, 1890, and act March 3, 1891, being portions pertaining to the Subsistence Department	286.40
Commutation of rations to prisoners of war in rebel States and soldiers on furlough, certified claims, 1890, act April 5, 1890, war warrant No. 36	4,051.00
Commutation of rations to prisoners of war in rebel States and soldiers on furlough, certified claims, act August 30, 1890, war warrant No. 36	47,013.25
	\$2,004,375.87

Amounts collected from various sources and refunded to the appropriations of the Subsistence Department on the books of the Treasury during the fiscal year 1891, as follows:

Subsistence of the Army, 1888 and prior years	\$6,742.97
Subsistence of the Army, 1888 and prior years, transfer account	2,899.25
Subsistence of the Army, 1889	236.63
Subsistence of the Army, 1889, transfer account	30.32
Subsistence of the Army, 1890	5,534.46
Subsistence of the Army, 1890, transfer account	.20
Subsistence of the Army, 1891	3,937.63
	19,381.46

Amounts from appropriations for "commutation of rations to prisoners of war and soldiers on furlough" (acts February 1 and March 30, 1888, and October 19, 1888), transferred on the books of the Treasury to the following appropriation, viz:

Commutation of rations to prisoners of war in rebel States and soldiers on furlough, certified claims, act March 2, 1889	1,464.51
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Amounts received by officers or the Subsistence Department and by officers doing duty in the Subsistence Department from sales of subsistence stores to the following purchasers during the fiscal year 1891, and taken up for immediate disbursement under the following appropriations:

Subsistence of the Army, 1891: Sales to officers, \$323,894.94; to enlisted men and to companies, detachments, and hospitals, \$450,369.66; to civil employes, \$16,833.63; to Fort Leavenworth military prison, \$9,900.40; to U. S. Geological Survey, \$49.38; to Quartermaster's Department, \$109.43; to headquarters of the Army, \$7.59; to Indian agents, \$396.37; to Grand Army, \$6.60; of surplus and condemned stores and property at auction, \$1,621.12; of boxes, barrels, etc., \$78.29; of garden seeds and agricultural implements, \$443.48; total	803,710.89
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Amounts taken up by officers doing duty in the Subsistence Department on account of reclamations for stores lost, damaged, etc., and in correction of errors in their accounts, etc., during the fiscal year 1891:

Subsistence of the Army, 1889	\$0.23
Subsistence of the Army, 1890	176.49
Subsistence of the Army, 1891	3,081.09
Relief of sufferers from overflow of Mississippi River and its tributaries, joint res. April 25, 1890	.50
	3,258.31

Amounts in hands of representatives of deceased officers to be collected:

Subsistence of the Army, 1878	\$109.84
Subsistence of the Army, 1882	248.63
Subsistence of the Army, 1890	3,464.45
	3,822.92

Amounts charged against officers (deceased and resigned) on account of funds alleged to have been lost by theft, etc., as follows:

Subsistence of the Army, 1879 and prior years	3,000.89
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Amounts charged against officers still in service on account of funds and stores alleged to have been lost by theft, etc., and for which relief can only be obtained in the Court of Claims, under sections 1059 and 1062, Revised Statutes, or from Congress, as follows:

Subsistence of the Army, 1880	\$393.96	
Subsistence of the Army, 1882	39.18	
Subsistence of the Army, 1886	2,455.82	
Subsistence of the Army, 1889	82.37	
		<u>\$2,971.33</u>
Total resources		3,535,987.39

EXPENDITURES.

Amounts expended on the books of the Treasury from the appropriations of the Subsistence Department during the fiscal year 1891, as follows:

Subsistence of the Army, 1888, and prior years, transfer account	\$8.84	
Subsistence of the Army, 1889	373.28	
Subsistence of the Army, 1890	426.46	
Subsistence of the Army, 1891	426.18	
Commutation of rations to prisoners of war in rebel States and soldiers on furlough, certified claims, acts March 2, 1889, and April 4, 1890	148.87	
Subsistence of the Army, certified claims, deficiency act September 30, 1890, and act March 3, 1891	7,414.32	
Twenty per cent. additional compensation, certified claims, deficiency act September 30, 1890, and act March 3, 1891, being portions pertaining to the Subsistence Department	286.40	
Commutation of rations to prisoners of war in rebel States and soldiers on furlough, certified claims, 1890, act of April 5, 1890	51.00	
Commutation of rations to prisoners of war in rebel States and soldiers on furlough, certified claims, act August 30, 1890	13.25	
Relief of sufferers from overflow of Mississippi River and its tributaries, joint res. of April 25, 1890, transferred for relief of drought sufferers of Oklahoma Territory, per joint res. No. 44, September 1, 1890.	44,800.00	
		<u>53,948.60</u>

Amounts disbursed by officers of the Subsistence Department and officers doing duty in the Subsistence Department during the fiscal year 1891, as follows:

Subsistence of the Army, 1890	\$87,862.84	
Subsistence of the Army, 1891	2,471,943.17	
Commutation of rations to prisoners of war in rebel States and soldiers on furlough prior to July 1, 1885, acts February 1 and March 30, 1888	42.83	
Commutation of rations to prisoners of war in rebel States and soldiers on furlough prior to July 1, 1886, act October 19, 1888	21.53	
Commutation of rations to prisoners of war in rebel States and soldiers on furlough, certified claims, acts March 2, 1889, and April 4, 1890	2,751.33	
Commutation of rations to prisoners of war in rebel States and soldiers on furlough, certified claims, act April 5, 1890	11,345.92	
Commutation of rations to prisoners of war in rebel States and soldiers on furlough, certified claims, act August 30, 1890	40,003.70	
Relief of sufferers from overflow of Mississippi River and its tributaries, joint res. of April 25, 1890	3,153.09	
		<u>2,617,124.41</u>

Amounts dropped by officers doing duty in the Subsistence Department in correction of errors in their accounts during the fiscal year 1891:

Subsistence of the Army, 1891	158.46
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Amounts in hands of representatives of deceased officers, and amounts charged against officers (deceased and resigned) on account of funds alleged to have been lost by theft, etc., hereby dropped from this annual statement, as follows:

Subsistence of the Army, 1878	\$109.84
Subsistence of the Army, 1879 and prior years	3,000.89
Subsistence of the Army, 1880	318.04
Subsistence of the Army, 1882	287.81

\$3,716.58

Amounts transferred on books of Treasury, act March 3, 1875 (18 Stat. L., 418):

Subsistence of the Army, 1888 and prior years, transfer account	\$2,890.41
Subsistence of the Army, 1889 and prior years	30.32
Subsistence of the Army, 1890, transfer account	.20

2,920.93

Amounts transferred on the books of the Treasury from the following appropriations to the appropriation "Commutation of rations to prisoners of war and soldiers on furlough, certified claims, act March 2, 1889," viz:

Commutation of rations to prisoners of war in rebel States and soldiers on furlough prior to July 1, 1885, acts February 1 and March 30, 1888	\$993.54
Commutation of rations to prisoners of war in rebel States and soldiers on furlough prior to July 1, 1886, act October 19, 1888	470.97

1,464.51

Amount dropped from this statement as not pertaining to the appropriations of the Subsistence Department:

Relief of Peter Marck and others, act April 4, 1888	2,541.41
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Amounts carried to the surplus fund, on June 30, 1891:

Subsistence of the Army, 1888, and prior years	\$6,742.97
Subsistence of the Army, 1889	198,307.62
Subsistence of the Army, certified claims, deficiency act September 30, 1890, and act March 3, 1891	610.90

205,661.49

Total expenditures..... 2,887,536.39

BALANCES.

Amounts in the Treasury to the credit of appropriations of the Subsistence Department on June 30, 1891, as follows:

Commutation of rations to prisoners of war in rebel States and soldiers on furlough, certified claims, act March 2, 1880	\$1,902.01
Subsistence of the Army, 1890	344,570.10
Subsistence of the Army, 1891	77,518.65
Relief of sufferers from overflow of Mississippi River and its tributaries, joint res., April 25, 1890	582.79

424,573.55

Amounts to credit of officers of the Subsistence Department, and of officers doing duty in the Subsistence Department, with the Treasurer, assistant treasurers, and designated depositaries, and in their personal possession on June 30, 1891, as follows:

Subsistence of the Army, 1891	\$198,360.70
Commutation of rations to prisoners of war in rebel States and soldiers on furlough, certified claims, act March 2, 1889, and April 4, 1890	909.67
Commutation of rations to prisoners of war in rebel States and soldiers on furlough, certified claims, act April 5, 1890	1,551.83
Commutation of rations to prisoners of war in rebel States and to soldiers on furlough, certified claims, act August 30, 1890	6,996.30

207,818.50

Amounts refunded to the Treasury near close of fiscal year 1891, but not carried to the credit of the appropriations by June 30, 1891, as follows:

Subsistence of the Army, 1890	\$6,122.39
Subsistence of the Army, 1891	7,322.45

13,444.84

Amounts charged against officers still in service on account of funds and stores alleged to have been lost by theft, etc., and for which relief can only be obtained in the Court of Claims, under sections 1059 and 1062, Revised Statutes, or from Congress, as follows:

Subsistence of the Army, 1880.....	\$75.92	
Subsistence of the Army, 1886.....	2,455.82	
Subsistence of the Army, 1889.....	82.37	
		\$2,614.11
Total balances		648,451.00

SUPPLIES.

The Subsistence Department is charged with the duty of purchasing and issuing to the Army such supplies as enter into the composition of the ration, and of procuring and keeping for sale to officers and enlisted men such articles as may from time be designated by the inspectors-general of the Army. These supplies are purchased as near the points of consumption as practicable, regard being had to their quality and prices as compared with those of stores at more remote points, and to the cost of transportation from place of purchase to place of issue or sale. The greater portions of the supplies have during the past year been procured as usual in the large markets of the country, such as New York, Chicago, San Francisco, St. Louis, New Orleans, etc., but fresh meat, and, to a great extent, flour and fresh vegetables, have been obtained from dealers and producers at or near the points of issue.

Vegetables for issue, in several varieties, have been furnished under section 5 of the act approved June 16, 1890. The proportions in which the various kinds were to be issued having been fixed by the Secretary of War, as required by the act, immediate steps were taken by the Department to supply them to every post. Three different proportions for issues were adopted, and it was enjoined that, in supplying vegetables, the preferences of the troops should be considered as far as climate, resources of the vicinity, transportation facilities, and season rendered practicable. Contracts were made for their delivery at the posts from time to time as required in cases where they could be obtained advantageously in the vicinity, and, in other cases, they have been procured in sections where they are largely produced and transported to the posts. The addition of 1 pound of vegetables makes the ration a liberal and, I believe, a very satisfactory one.

Statement of the average contract prices per pound (independent of quantities purchased), in each State and Territory, for the fresh beef supply in the fiscal years 1891 and 1892.

State or Territory.	Average price per pound.		State or Territory.	Average price per pound.	
	1891.	1892.		1891.	1892.
	<i>Cents.</i>	<i>Cents.</i>		<i>Cents.</i>	<i>Cents.</i>
Maine.....	7.56	11.50	Alabama.....	5.00	5.50
Massachusetts.....	9.58	9.73	Louisiana.....	6.50	6.50
Rhode Island.....	8.37	9.25	Arkansas.....	4.56	.....
Connecticut.....	13.50	13.25	Texas.....	5.59	5.68
New York.....	7.05	8.94	Tennessee.....	.....	9.50
Pennsylvania.....	11.75	10.37	Kentucky.....	11.00	9.16
Maryland.....	8.25	8.50	Ohio.....	5.70	7.74
District of Columbia.....	5.00	7.20	Indiana.....	7.00	7.00
Virginia.....	3.97	6.82	Colorado.....	6.42	7.75
Illinois.....	6.50	7.00	Utah.....	6.50	8.35
Michigan.....	7.89	8.26	Montana.....	6.89	6.50
Missouri.....	5.37	7.99	California.....	7.61	7.34
Minnesota.....	4.35	5.45	Arizona.....	5.57	4.50
Nebraska.....	5.61	6.64	Washington.....	8.68	7.38
Kansas.....	4.28	4.69	Idaho.....	7.12	7.41
Indian Territory.....	4.95	4.10	Oregon.....	11.99	.....
Wyoming.....	7.81	7.60	Florida.....	12.25	10.93
Dakota, North.....	7.11	7.92	Wisconsin.....	8.00	.....
Dakota, South.....	7.02	6.69	Oklahoma.....	7.17	5.19
New Mexico.....	5.64	7.68			
Georgia.....	10.00	9.20	Average price.....	7.31	7.78

ADVERTISEMENTS AND CONTRACTS.

During the fiscal year ending June 30, 1891, 423 newspaper advertisements and 591 circulars and posters inviting proposals for subsistence supplies were reported to this office. There were also reported 3,931 contracts of various kinds for fresh meats, fresh vegetables, complete rations, and other subsistence supplies required for the Army.

ISSUES TO INDIANS.

Subsistence supplies were issued to Indians and transferred to the Indian Department during the year as follows :

Stores and property transferred at Fort Mojave, Ariz., to superintendent and special disbursing officer of Fort Mojave Indian school.....	\$792.13
130,000 pounds flour transferred to Lieut. C. P. Johnson, acting Indian agent, for issue to White Mountain Apache Indians on San Carlos Reservation	2,060.00
Apache Indian prisoners at Fort Union, N. Mex	1,573.03
Apache Indian prisoners at Fort Grant en route from Fort Union to San Carlos, Ariz	14.14
Apache Indian prisoners at Fort Wingate, N. Mex., late at Fort Union, N. Mex	418.75

The value of the above issues and transfers has been reimbursed to this Department except \$236.37 of the last item.

Other issues were made to Indians, as follows, for which no reimbursement has been requested or made:

White Mountain Apaches at Fort Apache, Ariz.....	\$352.08
Chiracahua Indian prisoners of war at Mount Vernon Barracks, Ala.....	18,309.64
Sioux Indian prisoners of war.....	23,917.68
Indian prisoners, of various tribes, at different posts.....	169.08
Indians visiting military posts, under Army Regulations 1395 and 1396.....	2,279.03

MISCELLANEOUS ISSUES AND EXPENDITURES.

Issues were made to teachers of Indians at Mount Vernon Barracks, Ala., to the value of \$95.84, all of which has been reimbursed to this Department from the appropriations for contingencies of the Army.

There were issued to destitute citizens at various posts during the fiscal year, upon the orders of commanding officers, 4,735 rations, most of the issues being due to the recent Sioux campaign.

For liquid coffee there was expended \$9,377.15, being an increase over previous year of \$1,293.82, largely due to the movements of troops made necessary on account of the campaign above mentioned.

For extra-duty pay the amount expended was \$21,947.75, a decrease from previous year of \$340.42.

For advertising \$10,441.39, an increase over previous year of \$2,623.35.

For cooked rations \$65,188.60, an increase over previous year of \$17,123.16.

LOSSES OF STORES AND PROPERTY.

The value of the stores reported lost by accidents, wastage in transportation, while in store, etc., from July 1, 1890, to May 31, 1891, was \$8,207.65.

Sales of condemned and surplus supplies.

	Subsistence stores.		
	Condemned.	Surplus.	Total.
Original cost	\$18,195.30	\$530.37	\$18,725.67
Amount realized from sales.....	1,182.18	265.91	1,448.09
Loss.....	17,013.12	264.46	17,277.58

Of subsistence property, the amount realized from such as was condemned was \$166.63; from such as became surplus, \$6.40.

ARMY COOKS AND BAKERS.

On account of the importance of the matter, I venture to renew the recommendation so frequently made by the Commissary-General of Subsistence during the past ten years that some provision of law be made for the enlistment of cooks and bakers for the Army. Under the present system, temporary details of men are made from time to time from the companies to serve as cooks and bakers. The men so detailed are often inexperienced, have little fondness or aptitude for the duty, and, from the temporary nature of the employment, take but little interest in it. It matters not how great in quantity or how good in quality may be the raw articles of food furnished by the Subsistence Department, the soldier will not be properly and wholesomely subsisted if the articles are not properly cooked. As stated in the report of the board on Army cooking, convened by General Orders, No. 117, headquarters of the Army, series of 1877: "An important aid to good soldiering is good cooking. This can not be obtained without good cooks, and good cooks can not be obtained without education and adequate compensation." It would be in the interest of the Government and of the well being of the soldier if provision were made by law for the special enlistment of men as cooks and bakers. Of cooks there should be one for each company, troop, or battery, and of bakers one for each garrisoned post. I commend the matter to the special attention of higher authority, believing it to be one of the greatest importance for the health, comfort, and efficiency of the enlisted men of the Army.

COMMISSARY SERGEANTS.

Number of commissary sergeants in service at the commencement of the last fiscal year.....	117
During the year the following casualties occurred:	
Died.....	1
Discharged.....	1
Retired.....	13
	15
	102
Appointed during the year.....	9
	111
Total in service June 30, 1891.....	111

ACCOUNTS AND RETURNS DIVISION.

Accounts and returns on hand June 30, 1890, received, examined, etc., during fiscal year ended June 30, 1891:

On hand June 30, 1890, accounts current.....	242	
Received during the year.....	2,372	
	2,614	
On hand June 30, 1890, returns of subsistence stores.....	218	
Received during the year.....	1,762	
	1,980	
On hand June 30, 1890, returns of subsistence property.....	none.	
Received during the year.....	765	
	765	
Examined during year ending June 30, 1891:		
Account current (accompanied by 36,674 vouchers).....	2,113	
Returns of subsistence stores (accompanied by 29,478 vouchers).....	1,554	
Returns of subsistence property (accompanied by 1,666 vouchers).....	630	
On hand June 30, 1891, awaiting examination:		
Account current.....	501	
Returns of subsistence stores.....	426	
Returns of subsistence property.....	135	

The accounts and returns received were rendered by 515 officers.

In connection with the examinations 4,427 letters and 1,363 indorsements were written and recorded, and 122 papers copied.

CLAIMS DIVISION.

Act of July 4, 1864, (Sec. 300 B, Rev. Stats.).—At the commencement of the fiscal year ending June 30, 1891, there were no claims on hand awaiting examination under section 3, act of July 4, 1864, and the acts amendatory thereof, but during the year two (2) claims—one found among the miscellaneous claims not acted upon, and another received from the Third Auditor of the Treasury, were examined and decided under this act, thereby leaving no claims of this class on file.

In connection with this class of claims, 246 reports were rendered upon requests therefor, made by the Department of Justice and Court of Claims.

Joint resolution of July 25, 1866, and third section of act of March 2, 1867.—At the beginning of the fiscal year there were on file in this office 758 claims for commutation of rations of Union soldiers while held as prisoners of war, and during the year 1,309 more were received, making a total of 2,067 claims of this class for examination.

Of these 1,773 were examined and transmitted to the Third Auditor of the Treasury; 1,048 recommended for disallowance, and 725, amounting to \$14,836.75, for payment.

In addition to these, 1,707 old claims were reexamined and transmitted to the Third Auditor of the Treasury, of which 1,652 were recommended for disallowance, and 55, amounting to \$1,036.00, for payment.

Miscellaneous claims.—There were at the commencement of the fiscal year 1,519 miscellaneous claims on hand, and during the year 864 more were received, making a total of 2,383 claims of this class for examination.

Of these 2,195 were examined and transmitted to the Third Auditor of the Treasury; 1,700 recommended for disallowance, and 495, amounting to \$10,640.75, for payment.

In addition, 188 old claims were reexamined and transmitted to the Third Auditor of the Treasury, of which 126 were recommended for disallowance, and 62, amounting to \$1,604.50, for payment.

Letters and indorsements.—In connection with these three classes of claims mentioned, 18,608 communications were sent out during the year.

DUTIES AND STATIONS OF OFFICERS OF THE SUBSISTENCE DEPARTMENT.

A roster of the officers of the Subsistence Department on June 30, 1891, showing their stations and duties on that date, is hereto appended.

Very respectfully, your obedient servant,

B. DU BARRY,
Commissary-General of Subsistence.

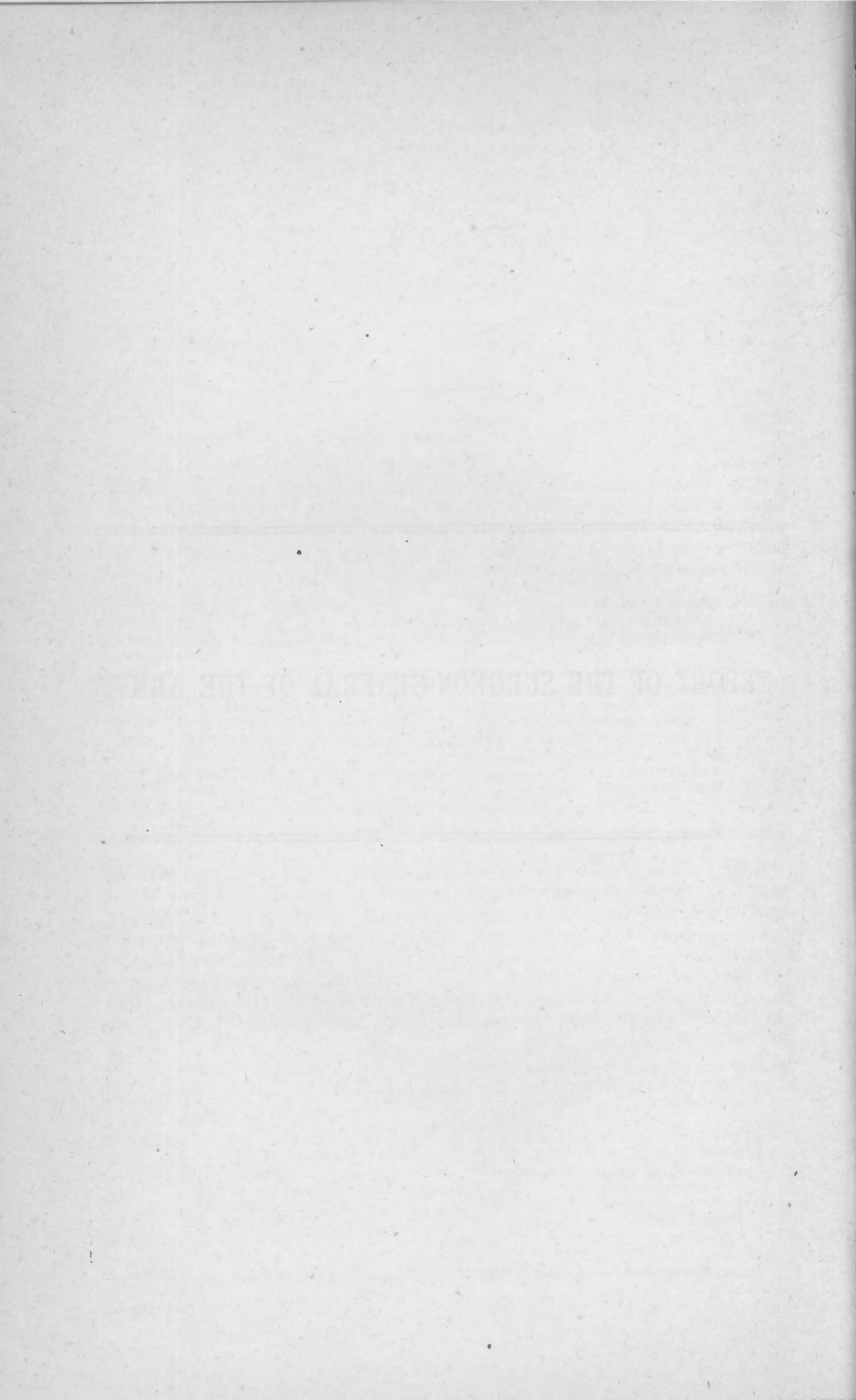
The SECRETARY OF WAR.

Roster of the Subsistence Department, U. S. Army, June 30, 1891.

Name and rank in the Department.	Rank by brevet.	Duty and station.
COMMISSARY-GENERAL OF SUBSISTENCE.		
<i>Brigadier-General.</i>		
Beekman Du Barry.....	.....	Commissary-General of Subsistence.—Washington, D. C.
ASSISTANT COMMISSARIES-GENERAL OF SUBSISTENCE.		
<i>Colonels.</i>		
George Bell.....	Bvt. Brig. General, April 9, 1865.	Purchasing and Depot C. S. at New York City, N. Y.
Michael R. Morgan*.....	Bvt. Brig. General, April 9, 1865.	Chief C. S., Division of the Missouri.—Chicago, Ill.
<i>Lieutenant-Colonels.</i>		
John P. Hawkins.....	Bvt. Major-General, March 13, 1865.	Chief C. S., Division of the Pacific and Department of California.—San Francisco, Cal.
Michael P. Small.....	Bvt. Brig. General, April 9, 1865.	Chief C. S., Division of the Atlantic and Department of the East.—Governors Island, New York, N. Y. On leave.
Thomas C. Sullivan.....	.....	Chief C. S., Department of Dakota, and Purchasing and Depot C. S. at St. Paul, Minn.
COMMISSARIES OF SUBSISTENCE.		
<i>Majors.</i>		
John W. Barriger.....	Bvt. Brig. General, March 13, 1865.	Chief C. S., Department of the Missouri, and Purchasing and Depot C. S. at St. Louis, Mo.
Thomas Wilson.....	Bvt. Brig. General, March 13, 1865.	Purchasing and Depot C. S. at Chicago, Ill.
William H. Bell.....	.....	Chief C. S., Department of the Platte, and Purchasing and Depot C. S. at Omaha, Nebr.
Jeremiah H. Gilman ...	Bvt. Lt. Col., Dec. 31, 1862.	Assistant to the Commissary-General of Subsistence.—Washington, D. C.
Samuel T. Cushing ....	.....	Purchasing and Depot C. S. at Fort Leavenworth, Kans.
William A. Elderkin.....	.....	Chief C. S., Department of Arizona.—Los Angeles, Cal.
Charles B. Penrose	Bvt. Lt. Col., Nov. 11, 1867.	Purchasing and Depot C. S. at Baltimore, Md.
William H. Nash.....	.....	Chief C. S., Department of the Columbia, Vancouver Barracks, State of Washington.
<i>Captains.</i>		
Charles P. Eagan .....	.....	Chief C. S., Department of Texas, and Purchasing and Depot C. S. at San Antonio, Texas.
John F. Weston .....	.....	Assistant to the Commissary-General of Subsistence.—Washington, D. C.
Charles A. Woodruff....	.....	Purchasing and Depot C. S. at San Francisco, Cal.
John J. Clague.....	.....	Purchasing and Depot C. S. at Boston, Mass.
Wells Willard .....	.....	Assistant to the Chief C. S., Department of Texas, San Antonio, Texas. On leave.
Henry G. Sharpe.....	.....	Purchasing and Depot C. S. at Portland, Oregon.
Frank E. Nye.....	.....	Purchasing and Depot C. S. at Washington, D. C.
Charles Hay.....	.....	Purchasing C. S. at Denver, Colo.
Douglas M. Scott .....	.....	Purchasing and Depot C. S. at New Orleans, La.
Wm. L. Alexander .....	.....	Depot and Post C. S., Fort Monroe, Va.
Henry B. Osgood.....	.....	Assistant to the Chief C. S., Department of the Platte, Omaha, Nebr.
Oskaloosa M. Smith.....	.....	Temporary duty in office Commissary-General of Subsistence.—Washington, D. C.

OFFICE COMMISSARY-GENERAL OF SUBSISTENCE,
Washington, D. C., June 30, 1891.

REPORT OF THE SURGEON-GENERAL OF THE ARMY.



REPORT

OF

THE SURGEON-GENERAL.

SURGEON-GENERAL'S OFFICE,
Washington, D. C., September 22, 1891.

SIR: I have the honor to submit herewith a statement of disbursements made during the fiscal year ended June 30, 1891, from the appropriation made by act of Congress, approved June 30, 1890, for the expenses of the Medical Department of the Army, and the balance on hand at the close of said fiscal year, viz:

Medical and Hospital Department, 1891:	
Appropriation by act approved June 13, 1890.....	\$215,000.00
Refunded during the year.....	1,036.29
Total to be accounted for.....	216,036.29
Disbursed during the year:	
For medical and hospital supplies	\$65,141.33
Expenses of purveying depots.....	124.17
For pay of employes	42,637.61
Medical attendance and medicines.....	11,084.01
Advertising.....	136.80
Miscellaneous expenses.....	953.53
	120,077.45
Balance on hand June 30, 1891	95,958.84

Nearly all the balance remaining on hand at the close of the fiscal year has already been or will be expended in payment for supplies contracted for, and for other obligations incurred prior to July 1, 1891.

The approximate money value of the medical and hospital supplies actually issued during the fiscal year ended June 30, 1891, was \$172,000.

I have the honor to submit also a statement showing the expenditures during the last fiscal year from the appropriations for the Medical Department for prior fiscal years, and the balance on hand June 30, 1891, viz:

Medical and hospital department, 1890:	
Balance on hand July 1, 1890.....	\$82,077.79
Refunded during the year.....	5,988.50
Total to be accounted for.....	88,066.29
Disbursed during the year:	
For medical and hospital supplies	\$67,745.70
Pay of employes	100.00
Medical attendance and medicines	2,075.28
Miscellaneous expenses.....	300.96
	70,221.94
Balance on hand June 30, 1891.....	17,844.35

Medical and hospital department, 1889:		
Balance on hand July 1, 1890.....		\$11,394.56
Disbursed during the year.....	\$3,560.00	
Carried to surplus fund June 30, 1891.....	7,834.56	
		<u>11,394.56</u>
Medical and hospital department, 1888 and prior years:		
Certified claims:		
Reappropriated by acts approved September 30, 1890, and March 3, 1891.....		794.16
Disbursed during the year.....		<u>794.16</u>
Library of the Surgeon General's Office, 1890:		
Balance from previous fiscal year.....		571.16
Disbursed during the year.....		<u>571.16</u>
Library of the Surgeon General's Office, 1891:		
Appropriated by act of June 13, 1890.....	10,000.00	
Disbursed during the year.....	8,458.92	
		<u>1,541.08</u>
Army Medical Museum, 1890:		
Balance from previous fiscal year.....	1,032.54	
Disbursed during the year.....	1,082.41	
		<u>.13</u>
Army Medical Museum, 1891:		
Appropriated by act of June 13, 1890.....	5,000.00	
Disbursed during the year.....	4,145.17	
		<u>854.83</u>
Medical and surgical history:		
Balance from previous fiscal year.....	2,711.94	
Carried to the surplus fund.....	2,711.94	
		<u></u>
Building for Army Medical Museum:		
Balance from previous fiscal year.....	1,184.05	
Balance June 30, 1891.....	1,184.05	

An aggregate reduction of about \$100,000 will be made in the estimates of appropriations for the next fiscal year for the entire expenses of the Medical Department. This reduction is based on the probable requirements of the service, taking into consideration the abandonment of twelve posts during the past year.

The Examining Board of Medical Officers convened in New York City in March was also assigned the duty of examining and improving the means of transportation of the sick and wounded of the Army, the equipment of the Hospital Corps, and the revision of the Standard Supply Table, the last edition of which was issued in 1883. Good progress has been made in this last important work, which will be ready for publication in the autumn.

The first ice machine was purchased by the Department in 1886, and was in operation late in the autumn of that year. Others have been issued since, and at the present time eighteen posts on our southern border and in the Indian Territory have them. At first there was some difficulty in securing proper local management and care of the apparatus, but at the present time they are generally well managed and in a satisfactory condition. Several requests have been made during the past year for the erection of these machines, but were disapproved because in each case it was ascertained that ice could be procured in the vicinity by purchase.

Artificial limbs, trusses, appliances, etc.

Artificial limbs, 1888 and prior years:	
Transfer account under act of March 3, 1875	\$15.33
Disbursed during the year	15.33
Artificial limbs, 1888:	
Balance from previous fiscal year	4,479.42
Carried to the surplus fund	4,479.42
Artificial limbs, 1889:	
Balance from previous fiscal year	8,875.17
Disbursed during the fiscal year	\$169.01
Carried to the surplus fund	4,545.29
	4,714.30
Balance, June 3, 1891	4,160.87
Artificial limbs, 1890:	
Balance from previous fiscal year	3,635.49
Disbursed during the year	2,218.93
Balance, June 30, 1891	1,416.56
Artificial limbs, 1891:	
Appropriated by act of August 30, 1890	\$400,000.00
Appropriated by act of March 3, 1891	125,000.00
	525,000.00
Disbursed during the year	508,567.88
Balance, June 30, 1891	16,432.12
Appliances for disabled soldiers, 1889:	
Balance from previous fiscal year	604.95
Carried to the surplus fund	604.95
Appliances for disabled soldiers, 1890:	
Balance for previous fiscal year	696.44
Disbursed during the year	173.63
Balance, June 30, 1891	522.81
Appliances for disabled soldiers, 1891:	
Appropriated by act of August 30, 1890	2,000.00
Disbursed during the year	1,870.49
Balance, June 30, 1891	129.51
Expended in furnishing trusses to disabled soldiers under the Revised Statutes, sections 1176 to 1178, and act of March 3, 1879	
Support and medical treatment of destitute patients in the city of Washington:	
Appropriated by act of August 30, 1890	19,000.00
Disbursed during the year	19,000.00
There were furnished to disabled soldiers, seamen, and marines during the year ending June 30, 1891:	
Trusses	1,848
Special appliances	196
Artificial arms, in kind	18
Artificial legs, in kind	513
Commutation in place of artificial limbs or apparatus	7,790

Sections 4787-4789, Revised Statutes, provide for the issue of an artificial limb or the payment of its commuted value once every five years to those who have lost a limb or the use of a limb in the service of their

country. An amendment to these statutes was approved March 3, 1891, making the period for the renewal of the limb three years instead of five; but although this amendment necessarily added two-fifths to the usual expenditure for artificial limbs, Congress made no appropriation to meet the additional expense. A careful examination of the lists of those living and entitled to limbs or their commuted value, shows that in addition to the claims paid out of the appropriation for the year ending June 30, 1892, now exhausted, there will be matured before the date mentioned—

4,518 cases, at \$50 each	\$225,900
210 cases, at \$75 each	15,750
Total	<u>241,650</u>

This will necessarily constitute a deficiency for the year ending June 30, 1892.

ARMY MEDICAL MUSEUM.

The total number of specimens received during the fiscal year was 964; total number of specimens in the Museum June 30, 1891, 30,241. The following statement shows the details of additions, transfers, etc., in the different sections:

Pathological section:	
In museum June 30, 1890	9,986
Received during the year	154
In museum June 30, 1891	<u>10,140</u>
Anatomical section:	
In museum June 30, 1890	3,296
Exchanged during the year	8
Received during the year	<u>3,288</u>
In museum June 30, 1891	<u>3,315</u>
Section of comparative anatomy:	
In museum June 30, 1890	1,717
Received during the year	0
In museum June 30, 1891	<u>1,717</u>
Microscopical section:	
In museum June 30, 1890	11,366
Received during the year	504
In museum June 30, 1891	<u>11,870</u>
Miscellaneous section:	
In museum June 30, 1890	1,227
Received during the year	105
In museum June 30, 1891	<u>1,332</u>
Provisional pathological section:	
In museum June 30, 1890	1,050
Transferred from provisional anatomical section	1
Received during the year	110
In museum June 30, 1891	<u>1,161</u>

Provisional anatomical section:

In museum June 30, 1890.....	643
Transferred to provisional pathological section.....	1

642

64

Received during the year.....	706
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In museum June 30, 1891.....	706
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RECAPITULATION.

Total number of specimens in museum June 30, 1890.....	29,285
Exchanged during the year.....	8

29,277

964

Total number received during the year.....	964
--	-----

Total number in museum June 30, 1891.....	30,241
---	--------

The following are some of the more interesting specimens added to the museum collection during the fiscal year ending June 30, 1891:

- (1) Right tibia and fibula showing syphilitic inflammation. Presented by Surg. W. H. Forwood, U. S. Army.
- (2) Portion of frontal bone from a colored boy, aged 15, showing circular depressed fracture by a stone. Presented by Dr. R. H. Munson, Washington, D. C.
- (3) Lower two-thirds of left femur, fractured in middle third, from a soldier wounded at Antietam, Md., September 17, 1862; amputated April 26, 1888. Presented by Mr. A. H. Gibbs, Washington, D. C.
- (4) Integuments of abdominal wall, heart, and pericardium, lungs, portion of liver, and kidneys, from a case of general cancer in a white woman, aged 34. Presented by Dr. T. C. Smith, Washington, D. C.
- (5) Lower end of ileum, cæcum, part of colon and vermiform appendix, from a case of peritonitis in a white boy aged 15. Presented by Dr. H. D. Fry, Washington, D. C.
- (6) Specimen of congenital absence of anus in an infant. Presented by Assistant Surg. T. W. Raymond, U. S. Army.
- (7) Right femur from a case of rickets in a child, aged 47 months. Presented by Dr. Mary A. Parsons, Washington, D. C.
- (8) Section of femur showing healed shot fracture, from a soldier wounded at Chancellorsville, Va., May 3, 1863; died January 23, 1891, from absorption of pus from wound. Presented by Dr. George P. Ikirt, East Liverpool, Ohio.
- (9) Two transverse sections of an osteo-sarcoma of left thigh; presented by Dr. C. G. Stone, Brightwood, D. C., and plaster cast, colored after nature, of thigh and upper part of leg, showing full size of osteo-sarcoma.
- (10) A series of uterine and ovarian tumors, removed by operation. Presented by Dr. J. Taber Johnson, Washington, D. C.
- (11) Palmar half of right forearm and hand, showing elephantiasis; from a colored man aged 36. Presented by Acting Assistant Surg. D. S. Lamb, U. S. Army.
- (12) Bullet containing piece of molar tooth, from a Confederate soldier wounded at Petersburg, Va., March 31, 1865. Presented by Dr. R. Fraser Michel, Montgomery, Ala.
- (13) A series of specimens of tumors of uterus and ovary. Presented by Drs. G. C. Freeborn, J. S. Ely, and W. P. Northrup, through Dr. T. M. Prudden, New York.
- (14) Portion of spleen with portion of omentum adherent, showing cancer nodules, from a white man aged 44. Presented by Medical Inspector Henry M. Wells, U. S. Navy.
- (15) Two hypertrophied mammary glands, combined weight 45 pounds. Presented by Dr. C. B. Porter, Boston, Mass.
- (16) A series of twenty models of female pelvis, showing deformities. Purchased.
- (17) A series of twenty-five wax models, showing different diseases of the eyes and eyelids. Purchased.
- (18) Thirty-six wax composition casts of various parts of the body showing diseases of the skin, cancerous and syphilitic diseases, lupus, etc. Purchased.
- (19) Plaster cast of the brain of the blind deaf mute, Laura Bridgman. Presented by Prof. G. Stanley Hall, Clark University, Worcester, Mass.
- (20) A series of six models, life size, of uteri, showing pregnancy, respectively, at 1, 2, 3, 4, 8, and 9 months. Purchased.

- (21) Tongue, fauces, larynx, etc., of a horse, showing cancer. Presented by Veterinary Surg. C. B. Robinson, Washington, D. C.
 (22) Operating table made for Francois Magendie in 1831, and used by Claude Bernard. Presented by Dr. Austin Flint, New York.
 (23) Seventy medals relating to medicine and medical men, medical schools, vaccination, etc.

LIBRARY.

The following table shows the additions made to the library during the fiscal year:

Description.	On hand June 30, 1890.	Added during fiscal year.	Total June 30, 1891.
Medical journals	29, 017	1, 031	30, 048
Medical transactions.....	4, 166	149	4, 305
Bound theses.....	1, 674	.....	1, 574
Bound pamphlets.....	1, 925	114	2, 039
Other medical books	61, 214	2, 789	64, 003
Total.....	97, 886	4, 083	101, 969
Medical theses	48, 724	2, 077	50, 801
Medical pamphlets.....	96, 203	8, 317	104, 520
Total.....	144, 927	10, 394	155, 321

Of the total number of single pamphlets on hand there were bound during the year 3,096 in 44 volumes.

There were presented to the library during the year 529 books and 6,466 pamphlets and journals; also, 5 portraits.

Volume XII of the Index Catalogue, including from "Reger" to "Shuttleworth," forming a volume of 1,004 pages, has been printed, and the edition will be distributed as soon as bound to those institutions and persons who have received the previous volumes. The preparation of the manuscript of Volume XIII is already well advanced.

PROVIDENCE HOSPITAL.

Under the provisions of the act of August 30, 1890, making appropriation of \$19,000 "for the support and medical treatment of 95 medical and surgical patients who are destitute in the city of Washington, under a contract to be made with the Providence Hospital by the Surgeon-General of the Army," a contract was duly entered into with the institution named, and has been fulfilled to my satisfaction and without complaint on the part of the persons sent there for treatment. The following is a statement of the amount of relief afforded under the appropriation:

Number of patients in hospital July 1, 1890	98
Number of patients admitted during the year.....	934
Total number of patients treated.....	1, 032
Average number of patients admitted per month.....	78
Number remaining in hospital June 30, 1891.....	95
Total number of days' treatment afforded	35, 782
Average number of days' treatment per patient	544
Average number of patients treated per day.....	98
Longest term of treatment	days.. 365
Shortest term of treatment.....	day.. 1
Number of patients in hospital during the whole year.....	23

The patients included in the statement represent all classes of diseases, acute and chronic, except those of a contagious nature. The patients

shown as having remained in hospital during the whole year are incurable, without home or friends.

ARMY AND NAVY GENERAL HOSPITAL, HOT SPRINGS, ARK.

At the beginning of the year, July 1, 1890, the number of patients in hospital was.....	39
Admitted during the year	123
Total	162
Returned to duty	69
Left hospital on sick leave and for station or residence.....	15
Discharged on expiration of service.....	3
Discharged on surgeon's certificate of disability	34
Died.....	5
Transferred to other hospitals	2
	128
Remaining.....	34

The results of the special treatment at this hospital by baths, etc., continue to be very satisfactory, particularly in the various forms of rheumatism. Of the total number of cases admitted, 60 per cent were rheumatic diseases, and 62 per cent of these were returned to duty.

Diseases of the nervous system constituted 17 per cent of the admissions; one half of them were returned to duty—a very favorable result when it is considered that seven were cases of locomotor ataxia or tabes, frequently thought to be incurable; several cases of neurasthenia or nervous depression, brought on by the great strain of our modern life with its increased mental activities, were also treated successfully.

A small percentage of diseases of the digestive and respiratory systems was admitted; the results in these were also satisfactory.

Of the total number admitted, 56 per cent were returned to duty, and this rate would be larger if allowance were made for patients who left the hospital on sick leave benefited by treatment and able in a short time thereafter to return to duty.

In most of the cases returned to their stations their future term of duty, whatever it may be, is so much gained by their treatment here. Necessarily, in a certain proportion, there is a return of the disease. Patients who leave the hospital to all appearance sound, may retain their rheumatic diathesis, ready to be roused into activity by exposure to cold or wet, or imprudence in diet. It would be interesting to trace the future history of these cases, which could be properly done only by following them up after they leave the Army, as most of them will do in a few years. There were four readmissions this year of enlisted men, all for rheumatism and neuralgia.

The steam heating introduced in the Administration building and North ward in the latter part of March, 1890, has been in regular use through last winter, and has contributed much to the comfort of the patients. The only means of heating the rooms before that was by open grates, and as there was no way of heating the halls and passages they were always cold in severe weather and a constant danger to invalids. In winter the temperature is frequently down to freezing and occasionally to zero. The buildings of the hospital seem to have been constructed for a Florida climate, and it has required much care and several alterations to meet these severe weather changes. By next winter the steam heating will be extended to all the other buildings.

A covered passage has been constructed, 165 feet long by 10 feet

wide, connecting the main building with the bath house; this enables patients to pass to and from their baths without exposure to the weather. It is a frame building, ornamental in appearance, and harmonizing with the other structures. Nearly all the rooms in the building have been papered or calcimined this year and the wards painted inside.

The work on the hospital grounds has been suspended this year for lack of appropriation, except so much as was necessary to protect the work already done. The boundary wall along the street front requires an extension of 180 feet to complete it; and also coping and iron railing similar to the work already finished along the front. There are also some sidewalk concreting and brick gutters required to complete the work on the plan originally laid down, and necessary to protect the surface already finished from damage by heavy rains. Estimates for these purposes have been already forwarded.

The large reservoir, capacity 250,000 gallons, mentioned in the report of last year, has been constructed on the reservation by the Interior Department; it receives all the hot water issuing from springs below the level of the bath houses and which formerly ran to waste.

The total flow of the hot springs has been estimated lately by an engineer officer of the U. S. Navy at 1,250,000 gallons a day. The number of bath tubs supplied in the various bath houses is 409, not including this hospital, and there is also a free Government bath house in charge of the Interior Department, with three large bathing tanks, in which about 500 baths are given daily. It was intended that all the bath houses should be supplied by the pump from this reservoir, but as it is found that they get a sufficient supply for the summer season by natural flow from springs above their level, the pump is not in operation and may not be required even next winter.

It was expected that the hospital would be authorized to draw its water supply from this source and save the expense of pumping, but it seems now as if it would have to continue drawing from its own spring and operating its own pump. The access to the springs is by a dark and inconvenient passage, under a bath house, as stated in the report of last year. Representation has been made to the War and Interior Departments, and it is hoped the matter will be remedied.

HOSPITAL CORPS.

Under the Army Regulations governing the allotment of Hospital Corps members, the number demanded by the distribution of troops of the line, the arsenals, engineer stations, West Point, recruiting depots, and other independent commands, is as follows:

Hospital stewards	145
Acting hospital stewards	100
Privates	560

There are now in service:

Hospital stewards	124
Acting hospital stewards	71
Privates	530

Vacancies exist for:

Hospital stewards	21
Acting hospital stewards	29
Privates	30
Civilians	10

Five hospital stewards were tried by general court-martial for various offenses, 1 being sentenced to dishonorable discharge from the Army.

One acting hospital steward was tried for a minor offense. Twenty-one privates were tried, of whom 1 was acquitted, 14 received minor sentences, and 6 were dishonorably discharged.

The number of members of the corps who were discharged by expiration of service and did not reënlist was 105, or 62.87 per cent of those discharged.

The number of desertions from the corps amounted to 10 during the year, or 1.3 per cent of the force.

The percentage attained by the candidates examined for promotion was as follows:

For hospital steward:		
95 to 97 per cent	5	
90 to 95 per cent	6	
85 to 90 per cent	9	
80 to 85 per cent	4	
75 to 80 per cent	5	
70 to 75 per cent	5	
For acting hospital steward:		
95 to 98 per cent	7	
90 to 95 per cent	11	
85 to 90 per cent	11	
80 to 85 per cent	6	
75 to 80 per cent	2	
Below 75 per cent	none	

Table showing loss and gain to the Hospital Corps for the year ending June 30, 1891.

	Hospital stewards.	Acting hospital stewards.	Privates.	Matrons.
GAIN.				
In service July 1, 1890	137	62	562	160
Reënlisted	22	4	39	
Promoted after examination	20			
Rejoined from desertion			4	
Detained from privates of Hospital Corps		38		
Transferred from the line			210	
Enlisted			8	
Reënlisted from other corps			13	
Reduced from acting hospital stewards			3	
Appointed				104
Total to be accounted for	179	104	839	264
Total gain	42	42	277	104
LOSS.				
Discharges:				
Expiration of service	27	9	131	
For disability	2		10	
By sentence of general court-martial	1		6	
By order	10	2	100	120
Promoted		19	39	
Retired	12		4	
Died	2		5	
Reduced to private		3		
Transferred to the line of the Army			4	
Deserted	1		9	
Dropped			1	
Total loss	55	33	309	120
In service June 30, 1891	124	71	530	144

Record of examinations in Hospital Corps for year ending June 30, 1891.

	Hospital stewards.	Acting hospital stewards.		Hospital stewards.	Acting hospital stewards.
Number of applications.....	44	48	Examination authorized.....	42	45
Withdrawn		2	Declined examination	2	3
Deserted	1		Died		1
Not entitled to examination..		1	Failed	7	4
To be examined in next class.	1		Found qualified.....	33	37
Examination authorized.....	42	45			
	44	48		42	45

CIVILIANS.

Applications received.....	20
Failed to accept conditions	20

Members of the Hospital Corps on duty in Sioux campaign.

Hospital stewards	10
Acting hospital stewards.....	16
Privates	80
At division field hospital:	
Hospital stewards	1
Acting hospital stewards	2
Privates	12
Casualties:	
Hospital steward killed.....	1

The services of the Hospital Corps during the Sioux campaign have demonstrated its value as an organization for the care of the wounded. On the battle-field at the action on Wounded Knee Creek two of its members rescued a wounded officer from extreme peril under circumstances which fully entitled them to the certificate of merit which they received as their reward, while the services that the remainder rendered were so orderly and well regulated that not only our own wounded men but wounded Indians were, with great promptness and dispatch, removed and cared for in the field hospitals which were extemporized for their benefit.

To increase its efficiency the Major-General Commanding approved my recommendation for the establishment of companies of instruction for the Hospital Corps at military posts west of the Mississippi, and for this purpose they are now in process of organization at Forts Riley, D. A. Russell, and Keogh. Each company will be fully supplied with the necessary field equipment, including tentage, field hospital furniture, etc., and the men will receive daily instruction by object lessons in first aid to the wounded, in the management of field hospitals, in cookery, and in such military duties as are necessary to secure the highest state of efficiency for field service.

To further increase its efficiency it appears to me needful to offer inducements to desirable men to enter its ranks. Under the old system of details for hospital duty the hospital attendant received \$23.50 per month; as a member of the Hospital Corps he gets only \$13. Hence, men who would like to enter the corps will not do so because they can do better financially by remaining with a company and becoming corporals and sergeants; and many desirable men leave the corps on the expiration of their term of service,—of 131 men discharged by expiration of term during the year, 105 did not reënlist. The Medical Department is thus in the position of teaching special duties to men who do not stay with it after they are taught. I therefore urgently

recommend that \$6 be added to the pay of the private of the Hospital Corps, and trust that favorable action will be taken on the recommendation.

MEDICAL OFFICERS.

The requirements of the Army as regards medical officers during the past year have been as follows:

Number of permanent posts and stations	122
Number of temporary posts and substations.....	28
Total.....	150

There were 143 medical officers reported to this office as having been on duty with scouting parties and other field service during the year.

Army medical examining boards were convened in New York City on the 15th day of October, 1890, and the 16th day of March, 1891, and remained in session one month each, for the examination of candidates. The following is a recapitulation of the work performed by the boards during their sessions:

Number of candidates invited to appear for examination	50
Number of candidates found qualified	5
Number of candidates rejected	19
Number of candidates rejected for physical disability	12
Number of candidates who withdrew after partial examination.....	8
Total number examined.....	44
Number of candidates who refused examination.....	1
Number of candidates who failed to appear for examination.....	5
	50

Deaths.—Since the date of last report, 1 surgeon-general with the rank of brigadier-general, 1 surgeon with the rank of major, 1 assistant surgeon with the rank of captain, 1 colonel, retired, 1 captain, retired.

Retirements.—One surgeon-general with the rank of brigadier-general, 1 assistant medical purveyor with the rank of lieutenant colonel, 1 surgeon with the rank of lieutenant-colonel, 2 surgeons with the rank of major, 4 assistant surgeons with the rank of captain, 2 medical store-keepers with the rank of captain, 1 captain and assistant surgeon with the rank of major, 1 captain and assistant surgeon wholly retired.

Promotions.—One lieutenant-colonel and assistant medical purveyor to be surgeon with the rank of colonel, 1 surgeon with the rank of lieutenant-colonel to be surgeon with the rank of colonel, 2 surgeons with the rank of major to be assistant medical purveyors with the rank of lieutenant-colonel, 2 surgeons with the rank of major to be surgeons with the rank of lieutenant-colonel, 7 assistant surgeons with the rank of captain to be surgeons with the rank of major, 6 assistant surgeons with the rank of first lieutenant to be assistant surgeons with the rank of captain after five years' service. (Act of June 23, 1874.)

Appointments.—One chief medical purveyor to be surgeon-general with the rank of brigadier-general, 1 surgeon and colonel to be surgeon-general with the rank of brigadier-general, 1 surgeon and colonel to be chief medical purveyor, 4 assistant surgeons with the rank of first lieutenant.*

* One assistant surgeon with the rank of first lieutenant has not yet accepted his appointment.

Vacancies.—There are now eleven vacancies in the Medical Department and one approved candidate who has not yet accepted appointment.

Noneffective medical officers.—There are eight medical officers on sick leave of absence, two of whom have been found incapacitated for active service and recommended for retirement by army boards. There are three medical officers on ordinary leave of absence.

INSPECTIONS BY MEDICAL DIRECTORS.

The inspections by medical directors of departments required by paragraph 1662 of the Army Regulations have been generally made, and their reports indicate a high state of efficiency in the personnel of the Department. The records of the various hospitals are as a rule correctly kept, the reports and returns required by the Department are duly rendered, the medical supplies are abundant in quantity and excellent in quality, and the duties of the officers and men have been performed to the satisfaction of their superiors.

The general health of the troops and the sanitary and hygienic condition of the garrisons will be treated of further on in detail.

Concerning the drills by the Hospital Corps and company bearers for field service, Col. Joseph R. Smith, medical director of the Department of Arizona, reports as follows:

For the regular attendance of the hospital corps at drill and instruction, and for their proficiency therein, the post surgeon alone is responsible, and must be censured for their want of proficiency.

Not so, however, with the company bearers. For their attendance or nonattendance the responsibility rests with the commanding officer of the post or the company commander, one or both.

The records show that in some cases the bearers have not been designated as required by Army Regulations, par. 1574, and in the great proportion of the cases the concurrence of the post surgeon, required by the same regulations, is entirely ignored.

Almost always the commanding officer fixes the time of drill according to Army Regulations, 1575; yet the company bearers fail to appear at the hour fixed, and though in many cases the post surgeon reports the absence, yet the matter is not remedied.

I add, that every commanding officer and company commander whom I know, who has personally witnessed the drill, has agreed to its importance, and felt inclined to compel attendance of his company bearers.

As to discipline he says:

It is respectfully submitted that drunkards should be at once dishonorably discharged, and the attempt to discipline them abandoned. This, because such grave consequences are liable to follow their neglect or error in the hospital ward; that it is a moral crime to thus expose the helpless sick to such danger. A drunken nurse in one minute of error may cause injury that can never be remedied.

Every year's experience still proves the advantage to the service resulting from the addition of the Hospital Corps to the Army organization.

On the subject of surplus medical and hospital property Col. Smith also adds:

A great part of this has accumulated in consequence of the abandonment of neighboring posts, whose property had to be transported to the nearest suitable place to be cared for. It is not easy to decide what is the best disposition to make of this property in every case. At the great majority of the military posts, or in their vicinity, there is no demand whatever for such property, and a sale at auction would realize but a moiety of their value. Concerning some, it is doubtful whether at a purveying depot they would sell for enough to meet the expense of transportation from post to depot.

IDENTIFICATION OF DESERTERS, ETC.

It gives me great pleasure to be able to report the successful institution by this office of a system which, if efficiently carried out, will do much to suppress desertion and prevent the enlistment of men of bad character. This system is based on the possibility of identifying an individual by the permanent marks or scars that he bears on his body. Every one has some congenital marks on his person, and there are few who have attained the age for military service that the accidents of life have not marked or scarred in one way or another. Moreover, many of the men who enlist have been at considerable trouble, thoughtlessly of course in this connection, to secure their own identification by indelible tattooings. An appreciation of these facts led the officers in charge of the administrative and sanitary divisions of this office to believe that if an accurate record of these personal marks could be made there would be no difficulty in recognizing a deserter or any other individual whose identity was in question. They held that if they were in possession of an "outline figure card," back and front, for every man in the Army, on which was represented accurately all personal peculiarities, no one who had deserted or was discharged for special cause could come in as a recruit without being connected with his former record. To put these views into thorough working practice they required a card for every man in the ranks, a card for every recruit as soon as enlisted, and a prompt notification of all changes in the personnel of the Army, particularly by desertion and discharge for fraudulent enlistment. With this armamentarium they held that no one whose card was on file could come in as a recruit without immediate identification. "Repeaters," as they are called, are the worst class of men that enter the ranks. They exercise an evil influence over the young soldier, such as in prisons is exercised by the hardened criminal over the young and thoughtless offender. To identify and exclude such men from the ranks would undoubtedly be a valuable service, and authority was therefore granted to the officers who proposed the system for their exclusion to proceed with it; but as the preparation of cards giving the personal markings of every man involved a great amount of labor, the authority was restricted to calling only for the cards of those who were enlisted subsequent to the issuance of the order.

On April 1, 1889, the order was issued. Several months were passed in the accumulation of cards, and many months necessarily elapsed before any considerable number of those whose cards had been collected had deserted or been discharged for fraud in their enlistment. Nevertheless, so rapid was the desertion movement in our Army that this office conceived itself in a position to cope with it about the beginning of the last fiscal year. Since then 34 recruits have been identified as deserters, 26 as ex-convicts, and 16 as frauds of a minor grade, making in all 76 cases of identification. These results show that if instead of laboriously and tediously gathering its data to enable it to *begin* its work, this office had been authorized to start with an outline figure card for every enlisted man, a much greater and more immediate good would have been accomplished. In progress of time, however, working on these lines, every man will be represented in this office by his card, when it will be impossible for a man who has a bad record to come into the ranks undetected. So much has been accomplished under all the difficulties attending the laborious starting of this system that I have no hesitancy in recommending that facilities be granted for its perfection by calling for the cards of all men now in service.

RECRUITING.

During the year 19,926 recruits were examined; white 18,437, colored 1,489. The rejections numbered 13,135; white 12,179, colored 956. Of every thousand candidates for enlistment 659.2 were refused, the white rate of rejection being 660.6, the colored 642.0. To defects of vision and eye diseases were attributed the disability of 86.5 of every thousand candidates; to diseases of the digestive system and developmental diseases, 50.7 each; to genito-urinary diseases, 37.2; to diseases of the circulation, 31.9. Age was the cause in 45.7 of the thousand, 35.5 being too young and 10.2 too old. Height, under or over, in 22.8, and weight or size in 43.3; while 15.4 were refused on account of character, and 16.9 for deficient knowledge of the English language. Further details may be found in Table XXII*.

In his sanitary report for December Maj. D. G. Caldwell, depot surgeon at Jefferson Barracks, Mo., states that—

During the year 1,101 recruits were examined on their arrival from the various rendezvous, and 57 for enlistment at this depot. Of those examined upon arrival 70 were rejected and brought before a board of inspectors; of the 57 examined for enlistment 13 were rejected. Defects, which were not considered actually disqualifying, were noted and recorded in 137 cases of accepted recruits. This course was dictated by a desire to retain in the Army all men likely to render satisfactory service. I am of opinion that a somewhat better class of recruits has been secured during the past year, and that the system of summarily discharging men found on trial to be worthless or incorrigible has proved to be of great benefit to the service.

HEALTH OF THE ARMY.

The rate of admission to sick report during the year, 1,384 per thousand of strength, is somewhat higher than the rate for the previous year, 1,315; but the number of men constantly sick, 42.71 per thousand, compares favorably with 44.12 in the previous year, and 43.49 as the annual average of the decade. The number of days lost on account of sickness averaged 15.6 as compared with 16.1 in the previous year, and with 15.9 as the average of the previous decade.

The principal causes of the 1,384 admissions per thousand of strength during the year were: Injuries, 244; diseases of the digestive system, 171; influenza, 168; diarrhoeal diseases, 124, and diseases of the respiratory organs, 111. Considered in relation to noneffectiveness, injuries took the first place, having been the occasion of 7.85 of the total of 42.71 constantly sick per thousand of strength; venereal diseases took second place as a disabling cause, accounting for 4.86 of the noneffective rate; disorders of the digestive system came third, with a nonefficient rate of 3.35; diseases of the respiratory organs, chiefly bronchitis, fourth, with a rate of 3.34, and malarial diseases fifth, with a rate of 2.79. Malarial fevers, which came second in the list of causes of admission last year, have no place this year among the five prominent causes. They would have taken fifth place, however, with 93 per thousand of strength, but for the accidental interposition of influenza. It is to be noted that injuries caused only 244 admissions per thousand of strength as compared with 249 in the previous year, although the present record includes a total of 116 gunshot wounds, most of which occurred during the Indian troubles near Pine Ridge Agency in December last.

The mean strength of the command from which medical reports were

received during the year amounted to 24,234 men—white, 21,910; colored, 2,324. The admission rate for the white troops was 1,347, as compared with 1,319 for the previous year, and with 1,529 for the previous decade; while the corresponding rates for the colored troops were 1,733, 1,281, and 1,688. The number of colored men constantly sick was 48, and the number of days lost by sickness 17.4 for each man.

The causes of admission were the same among the colored as among the white troops; but malarial fevers and alcoholism were less frequent. Influenza, diseases of the digestive system, diarrhoeal diseases, headache, neuralgias, and rheumatism were much more prevalent among them than among the whites. There was also a rate of 105 of venereal cases per thousand of strength among the colored men as against 72 among the white troops.

In comparing our sick rate with those of the last published record of the British army on home stations it is found that our admission rate is higher, because in our Army every man who is excused from any part of his duty, no matter how trivial the disabling cause, is taken on sick report; but the nonefficient rate, which is a more accurate exponent of sickness, was less with us, we having 42.71 per thousand of strength constantly sick as compared with the British rate of 44.45.

Army.	Mean Strength.	Ratios per 1,000 of mean strength.							Average sick time to each soldier.
		Admissions.	Deaths.			Discharges.	Constantly noneffective.		
			Disease.	Injury.	Total.				
United States, 1890	24, 234	1,384.25	5.25	3.45	8.69	23.01	42.71	15.6	
United States, 1889	25, 008	1,315.02	3.95	2.58	6.53	22.79	44.12	16.1	
United States, 1879-1888....	23, 828	1,544.22	5.98	3.25	9.23	31.99	43.49	15.9	
Austria-Hungary, 1889.....	281, 569	951.29	4.41	1.89	6.30	44.73	39.51	14.4	
Belgium, 1889	46, 471	1,230.57	3.96	.43	4.39	17.02	27.26	10.0	
Great Britain (home), 1888..	101, 695	740.89	4.72	.80	5.52	15.91	44.45	16.3	
Prussia, Saxony, Württemberg, 1887-'88	417, 104	804.13	2.38	.86	3.24	32.20	20.16	10.9	

In the army of Austria-Hungary the causes of admission in order of prominence were (1) diseases of the integument, (2) those of the digestive system, (3) bronchitis and pneumonia, (4) injuries, and (5) venereal diseases. In the army of Belgium the causes were (1) diseases of the digestive system, (2) injuries, (3) diseases of the integument, (4) bronchitis and pneumonia, and (5) venereal diseases. In the army of Great Britain on duty in the United Kingdom they were (1) venereal diseases, (2) injuries, (3) diseases of the digestive system, (4) integumentary diseases, and (5) bronchitis and pneumonia; and in the army of Prussia (1) integumentary diseases, (2) injuries, (3) diseases of the digestive system, (4) bronchitis and pneumonia, and (5) rheumatism. In all these armies, and in our own, tonsillitis or quinsy formed a large proportion of the cases recorded under the heading of diseases of the digestive system.

The death rate of 8.69 per thousand of strength represents 232 deaths, 203 whites and 29 colored; but as 92 of these resulted from injuries, 85 white and 7 colored, the death rate from disease was only 5.25—4.88 per thousand for the white and 8.74 for the colored troops. The lowest annual death rate from disease in the history of our Army was that recorded in the last annual report, 3.95; the second best record was that of the year 1885, when the rate for disease was 4.76. The rate for the present year is but little in advance of the latter, notwithstanding

that the troops were considerably exposed during its progress on account of the operations against the Sioux Indians.

Among the principal causes of death were typhoid fever, credited with 13 deaths; diseases of the nervous system, such as apoplexy, insanity, paralysis, etc., with 21; pulmonary phthisis, 19; pneumonia, 14; gunshot wounds, 61; drowning, 12, and other injuries, 14. The death rate among the white troops was 8.40 per thousand, among the colored troops 11.52. The rate from injuries was larger among the whites, 3.52, than among the colored, 2.78; but, as usual, the rate from disease among the latter, 8.74, was nearly double that furnished by the white troops.

The discharge rate of the Army, 23.01 per thousand of strength, represented 614 men, 542 white and 72 colored; 62 of the 614 resulted from injury, 552 from disease. Of the latter 71 were caused by venereal disease, 67 by epilepsy, insanity, and other diseases of the nervous system, 56 by heart disease and other affections of the circulatory system, 42 by pulmonary phthisis, and 52 by muscular and chronic articular rheumatism; and in addition to the injuries above mentioned 32 were occasioned by rupture, an accident pure and simple, yet placed by medical statisticians among diseases of the organs of digestion. The ratio of discharges among the whites was 22.43, among the colored 28.61.

The relative number of discharges has been materially lessened during the past two years. The rate now recorded, 23.01, per thousand of strength, compares satisfactorily with that of last year, 22.79, and both are a great improvement on the average annual rate of the decade, 1879-1888, 31.99. This saving of men to the service has been the result of two causes, the care exercised by medical directors in having every doubtful case treated under their personal observation prior to discharge, and the beneficial effects, particularly in chronic rheumatism, of treatment at the Army and Navy Hospital, Hot Springs, Ark.

The discharge rate of the army of Austria-Hungary in 1889 was 44.73; of the army of Prussia, Saxony, Württemberg, in 1887-'88, 32.20; of the Belgian army, 17.02, and of the army of Great Britain, on the home stations, 15.91. The most striking point observable in comparing the discharges from our Army with those from the armies of Europe is one that was specially noted and commented on in the last annual report from this office, the small number of discharges for venereal diseases from the European ranks. While we discharged 71 men during the year on account of these diseases from our mean strength of 24,234 men, the British discharged only 98 from their home strength of over 101,000; Austria-Hungary 20 from its strength of over 280,000; Prussia 17 from its army of over 417,000, and the Belgians none from their army of over 46,000; and this is not because such diseases were rare in those armies, for, as already stated, venereal diseases did not constitute among our troops one of the five principal causes of admission to sick report, while in the European armies cited, with the exception of the Prussian, they were thus prominent: In the British army they came first with a rate of 224 per thousand as compared with 75.21, the rate of our Army, or 1 affected out of every 4 in the British ranks during the year, against 1 in 13.3 among our troops.

HEALTH OF THE MILITARY DEPARTMENTS.

The statistics of the various departments show considerable variation in all the rates. The admissions ranged from 1,134 per thousand of strength in the Department of Dakota to 1,626 in that of Texas, the

Army averaging 1,384. The death rate varied from 2.59 per thousand living in the Department of California to 11.65 in the Department of the Missouri, the Army average being 8.69. The rate of discharge for disability ran from 14.42 per thousand in the Department of the Platte to 30.25 in that of California, the average of the Army being 23.01. The noneffective rate or number constantly sick per thousand of strength varied from 32.63 in the Department of Dakota to 50.75 in that of Texas, the Army average being 42.71. The duration of each case on the sick list varied but little from the average of 11.3 days. It was shortened in the Department of the Platte to 9.9 days and lengthened in that of the Missouri to 11.5 days. Giving due consideration to all the rates it is evident that the best record is presented by the Department of the Platte and the worst by the Department of Texas.

If venereal diseases, alcoholism, and vaccinia be omitted from the statistics the admission rate is found to vary from 807 in the Department of Dakota to 1,216 in the Department of Texas; the death rate from 1.73 in the Department of California to 6.62 in that of the Missouri; the rate of discharge for disability from 10.48 in the Department of the Platte to 24.20 in California, and the number constantly sick from 21.96 in Dakota to 34.50 in Texas. The Department of Dakota appears from these statistics to be that in which the soldier is least exposed to the causes of disease and the accidents of a military life, and the Departments of Texas and Arizona those in which these causes are at their maximum.

DEPARTMENT OF THE EAST.

In this department, strength 5,527 men, the admission rate was 1,517 per thousand of strength as compared with 1,384 in the Army as a whole; the death rate 6.15 as compared with 8.69; the discharge rate 23.52, differing but little from the Army average of 23.01; the noneffective rate 44.77, a little larger than the Army rate of 42.71; and the number of days' treatment of each case 10.8, the general average being 11.03.

The principal items constituting the excess of admissions in this department were vaccinia 80 per thousand against 32 in the Army; venereal diseases, 107 as against 75; tonsillitis and digestive troubles, 191 as against 171, and alcoholism 57 as against 41.

Omitting the smaller posts, the ratios of which have little practical value, it is found that the increase in the admissions in this department was chiefly due to the rates of Fort McPherson, Ga., 2,489; Jackson Barracks, La., 2,163, Columbus Barracks, Ohio, 1,876; Willets Point, N. Y., 1,812; Fort Monroe, Va., 1,709; Davids Island, New York, 1,643, and Fort Hamilton, N. Y., 1,626.

The largest non-effective rates were recorded at Columbus Barracks, Ohio, 77.55; Jackson Barracks, La., 70.64; Mount Vernon Barracks, Ala., 68.57; St. Francis Barracks, Fla., 66.76; Fort McHenry, Md., 63.73, and Fort McPherson, Ga., 61.16.

The best record was shown by Fort Adams, R. I., 782 admissions and 25.38 constantly sick.

DEPARTMENT OF THE PLATTE.

In this department, showing 3,052 men, the admission rate was 1,251, the death rate 8.19, the discharge rate 14.42, the noneffective rate 33.96, and the number of days of treatment to each case 9.9.

The principal items which caused the lower admission rate were 54 cases of malarial disease less per thousand of strength than the aver-

age of the Army, 29 less of venereal disease, 29 of influenza, and 27 of vaccinia. On the other hand, the rates for alcoholism and rheumatism were somewhat greater than the Army average.

The highest rates in this department were given by Fort Washakie, Wyo., 2,036 admissions and 49.98 noneffective; and by Fort Robinson, Nebr., 1,896 and 44.51. The best record was given by Fort Omaha, Nebr., 672 admissions and 31.83 noneffective.

DEPARTMENT OF DAKOTA.

In this department, strength 4,132 men, the admission rate was 1,134, the death rate 13.31, the discharges for disability 16.70, the noneffective rate 32.63, and the number of day's treatment to each case 10.5.

The chief causes of the lessened admission rate in this department were 72 cases of malarial disease, less than the average of the Army, 42 of diarrhœal diseases, 36 of venereal, 23 of diseases of the digestive system, 18 of alcoholism, and 15 of boils, abscesses, etc.

The highest rates in this department were given by Fort Maginnis, Mont., admissions 1,737, and noneffective 45.35. On the other hand, Fort Keogh, Mont., had only 674 admissions and 25.66 noneffective.

DEPARTMENT OF THE MISSOURI.

In this department, strength 3,776, the admissions were 1,381 per thousand of strength, the deaths 11.65, the discharges 26.48, the number constantly sick 43.33, and the duration of each case 11.5 days.

There were 90 cases of malarial disease per thousand of strength more than in the Army at large; but as an offset the rate for influenza was 39 per thousand of strength less; for boils, abscesses, etc., 26, and for alcoholism 18. The rates of diseases of the respiratory organs and of the digestive system were also somewhat less than the average.

The posts which mainly contributed to sustain the high rates in this department were Fort Sill, Okla., with 2,552 admissions and 47.41 noneffective, Fort Elliott, Tex., with 1,984 and 76.71, and Fort Reno, Okla., with 1,922 and 56.53. The best record was given by the prison guard at Fort Leavenworth, with 939 admissions and 18.53 noneffective.

DEPARTMENT OF TEXAS.

In this department, strength 2,095 men, the highest departmental admission rate was found, 1,626; the death rate was 6.68, the discharge rate 26.25, the noneffective rate 50.75, and the duration of each case 11.4 days.

The excess of admissions in this department consisted mainly of 151 cases of malarial disease per thousand of strength more than in the Army at large, with an excess of 77 diarrhœal cases, 43 venereal, 36 headaches and neuralgias, and 28 ephemeral fevers; diseases of the digestive and respiratory organs were, however, a little less frequent than the average.

The posts which mainly contributed to these high rates were Fort Sam Houston with 2,431 admissions and 63.25 noneffective, Fort Brown with 1,881 and 65.23, and Fort Clark with 1,669 and 65.25. The best record was given by Fort McIntosh, 738 admissions and 25.31 noneffective.

DEPARTMENT OF CALIFORNIA.

In this department, strength 1,157 men, the admission rate was 1,201, the death rate 2.59, the discharge rate 30.25, the noneffective rate 36.54, and the average duration of each case 11.1 days.

The principal differences between the diseases of this department and those of the Army at large may be expressed by the statements that there were in it 24 cases of malarial disease per thousand of strength less than the average, 66 less of diarrhœal diseases, 17 less of vaccinia, 10 less of alcoholism, 27 less of headache and neuralgia, and 48 less of diseases of the digestive system. On the other hand, there were relatively more of certain other diseases, the chief items being 26 more of dermatitis from heat and other causes of tegumentary irritation, and 19 of diseases of the respiratory organs.

The highest rates were recorded at the Presidio of San Francisco, admissions 1,413 and noneffective 45.96. The best record was given by Angel Island, 920 admissions and 27.44 noneffective.

DEPARTMENT OF THE COLUMBIA.

In this department, strength 1,464 men, the admission rate was 1,331, the death rate 7.51, the discharge rate 20.49, the noneffective rate 40.18, and the average duration of each case 11 days.

Although the admission rate differed but little from the average of the Army, there were many differences in the character of the prevailing diseases. Thus, per thousand of strength, the Army average exceeded the cases in this department by 35 of influenza, 37 of malarial diseases, 41 of diarrhœal diseases, 12 of venereal diseases, 24 of vaccinia, and 9 of boils, abscesses, etc., while as an offset there were 80 cases more of diseases of the respiratory organs, 21 of alcoholism, 8 of rheumatism, and 16 of injuries.

The post which had the highest rates was Fort Sherman, Idaho, with 1,838 admissions and 44.15 constantly sick.

DEPARTMENT OF ARIZONA.

In this department, strength 2,984 men, the admission rate was 1,568, the death rate 9.38, the discharge rate 29.49, the noneffective rate 46.90, and the average duration of each case 10.9 days.

The diseases that prevailed to a greater extent than in the Army at large were influenza, with an excess of 126 cases per thousand of strength over the general average, injuries with an excess of 51, diseases of the digestive system with 43, headache and neuralgia with 13, and rheumatism with 34. On the other hand, the Army average exceeded that of the department by 29 cases of vaccinia, 19 of diseases of the respiratory system, and 25 of malarial disease. This department had formerly the reputation of being a notoriously malarious region; but by sanitary measures at the occupied posts and the abandonment of those in insalubrious localities the department has now a better record in this respect than the average of our military stations.

The posts which contributed most to the high rates of the department were Fort Apache, Ariz., 2,372 admissions and 55.51 noneffective; Fort Grant, Ariz., 2,208 and 50.30; Fort Wingate, N. Mex., 1,788 and 60.82; Fort Stanton, N. Mex., 1,662 and 67.83, and Whipple Barracks, Ariz., 1,685 and 61.80. The posts with the best records were Fort Huachuca, Ariz., with 702 and 22.02, and Fort Union, N. Mex., with 775 and 26.53.

HEALTH OF INDIVIDUAL POSTS.

Reports were received during the year from 139 military stations; 14 of these were garrisoned by 400 to 642 men each, average 474; 11 by 308 to 393, average 347; 19 by 200 to 296, average 251; 31 by 100

to 198, average 138; and 64 by 5 to 99, average 54. Those having a strength of over 200 men had rates of admission and nonefficiency greater than the average of the Army, while the smaller posts as a rule had lesser rates. This is to be attributed in part to the fact that at the large posts men with trivial ailments were taken on sick report, while at the smaller posts, where every available man was required for duty, the same ailment would be treated without a formal recognition on the sick reports.

Of the fourteen large posts four had rates of admission and noneffectiveness considerably larger than the average of the Army: Fort Sam Houston, Tex., had 2,431 admissions per thousand of strength and 63.25 constantly sick; Columbus Barracks, Ohio, 1,876 and 77.55; Fort Clark, Tex., 1,669 and 65.25; and Davids Island, New York, 1,643 and 52.45. Fort Monroe, Va., gave also a higher record than the Army as a whole. Willets Point, N. Y., had a larger admission rate, and Fort Leavenworth, Kans., a larger noneffective rate, with the highest death rate of the fourteen posts, 15.36 per thousand of strength, one-third of which was due to injuries.

At Fort Sam Houston malarial and typhoid fevers, diarrhœal and venereal diseases made up the excess both of admissions and nonefficiency. The large rates at Columbus Barracks, Ohio, were due to the vaccination of recruits and the prevalence of venereal diseases. The latter occasioned 380 admissions per thousand of strength, with 24.74 constantly sick. Singularly enough, with this record alcoholism furnished a rate of only 18 as compared with 40.73 in the Army as a whole; injuries were infrequent at this depot. At Fort Clark, Tex., malarial fevers and venereal diseases occasioned the increased rates, the former causing 451 admissions per thousand of strength, and 18.38 of noneffectiveness, and the latter 153.85 and 12.69. The excess of admissions at Davids Island, New York, was chiefly the result of vaccinating the newly enlisted men; at Fort Monroe, Va., it was due to diarrhœal troubles; at Willets Point, N. Y., to diarrhœa and alcoholism, with rheumatism and bronchitis as probably the indirect consequences of the latter. The high rate at Fort Leavenworth was attributable in part to typhoid and malarial fevers, but chiefly to injuries.

Columbus Barracks, Ohio, Jefferson Barracks, Mo., and Fort Leavenworth, Kans., gave the highest rates of discharge for disability, 63.75, 41.87, and 40.96, respectively. At Columbus Barracks the absolute number was 32—3 for injuries and 29 for diseases, of which 21 were due to venereal; at Jefferson Barracks 17—1 from injury and 7 from venereal, and at Fort Leavenworth 24—3 from injuries and none from venereal.

The best record among the large posts was presented by Fort Omaha, Nebr.; admission rate 672, noneffective rate 31.83.

Of the eleven stations garrisoned by 300 to 400 men each, Fort Sill, Okla., and Fort Grant, Ariz., had the largest admission rates, 2,552 and 2,208, respectively, while Fort Wingate, N. Mex., and Fort Custer, Mont., had the largest noneffective rates, 60.82 and 57.91. Malarial fevers and diarrhœa constituted the excess at Fort Sill; influenza, diseases of the respiratory organs, and injuries at Fort Grant. Influenza, venereal diseases, rheumatism, and injuries occasioned the large noneffective rate at Fort Wingate; influenza and bronchitis, eye diseases and injuries, at Fort Custer. Fort Keogh, Mont., presented the excellent rates of 674 for admissions and 25.66 for noneffectiveness, and this although the admission rate for alcoholism, 51.87, was considerably above the average. Fort D. A. Russell, Wyo., and Fort Meade, S. Dak., also had good records, the former 1,052 admissions, with 27.61 of non-

effectiveness; the latter 854, with 35.34. At Fort D. A. Russell the largest item on the sick reports was an admission rate of 135 for bronchitis, as compared with 74 for the Army as a whole; of venereal diseases, only one case was recorded at this post during the year. At Fort Meade only four cases of alcoholism were reported, but two of these terminated fatally, the only deaths that occurred at the post.

Fort Robinson, Nebr., had the highest death rate of these eleven posts, 25.45 per thousand, the absolute number being 10—2 from injury, 3 from pneumonia, 2 from diseases of respiration, 2 from diseases of the kidneys, and 1 from typhoid fever. Fort Grant came second, with a rate of 21.41, yielded by 7 deaths—2 from injuries, 2 from heart disease, and 1 each from typho-malarial fever and diseases of the respiratory organs and kidneys.

Fort Sill and Fort Wingate had the highest rates of discharge, 36.36 and 33.43, respectively, the absolute number in both instances being 12.

Of the nineteen stations garrisoned by 200 to 300 men each, Fort Apache, Ariz., had an admission rate of 2,372, with 55.51 constantly non-effective, but the highest non-effective rate was shown by Whipple Barracks, Ariz., 61.80, with an admission rate of 1,685. The rates at Fort Reno, Okla., and at Fort Sherman, Idaho, were also unusually high. At Fort Apache influenza, malarial fevers, diarrhœa, rheumatism, neuralgia, diseases of the digestive system, and injuries occasioned the increased admission rate; but injuries and malarial fevers contributed most of the inefficiency. At Whipple Barracks the high rate was caused by a general increase of all diseases; the admission rate for alcoholism was unusually large, 157.67, with 1 man per thousand constantly sick. At this post five cases of typhoid fever, two of consumption, and four of heart disease added materially to the rate of non-efficiency. The causes of the increased rates at Fort Reno were malarial fevers, diarrhœa, catarrhs, diseases of the digestive system, of the integument, and injuries; at Fort Sherman influenza, alcoholism, rheumatism, bronchitis, digestive disorders, and injuries.

The best record among these nineteen stations was given by Fort Huachuca, in Southern Arizona; admission rate 702, with 22.02 non-effective, and this although its admissions for influenza alone constituted 225 per thousand.

Washington Barracks, D. C., Whipple Barracks, and Fort Apache, Ariz., had the largest rates of discharge, 66.67, 58.09, and 45.45, respectively, the absolute numbers being 17, 14, and 11 men. Seven of the 17 at the first-mentioned post were due to heart disease.

Of the thirty-one posts garrisoned by 100 to 200 men each, Fort McPherson, Ga.; Fort Washakie, Wyo.; and Fort Bowie, Ariz., had admission rates of over 2,000 per thousand of strength. At Fort McPherson diarrhœal and venereal diseases, alcoholism, rheumatism, and bronchitis contributed to the excess; influenza and injuries at Fort Washakie, and tonsillitis, other diseases of the digestive system and injuries at Fort Bowie. Leavenworth prison had the best record among these posts; admission rate 939, non-effective 18.53. Fort Adams, R. I.; Fort Sheridan, Ill.; Angel Island, Cal.; Fort McKinney, Wyo.; Fort Union, N. Mex.; and Forts McIntosh, Bliss, and Ringgold, Tex., had also good records during the year.

Of the sixty-four small posts having a strength of less than 100 men each, Jackson Barracks, La., had the highest rates; admission 2,163, non-effective 70.64, due mainly to malarial, venereal, and diarrhœal diseases, alcoholism, and injuries. San Diego Barracks, Cal., appears on this list as having the highest non-effective rate, but this was because

men affected with rheumatism, bronchitis, and consumption were transferred to that station, to give them the benefit of its temperate and equable climate. During two and a half years, ending June 30, 1891, 20 cases were treated, and of these only 3, or 15 per cent, were cured. Of 9 cases of phthisis the result was favorable in none. In view of this experience Col. Joseph R. Smith, medical director of the department, has recommended that no other such cases be transferred to this post.

Of all the military stations in the country Fort Sill, Okla., had the highest rate of admission to sick report, 2,552 per thousand of strength, closely followed by Fort McPherson, Ga., Fort Sam Houston, Tex., Forts Apache and Grant, Ariz., and Jackson Barracks, La.

Omitting San Diego Barracks, which was in a measure a general hospital, Columbus Barracks, Ohio, had the largest noneffective rate, 77.55 per thousand of strength; Fort Elliott, Tex., followed with 76.71; Jackson Barracks, La., with 70.64; Mount Vernon Barracks, Ala., with 68.57; and Fort Stanton, N. Mex., with 67.83. The rate at Columbus Barracks has always been high, but at the other posts mentioned there has been much variation during the past few years, showing that the high rate of the present year is due to the special conditions of the year rather than to the localities or the permanent local conditions.

At the three recruiting depots the admissions were considerably increased by the results of vaccination. Deducting these, Jefferson Barracks would have the low rate of 833 per thousand of strength, of which 167 were occasioned by venereal diseases. The small rate from diseases in general was due to the freedom of the post from influenza, and low rates for diarrhoea, rheumatism, bronchitis, diseases of the digestive organs, and alcoholism. With a similar deduction Davids Island would show an admission rate of 1,205.07, 105.99 of which were venereal cases. With suppression of the vaccination Columbus Barracks would have had an admission rate of 1,555.77, 380.46 of which were caused by venereal diseases, yielding a discharge rate of 41.83 and a noneffective rate of 24.74 per thousand of strength. But for this class of diseases the recruiting depots, particularly Jefferson Barracks and Davids Island, would have compared favorably with any of our large posts.

THE PREVALENCE OF SPECIAL DISEASES.

SPECIFIC FEBRILE AND ACUTE INFECTIOUS DISEASES.

The specific febrile and acute infectious diseases had high rates during the year, 177.89 admissions per thousand of strength; but if the rate for influenza is deducted from this there is left a rate of only 9.94, 5.24 of which were due to typhoid fever and 2.48 to measles.

Cerebro-spinal fever.—One case, terminating favorably, was reported from Fort Abraham Lincoln, N. Dak.

Dengue.—Six cases occurred at Fort McIntosh, Tex., and 1 at St. Francis Barracks, Fla.

Diphtheria.—Only 5 cases occurred among the troops: 2 at Fort Porter, N. Y.; 2 at Fort Trumbull, Conn.; and 1, fatal, at Frankford Arsenal, Pa. The second case at Fort Trumbull was in the person of the private of the hospital corps in attendance on the first. Deadly outbreaks of this disease among the children were reported from Jefferson Barracks, Mo., Fort Hamilton and West Point, N. Y. At the first-mentioned post 4 cases, 3 of which were fatal, were developed in the family of the quartermaster-sergeant twenty-four days after moving into a set of quarters which had been visited by the disease in 1886.

A rigid quarantine was established, and the building was afterwards thoroughly disinfected. Three families suffered at Fort Hamilton, in one, 8 cases with 2 deaths; in another, 3 cases with 2 deaths, and in a third, 2 cases, with recovery in both. At West Point the disease was first reported as virulent in November, 1889, when all the 6 children of one family were taken sick and 4 died. The next outbreak was in February, 1890, when almost simultaneously two families, living half a mile apart and having no intercourse with each other, became prostrated. Of 15 children in these 2 families 13 suffered from the disease and 5 died. A fatal case occurred in another family in March, and 1, ending favorably, in April. Capt. W. F. Carter reported on these cases as follows:

The disease made its appearance in the more modern and substantial as well as in the oldest and most dilapidated buildings on the reservation and in houses widely apart. The first case appeared in the house of Sergeant Emerick. This family lived in the south side of the second building on the south end of a row of nine houses comprising a settlement known as "Logtown." These buildings are old frame structures, each divided into two sets of quarters. They are arranged in a straight line along the brow of a hill which rises rather abruptly (the road intervening) in front, and falls away quite precipitately in rear along the whole line. From Emerick's house the disease extended to the house of Private Brannigan, who occupied a comparatively new brick building standing by itself and in an apparently healthy locality. It is believed, however, that the cesspool in rear of the quarters was at the time in bad condition. The next cases occurred in Private Dwyer's quarters, a brick structure situated near the northern extremity of Logtown. The next appearance of the disease was in the family of Private Eiseman, of the band, who occupied two rooms situated near the center of the band barracks, a substantial brick building. Subsequent to this a case developed in the Cadet Barracks. This case was removed to an upper small room in the Cadet Hospital. The building occupied by the Emericks is, as already stated, an old frame structure. Beneath it is a cellar coextensive with the superstructure. The cellar walls are of stone. The walls of the house are composed of clapboards outside, laths and plaster inside, and the intermediate framework. The set, or half the house, consists of one room on the first and one on the second floor. Back of the lower room, and overhanging the slope of the hill, is a small addition comprising two small rooms. The cellar, being cut into the side of the hill seems to intercept the natural springs in the soil, and is therefore more or less damp or wet. It has no means of ventilation except the door and a small opening in the upper part of its wall. Both the door and this opening are probably kept closed in cold weather. The heavy sills supporting the framework of the house have become rotten; they have given way under the weight of the house, allowing it to settle down more or less upon the cellar wall. The plastering is old, cracked, and imperfect. The floors are presumably old and more or less porous. As this is an old building, it is reasonable to infer that the soil about it has to some extent become fouled. The above description applies to all the houses comprising the older portion of Logtown. The stone buildings occupied by Brannigan and Dwyer are good, substantial structures, in fairly good condition. Eiseman's quarters (in the band barracks) are in good condition. The rooms in the cadet barracks and in the cadet hospital are in excellent condition. In stating the condition as good and excellent, reference is had to the state of general repair and cleanliness.

I premise my recommendations with the statement that every house and room in which diphtheria occurred were thoroughly cleaned and disinfected. In most cases the walls and woodwork were scraped and thoroughly washed with disinfecting fluid and the rooms fumigated with sulphurous acid. This work was done under the intelligent direction and faithful supervision of the medical officers of the post, to whom every possible assistance was given by the superintendent of the Academy and the post quartermaster. To the prompt and thorough sanitary quarantine measures adopted is due the fact that diphtheria and scarlet fever did not extend more widely over a somewhat promising field. It might seem that ample precautions had been taken to eradicate the specific poison of this disease; but it should be borne in mind that the specific morbid agent in diphtheria is possessed of great tenacity and virulence. It clings to solid and semisolid bodies, and in this way is transmitted even after a long time. There is hardly any disease which can cling so tenaciously to dwellings and furniture. * * * Possessing, therefore, a knowledge born of bitter experience as to the dangers that may linger after an epidemic of diphtheria, I think we would not do more than prudence dictates if we take additional sanitary

precautions before the beginning of cold weather, as during the winter season, when ventilation of these houses will be cut off by the closure of doors and windows, the condition becomes much more favorable for the development of this disease. It is therefore recommended that in the separate brick buildings and in the rooms of private Eiseman, the walls, the ceilings, and all woodwork (including doors and windows, door, window, and mantel facings, baseboards, cornices, and floors) be again thoroughly washed down with disinfectants; that the solution be thrown into cracks and crevices, about all facings, baseboards, mantels, floors, etc.; that all the furniture, carpets, bedding, and drapery be removed and thoroughly shaken or beaten, aired or sunned, and, where practicable, washed. After the washing with the disinfecting solution the walls may be again whitewashed and the woodwork painted. It is not thought necessary to apply these measures in the rooms of the cadet barracks and hospital, as the work is believed to have been done thoroughly in the first instance, and the rooms have since been cleaned and painted. In the case of the house in which the four Emerick children died, I can not but express the opinion that it is unsafe. The rooms of this house were, I think, fumigated; but fumigations are of doubtful efficacy in an old building having so many inaccessible crevices in and behind the plastering and between it and the clapboards and in the interstices of the decaying timbers. Besides this, and were there no specific poison about the structure, there are more or less active chemical changes going on in the old woodwork and in the organic matter about the premises, a condition which in itself may stand in a causative relation to the disease in question. In my opinion this house should be abandoned, and for the reasons stated in this report. I think all the old buildings of this class should be vacated and torn down as soon as it is possible to procure other quarters for the families now occupying them. I do not believe it would be economy to attempt to put them in good condition.

Scarlet fever.—Only 6 cases of scarlet fever occurred among the troops: 2 at Fort Keogh, Mont., and 1 each at Columbus Barracks, Ohio; Fort Logan, Colo.; Fort McHenry, Md., and Fort Maginnis, Mont. This fever was present also at Davids Island and Watertown Arsenal, N. Y.; at Newport Barracks, Ky., and Forts Davis and McPherson, Tex.; but only 1 case or 1 family was affected at each. Prompt isolation confined the disease, and disinfection of the person, clothing, bedding, and dwelling prevented its recurrence. At West Point, however, these measures were not so successful. The epidemic was carried over from the previous year. Eight cases occurred among the children in January, and in April 3 cases among the cadets.

Measles.—Sixty cases of this disease occurred among the enlisted men: 21 among the recruits at Columbus Barracks, Ohio; 6 at Fort Barrancas, Fla.; 5 at Fort Buford, N. Dak., and the remainder scattered among 16 different posts, where prompt isolation and disinfection prevented its spread from the 1 or 2 cases first attacked. The measures adopted to repress the disease at Columbus Barracks failed so far as the recruits were concerned, but were attended with best results among the families and children; only 9 children became affected, 5 in the families of officers and 4 in those of enlisted men. At Fort Niobrara, Nebr., an officer's child in the prodromic stage of the disease attended school, and 12 children, representing 9 families, became infected. Thirty-three cases resulted from this invasion, 30 among the families and 3 among the soldiers; all ended favorably. At Fort Buford, 16 children became affected; at Mount Vernon Barracks, Ala., 5, and at Jackson Barracks, La., 4. Several cases occurred among the families of quartermaster's employes at Fort Riley, Kans.

Smallpox.—One case of confluent smallpox occurred in an enlisted man at Fort Marey, N. Mex., and a case of varioloid at West Point, N. Y., in an officer's child. Proper sanitary measures prevented any undesirable developments from these cases.

Typhoid fever.—There were 127 cases of this fever during the year, 13 of which were fatal, 7 cases with 1 death having occurred among the colored troops. The disease was reported from 38 posts. Fort Sam Houston, Tex., had 29 cases in July and August; Fort Elliott, Tex., 12;

Fort Leavenworth, Kans., 8; Fort Custer, Mont., and Fort Walla Walla, Wash., 6 each. Five posts had 5 cases each, one post 4 cases, two 3 cases, six 2 cases, and nineteen 1 case each.

The admission rate for the Army as a whole was 5.24 per thousand of strength. The rate for the infantry was a little higher than the average; for the cavalry considerably higher, 7.36; and for the young cavalry officers considerably higher than for their men; for the artillery notably lower, 3.04, than the average; and for the Hospital Corps and its officers who were in constant contact with the cases, only 1.19. Men between the ages of 20 and 24 had the largest rate, 10.61, and the officers of that age suffered more than their men, 33.90. The Irish, German, and English in our Army had about the average rate, the native Americans somewhat less, 4.89; Canadians and natives of the continent of Europe, Germans excepted, nearly double the average rate.

The medical officers at some of the posts, as Fort Myer, Va., Fort Sherman, Idaho, and Mount Vernon Barracks, Ala., hold the disease to have been imported. Others, as those at Fort Niobrara, Nebr., Whipple Barracks, Ariz., and Fort Leavenworth, Kans., allow the local origin of the cases, but are undecided as to the manner of the invasion. At Fort Elliott, Tex., Acting Assistant Surg. Whitney shows the immediate cessation of the outbreak on the closing up of a polluted well; Capt. Bushnell, at Camp Pilot Butte, Wyo., argues that the disease is occasionally propagated by infected dust settling on the water supplies; Capt. Merrill, at Fort Reno, and Capt. Rafferty, at Fort Sam Houston, Tex., also considered the water supply to be implicated in the propagation. Some of the cases at the last-mentioned post were afterwards acknowledged to have been adynamic remittents.

FORT ELLIOTT, TEX. (*Acting Assistant Surg. Whitney*).—Heretofore the water supply has been obtained from a well near some old disused privy vaults in the neighborhood of the post hospital. The infection of such wells is usually only a question of time, dependent on the character of the soil and the direction of surface and subsoil drainage. That this well has become infected is shown by the history of the recent outbreak of typhoid fever. The post surgeon reported under date of July 19: "The first case appeared June 28, and there are now under treatment thirteen cases." The well was closed July 19, and one case only, July 21, has appeared since. As no change in the sanitary condition of the post has been made, except the discontinuance of the use of the well water, it appears conclusive that the well was the source of infection.

CAMP PILOT BUTTE, WYO. (*Capt. G. E. Bushnell*).—A great danger arises from the dust as the carrier of the poison of typhoid fever, which is the disease most prevalent in Rock Springs. It is the universal practice here to throw all kinds of slops and refuse upon the ground adjacent to the house. The ground is thus soon saturated with organic matter and becomes a breeding place for the germs of disease. The discharges of typhoid-fever patients are often thrown recklessly upon the ground, where they dry and are disseminated by the winds. During the frequent dust storms water barrels and food exposed to the air are liable to become infected, and thus the disease is spread indefinitely. Although this theory will not account for all cases of the disease, it is borne out by many facts upon which it is unnecessary to enlarge further than to say that the town of Green River has the same water supply, but is comparatively exempt from the disease. This shows that the infection is not in the water as delivered to the consumer at Rock Springs. The immunity of the Chinese from typhoid fever, notwithstanding their filthy surroundings, is to be ascribed to their habit of eating only thoroughly cooked food and drinking only tea. The practical deduction is that the water barrels used to contain drinking water should be well covered and protected from dust.

FORT RENO, OKLA. (*Capt. J. C. Merrill*).—The death of Private Ackerman, Troop K, Fifth Cavalry, on June 27, caused, as the autopsy showed, by typhoid fever, again brings up the subject of the bad water supply of this post as used by all except the commissioned officers; but the work now in progress on a new and deep well renders any further remarks superfluous until the result is known. I have verbally renewed the recommendation made by Capt. Hoff, in March, 1888, that the well on the west side of the parade ground be permanently closed. The water at that time was shown by an analysis made at the Surgeon-General's Office to be impure and sus-

picious, if not actually dangerous, and the surface drainage of the past two years has certainly not rendered it less so. There is little doubt from statements made to me by Private Ackerman before his death, that his disease was contracted within this post, and not at Reno City or El Reno; but whether from the well or river water it is impossible to say.

FORT SAM HOUSTON, TEX. (Capt. Ogden Rafferty).—During the absence of the troops at the target range at the fair grounds at San Antonio, Tex., the garrison was thoroughly policed, and the privies in the rear of the barracks were cleaned, the floors cemented, the walls washed and disinfected, and instructions given for a complete removal of the sewage by the dry-earth system, with final disposition at the new Government crematory. The hospital was cleaned, and the tents erected in the yard for the sick were supplied with additional air-spaces by means of poles and tent-fles, over which, in the heated part of the day, a continuous spray was caused to play.

Notwithstanding the precaution taken, on the return of the soldiers (July 13) after an absence of seven days, the sickness continued and increased with a marked ratio. Toward the latter part of July some of the hospital cases that at first were believed to be remittent fever, began taking on typhoid symptoms. At this time considerable trouble was experienced in arriving at diagnosis, owing to the absence of diarrhoea and delirium and the beneficial results obtained from heroic doses of quinine and brandy. Later in the summer the true state of affairs became apparent, the thermometric charts showing clearly that the febrile cases were cases of true typhoid. Dismissing at once the various theories that have proved so perplexing in locating the cause of this sickness, we will consider the one that, on mature deliberation, seems to be the most probable.

On consulting the register it will be found that but one of the 28 cases diagnosed as typhoid fever antedates the encampment of the soldiers with the State troops at the fair grounds, and more will be written of that case later. Not only do the San Pedro Creek and acequia, but also the Alamo acequia and other streams, empty into the river above the fair grounds. To prove that typhoid fever was positively present at the time in the city, you are invited to consult the statements of mortality furnished by the city board of health. During the month of June, 1890, there were 4 deaths from enteric fever, in July 7, in August 12. Now, taking the lowest percentage of deaths that occurred during several epidemics, as furnished by Dr. Austin Flint, which was 16 per cent, one can readily see that there must have been at least 143 cases in the city during the summer, and, considering our own 28 cases, with two relapses, without a death, the figures are probably below the actual number.

The history of all our 28 cases, with five exceptions, shows that these men were at the encampment, that they used the water taken from the river for drinking and cooking purposes before the pipes from the reservoir were brought into camp, and that during the whole encampment they frequently bathed in the river. Five of the men whose cases were diagnosed as typhoid fever were not at the encampment, and, so far as can be learned, drank nothing but reservoir water that was taken from the pipes of the city waterworks. * * *

Having found, of the 5 cases in men who were not at the encampment with the militia, that 4 were remittent fever and that a reasonable doubt may be expressed in the diagnosis of the fifth case, your attention is invited to a consideration of the following well-known facts:

(1) That, with the above-mentioned exceptions, every man with typhoid fever was at the encampment and drank the river water. (2) That typhoid fever was present at the time in the city. (3) That the city is without a system of sewerage. (4) That it is a common sight to see the Mexicans washing clothing in the river and creek that flow through the city. (5) That these acequias flow through the yards of many ignorant people. (6) That the encampment was below the junction of all these water courses with the river. (7) That the city waterworks, which are at the head of the San Antonio River, are on grounds from which the public are excluded.

After a consideration of these data, together with the knowledge that not a case occurred among the light battery men who were present at the encampment, but forbidden to use any but the hydrant water, you will agree with me probably in attributing this sickness to the water taken from the river during the encampment with the State forces at the fair grounds.

Influenza.—The epidemic of this disease, the so-called gripe, was developed in Boston and New York during the last week of December, 1889, and thence it spread with few exceptions to our military stations during the course of January and February, 1890. The epidemic reached its height at a given place on an average of 12 days from its invasion

and lasted about 30 days. The average number of admissions among the white troops was 155.36, among the colored troops 286.58 per thousand of strength; average of the Army, 167.95. The average duration of each case was 5.9 days; six deaths resulted directly from the disease, five among the white and one among the colored men in a total of 4,070 cases. During the visitation from 5 to 90 per cent, average about 33 per cent, of each affected command suffered, but it prevailed as extensively among the camp attachés and in the neighboring civilian settlements as at the posts. The Department of Arizona had the largest admission rate from this cause, 294 per thousand, and of the posts Fort Grant in this department had the largest rate, 654; Fort Washakie, Wyo., and Fort Maginnis, Mont., had also large rates, 630 and 631 respectively. At a few of the stations the medical officers did not recognize the presence of this disease, as at Fort Schuyler, Allegheny Arsenal, Newport Barracks, Fort Thomas, and St. Francis Barracks in the Department of the East, at Jefferson Barracks, Mo., Fort McKinney, Wyo., Forts Pembina and Sully, Dak., Forts Reno, Brown, Davis, McIntosh, and camp at Eagle Pass, Texas, and Fort Gaston, Cal. At some of these stations the medical officer is positive in his assertion that no epidemic influence was felt. At Fort McKinney, for instance, Captain Suter reported that no case had occurred differing in any way from the ordinary pharyngeal and bronchial catarrhs always prevalent at his post during the winter. At Fort Davis the post surgeon gave emphasis to his exemption by attributing it to such causes as altitude, etc.; and at Fort Sidney, Nebr., the medical director called upon the post surgeon to justify his conclusions concerning the absence of an epidemic influenza by charting the curves of all catarrhal diseases of the air passages for the corresponding seasons of 1888-'89 and 1889-'90 and this chart he says must be accepted as supporting the reiterated opinion of an intelligent medical officer on the point at issue. Nevertheless it is possible that the disease may have visited some of the posts mentioned without leaving its mark upon the records, for I find Capt. P. R. Egan, at Fort McIntosh, remarking in February:

During the past month an officer, on a hunting leave, returned to this post with a certificate from a neighboring physician that he was suffering from la grippe. The symptoms were those of gastro-intestinal catarrh and rachialgia. His convalescence was not especially protracted. No other member of his family was affected. In another household the father, who is subject to "bilious attacks," suffered from gastro-intestinal catarrh. This was followed by coryza and conjunctivitis. His convalescence was rapid. Two of his children suffered from naso-laryngeal catarrh soon afterwards. The previous month, however, all his five children were treated for similar catarrhs. In yet another family the mother was taken sick with severe chest pains, and catarrh of the respiratory mucous membrane extending to the larger bronchial tubes. Her recovery was somewhat protracted. Her husband suffered about the same time from coryza and supraorbital pain, but no other member of the family was attacked. Several of the enlisted men suffered from colds, but only one so severely as to require excuse from duty. In no case was there evidence of an epidemic influence. Whether these catarrhs were anything more than the ordinary colds due to the sudden changes of this climate and season is a matter of doubt. If, as claimed by the local physicians, they are due to a great wave of influenza passing round the world, then influenza on the Baltic, the Danube, and the Seine must be essentially different from influenza on the Rio Grande.

The noteworthy symptoms affecting the nervous system were frontal headache, lumbar pains, aching in the lower limbs, insomnia, and prostration. Nasal, laryngeal, pharyngeal, or bronchial catarrhs were essentials; and accelerated action of the heart was followed by depression. The temperature ranged from 100° F. to 104.6°, and in one case, with secondary pneumonia, to 105.8°. Anorexia, nausea, vomiting, and

constipation were generally present. The complications were bronchitis, pleurisy, pneumonia, inflammation of the middle ear, and erysipelas of the head. Relapses or recurrences were not uncommon. Convalescence was often protracted.

Early in the year, and while the details of the epidemic were fresh in memory, a call was made by this office for special reports from every military station; and that the reports might be susceptible of comparison one with the other certain points were presented for special investigation and report. Much labor was spent upon these reports by medical officers, but the investigation was unproductive. Two of our medical directors who showed special interest in the results of observations came to exactly opposite conclusions regarding the propagation of the disease. One held it proved by the progress of the epidemic through his department that the disease was spread by the diffusion of its germ through the atmosphere; and although it may be contagious, this is not the chief mode of the propagation. The existence of an atmospheric wave or cloud, so to speak, of microscopic germs he held to be no more impossible than the diffusion of smoke from burning forests over an immense extent of territory or the occasional migration of myriads of locusts darkening the sky and covering the earth. The other showing that the disease traveled westward notwithstanding a west wind and that its invasion was later in the season in proportion to the length of stage travel to reach the post, and that the more distant posts escaped the epidemic entirely, came to the conclusion that an epidemic wave was wholly inconsistent with the facts and that propagation could be explained only on the assumption of a personal contagion carried from place to place by rail or other means of personal transportation.

MALARIAL FEVERS.

The admission-rate of malarial diseases has fallen during the year to 92.93, as compared with 120 in 1889, and with 162.03, the annual average of the preceding decade; the number constantly sick, 2.79, is also an improvement on the rate of the preceding year, 3.25.

The cavalry suffered more from these fevers than the other arms of the service. Its rate was 128.22, the rate of the infantry a little below the average, of the artillery a little above, and the officers in all considerably less than the men. As regards age the highest rates were given by men of 20 to 24 years, 135.23, while officers of the same age gave only 50.85. The rates of the native Americans were about the same as the average of the Army; those of the Irish and Germans in the ranks were somewhat higher.

The record of Fort Brown, Tex., was much improved during the year. Instead of 1,676 admissions per thousand of strength, as in 1889, it had only 325.91, and instead of 38.58 of non-effectiveness, it had only 8.32. This alone does much to account for the lowering of the malarial rate of the Army. Seven posts had relatively more admissions and non-effectives than Fort Brown. Fort Sill, Okla., and Fort Clark, Tex., had the highest rates among the large posts, the former 754.55 admissions and 12.12 non-effective, the latter 461.14 and 18.38.

DIARRHOEAL DISEASES.

These diseases gave rise to an admission rate of 124.29 as compared with 118.40 during the previous year and 185.15 during the previous decade. The average number of days during which each case was

under treatment was 4.3 for diarrhœa and 14.6 for dysentery. They affected the enlisted men more than the officers, the cavalry, and particularly the artillery, more than the infantry; men from 20 to 29 more than those who were older. The native American had the average rate; all other nationalities had the rate smaller except the English, Irish, and Canadians. Fort Sam Houston, Tex., with an admission rate of 430.70, and a non-effective rate of 5.75, and Fort Sill, Okla., with 384.84 and 7.13, were the posts at which these diseases were most prevalent.

RHEUMATISM.

This constitutional affection gave an admission rate of 83.19 during the year, as compared with 93 during the previous year and with 110.73 during the previous decade. The non-effective rate was 4.05, as compared with 4.78 and 3.01, respectively, during the previous year and decade. The posts that had relatively the largest number of admissions were Fort Canby, Wash., Rock Island Arsenal, Ill., Forts Apache and Grant, Ariz., and Fort Washakie, Wyo., the rates ranging from 171.17 at the last to 222.22 at the first mentioned station. The posts with the largest number non-effective were Benicia Barracks, Cal., Rock Island Arsenal, Ill., Fort McHenry, Md., Fort Grant, Ariz., and Fort Snelling, Minn., the rates varying from 8.41 to 11.32.

VENEREAL DISEASES.

The admission rates were 72.02 for the white troops, 105.43 for the colored; total for the Army, 75.22, as compared with 84.66 during the previous year, and with 79.76 as the annual average of the previous decade. The non-effective rate was 4.86, as compared with 5.61 of the previous year, and the number of discharges 71 men, equivalent to a rate of 2.66 per thousand, was considerably better than the 3.52 of the year 1889.

The cavalry and infantry had less, the artillery more, than the average number of cases. The highest rates were found among the recruits, 191.93, and among men from 20 to 24 years of age, 143.15. The native American had a larger rate than men of any other nativity excepting the small French element in the Army.

The post that gave the highest rates was Columbus Barracks, Ohio: admissions, 380.46; non-effective, 24.74, and discharges, 41.83. Jefferson Barracks, Mo., gave 167.49, 10.31, and 17.24; Davids Island, New York, 105.99, 5.86, and no discharges. Of the 71 men discharged, 21 cases occurred at Columbus Barracks, Ohio, and 7 at Jefferson Barracks, Mo.

ALCOHOLISM.

The rates of admission were 44.45 for the white troops, 5.59 for the colored, equal to a total of 40.73 for the Army, as against 41.43 in 1889, and 56.68 the annual average of the previous decade.

The cavalry had the best rate, 20.44; the engineers by far the worst, 147.89; the infantry and artillery rates are nearly one-third higher than the average. Among the enlisted men drunkenness appears to increase with age. Thus the rate for men of 20 to 24 years is 13.30; 25 to 29, 25.52; 30 to 34, 47.55; 35 to 39, 86.13; 40 to 44, 111.36; 45 to 50, 103.02, and 50 to 54, 158.08.

The rate of the native American, 37.95, is under the average, as is also that of most men of Continental Europe; but the Irish rate, 89.54,

brings up the average. The absolute number of reported cases was 987, only 13 of which occurred among the colored troops; 5 ended fatally and 4 were discharged as unfit for service.

In the appendix will be found* a list of our military stations arranged in the order of the prevalence of alcoholism at each during the year. It is satisfactory to note that so many of the larger posts are at the lower end of the list.

PULMONARY CONSUMPTION.

The rates for this disease differed but little from those of 1889 or of the preceding decade: Admissions, 3.26, as compared with 3.32 and 3.55; deaths 0.71, as compared with 0.44 and 0.57; discharges, 1.57, as compared with 1.50 and 2.08. The absolute number of cases was 79, 11 of which were among the colored men; 42 were discharged; 19 died; average duration of treatment in each case, 92.5 days.

The admission rate was largest in the artillery, 4.94. It was largest among men between the ages of 20 and 24, and appeared to lessen in frequency with advancing age. The rate of the native American did not differ much from the average of the Army, but the rate of the Irish soldier, 4.91, was more than double that of the natives of Germany, 2.03.

The 79 cases were taken on sick report at sixty different posts. The largest number at any one post was 4, at Fort Robinson, Nebr., and at Fort Clark, Tex.

PNEUMONIA AND PLEURISY.

Ninety-six cases of pneumonia occurred during the year, of which 14 were fatal, as compared with 130 cases and 19 deaths in 1889, and with 181 cases and 39 deaths in 1888. The colored troops contributed 19 of the cases and 5 deaths. The average duration of treatment was 37.5 days.

The admission rate of the Army was 3.96 per thousand of strength, a little lower than this for the infantry, a little higher for the cavalry and artillery. Age did not appear to influence the liability to attack. Irishmen were relatively less frequently its victims than men of other nationalities. Twelve cases with 3 deaths were recorded at Fort Robinson, Nebr., 6 with 1 death at Columbus Barracks, Ohio; 5 with 1 death at Fort Leavenworth, Kans.; and 5 with no death at Fort Douglas, Utah. Six posts reported 3 cases each; ten, 2 cases each; and thirty, 1 case each.

Pleurisy caused 65 admissions, 2 deaths, and 3 discharges. Fort Robinson, Nebr., had 10 of these cases, all among colored men.

INJURIES.

The admission rate for injuries, 243.71, is much the same as that for 1889, 248.72, or of the decade, 245.67; but on account of the casualties in the Sioux campaign the death-rate was higher than usual, 3.45, as compared with 2.38 in the previous year and 3.25, the average of the decade.

Of the 243.71 admissions per thousand of strength about one-half resulted from *sprains and contusions*, and one-fourth from *cuts and lacerations*.

Heatstroke occasioned a total of 73 admissions, and *frostbite* 60; 2 of

the former and 1 of the latter were afterward discharged for disability; no death was recorded from either of these causes. There were 62 *dislocations* with 3 consequent discharges, and 166 *fractures* with 2 deaths and 17 discharges.

One hundred and sixteen cases of *gunshot wound* were entered on the reports, resulting in 7 deaths and 20 discharges; but in addition there were 54 cases in which death was instantaneous or followed so soon after receipt of the injury that the men were not taken on sick report. The number of these casualties was therefore 170, of which 2 with no deaths, occurred during the firing of salutes; 10 with no death during the reloading of cartridges; 6 with no death at target practice; 10 with no death while hunting; 23 with 7 deaths in personal encounters; 35 with 6 deaths by accident; 15, all fatal, by suicide, and 69 with 33 deaths in the fight with Indians near Pine Ridge Agency.

Twelve deaths from *drowning* were reported; of these 3 occurred while boating, 6 while bathing, 2 by other accidents, 1 while trying to desert, and 1 in the effort to save other lives.

Sixteen cases of *suicide* were reported during the year: 1 officer and 15 enlisted men; infantry, 13; cavalry, 2, and general service, 1. Gunshot was the means selected in 15 cases, and poison in 1 case; in 6 the cause was alcoholism, in 3 temporary insanity, in 2 despondency, in 1 distaste for the service, in 1 nervous depression following influenza, in 3 uncertain. The nationalities were, United States, 9; German, 2; Norwegian, 2; and Irish, Scotch, and Canadian, 1 each. The ages 23, 26, 32, and 34, 2 each; 25, 27, 28, 29, 30, 31, 33, and 39, 1 each. Four occurred in May, 3 in February, 2 each in January and November, and 1 each in April, June, July, September, and December. Three occurred at Vancouver Barracks, Wash., and 1 each at Fort Apache, Ariz.; Fort Wingate, N. Mex.; San Antonio, Tex.; Fort Reno, Okla.; Fort Gibson, Ind. T.; Fort Lewis, Colo.; Fort Niobrara, Nebr.; Fort Riley, Kans.; Camp Poplar River, Mont.; Fort Sully, S. Dak.; Fort Snelling, Minn.; Columbus Barracks, Ohio; and Fort Niagara, N. Y.

Three attempted suicides were reported, all enlisted men, 1 infantry, 1 cavalry, and 1 artillery. Alcoholism is reported as the cause in one, insanity in one; in the third the cause is not stated. The attempt was made by poison in one case, and by cutting the throat in the others. The nationalities were American 2 and Irish 1. The ages 22, 27, and 40. The cases occurred at Washington Barracks, D. C.; Fort Leavenworth, Kans.; and Presidio of San Francisco, Cal. The months were March, July, and August.

The total suicides and attempts at suicide numbered 19; 3 in the first year of service, 5 in the second, 4 in the third, 3 in the sixth, 2 in seventh, and 1 each in the tenth and twelfth. These suicides constituted 0.66 per thousand of the strength as compared with 0.77 in 1889, and with 0.76 as the annual average of the decade 1879-1888. The rate of suicide in the army of Austria-Hungary in 1889 was 1.51; of the Belgian army for the same year, 0.25; of the British army in 1888, 0.18; and of the Prussian army in 1887-'88, 0.53.

INFLUENCE OF SEASON ON THE PREVALENCE OF DISEASE.

The admission rate of the Army for all diseases and injuries for the year was 1,384.25 per thousand of strength, equal to an average monthly rate of 115.35. Viewing the admissions by months an unusual augmentation of the rate is found in January, 246.20, the result of the epidemic of influenza then prevailing. The rate fell in February to 111.29, and

continued to fall until the minimum of 91.94 was reached in April, after which it gradually rose to a maximum of 125 in July, with a subsequent fall to 93.38 in November, and 93.91 in December. There was little variation in the monthly rates for alcoholism, venereal diseases, and injuries, so that when these are withdrawn from the rates for disease, in general, the curves of seasonal variation are but little changed from the positions already stated. Unusually high, 219.33, in January; falling suddenly in February, and gradually afterwards to a minimum of 61.88 in April, rising subsequently to a maximum of 88.11 in July, and then falling gradually to 64.63 and 63.45 in November and December.

The rate of non-effectiveness for all diseases followed somewhat similar curves, with the exception that its minimum was not reached until May, and its summer maximum was more protracted and fell more slowly in the later months of the year. The minimum rate for alcoholism, venereal diseases, and injuries was 12.22 in June, the maximum 14.16, in March. With so little variation in the rate from month to month it is evident that the withdrawal of these rates from those yielded by all diseases and injuries would not materially alter the seasonal curves of the latter. (See table X.*)

SUMMER ENCAMPMENTS.

Reports were received concerning the condition of certain regiments of the Pennsylvania, Iowa, and Michigan National Guard during their summer encampments.

Maj. Charles R. Greenleaf reported his attendance at the encampment of the Pennsylvania National Guard at Mount Gretna, Pa., July 19-25, 1890, where 8,429 troops were under canvas. The general police of camp was well conducted, but many of the interiors were untidy and several of the latrines neglected and offensive. The advantages of ditching their tents as a protection against rain had to be suggested. The food as a rule was restricted to the army ration, but in its preparation the plan adopted was one worthy of consideration by other troops than the Pennsylvania National Guard, as conducive not only to economy of the ration, but to excellent results in the preparation for the table. Each company hired one or more cooks known to the officers and men to be competent in their calling, and the advantages of this, according to Maj. Greenleaf, were apparent not only in the contentment of the men with their meals, but in their freedom from those disorders of the digestive system that are usually so frequent in such camps when the cooking is intrusted to incompetent men. The hospital corps lacked organization for field service, and the medical officers were equally lacking in the experience needful to perfect their organization. Advantage should have been taken of the aggregation of troops at Mount Gretna to establish a brigade or division hospital, such as would have been necessary in active warfare, but the short duration of the encampment did not permit this radical change from the regimental system, which was the only one with which these medical officers were familiar.

Maj. R. H. White reported his field service at Mount Gretna, Pa., with a command of 381 United States troops. A hospital was established July 15, and from that date to July 31 the average number sick daily was 9.8, or 2½ per cent of the strength. The daily mean temperature was 59.44° F., the minimum 46°, and the maximum 86°; rain fell

on seven of the seventeen days. On July 21 the members of the hospital corps under Steward J. H. Grant gave an illustrative drill, which was attended by the medical officers and hospital corps of the division of National Guard, and next day these officers assembled at the hospital to examine its arrangements, furniture, and management.

Maj. Hartsuff reported his services with troops of the Iowa National Guard at Cedar Rapids and Des Moines, Iowa. Headquarters, band and four companies of the Second United States Infantry encamped near the former city on August 3, where they were immediately joined by the First Iowa National Guard, clothed, armed, and equipped like United States infantry.

Sick call was sounded regularly every day, but at first no attention was given to it; the sick went to the surgeon's tent at all hours. The companies had no company sick books, and the surgeon no morning-report book; indeed, neither of the doctors had ever seen or heard of a blank book, or a blank of any kind, pertaining to the medical department. A few medicines were purchased at a drug store for the occasion; no panniers of any kind and no instruments were provided. The surgeon had never made an inspection of the camp, and had never made a report of any kind, except at the breaking of camp, when a short report as to number of sick only was made to the brigade surgeon. No examination of any kind to enter the service, either of officers or men, has ever been required or made; and of the rank and file at least one-third are discharged, at their own request, each year. Judging from appearances, a majority of the enlisted men would be rejected on physical examination. The medical officers are appointed by the colonels, and, as the colonels are frequently changed (the First Regiment having had three within one year), the medical officers' tenure of office is very precarious.

The five days of camp duty required by law in each year having expired, the First Regiment broke camp on August 10, and next day the Fourth Regiment came by companies from various localities and occupied the recently vacated ground. Only one medical officer was present with this regiment and his only knowledge of his duties was to prescribe for any of the men whenever, during the twenty-four hours of each day, they came to him for treatment. At the close of the five days the Fourth Regiment broke into companies and started for home and the United States troops proceeded to Des Moines, where, on the 23d, they were joined by the Second Battalion of the Second United States Infantry and by three regiments of the Iowa National Guard. Heavy rains fell during the term of the encampment and interfered with the progress of military operations. With few exceptions the medical officers of the Iowa brigade had never been in camp before and their knowledge of their duties, as with the officers of the First and Fourth Regiments, appeared to be restricted to prescribing for such sick men as came to them and purchasing such medicines as might be required. The surgeon-general of the State and his regimental medical officers were greatly interested in the more extended views of the duties of an army medical officer presented by Maj. Hartsuff, and it is believed that good was effected by this contact of the Medical Department of the Army with that of the Iowa National Guard.

Capt. F. V. Walker accompanied the Second Battalion, Second United States Infantry, to Spring Lake, Iowa, and endeavored to give some idea of their duties to the medical officers of the Sixth Iowa encamped at that place. In an interesting report he has given, with considerable attention to details, his experiences with this regiment, which were essentially similar to those of Maj. Hartsuff with the First and Fourth regiments. Capt. Walker's programme was to read a paper on the organization of the Medical Department, U. S. Army, and the duties of its medical officers, to explain the use of the blank forms of the Department, to conduct a series of drills, and to institute a short course of

lectures on first aid in emergencies, but bad weather and military duties prevented him from carrying out his plans. His paper is an excellent résumé of the subject, and was worthy of a larger audience. From Spring Lake the battalion proceeded to the brigade encampment at Des Moines, where Capt. Walker reported to Maj. Hartsuff. His report shows how much more earnestness is needful on the part of the medical officers of the Iowa National Guard before any results of value to the state or country can be expected. The character of his remarks will excuse a rather long citation :

As early as possible Maj. Hartsuff, through the surgeon-general, F. H. Little, assembled the medical officers of the Iowa National Guard, and addressed them at length on the subject of their duties as medical officers. He impressed upon them the importance of a thorough acquaintance with these ; he spoke of the necessity for efficient organization and methodical work ; he showed them our blanks and forms of reports, and urged them to prepare and adopt something similar, but adapted to their needs ; he called attention to the neglect, which was so apparent, of the proper policing of camps, and advised them to make regular inspections and report upon all violations of sanitary rules. In fact, he touched upon many important subjects, with the idea and hope of stimulating and exciting them to proper action.

They expressed the liveliest interest in Dr. Hartsuff's remarks, and apparently were very grateful to him for outlining their duties for them, and for the hints he gave.

The doctor offered to have an exhibition drill of the company bearers in order that they might gain some idea as to its conduct. They accepted, and the next day I, under Dr. Hartsuff's orders, conducted a drill in their presence.

The effect of the doctor's advice was not immediately apparent. I do not think the blanks were looked at a second time by any ; nor do I think inspections were conducted any more diligently. The surgeon-general returned to his home, armed with a set of the blanks and forms, and notes of the books, etc., he was advised to make requisition for. He expressed the determination to make a study of the subject with the view to organize a corps and to establish some system. He is a young man and apparently an energetic one, and the chances are that before the next encampment he will have accomplished this, and be able then to test the practicability of his scheme.

I could not help doubting the earnestness of the medical gentlemen of the national guard. It appeared to me that they regarded the annual encampment in the light of a picnic—an "outing," which offers them relaxation from work, and which should be spent in frolic and festivity. Indeed, I do not think this idea, this feeling, is confined to the medical officers, but is shared by those of the line, in fact, by almost every man in uniform. There is everything to foster such a feeling, and it will exist so long as these encampments are conducted as they now are. Certainly this is not the idea of the State. She does not intend that the annual meetings of her soldiery should be for fun or frolic, she expects a substantial return for her money, but she does not get it. The men arrive on the ground and enter tents already pitched for them ; they drill a little ; they do a little guard duty, but they are on dress parade most of the time, and are fed by meals prepared by hired help, and cooked on modern ranges or stoves, and finally march off the ground, leaving the tents still standing, and return to their firesides with wonderful tales of how they "roughed" it in camp. What have they learned ? How much could have been taught them by other methods in the time they have wasted ? These are questions which are beyond my province to discuss.

From this report it must be inferred that everything has yet to be done toward effecting an efficient organization and establishing system in the medical department of the Iowa National Guard. In a letter I received recently from the adjutant-general of Iowa, he said that it was contemplated to establish a hospital corps in the medical department of the State service "prescribing thorough and systematic instruction in that duty." It appears to me that it would be wiser first to organize a medical department. At present the organization consists of a surgeon-general, who receives his appointment from the governor ; of regimental surgeons and assistant surgeons who are practically appointed by the colonels of the regiments, and regimental hospital stewards. The power of the surgeon-general is vague and undefined. He receives no reports (or did not before this season) from his subordinates, who, indeed, rather recognize their colonels as their chiefs than him. In my opinion this regimental organization should be discontinued and a State medical department organized, with the surgeon-general at its head, who shall have charge of the administrative duties and who shall not be removed except for causes outside of politics. Then there should be a corps of medical men, surgeons and assistant surgeons, who should be selected only after a sufficient test of their abilities (and then it would soon

become a desirable distinction to be enrolled in the State service). And afterward a hospital corps could be organized. The medical department of the State forces should be as distinct and separate as is the Medical Department of the U. S. Army.

I must make one more suggestion before closing this report. If it is contemplated that in future encampments of the United States troops with the National Guard the medical officers shall conduct litter and bearer drill, I think it would be wise to send along at least enough men of the Hospital Corps to form two sets of fours. The time of the men of the companies is so taken up by the various exercises that they are seldom available when the surgeon would like to have them. Then, too, members of the Hospital Corps are naturally more efficient in these particular drills as they take decidedly more interest in them, than the company bearers. In Des Moines I found that the men had not been drilled at all according to the system lately recommended by the Leavenworth Board, and even in the old method some of them were newly appointed, and consequently unfamiliar with the drill.

Maj. J. V. Lauderdale accompanied headquarters, band, and four companies Nineteenth United States Infantry from Fort Wayne to Gognac Lake, Michigan, where the Michigan National Guard was found encamped.

During the hours that were devoted to drill by the regulars the time was occupied by me with drilling the men of the corps in the system contained in the report of the Board convened at Fort Leavenworth June, 1890. The system of litter drill followed by the State troops was that contained in the manual edited by Surg. Smart. I spent some time in calling their attention to modifications of the above drill given in the report above referred to.

I found them provided with a regulation ambulance issued to the governor from the United States medical purveying depot, and they were making good and legitimate use of it in all their field exercises.

There seemed to be an earnest desire on the part of the medical officers of the State troops to carry out all the exercises pertaining to their department to the minutest detail in accordance with Army Regulations.

It may be here stated that the Hospital Corps has now been provided with a drill manual in which is embodied the matured views and experience of the medical officers of the Army. When the corps was organized a provisional manual was issued with full permission to medical officers to deviate from its teachings in any way that would tend to the welfare of the patient. Later a board of experienced officers was convened at Fort Leavenworth, Kans., to elaborate from the mass of criticism on the provisional manual a drill system to take its place. This board made haste slowly. It sent a copy of the report which it purposed rendering to every medical officer of the Army with a request that the system be tried and freely criticized. Many reports were received during the year and the *Drill Manual for the Hospital Corps*, as now authoritatively issued, is the original report of the board modified by a careful consideration of the suggestions of the most active minds of the medical department.

OPERATIONS AGAINST THE SIOUX INDIANS.

On November 20, 1890, the conditions among the Sioux Indians at Pine Ridge and Rosebud Agencies, S. Dak., were such that the presence of a force of United States troops became imperative. To meet the possibilities of the occasion, Medical Director Bache, Department of the Platte, shipped to Pine Ridge the tentage and materials for a hospital of 25 beds; but as the situation at the Rosebud Agency became pacific, the surgical preparations were concentrated at Pine Ridge, where a command of 77 officers and 1,300 enlisted men had been aggregated. The following citations are from Dr. Bache's report:

The medical organization consisted of a division field hospital, Maj. A. Hartsuff, surgeon in charge; Capt C. B. Ewing, assistant surgeon, 2 non-commissioned officers, and 10 privates of the Hospital Corps. The tentage had been increased with a final capacity for 60 patients, and the equipment was considered fairly complete.

With the two battalions of the Seventh Cavalry were 2 medical officers, 1 hospital steward, and 4 privates of the Hospital Corps, 2 ambulances; Light Battery E was attached for medical service. With battalion of the Ninth Cavalry, 1 medical officer, 1 acting steward, and 5 privates, 1 ambulance, the Indian scouts were attached for medical service.

The force operating to the north and west on the line of the Cheyenne River and near Oelrichs, S. Dak., consisted of the Sixth Cavalry, two troops of the Eighth Cavalry, a company of Cheyenne scouts, and a battalion of cavalry (four troops) from Fort Leavenworth. This line was under the direction of the division commander, then at Rapid City, S. Dak., and its medical supervision rested with the Department of Dakota. The First Infantry, from California, lay at Fort Niobrara, and the garrisons at Forts D. A. Russell and Douglas, under constant preliminary orders, had not been called. With the First Infantry were 1 medical officer, 1 hospital steward, and 3 privates of the Hospital Corps; no ambulance. The medical effective force from Forts D. A. Russell and Douglas had been fixed by instructions December 2—1 medical officer, 1 non-commissioned officer, and 5 privates from each—and 1 ambulance. Provision was to be made for treating in the regimental field hospitals 3 per cent of the command.

During the month of December, while preparations for an active campaign were in progress, it looked as if an amicable settlement would be ultimately effected; but on the morning of the 29th an unexpected and severe engagement took place between Colonel Forsyth's command, consisting of eight troops of the Seventh Cavalry, Light Battery E, First Artillery, and Company A, Indian scouts, and a band of 400 hostiles under the Sioux Chief, Big Foot, at Wounded Knee Creek, 16 miles from Pine Ridge. One United States officer and 29 men were killed and 2 officers and 29 men wounded. The latter, with 28 wounded Indians, chiefly women and children, reached the agency at 9:30 p. m., where they were at once provided for. The division field hospital received the officers, and men, while the Indians were treated in tents and in a small church tendered for hospital use by the Protestant Episcopal mission. A skirmish that night and another the following day added 1 officer and 7 enlisted men to the inmates of the hospital.

The anxiety of the medical department at this time lay not in caring for the wounded already on hand, but in being prepared for what seemed to be imminent, a protracted campaign against 4,000 Indians, who had an effective war force of 600 to 800 men. To meet the possibilities of the situation the medical director telegraphed for more medical officers, members of the Hospital Corps, and medical supplies, all of which were promptly furnished by this office. The force thus placed at his disposal enabled him to provide an effective service with each of the military commands, including his field hospital, and to organize a company of the Hospital Corps, consisting of 1 medical officer, 2 non-commissioned officers, and 19 privates, from which could be drawn a working force for any emergency that might occur.

As soon as all operative proceedings had been finished in the hospital and the wounded were in condition to bear transportation, it was determined to relieve the field hospital by sending them for further treatment to their respective stations. Accordingly, on January 4, 2 men were sent to Fort Robinson, Nebr.; 6 to Fort Omaha, Nebr.; and 21 to Fort Riley, Kans. The transportation was by ambulance, 26 miles, to Rushville, and thence to destination by tourist sleeper on the railroad.

The occupancy of the field hospital on the morning of January 4 was 46, on the 5th, 18; and it received no more casualties after this. In addition to the resources already enumerated several large dormitories of the Ogalalla school at the agency were immediately available and supplied with beds and bedding; and an offer was made on the part of the executive board of the Soldiers' Home at Hot Springs, S. Dak., of two-thirds of the then new and completely equipped building, the estimated

capacity of which available portion was 200 beds. The estimate of the medical director was that there were under immediate control at the agency 150 beds, at Forts Robinson and Niobrara 40 each, and the contingent of 200 at the Hot Springs, should the campaign be severe and protracted.

There was, however, no call for these extra resources, for the hostile Indians, after a period of doubt and hesitation, came into camp and surrendered their arms; after which the duty of the medical department was to return without unnecessary delay to its ante-bellum stations. Commenting on the health of the command, Lieutenant-Colonel Bache reports:

The field hospital of the Seventh Cavalry, under Capt. John Van R. Hoff, assistant surgeon, was a type of satisfactory method and completeness, and an example to which I feel safe in referring other medical officers for study and visible proof of efficiency.

The wounds of the Indians were mostly severe and difficult to heal, as all capital operations were refused, notwithstanding repeated explanation and urging through missionaries, interpreters, and friends. The simplest handling was at first resisted or met with suspicion. In cases of extensive injury to the large bones or joints septic fever came sooner or later, and finally death.

Colonel Bache commends for their efficiency the staff of the field hospital, the two medical officers in charge of the Indian wounded, and those on duty with the Seventh and Ninth Cavalry.

The non-commissioned officers and privates of the Hospital Corps were an efficient and valuable body of men. The officers to whom they were assigned for duty reported them as well trained and untiring. They were hastily gathered together from many widely separated posts and without time to fuse together in their new positions, making their readiness for emergencies more conspicuous. I can testify to their faithful service in nursing the Indian wounded under every disadvantage, and the testimony of Captain Hoff as to the conduct of his men under a hot fire is such as to satisfy those to whom the discipline, courage, and training of the corps is a fixed purpose worthy of every encouragement.

The testimony of Captain Hoff, to which Colonel Bache refers, is as follows:

I have heretofore had the honor to submit many reports and suggestions regarding the Hospital Corps under various conditions of service, in post, camp, and field, but it was only recently I had an opportunity to see its working under the crucial test of battle. It is but faint praise to say that it more than met my expectations. My detachment was absurdly small in proportion to the amount of work required in the engagements at Wounded Knee and White Clay. In the first named, Hospital Steward Pollak, Privates Costner and Girdwood, Hospital Corps (the two ambulances, unfortunately, for want of my own men were driven by citizens), constituted the detachment. Steward Pollak was killed early in the fight on December 29 (one ambulance driver ran away with his ambulance, but ultimately returned and thereafter both did fair work), leaving Privates Costner and Girdwood alone to meet their part of the requirements of a bloody battle. Their work was skillfully, tenderly, courageously done, beyond all praise and worthy of official recognition. When the stress of battle was passed their efforts were supplemented by the company bearers whose training made this assistance of great value. This is borne out by the statements of many line officers, and it may be safely said that hereafter, in this command at least, there will be no skepticism as to the value of "first aid" and bearer instruction.

The next day, in the White Clay affair, while I was attending to the wounded on the skirmish line, the position of the ambulances was enfiladed by a sharp fire. One of the ambulances was partially wrecked by being overrun by the led horses, and both were incontinently abandoned by their citizen drivers. An officer (Lieutenant Mann) having been reported wounded on the skirmish line, Private Costner, of the hospital corps, though no driver, jumped upon the box of the remaining ambulance and drove beyond the withdrawing skirmish line to the wounded officer, who was picked up and carried to a place of safety. Two of the ambulance mules were

wounded. Private Girdwood accompanied the ambulance and assisted in the loading. On the same day Girdwood (mounted) nonchalantly brought my horse to me through a sharp fire as the line was about to fall back. I mention these circumstances to show the quality of courage which actuated these men, courage not born of strife, but of a high sense of duty, inherent indeed, but developed by the system of military discipline obtaining in my detachment, without which I do not believe such results could have been reached.

Col. Bache refers to the numerical inadequacy of the Hospital Corps for field service, when based upon an allowance of so many men to each post.

The Seventh Regiment of United States Cavalry, 8 troops, numbering over 500 men, and maneuvered as 2 battalions, entered the field with 2 medical officers, 1 hospital steward, and 4 privates of the Hospital Corps. It carried 2 ambulances, for which civilian teamsters were supplied. It left its camp at Pine Ridge Agency as battalions December 26 and December 28, uniting at Wounded Knee, 16 miles distant, on the evening of the latter day; both of its medical officers were present, the steward, and 2 privates, both ambulances. The remaining 2 privates were left in camp in charge of the hospital containing some sick and the property. This regiment was on the morning of the 29th suddenly involved in a severe engagement with the Indians, losing 30 killed, and having on its hands 36 of its own wounded, besides a burden of some 30 severely wounded Indians, chiefly women and children. The hospital steward was killed early in the action, and the hired drivers, although good men, were frightened almost to the point of abandoning their teams and leaving the field. The primary work with this mass of wounded fell, therefore, upon the 2 medical officers and 2 privates of the corps, reinforced later by the services of the company bearers, when these could be spared from the fighting line. That the work was done at all, that it was well done, was due simply to the ability of the chief medical officer, Capt. Hoff, and to the instinct of devotion to duty to which his whole training and example had compelled his men. Had that regiment been operating at a distance from support or organized assistance, instead of having a receiving hospital within easy reach, it is not hard to cast the sum of its suffering. I cite this regiment because the stress of fight fell upon it, and because its medical provision and organization was a model of thoughtful work; and yet, through the vice of our present system of controlling post influence, it failed of three-fifths of its medical effective, and had its hospital detachment been on the boxes of its ambulances it would have been left with no force whatever.

To supply this command in southern Dakota men had to be detached from twenty different posts, from Fort Canby, Wash., to Rhode Island, and it is readily seen that if instead of having to meet the needs of a field command such as that at Pine Ridge Agency the Medical Department had been called upon to meet those of a command four or five times as large it would have failed assuredly. To meet emergencies of this character the department should have a reserve force, such as Col. Bache formed when he organized his Hospital Corps company. These reserve companies should be stationed at some of the largest posts, and each should be practically a school in which hospital corps drill, nursing, minor surgery, and first aid in emergencies should be taught. Recruits should go to these companies for instruction, and the needs of the Army for sanitary soldiers should be supplied from them. An effort is now being made to carry these views into practical effect.

The summer camps and field maneuvers of the last year or two, and notably the campaign against the discontented Sioux Indians, showed most distinctly the lack of provision in our Army for mounting those members of the Hospital Corps that are required by law to be mounted. At all posts and in all places where the law contemplates that any member or the whole of a detachment should be mounted, the necessary horses should always be there, as much the responsibility of the senior medical officer as the horses of the cavalry troop are the care of the troop commander. They should be stabled and cared for by the men of the detachment, and exercised and trained under the direction of the medical officer. It will be a certain increase of expense and an exten-

sion of work, but without this absolute provision and control the Medical Department can never be able to give thorough satisfaction in the field. Col. Bache's remarks on this subject fully sustain this statement:

I have already briefly stated in narrative my efforts to procure mounts for such members of the hospital corps as are by regulation and antecedent military propriety required to be mounted. These efforts were fruitless and mortifying. It was not impossible to mount scouts, messengers, artists, and civil topographers; to draw superfluous tentage and baggage beyond all allowance, but it was impossible to divert the animals employed in these ways to a logical, military, and exacting purpose. The place of the ambulance is with the marching column, whether of foot troops or mounted. Wherever wheels can keep pace with the command, the ambulance should go; but the ambulance should not serve as a transport for the detachment of the hospital corps. You need it light and unincumbered for ready following. You need to spare every pound of draft. The spectacle of an ambulance making 45 miles in nine hours with cavalry, and loaded, as it were, to the water line, with a hospital detachment, is not exalting, and it is not military. Chance mounts are of but scanty use, they are uncertain; for every man dismounted there may be a horse killed or disabled. Your men are not used to their horses, unused to the saddle, and their security and readiness are by so much diminished. To have your mounted steward and orderly or whole mounted detachment efficient, you should have the men familiar with their animals, accustomed to their care, intelligent of their needs and capacity. In other words, mounted detachments should always be mounted, for peace and therefore for war; in garrison and therefore for the field. Here, as in other ways, our weights and measures for post administration have scaled efficiency of equipment to the point of vanishing. Compromises have been suggested more or less effective. To mount the detachment, or so many as can be mounted, upon the draft animals of the ambulance, as the cannoners of the horse artillery are mounted. The objection to this is, first, that in garrison they are not under your absolute control, but may be, and probably are, used for various purposes; your men are therefore unfamiliar with their individual mounts and the animals are not fitted for the saddle; second, that it does not provide for your steward, for your orderly, nor for any separate flexibility; and third, that if wheels have to be left and only packs taken, while the general transportation still follows slowly, your men are dismounted at a critical time or left behind.

To hire mounts is another expedient, unwise, expensive, and frequently prohibitory. The cost is sometimes excessive, from \$2 to \$3 per day for each animal, the minimum being 40 cents per day. Again, your men have no intelligent knowledge of their animals, and with but temporary charge there would be but limited interest, care, and acquired training.

If the sphere of the hospital detachment were limited to the actual ground in which the ambulance could operate, that is, if it were like a hook-and-ladder company, then to seat the men of the one as we seat men of the other, on their apparatus, would be so far logical and operative; but if you still require the fire to be suppressed and lives saved when you leave both transport and apparatus in the rear, it is always absurd, and will sometime be critically disastrous.

SURGICAL OPERATIONS.

During the year the medical department of the Army reported 204 surgical operations, 71 of which were necessitated by injuries and 133 by disease. The number, character, and results of these are shown in the following statement:

Nature of operation.	Disease or injury.	Total.	Recovery.	Died.	Remarks.
Removal of tumors		18			
Enucleation.....	Sebaceous, 7; encysted, 2; fibrous, 3; lipoma, 5; papilloma, 1.	18	18	.....	Face, 2; neck, 8; back, 2; chest, 1; abdomen, 1; hand, 4.
Removal of foreign bodies		4			
Bullets and shot.....	Shot wounds	4	4	.....	Foot, 1; buttock, 1; chest, 1; arm, 1.
Opening of abscesses		3			
Incision.....	Submaxillary, 1; cervical, 1; perityphlitic, 1.	3	3	.....	Face, 1; back, 1; abdomen, 1.

Number, character, and results of surgical operations—Continued.

Nature of operation.	Disease or injury.	Total.	Recov- ery.	Died.	Remarks.
Operations on the eye.		3			
For pterygium.		1	1		Extirpation.
Cataract.		1	1		
Enucleation.	Gonorrhœa ophthal- mia.	1	1		
Operations on the ear.		1			
Paracentesis.	Inflammation.	1	1		Middle ear.
Operations on the nose.		2			
Snoring.	Nasal polypus, 1; nasal catarrh, 1.	2	2		
Operations on the mouth.		1			
Excision.	Tonsillitis.	1	1		
Operations on arteries.		2			
Ligation.	Puncture, 1. Laceration, 1.	1 1	1 1		Radial, 1; ulnar, 1.
Operations on veins.		1			
For varicocele.		1	1		
Operations on nerves.		2			
Excision.	Neuralgia.	2	2		Neuroma.
Operations on the respira- tory organs.		4			
Tracheotomy.	Diphtheria, 1; as- phyxia, 1.	2	1	1	
Paracentesis.	Pleurisy.	2	2		
Operations on the digestive organs.		32			
Laparotomy.		1	1		
For hernia.		2	2		
For fistula in ano.		10	10		Incision, 8; ligation, 2.
Hemorrhoids.		18	18		Ligation, 13; excision, 1; cautery, 3; dila- tation, 1.
Paracentesis abdominis.		1	1		
Operations on the urinary organs.		16			
For stricture, urethral dilata- tion.	Gonorrhœal.	1	1		
Internal urethrotomy.	Gonorrhœa.	15	15		
Operations on the genera- tive organs.		15			
For phimosis.	Gonorrhœal, 2; syphilitic, 3; con- genital, 2; not stated, 3.	10			Circumcision, 10.
Balanitis.	Gonorrhœal.	1	1		Circumcision.
Hydrocele.		3	3		Tapping, 2; incision, 1.
Testicle.	Orchitis.	1	1		Castration.
Operations on bones.		6			
Removal of portions.	Fracture, 1; disease 1	2	2		Skull, 1; finger, 1.
Trephining.	Fracture.	2	1	1	Parietal.
Excision, elbow.	Shot wound.	1	1		Primary.
Suture.	United fracture.	1	1		Tibia.
Operations on joints.		24			
Reduction of dislocation.		24	24		Shoulder, 15; elbow, 7; wrist, 1; knee, 1.
Operations on limbs.		35			
Amputation for injury.		34			
Arm.	Shot wound.	1		a1	Intermediary.
Forearm.	do.	1	1		Primary.
Across hand.	Fracture.	1	1		Do.
Fingers.	Shot, 8 injury, 12; frostbite, 2.	22	22		Primary, 18; interme- diary, 2; secondary, 2.
Thigh.	Fracture.	2		b1	Primary.
Leg.	Shot, 1; fracture, 3.	4	4		Primary, 1; interme- diary, 1; secondary, 1.
Anklejoint.	Frostbite.	1	1		Secondary.
Toes.	Fracture, 1; frost- bite, 1.	2	2		Primary, 1; interme- diary, 1.
Amputation for disease.		1			
Part of hand.	Ulcer.	1	1		
Operations on muscles, ten- dons, and fasciæ.		3			
For hammer toe.		1	1		
Scraping muscles.	Sinuses.	1		c1	
Excision ganglion.		1			
Operations on skin, etc.		13			
Ingrowing nails.		11	11		
Skin grafting.	Chronic ulcer.	1	1		Thigh.
Cicatrix.	Scrofulous ulcer.	1	1		Excision.
Aggregate.		201			

a Death from pyæmia.

b Double amputation.

c Death from asthma.

VACCINATIONS.

The total number of primary vaccinations reported was 1,224, of which 729, or 59.6 per cent, were successful; 556, with 374 successful, at the recruiting depots; and 668, with 355 successes, in the Army at large.

The revaccinations numbered 6,230. Of these 2,518 were at the depots and 3,712 in the Army at large; 875 of the former and 1,177 of the latter, or a total of 32.9 per cent, were successful.

Bovine virus was used in 1,105 primary cases, 681, or 61.6 per cent, successful; and in 5,396 revaccinations, with 1,854, or 34.4 per cent, satisfactory.

Humanized virus was used in 119 primary cases, 48, or 40.3 per cent, successful; and in 834 revaccinations, with 198 cases, or 23.8 per cent, satisfactory.

CIVILIANS ATTACHED TO OR WITH THE ARMY.

The civilian attachés of the Army comprise the families of officers and enlisted men, servants, employés of the various departments, together with their families, and all persons not included in the personnel of the Army who are allowed to reside at military stations or accompany military commands. As shown by the consolidated reports of the departments, with a mean strength of 24,234 officers and enlisted men, there were constantly present during the year an average of 14,450 civilians, of whom 2,831 were adult males, 5,456 adult females, and 6,163 children.

The admissions to sick report for the year numbered, for the adult males, 2,637; deaths, 38; for the adult females, 7,121; deaths, 49; for the children, 6,979; deaths, 141, or an aggregate of 16,737 admissions and 228 deaths. The admission rates per 1,000 of strength were 931 for adult males, 1,305 for adult females, and 1,132 for children, or an average of 1,158; the death rate for adult males was 13, for adult females 9, for children 23, average 16. For the previous year the admission rate for adult males was 808, adult females 1,385, children 1,278, average 1,223; and the death rates 6, 8, and 20, average 13.

The deaths and their causes are here tabulated:

Diseases.	Adult males.	Adult females.	Children.	Total.
Specific febrile and infectious diseases.....	1	10	45	56
Constitutional.....		5	14	19
Developmental.....	3	2	5	10
Nervous.....	3	2	11	16
Respiratory.....	16	19	19	54
Circulatory.....	3	2	3	8
Digestive.....	1	1	31	33
Peritonitis.....		2	1	3
Urinary.....	2			2
Parturition and results.....		2		2
Total from disease.....	29	45	129	203
Total from injuries.....	8	3	12	23
Unknown.....	1	1		2
Total from all causes.....	38	49	141	228

MARRIAGES AND BIRTHS.

On the consolidated reports there were noted during the year 52 marriages, of which 10 were of officers, 40 of enlisted men, and 2 of civilian attachés.

There were recorded also 488 births: male, 238; female, 250. Eighty-six were children of officers, 342 of enlisted men, and 60 of civilian employes. Besides these, 26 births were reported among the Indian prisoners at Mount Vernon Barracks—9 males and 17 females.

List of special reports received during the calendar year.

MEDICAL REPORTS.

Name.	Rank.	Report.
Appel, A. H.	Acting assistant surgeon.	Acute apendicitis with perforation of vermiform appendix; autopsy.
Banister, W. B.	Capt. and asst. surgeon	Epidemic influenza at Fort D. A. Russell, Wyo.
Brickett, G. E.	Acting assistant surgeon.	Epidemic influenza at Fort Grant, Ariz.
Bowles, S. W.	Acting assistant surgeon.	Epidemic influenza at Kennebec Arsenal, Me.
Bradley, A. E.	Lieut. and asst. surgeon.	Case of nervous exhaustion.
Coe, A. H.	Acting assistant surgeon.	Death from phthisis.
		Epidemic influenza at Fort Missoula, Mont. Case of acute lobar pneumonia, treatment with calomel with remarkable result.
Cowdrey, S. G.	Capt. and asst. surgeon	Case of smallpox. Recovery.
Corson, J. K.	Major and surgeon.	Otitis media: death.
		Epidemic influenza at Fort Sherman, Idaho.
Comegys, E. T.	Capt. and asst. surgeon	Epidemic influenza at Fort Bayard, N. Mex.
Craig, G. G.	Acting assistant surgeon.	Autopsy; death from acute enteritis.
Ebert, R. G.	Capt. and asst. surgeon	Operations of hospital corps in summer camp. Suggestions relative to the contents of the medical panniers.
Frick, A. P.	Acting assistant surgeon.	Vaccinations at Fort Selden, N. Mex.
Ferguson, J. B.	Acting assistant surgeon.	Epidemic influenza at Fort Selden, N. Mex.
Forwood, W. H.	Major and surgeon.	Thermograph in a case of remittent fever.
Fisher, W. W. R.	Capt. and asst. surgeon	Tertiary syphilis.
		Epidemic of acute dysentery in camp on Tongue River, Mont.; suggests tents for sick be of some dark color.
		Pulmonary oedema successfully treated with fluid extract of jaborandi.
Gardner, E. F.	Capt. and asst. surgeon	Cancer of the omentum.
Gibson, J. R.	Major and surgeon.	Death from phthisis.
		Typhoid fever with catarrhal pneumonia; death.
		Chronic inflammation of the bladder.
Girard, A. C.	Major and surgeon.	Aneurism of aorta.
Gorgas, W. C.	Capt. and asst. surgeon ..	Rapid delivery necessitated by puerperal convulsions.
Gray, W. W.	Capt. and asst. surgeon.	Croupous pneumonia involving both lungs; death.
Harvey, P. F.	Major and surgeon.	Scarlet fever; remarkable susceptibility to the infection.
Haskins, H. S.	Acting asst. surgeon.	Death from meningeal hemorrhage.
Heizermann, C. L.	Major and surgeon.	Fever cases at Fort Sam Houston, Tex., 1889 and 1890.
		Clinical account, causes and treatment.
Horton, S. M.	Major and surgeon.	Autopsy, diffused aneurism descending aorta.
Holland, F. H.	Acting assistant surgeon.	Acute articular rheumatism affecting all the joints of arms and legs.
Heyl, A. B.	Lieut. and asst. surgeon ..	Chronic endocarditis.
Jarvis, N. S.	Lieut. and asst. surgeon ..	Miscarriage with difficult removal of placenta and tardy contraction of womb.
Kneedler, W. L.	Capt. and asst. surgeon.	Serous apoplexy.
Koerper, E. A.	Major and surgeon.	Epidemic of diphtheria at West Point N. Y.
Lauderdale, J. V.	Major and surgeon.	Influenza and capillary bronchitis; death.
		Pneumonia probably following an injury of the chest; recovery.
La Garde, L. A.	Capt. and asst. surgeon.	Typhoid fever at Fort Assiniboine, Mont., 1889.
		Appendicitis; recovery.
		Stricture, urethrotomy; recovery. Pelvic cellulitis; laparotomy; recovery.
Mason, C. F.	Lieut. and asst. surgeon.	Epidemic influenza at Fort Washakie, Wyo., 44 thermographs.
		Case of hemorrhage of the stomach with hæmaturia; recovery.
		Acute dysentery; recovery.
		Results obtained from the Erlich urinary test.
McCreery, Geo.	Capt. and asst. surgeon.	Thermograph in typhoid fever.
McElderry, H.	Major and surgeon.	Scarlet fever at West Point, N. Y.
McClellan, E.	do	Death from chronic gastric catarrh.
Merrill, J. C.	Capt. and asst. surgeon.	Typhoid fever.
Morris, E. R.	do	Epidemic influenza at Fort Shaw, Mont.
Moseley, E. R.	do	Fever at Fort Clark, Tex., 1889 and 1890.
		Remittent pernicious fever; death.
		Screw worms in the nose and head; death. Autopsy.
Norris, B.	Colonel and surgeon.	Pneumonia right lung; recovery.

List of special reports received during the calendar year—Continued.

MEDICAL REPORTS—Continued.

Name.	Rank.	Report.
O'Keilly, R. M.	Major and surgeon	Aneurism of the thoracic aorta.
Perley, H. O.	Capt. and asst. surgeon ..	Acute pleurisy, aspiration; recovery.
Pope, B. F.	Major and surgeon	Typhoid fever and water supply at Whipple Barracks, Ariz.
Rafferty, O.	Lieut. and asst. surgeon ..	Typhoid fever at Fort Sam Houston, Tex.
Robinson, S. Q.	Capt. and asst. surgeon ..	Four cases of continued fever; quinine and Warburg's tincture without beneficial result. Thermographs.
Suter, W. N.	Lieut. and asst. surgeon ..	Appendicitis; recovery.
Taylor, B. D.	Capt. and asst. surgeon ..	Epidemic influenza at Fort Sill, Okl.
Tilton, H. E.	Major and surgeon	Two reports on the epidemic of influenza at West Point, N. Y.
		Tænia saginata; treatment with extract of male fern.
Turrill, H. S.	Capt. and asst. surgeon ..	Epidemic influenza at Fort Spokane, Wash.
Vickery, R. S.	Major and surgeon	Aneurism of the aorta.
		Idiopathic tetany; sudden death.
		Pulmonary tuberculosis; death. Thermograph.
Waters, W. E.	do	Acute pharyngitis, metastatic inflammation of both testicles; recovery.
		Autopsy, thorax and abdominal organs.
		Case of insanity.
Weirick, R. S.	Acting assistant surgeon ..	Autopsy in a case of sudden death; cause not determined.
White, R. H.	Major and surgeon	Acute dysentery. Thermograph.
		Thermograph in typhoid and remittent fever at Fort Myer, Va.
Wilcox, T. E.	Capt. and asst. surgeon ..	Fevers at Camp George Crook, Nebr. Quinine without apparent influence on course of disease. Thermographs.
		Typhoid fever; recovery.
Winne, C. K.	do	Thermograph.
		Continued fever. Thermograph.
		Thermograph in case of pneumonia.
Wolverton, W. D.	Major and surgeon	Aneurism of the aorta.
Wood, M. W.	Capt. and asst. surgeon ..	Influenza at Fort Randall, S. Dak.
		Rattlesnake poisoning and its antidote.
Woodruff, C. E.	do	Vaccinations at Fort Gaston, Cal.
		Diseases of Northern California Indians.

SURGICAL REPORTS.

Banister, J. M.	Capt. and asst. surgeon ..	Double rupture of the choroid.
		Melanotic sarcoma of the choroid.
Corbusier, W. H.	do	Case of drowning.
		Stricture of urethra, external perineal urethrotomy; death.
DeLoffre, A. A.	do	Traumatic tetanus, chloral; recovery.
		Opium poisoning; recovery.
Dewey, F. S.	Acting assistant surgeon ..	Tubercular orchitis; castration.
Fisher, W. W. R.	Capt. and asst. surgeon ..	Shot wound, brain; fatal.
France, J. M.	Acting assistant surgeon ..	Empyema, incision, drainage; recovery.
Frick, E. B.	Lieut. and asst. surgeon ..	Gunshot wound, thigh; recovery.
		Rattlesnake bite, injection permanganate of potash; tourniquet; recovery.
Gorgas, W. C.	Capt. and asst. surgeon ..	Diphtheria, tracheotomy; death.
		Fracture of skull; fatal.
Gandy, C. W.	do	Fracture of cervical vertebra; autopsy.
Glennan, J. D.	Lieut. and asst. surgeon ..	Fracture of skull and spine.
Girard, J. B.	Major and surgeon	Gunshot wound of elbow.
Gardner, W. H.	do	Severe contused wound of scalp and results.
Harris, H. S. T.	Capt. and asst. surgeon ..	Fracture of skull, trephining; death.
Hoff, J. Van R.	do	Punctured wound perforating spleen; autopsy.
Johnson, R. W.	do	Rupture of small intestine; autopsy.
La Garde, L. A.	do	Abscess of liver, incision; recovery. Paranephritis, incision; recovery. Astigmatism.
Lippincott, H.	Major and surgeon	Enlargement of inguinal glands.
Kimball, J. P.	do	Shot wound of hand, amputation; recovery.
McCaw, W. D.	Capt. and asst. surgeon ..	Death from hydrophobia.
Moseley, E. B.	do	Death from lightning stroke.
Merrill, J. C.	do	Fracture of scapula.
Poindexter, J. D.	Lieut. and asst. surgeon ..	Gunshot wound of leg.
Shannon, W. C.	Capt. and asst. surgeon ..	Death from poisoning by clove tea used as an abortifacient; autopsy.
		Suicide by laudanum.
		Shot wound of thigh.
		Rattlesnake bite, hypodermic spirits of ammonia; recovery.

List of special reports received during the calendar year—Continued.

SURGICAL REPORTS—Continued.

Name.	Rank.	Report.
Snyder, H. D.	Lieut. and asst. surgeon..	Suicide, gunshot wound of skull; autopsy.
Sanderson, J. L.	Acting assistant surgeon..	Gunshot wound of leg.
Sewall, C. A.	do	Fracture of ribs.
Suter, W. N.	Lieut. and asst. surgeon...	Autopsy in a case of death from rupture of pulmonary blood vessels following injury.
Taylor, B. D.	Capt. and asst. surgeon ...	Death from opium poisoning.
Weirick, S. T.	Acting assistant surgeon..	Stab wound of chest; autopsy.
Wilcox, C.	Lieut. and asst. surgeon...	Shot wound of abdomen; death.
Wood, M. W.	Capt. and asst. surgeon ...	Rapid recovery from effect of ether.
		Injuries to spine.

SANITARY CONDITION OF THE ARMY.

QUARTERS.

The quarters provided by the United States Government for its troops have been improved recently in two ways, by building and repair and by the abandonment of old and dilapidated structures or unhealthy localities. During the calendar year the garrisons were withdrawn from the following stations: Fort Klamath, Oregon, Fort Maginnis, Mont., in July; Fort Crawford, Colo., Fort Mojave, Ariz., and Fort Gibson, Ind. T., in September; Little Rock Barracks, Ark., Fort Pierre, Dak., Fort Elliott, Tex., Fort Bridger, Wyo., Fort Selden, N. Mex., and Fort McDowell, Ariz., in October; Fort Totten, Dak., and Fort Verde, Ariz., in December. At most of these the quarters were overcrowded and poorly ventilated, so that their abandonment has been a clear sanitary gain, and will probably show its influence in diminished sick rates hereafter.

From many posts the condition of the men's quarters is reported as satisfactory; and sanitary progress is manifested by such reports as that from Fort Hamilton, N. Y., which announces that in October the damp, moldy, and unventilated casemates, which for years past have been nurseries of consumption and rheumatism, had been vacated by all except the band, prisoners, and guard, and the troops moved into commodious barracks built on the open plain.

Nevertheless the reports for the year are by no means all satisfactory.

Overcrowding and its associated defective ventilation are the sanitary faults that are most frequently noted; but bad construction, inefficient means of heating, undrained and unventilated sites, with rotting wood-work, leaky roofs and general dilapidation are occasionally recorded, showing that although much has been accomplished of late years on behalf of the comfort and health of the soldier and the attachés of our military posts, we are far from being able to rest satisfied with present conditions. Dilapidation and insanitary construction are reported from Fort Union, N. Mex., Fort Omaha, Nebr., Fort Barrancas, Fla., Camp at Eagle Pass, Tex., and Boisé Barracks, Idaho, as follows:

Fort Union, N. Mex.—Quarters, dilapidated and leaky.

Fort Omaha, Nebr.—Dilapidated condition of nearly all the buildings at the post; same as heretofore. As the post will probably be occupied for years, all the quarters should be repaired.

Fort Barrancas, Fla.—The barrack building was excellently adapted for the health and comfort of the men at the time it was built, though it needs urinals and latrines on the second and third stories. An elevator would be a great addition.

The officers' quarters are old, dilapidated frame structures, poorly adapted to comfort or convenience. The natural advantages of location and surroundings are so great that a comparatively small expenditure could make the post comfortable and healthful. At present it is neither.

Camp Eagle Pass, Tex.—The buildings are old and the woodwork badly decayed. The veranda of the barracks and the passage from the squad room to the mess room are sinking and separating from the main building, owing to decay of the supports. They have been repeatedly repaired, but are so rotten that further repair is impossible without renewal of much of the underpinning. The condition is really dangerous. The roof of the barrack is full of holes, and during the recent rains the men have been obliged to get up at night and move their bunks to avoid the streams of water coming through the roof. Many of the holes are so large that the swelling of the shingles during a continuous rain will not close them. The rainy season will soon be upon us, and if this leaky condition be not remedied the men will have two months of discomfort, if there are no more serious results. The roof is thoroughly rotten and sags down in many places. The shingles are so rotten that they will not hold nails, and when the eave troughs fill with water their weight drags out many of the nails and they festoon the building in rather an unsightly manner. If a new roof can not be put on, I would respectfully suggest that the building be covered with paulins before the rains set in, an expensive process, to be sure, but justified, in my opinion, by the necessities of the case.

Boise Barracks, Idaho.—No general terms can possibly define the sanitary condition of the buildings here, so different are they in construction, plans, and surroundings as well as in the possession or lack of conveniences for comfort. To begin with, the quarters for the enlisted men are with few exceptions as good as could be expected at such a place as this. They have good ventilation, good air space, good and safe heating appliances, good cooking appliances, good light generally, and they are kept in good, cleanly condition. * * * The officers' quarters have rooms enough in each of them, but the quarters are not well planned. They are drafty and inconveniently constructed. Their water-closet facilities are abominable, and the bath houses attached to them are practically useless because of the danger of being chilled after bathing in unhealthy rooms separated from the generally occupied parts of the house. No good heating arrangements are provided for the bathrooms of either men or officers. Water heaters in each room would be a boon. * * * The married soldiers' quarters are old and built of logs. They harbor bedbugs and invite catarrhs. Their condition has been set forth by my predecessor. I feel that I need not allude to them further now than to disparage them.

The difficulty of keeping the men warm in quarters is reported from Fort Pembina, N. Dak.:

The barrack rooms have been uncomfortable during the cold weather, as it has been found impossible to heat them sufficiently. * * * I recommend that the squad rooms be suitably ceiled and floored, and that the height of the rooms, which is now 14 feet, be reduced to 12 feet; such an improvement would in my opinion contribute very materially to the comfort of the occupants and at the same time afford sufficient air space. It is absolutely necessary for the welfare and health of the command that the barracks be made more comfortable than they are at present in cold weather. * * * The temperature of this post during the nights of the past month (January) has averaged 19° below zero, on the night of the 25th it was—46°, and on the night of the 27th—43°. Consequently considerable suffering from cold was experienced by the inmates of the barracks.

The quarters of the officers and of the married soldiers are at some posts not in good condition:

Fort Wadsworth, N. Y.—Complaint is made that some of the officers' quarters are not in good condition on account of the leakage and water standing in the basements.

Fort Stanton, N. Mex.—The quarters occupied by the married soldiers are old, dilapidated and very much in need of repair.

Fort Du Chesne, Utah.—The quarters are good except that several of those occupied by married men leak badly.

Fort Missoula, Mont.—Old log buildings are occupied by married enlisted men, the floors of which are generally poor and very close to the ground, leaving little or no area for ventilation underneath. In winter it is necessary to do laundry work within doors, and the soil in some of them has become polluted with waste water used for this purpose.

Thirty years ago in the British service the dormitories of the men had at many of the barracks an allowable occupancy which was lettered on the door of the room and was not permitted to be exceeded; and during all these thirty years we have recognized in this country the need for a certain amount of floor space and of air space in our sleeping rooms as preservative of health. This is very well as theoretical sanitary knowledge, but we profit little by it when we find our troops crowded as at Fort Columbus, N. Y., in a minimum of 380 cubic feet per man and a maximum of 460 feet:

FORT COLUMBUS, N. Y.—*Maj. J. R. Gibson*: Limited capacity of the squad rooms or dormitories of the three companies composing the garrison. These apartments are overcrowded. The minimum cubic air space per man is 380 feet (A battery), the maximum 460 feet (C Battery).

FORT BAYARD, N. Mex.—*Capt. E. T. Comegys*: The barracks are too small for the full strength of the companies and troops. The infantry barracks are only large enough for 40 men, and the cavalry for 58 men.

ANGEL ISLAND, CAL.—*Maj. C. E. Munn*: My attention has been particularly called at the recent monthly inspection to the crowded condition of the barracks. As the companies are now recruited to their full strength, very little floor space is left between the bunks. As yet I have observed no sickness in consequence, although there have been much inconvenience and discomfort. At present I have no recommendation to make, but desire to suggest that in the immediate future the barracks will have to be enlarged to fulfill modern sanitary requirements.

Fort Thomas, Ariz., *Lieut. E. L. Swift*, referring to the crowded condition and faulty ventilation of soldiers' quarters, and suggesting that an unoccupied set of quarters be placed in suitable repair, states:

I am informed by the post quartermaster that there is no material at the post to effect this much-needed reform. In view of this I would recommend that the attention of the authorities empowered to grant the necessary material be called to the spectacle of rooms crowded with rows of beds, from 1½ to 2 feet apart, the air of which at night reeks with the close, confined stench of saturation with animal effluvia. Twenty-one different men have been excused from duty since the 15th of the month, and others have been treated without being excused.

WILLETS POINT, N. Y.—*Maj. Clarence Ewing*: The barracks are continually overcrowded and there is no provision for ventilation. This same evil is the subject of complaint during the whole year.

Deficient ventilation is, however, the chief subject of complaint with regard to the barrack rooms. In many instances no provision has been made for ventilation, except such as is afforded by the doors, windows, and the chinks of imperfect construction. These answer very well in mild and warm climates, but at a majority of our posts something more must be done. Usually when special provision is made for a fresh-air inflow it is brought in by boxes under the floor, opening near the stove, and the outflows are either in the ceiling leading to openings in the ridge or in the walls near the ceiling and the floor opening into the chimney flues. Many faults in attempted systems of artificial ventilation might be pointed out, but those most common in our barracks manifest an utter want of knowledge of this subject on the part of the officers responsible for the construction of the quarters. There is frequently no provision for a fresh-air inflow, the opinion appearing to prevail that if an exit is provided the foul air will go out and fresh air will come in since nature abhors a vacuum; but it is not always clear how nature can avail herself of the exits. There is no air current in a bottle, although its stopper be removed, and there is oftentimes no air current in a barrack room, although there may be a hole in the ceiling communicating with the external air. Not infrequently, however, the hole in the ceiling communicates only with the closed attic and does no more for the ventilation of the room when it is open than when it is

closed. When ridge ventilation, so called, is provided there is frequently an utter lack of proportion between the registers in the ceiling and the opening in the ridge; and so also, when shafts have been built, they are frequently incompetent to perform the work for which they were intended.

Take, for instance, the case cited below by Major Woodhull at Fort Sherman, Idaho, where to properly ventilate the barrack room 108,000 cubic feet of air per hour are required. The only arrangement for supplying this is an exit for the contained air when it is displaced by the incoming air, for which incoming air there is absolutely no provision. The exit consists of two registers 20 by 23 inches each, but so reduced by iron latticework that both combined give but 135 square inches in the clear. Assuming that there is a free ventilating inflow into this barrack room, the contained air would have to whistle through the exit at the gusty rate of 30 linear feet per second to accomplish the intended object. When such insanitary architecture is perpetrated it well may be said that some one conversant with the sanitary needs of the soldier's dwelling should have been consulted before the plans were approved and the money expended for the work. If it be held that Fort Sherman is an old post, and that nothing of the kind occurs at the present day, I desire to invite attention to a barrack building recently erected at Columbus Barracks, Ohio. This building consists of a center and two wings, the former of three stories containing orderly rooms, offices, storerooms, etc., the latter, each of two stories, used as squad rooms or dormitories. They measure each 68 by 30 by 12 feet, and are each subdivided into fifteen cells or stalls, each 9 by 8½ feet, and separated from the others by a partition 8 feet high, leaving the upper 4 feet of each room common to all the subdivisions. Such an arrangement of course adds materially to the difficulty of properly ventilating these barrack rooms, yet no provision whatever was made for ventilation. A little knowledge of the need for fresh air, and of the means of introducing it and of removing the respired air, would have modified the plans for this barrack so that if the stall arrangement had been insisted upon for the sake of privacy, which by the way is inconsistent with the family character of the military company or troop, there would have been proper provision for the ventilation of the stalls in the original plans.

At the same post I find recently constructed officers' quarters with so little attention to drainage of site and the exclusion of subsoil that 60 buckets of water were bailed out daily from a hole in the cellar floor measuring not more than a cubic foot. Here were the causative conditions of rheumatism, pneumonia, and consumption for the families condemned to occupy these quarters. When such sanitary faults come within my cognizance in the reports of the medical officers of the Army, I can not refrain from reiterating the recommendation made by the Surgeon-General of the Army in the Annual Report for the year ending June 30, 1888, p. 103, in the following language:

The formulation of a general plan for the improvement of the sanitary conditions now prevalent throughout the Army, especially those connected with the construction of quarters and with water supply, drainage, disposal of nightsoil, bathing facilities, food, and clothing, is a matter of so much moment, and involves the consideration of so many questions of a diverse nature and the reconciling of so many conflicting interests, that it ought to be intrusted, not to any one officer nor to the officers of any one arm or department, but rather to a board of officers, who should represent different branches of the service, and should be selected because of their special fitness for the duty required. No argument can be needed to demonstrate the necessity for a full representation of the Medical Department in the organization of such a

board, for it is obvious that, by reason of his special training and experience, the opinion of the military surgeon and sanitarian upon almost any question likely to be presented for the consideration of the board must be entitled to considerable weight, while without his advice and assistance a satisfactory solution of many problems of sanitation can not be hoped for.

I earnestly recommend the appointment of a sanitary board as indicated above, and that this board be charged with a thorough investigation of and report upon the sanitary conditions prevailing in the military establishment. This report should include a statement of the nature and probable cost of proposed improvements, and upon it can be based any action which may be deemed advisable. If it be found, as it doubtless will be, that current appropriations are insufficient to meet the cost of the changes recommended, Congress can very properly be asked to provide the necessary funds.

Generally when improvements are to be made the views of the medical officer are requested and have due weight in the decision of unsettled points; and in hospital construction the regulations call for the opinion of the medical officer and constitute that officer the inspector of the work on behalf of the Medical Department; but other buildings and important sanitary works are sometimes planned and carried to completion without reference to medical opinion. The need of subsequent alterations, so frequent in the experience of the past, would often be obviated were the views of the medical officer to have full consideration before final action is taken in all such cases. In fact, medical officers are maintained at military posts not so much for the treatment of the individual sick, as to guard against sickness by recommendations based on their knowledge of the causes of disease. Hence, if it be deemed inadvisable to organize such a board as is recommended above, I would suggest, in the interest of the service and for the protection of the Government against possible mistakes, that the Regulations of the Army be so modified as to place all buildings at military posts on the same footing as hospital construction, and in all such cases, before the plans leave the post, the local medical officer be requested to give in writing his views on the sanitary questions of location, drainage, sewerage, ventilation, heating and lighting, and that the report of completion, so far as sanitary matters are concerned, be accompanied by a like report from the medical officer.

Major Happersett entered a protest against the rough or sand finish of the walls of the barrack buildings and water-closets of Fort McPherson, Ga., which appears to be well taken in view of the sanitary opinions that are now dominant. The inequalities of the sand finish offer a convenient harborage for all types of bacterial dust, and certainly the hard and smooth finish which he recommends is cleaner and necessarily more healthy.

FORT MCPHERSON, GA.—*Maj. J. C. G. Happersett*: Except the officers' quarters the inside walls of all buildings here have a "rough" or "sand" finish, which, for barracks and water-closets especially, is extremely objectionable from a sanitary point of view, furnishing a safe and convenient harbor for all types of disease germs. Investigation and experience have demonstrated that the smoother, harder, and more impervious to moisture all such walls are rendered the safer and better for health. I would therefore recommend that the walls of the buildings intended for occupancy by troops have the customary hard finish, being far less objectionable and, as I am informed, not more expensive than the present method.

FORT SHERMAN, IDAHO.—*Maj. A. A. Woodhull*: The second matter for the consideration of the commanding officer is the ventilation of the barracks. The men's sleeping rooms, the so-called squad rooms, occupy the second story of the barrack building and are uniform in plan, although two have higher ceilings than the other two. The smaller of these, 133 by 23 by 10 feet, 30,590 cubic feet, has adequate floor space and cubic capacity for its average occupancy, but in common with the others has no proper provision for the change of air. Taking a company of 54 men, with a nightly average present of 36, and a maximum thus present of 43, we find that in order to give each of the 36 men 3,000 cubic feet of air per hour (the proper allowance) the

whole 30,590 cubic feet must be changed a little more than three times per hour, and for more men the change must be made more frequently. There is no provision for the direct admission of the external atmosphere, and what does enter makes its way through undesigned openings in construction. The presumed escape of the contained air is through two so-called ventilators, 20 by 23 inches each, covered with lattice work. Each of these has 30 lozenge-shaped openings $1\frac{1}{2}$ inches square, or in both a total of 135 square inches, somewhat less than a foot. These openings communicate directly with the attic, which is not accessible in any other way, and the attic communicates with the outer air by small, slatted openings at each extremity and midway on the two sides. The contained air in the squad room can not pass out through these openings to any appreciable extent, and if it could they are too small to properly ventilate the room. There should be a minimum of 6 square inches per man for formal exit, which makes allowance for imperfect construction and for the draft by the stoves. For temporary relief, with little expense and trouble, I advise the introduction through the roof, just within the outer wall, near the eaves, of each side of the squad room of 6-inch tubes, to extend as high as the ridge and to be capped sufficiently to exclude the rain. These are made of galvanized iron, but ordinary stovepipe or tin water pipe will answer for the time. These can be put in without difficulty and will materially add to the comfort and health of the men and relieve the close and stuffy feeling that now prevails at night. A radical and permanent improvement of the ventilation should be through the ridge, and might properly be a subject for the next year's estimates by the quartermaster.

FORT RENO, OKLA.—*Capt. J. C. Merrill*: Bad ventilation of barracks; sanitary condition of the houses occupied by enlisted men wretched. The cubic air space in most of the barracks is sufficient, *per se*, averaging over 1,000 cubic feet per man, the lowest being in the south and north dormitories of E troop, in which it is 884 and 750 cubic feet, respectively, with a floor space of 74 and 64 square feet per bunk. Such average air space is, however, practically much reduced by the defective ventilation. Where air shafts have been put in their size is wholly inadequate; thus in the dormitory of G company, which has a partial partition, but is practically one room of 98 by 28 by 12 feet (32,928 cubic feet), there are two shafts each 1 foot square and a third 15 inches square. In a majority of the dormitories there is no shaft, a hole in the ceiling opening into a dark attic. In B and G troops there is a latticed opening in a hipped projection from the attic facing south; the prevailing wind from that direction has the effect of forcing the attic air down into the dormitories. No inlets are anywhere provided. It is suggested that the hanging lamps be suspended immediately under all shafts and ceiling openings to cause a certain amount of up-draft during the evening; but it is again submitted that in all the barrack dormitories at this post the means of ventilation are altogether inefficient.

FORT RILEY, KANS.—The question of ventilation of the barracks is still a vexed one.

FORT BOWIE, ARIZ.—Quarters good. The barracks are inadequate and poorly ventilated.

NEWPORT BARRACKS, KY.—Lack of proper and sufficient ventilation of the lower dormitory of the men's barracks.

CAMP POPLAR RIVER, MONT.—*Lieut. J. D. Poindexter*: All the houses at the post except the post hospital are imperfectly chinked and improperly ventilated. There is in winter no way to fully ventilate the houses except to open the doors, and this keeps the floors many degrees colder than the ceilings. It is not uncommon to find the temperature 30 degrees colder at the floor than it is 6 feet above. As a result of this, nasal and bronchial catarrhs and headaches prevail to a far greater extent than the sick returns show, for the men are not usually excused from duty when suffering from these comparatively trivial complaints.

FORT MASON, CAL.—*Capt. H. O. Perley*: Ventilation is poor and unsatisfactory, especially in the squad rooms and guardrooms of the post guardhouse. Two of the squad rooms have ridge ventilators, but no means have been provided in any of the rooms for the admission of air. The third squadroom has no ventilation other than the ordinary windows and doors. The post guardroom, occupied by one non-commissioned officer and four privates, is entirely lacking in proper means of ventilation. There is also need of more sunlight in the barracks. I would respectfully recommend that all the windows in the squad room and post guardroom be utilized as means for admitting fresh air by placing a triangular box frame in the window casing of the upper sash of each window, and covering the top of said box with fine wire gauze; by this means the upper sash could be lowered 6 inches, and fresh air coming in could be directed to the ceiling and properly diffused around the room.

FORT WASHAKIE, WYO.—*Lieut. Chas. F. Mason*: The natural conditions of this post are certainly such as would give promise of the utmost healthfulness. Located on a porous soil several feet above the river level, with excellent natural drainage to that stream, with an abundant supply of pure water, dry air, comparative freedom from winds, and almost constant sunshine, we must consider the cause of dis-

ease artificial and avoidable. Upon looking over the hospital records I find that the excessive amount of sickness may be referred almost entirely to the following classes: Rheumatism, muscular and articular; follicular tonsillitis and neuralgia; the presence of follicular tonsillitis is especially marked. These diseases are closely allied as to causative influences, and prominent among the causes in my opinion are systematic depression from slow organic poisoning and undue exposure to cold. Now the conditions of this post are just such as the nature of these diseases would lead us to expect. In the first place, privy sinks have been in use here for years, and these sinks are situated a very short distance from the barracks. The barracks themselves, with one exception, are old adobe buildings whose walls have for years absorbed organic exhalations from their occupants. These barracks have no ventilation under their floors and no special openings for the entrance of fresh air, though exits are provided in the roof. The air from the outside being very cold, the windows are kept closed, and as air must enter somewhere, much of it is ground air coming through the floors and undoubtedly contaminated by the adjacent privy sinks. Again, during the winter I have found, upon visiting the barracks and guardhouse, that the windows were all closed, the rooms very hot, the men lying scantily covered upon their beds and the air close and offensive; in other words, the conditions were most favorable for the development of colds, should a door be suddenly opened; add to all this that the barracks have been at times overcrowded, and I think we do not have to go farther to seek for the cause of disease. The guardhouse, especially, has been frequently overcrowded. Each cell has no means of ventilation except one small window, and this I have always found closed. The causes of disease having been ascertained, the remedies are obvious and have already been suggested. The old adobe barracks can never be made thoroughly healthful, but sub-floor ventilation, introduction of fresh air into the squad rooms, and free use of whitewash will much improve them; the guardhouse should be enlarged, but in the meantime can be much improved by the measures indicated for the squad rooms. Measures have already been taken to substitute water-tight vaults for the present sinks. It is proposed to have separate vaults for the urine, and to use in all a mixture of dry earth and sulphate of iron, the vaults to be emptied when full. While I do not believe this is the best system of disposing of excreta, it is the most practicable one for this post at the present time.

FORT LEAVENWORTH, KANS.—*Maj. A. A. Woodhull*: The ventilation of certain buildings is not what it should be. The ventilators in the new brick barracks have no direct connection between the ceiling and the squad room and the exits at the ridge. The apparent openings in the ceiling are much diminished by the ornamental iron work, and there are not enough of them for the size of the room, especially with its increased occupancy. So-called ventilating shafts in the infantry barracks from the first sergeants' offices do not extend through the roof, as should be the case, and to which attention has been called. This is also true in the officers' quarters at the west end. I am of opinion that the ventilating shafts in the infantry barracks should be extended higher in order to secure better the effects of aspiration. Although the ventilation of those quarters has been much improved it is not yet adequate for the approaching season of closed doors and windows.

COLUMBUS BARRACKS, OHIO—*Inspector-General R. P. Hughes*: In the matter of ventilation for the new barracks I desire to say that this building is too good not to be attended to. It is heated by means of steam and the dormitories are reached by a hallway. When the dormitory doors, which are swung on the center, and windows are closed, there is no possible way for the ventilated air to escape or for fresh air in proper quantity to enter. The occupants of these rooms are constantly changing, and are assembled from widely segregated districts. It is impossible to tell what dangerous organic microbe may be set afloat in the confined air space of these dormitories, and if an opportunity is not given for the escape of such organic matter serious trouble may be the consequence. I think ventilating shafts could still be introduced without doing much damage to the building, and for slight expense, and I recommend that it be done.

Capt. A. A. De Loffre: I have the honor to submit the following report, referring to the indorsement of the Surgeon-General on copy of the report of Col. R. P. Hughes, Inspector-General, U. S. Army, in the matter of ventilation of the new barracks at the depot, under date of November 23, 1889. I will state, by the way, that this building has been completed and occupied about six weeks, and that, as the inspector states in his report, no provision was made in the plan for artificial ventilation, although proper ventilation might have been secured at very little additional expense. In order to understand the peculiar difficulties which are encountered in devising a plan for artificial ventilation to this building it will be necessary to describe it. It consists of a main building with two wings. The main building has three stories and contains orderly rooms, offices, storerooms, etc., and in this report will not be considered, because the natural ventilation is sufficient. The wings of the main building are each two stories in height and are used as squad rooms. They measure

30 by 68 7 by 11.11, and are subdivided into fifteen cells, each cell being 8½ by 9, with board partitions 8 feet high, a doorway being placed in the center of the front partition. These stalls contain each two beds, two wardrobes, a window, and are occupied by two men. The air space per man, without taking into account the partitions, the wardrobes, etc., is 817 cubic feet, but deducting 75 cubic feet per man for the above articles, which estimate I do not believe to be excessive, it leaves 742 cubic feet per bed.

The whole building is heated by steam. It is not possible to use the flue connected with the steam apparatus as an aspirator shaft because it is attached to the main building; hence, if artificial ventilation is deemed necessary, an aspirator shaft will have to be provided. If the dormitories were only one story in height the problem might be easily solved by the double tube of McKinnel; but under existing circumstances I can not see how it is possible to dispense with an aspirating shaft, and it seems to me that one might be added to each wing without doing damage to the building. Just at this point, however, another difficulty presents itself. Supposing an aspirating shaft is built, it will be necessary to provide for the admission of fresh air, which may be done by surrounding one or more of the steam radiators with a jacket and connecting it by means of a flue under the floor with the outside air. But how can air be made to circulate freely throughout a room which is partitioned off as before described? I do not believe it will be possible. I must confess that I have not had sufficient experience in such matters to be able to devise a plan for ventilating the dormitories in question without assistance of some one who has made the subject of ventilation a special study. If, however, the aforesaid partitions were torn down, matters would be much simplified. So much on the subject of ventilation, taking it for granted that in this case ventilation is necessary. I think it was a great omission that artificial ventilation was not provided for this set of barracks when it was built, but it having been omitted in this case, I think the necessity for supplying it now is not sufficiently apparent. It will be a costly affair, and may not after all attain the desired end. * * * I have been informed that the post quartermaster has had orders to devise some means of ventilation for the aforesaid dormitories, and that he employed a plumber to draw up the plans and specifications. I tried to find out what these plans were, but they had gone to Washington and no copies were retained at the post. The plan may be a valuable one for all I know, but the chances are it will really prove of benefit only to the contractor. * * *

I beg leave to submit the following report in regard to the sanitary condition of at least three of the set of officers' quarters recently completed: No provision was made for draining the cellars of the aforesaid quarters, and in consequence thereof they are extremely damp by reason of the floor or bottom being saturated with water which percolates through the outside earth. To give an idea of the amount of water these cellars contain I will state that an officer who occupies one of these houses informs me that he has had his cellar bailed out every day for at least a week, and that 60 buckets of water were taken out on an average daily from a hole in the cellar floor not more than a foot square by a foot deep. Aside from dampness which is caused by the cellar not being drained, the cold-air box leading to the furnace, and which is constructed under the floor of the cellar, is nearly half full of water all the time, and in consequence a sufficient amount of air can not be supplied to the furnaces for the purpose of heating the houses. I speak authoritatively when I say that in my own house fully 800 pounds of hard coal have been consumed in 3 days without producing a sufficient amount of heat when the thermometer ranged — 25° F. The furnace would be red hot, but not a particle of hot air would pass through about half of the registers; of course if cold air is not supplied to a furnace one can hardly expect warm air to come from it. In addition to these defects I will state that the floors of the cellars are lined with ordinary brick, which being porous absorb water like a sponge until saturated, and then of course the moisture finds its way throughout the house. Now, it seems to me that this state of affairs can not be conducive to a good or even fair sanitary condition of the aforesaid quarters, and I beg leave to request that immediate steps be taken to verify these statements, with a view of properly draining the aforesaid cellars, and otherwise making such improvements as may be necessary for the comfort and safety of the occupants of these quarters.

Much has been done during recent years to improve the condition of the guardhouses of the Army, but from time to time insanitary conditions, insufficient accommodations, defective ventilation, etc., are recorded by medical officers with a view to improvement, and with the result usually of some sanitary gain by the effort. The guardhouse should be as clean and well ventilated as any building at a military post. As Capt. Shannon observes: "The plainest fare, the hardest bed, and the most rigid confinement should in no way interfere with the

strict observance of hygienic details in the sanitary care of the prison and the prisoners." At several of our posts the prison room is overcrowded, unventilated, and foul, as may be seen from the following extracts:

CAMP POPLAR RIVER, MONT.—*Lieut. Poindexter*: Windows are much needed in the post guardhouse, and if these can not be supplied, stuffing the crevices between the sashes is desirable. The prison room, although sufficiently large, has no adequate ventilation. The stove does well enough for an outlet, but the opening through the guardroom door, which is used for an inlet, is worse than useless, for the air of the guardroom is even more vitiated than that of the prison room which it ventilates. Two shafts, each 10 inches square, carried through the ceiling and 5 feet above the roof, protected by a tower, would correct the defect. A flap could be used for partly closing each in cold and gusty weather.

FORT CUSTER, MONT.—*Capt. W. R. Hall*: All the buildings are in good sanitary condition except the guardhouse, which is simply a disgrace to the service. To place it in a clean, proper condition for occupancy would cost nearly as much as to build a new structure. Moreover the design is faulty in the extreme, there being only one room for garrison and general prisoners.

FORT NIAGARA, N. Y.—*Maj. A. C. Girard*: Condition of buildings and quarters, clean and well suited to the wants of the garrison, with the exception of the guard and prison rooms, which are insufficient in size and ill-adapted to the purpose for which they are used.

FORT WINGATE, N. MEX.—*Maj. P. J. A. Cleary*: The guardhouse is in as good condition as such a building can be kept, but it is badly constructed and badly ventilated, old and dingy, and ought to be torn down and a new one built. The prisoners are wretchedly crowded.

FORT ADAMS, R. I.—*Maj. S. M. Horton*: The general prison room at the post guardhouse has no proper ventilation.

ALCATRAZ ISLAND, CAL.—*Capt. W. D. Dietz*: The sanitary defects of the prison are especially apparent at this season of the year. The ventilation of the buildings is very faulty. The corridors, kitchen, and mess rooms are disagreeably and dangerously drafty. The cells, when their solid doors are closed, leaving only a few inches space between the top and the lintel, simply can not be ventilated, and the prisoner, when locked in for the night, is virtually boxed up for so many hours. Moreover, as he is required to keep his night vessel in his cell, the atmospheric conditions that must of necessity occasionally prevail can readily be imagined. The guardroom also is devoid of sufficient means of ventilation and the air in it is often exceedingly foul, so much so that noncommissioned officers have complained of its sickening effects. The facilities for heating, bathing, washing, and laundrying which the prison affords are likewise inadequate. The means available for solitary confinement are such as have long been discarded in the better class of civilian penal establishments.

FORT APACHE, ARIZ.—*Capt. W. C. Shannon*: The guardhouse was evidently built with the one single object in view, security. Ventilation is defective, small airholes and windows. The capacity is entirely inadequate. The conveniences are the necessary bucket in a filthy, saturated corner of the prison room. The windows are too small and too few in number. * * * The air space of the guardroom permits of 450 cubic feet for each occupant, not estimating for the members of the guard actually on post, or for the sergeant sleeping in the guardhouse office. This is certainly limited, considering the absence of ventilation except by windows and the door. The prison room admits upon a basis of average occupancy of 530 cubic feet per man, an amount too small considering the limited ventilation and the present objectionable "convenience corner." The cells are relics of the subterranean dungeons of the Middle Ages; the fact that the purifying rays of the sun can never penetrate them is sufficient to condemn them. Fortunately, they are rarely used. If dark cells are necessities for disciplinary purposes, they might be constructed when required of removable planks, and with a positive assurance of efficient ventilation during occupancy. It is believed that the guardhouses should be the cleanest, the whitest, and the best ventilated structure in the post, that the plainest fare, the hardest bed, and the most rigid confinement should in no way interfere with the strictest observance of the most minute hygienic details in the sanitary care of the prison and of the prisoners.

WHIPPLE BARRACKS, ARIZ.—*Maj. B. F. Pope*: Attention is invited to the danger of requiring prisoners to sleep on the floor of the prison room in the post guardhouse, even when a bed sack is used. There are wide cracks in the floor of this room which are filled with decomposing organic matter, and there is at all times unavoidable dampness from proximity of the floor to the ground beneath. To meet this I would respectfully suggest that some kind of sleeping shelf or platform be provided for the use of the prisoners, which would serve the purpose of a bed. Ringbolts could be fastened to the walls, to which might be swung by iron hooks, light movable platforms, 6 feet long by 30 inches wide, and upon which the bed sack could be placed. These platforms should be taken out during the day for cleaning, and then stored in one of the cells until night.

DRAINAGE, SEWERAGE, ETC.

The natural surface drainage at many of the posts is said to be efficient, as at Camp Del Rio and Eagle Pass, Tex., Fort Bayard, N. Mex., Fort Missoula and Camp Poplar River, Mont., Fort Buford, N. Dak., Fort Meade, S. Dak., Fort Du Chesne, Utah, Boisé Barracks, Idaho, Forts Apache, Huachuca, Lowell, and San Carlos, Ariz., Forts Canby and Spokane, Wash., and Fort Mason, Cal. At others the natural incline is aided by surface ditches, as at Fort Custer, Mont., Fort Lewis, Colo., and Fort Pembina, N. Dak. In some instances, as at Fort Davis, Tex., these failed at times to carry off the surface water.

FORT DAVIS, TEX.—*Capt. W. C. Borden*: During the months of September and October twenty-eight cases of remittent fever have occurred in this command, averaging 267 men, being nearly 10½ per cent of sickness due to this one cause. Most of the cases were obstinate, lasting from three to four weeks, and having a lingering convalescence. It is believed that the cause of this large percentage of sick is known and removable. The post is situated at the mouth of a cañon, down which, during the rainy season, the water from an extent of mountain country is poured. An attempt has been made to prevent this water from flooding the post by digging a ditch and throwing up an embankment. This has, however, proved ineffectual, as the soil of which the embankment is composed has no cohesion and breaks at every freshet, the water floods the officers' quarters several inches above the floor and carries surface washings with it under the floors, which latter, not being ventilated, are weeks in drying out; then it flows across the parade, floods the men's quarters, and saturates the ground beneath them. The resulting underfloor dampness and the emanations from the slowly drying soil and surface washings are certainly unhealthy. This should be prevented. Something more than the loose soil is needed in the embankment to prevent the water from breaking through; but as a stone embankment would be costly, I would recommend that a board fence of sufficient height, well battened, braced at the back with deep-set posts, a ditch in front, and the soil banked up behind it be constructed for interception. Such a fence and embankment could be constructed at comparatively small expense, and with a small annual outlay for repairs would be effectual.*

From a number of posts come complaints of the want of an efficient drainage system. Slop water of all kinds is thrown upon the surface, and although this may have for a time no bad effect on the health of the garrison, in progress of years the soil necessarily becomes contaminated. The posts which have no provision for carrying off the waste water are also generally those where the field sink or earthen pit has been dug, filled, and covered over so often that the lines of occupied quarters are surrounded at so many paces in their rear by a honeycomb of disused, hidden, and forgotten vaults filled to the surface with foul organic matters. The post surgeons at Fort Barrancas, Fla., and Boise Barracks, Idaho, make reference to these conditions in their report.

FORT BARRANCAS, FLA.—*Capt. W. C. Gorgas*: The latrines empty into pits; kitchen slops are carted off, and wash water is emptied on the ground under the houses, or thrown out about the doors and windows. The post is exceptionally situated for a drainage system. * * * When one thinks that this system has been in use on this same ground for the past 200 years, it is surprising that the soil is not a mass of decomposing organic matter. It is only the natural advantage of location, soil, and drainage that has allowed us to live so long in this way with comparative impunity; but its continuance is a serious menace to the health of this community.

BOISE BARRACKS, IDAHO.—*Capt. Marcus E. Taylor*: The surface drainage here is good in a way, but it lacks some main outlet. Furthermore, it has two serious defects which in sanitary supervision I can not overlook. One of them is the undrained depression southeast of the hospital that should have an outlet; the other is a grave defect in the drainage of the officers' quarters. These are built upon a steep hillside, with the rear of the quarters looking to the hill. Additions have been made, and these have pretty nearly run into the hillside. The additions are fairly in the ground, and under the floors is neither drainage nor ventilation. Dampness, colds, coughs, rheumatism, and diphtheria take the place of drainage and ventilation. An

* Fort Davis was ordered to be abandoned July 3, 1891.

adequate system of sewerage is badly needed at this post, with galvanized iron receptacles for garbage to be regularly removed to an authorized dump pile. Privy vaults and cesspools may be endured by the human system for a while, but hardly forever. * * * The surface drainage at this post would strike a new comer as being good, but investigation properly conducted will disclose the absence of drainage by method. The indefensible practice of privy vaults that are not cared for even through the subterfuge of putting disinfectants upon their disgusting contents, the cess-pit system for slops that intensifies every imaginable protest against polluting underground air by privy vaults, untrapped and unprotected connections, with abominations like them, disclose a sanitary surmise.

The substitution of the dry-earth system by pail or box for the sink or earth pit has been a sanitary measure of great value at many posts, as at Fort Sheridan, Ill., Forts McIntosh and Elliott, Tex., Fort Lowell, Ariz., Fort Marcy, N. Mex., Fort McKinney, Wyo., and Fort Yates, N. Dak. Sawdust was used as an efficient substitute for dry earth at Fort Missoula, Mont. The metal pail has proved greatly superior to the wooden receptacle. The wooden boxes at Camp Eagle Pass, Tex., leaked badly during the year. The post surgeon at Fort Bennett, S. Dak., has urged the adoption of the dry-earth system, and similar recommendations at Fort Buford, N. Dak., and Whipple Barracks, Ariz., have been carried into effect. At Fort Townsend, Wash., the sinks gave place to a sewerage system with water-closets and ample flushing tanks, and at Fort Wingate, N. Mex., the new sewerage system when completed is expected to be a valuable addition to the sanitation of the post.

The dry earth system entails labor, but is considered satisfactory when properly carried out. Neglect gives rise to such reports as the following:

MOUNT VERNON BARRACKS, ALA.—*Maj. P. J. A. Cleary*: All the privies were foul, emitting a sickening odor, and in several were large masses of maggots. Anything more revolting it would be hard to imagine. These privies have what are known as boxes, which are cleaned or emptied by contract once a week. Dry earth is supposed to be thrown into them whenever used, except in the privy used by the enlisted men, where it is supposed to be thrown in every morning. But even where the earth is thrown in it does not seem to suppress the foul emanations, partly because the earth is chiefly sand and partly because the boxes are wooden, old, and thoroughly saturated with filth. The privies, too, are the most wretched structures that could be erected for such purposes. Some are worse than others, but for the most part they are quite small and without windows or ventilating shafts, so that on entering one has to endure the heat and filthy odor. Several of the boxes leak badly, which of course makes the vicinity always foul. The remedy for this state of things is evident. The boxes should be cleaned daily. New boxes should be supplied, either of iron or wood, zinc-lined. All the old privies should be torn down and suitable structures erected. I recommend that these changes be effected with as little delay as possible, for with such conditions at the beginning of summer one can readily imagine how much more aggravated they will be later on. I desire in this connection to recommend that a suitable structure be erected for the storage of dry earth to be used in the privies. The earth is now hauled and dumped under a shed which does not protect it from rain; consequently, wet and worthless earth is frequently used.

The primitive character of the water-closet provision of Fort Hamilton, N. Y., was referred to in the last annual report from this office. It has remained unaltered during the past year, and that provided for the prisoners at Alcatraz Island seems to be of an equally uncomfortable and dangerous character.

FORT HAMILTON, N. Y.—*Maj. Ezra Woodruff*: I respectfully invite attention to the character of the men's sinks at the barracks of Battery I and Light Battery K. They consist of an immense trough with a beam or scantling laid along the front edge on which a man must sit. Everything behind is open. It is a recognized fact that these crude arrangements are unsanitary in the highest degree; the whole spinal column is subjected to draughts of air, which may cause sciatica and muscular rheumatism. The disgusting sights and odors and the lack of privacy condemn the plan utterly.

It is a modification of the fence rail on two crotched sticks over an open pit used in the field.

ALCATRAZ ISLAND, CAL.—*Capt. W. D. Dietz*: The prison sink, situated at the water's edge, is primitive in design, and in the inclement season a fruitful source of colds, due to exposure to strong currents of wind which blow up through the one large unguarded opening in the seat.

At posts which have a water service and sewerage system much attention has been paid of late years by our medical officers to the plumbing. Many defects have been remedied, and in other cases in which the remedy involved expenditure which placed it beyond the reach of the post quartermaster and commanding officer, special reports have been forwarded with estimates for a system that would meet the requirements of modern sanitation. The faults that are commonly reported are leaks and breaks in house drains, the sealing up of such drains under cellar floors so that it is difficult to ascertain their condition, the want of proper traps to prevent the ingress of sewer air into living rooms, the want of vents to these traps to prevent siphonage, the opening of such vents, when present, in position to taint the air of the dwelling, and the want of adequate means to flush the soil pipe, sometimes arising from defective water supply, as notably at Fort Riley, Kans., where the water so used has to be hauled in barrels—sometimes from defective arrangement to utilize the supply, as where $1\frac{1}{4}$ -inch pipe delivers into a 4-inch pipe.

There is no more important sanitary subject than this, so far as regards the local origination of disease; and medical officers are called upon to investigate with the utmost care every point connected with the plumbing and sewerage of their station, and report the result of their investigation to this office.

Illustrations of the points referred to may be found in the following extracts from sanitary reports:

JEFFERSON BARRACKS, Mo.—*Maj. D. G. Caldwell*: The men's sinks are old and leaky, and have no satisfactory system for flushing. These sinks should be supplied with iron tanks and an automatic system of flushing.

MADISON BARRACKS, N. Y.—*Maj. J. D. Hall*: The water-closets of the several barracks are deficient in size of pipes, not giving a free enough flush to clear the pans thoroughly.

COLUMBUS BARRACKS, OHIO.—*Capt. A. A. De Loffre*: From long use the closets have become foul, and in some instances leaky. They require a great deal of care to prevent the escape of sewer air; in fact, from a personal experience of over six months, I do not believe it is possible to prevent a certain amount of sewer air from escaping into a room every time a closet is flushed. The closets referred to are by far the most imperfect ones at this depot, and in my opinion they can not be repaired in a satisfactory manner; they should be replaced by new ones of a more modern type as soon as possible.

FORT RILEY, KANS.—*Capt. R. R. Ball*, commenting on the flushing of the water-closets by a water supply hauled in barrels, says: "This is of course inadequate, and unless connections can be made with the water system at this post I would recommend that the connection with the main sewer be cut off and the old system of earth closets be returned to. As it is now, the pipe leading to the main sewer is broken and exposed, and the latrine stands half full of stagnant excrement. In the old earth closets this would in a measure be corrected by fresh earth as an absorbent and disinfectant."

NEWPORT BARRACKS, KY.—*Capt. H. J. Raymond*: The Jennings water-closets in the officers' quarters are old and worn out, and though frequently put in repair, the work, from the nature of the case, can be but little better than a temporizing measure. The water-closet in the post surgeon's quarters is especially defective, and I am aware that similar defects exist in most of the closets at the post. It is recommended that they be replaced by closets of the flush-tank system.

FORT MASON, CAL.—*Capt. H. O. Perley*: The surface drainage is excellent. The natural slope of the ground and character of the soil are such that all water is quickly carried off. The sewage of the post is carried into the harbor by iron soil pipes,

These are frequently flushed and kept in good sanitary condition. * * * The plumbing was thoroughly investigated and tested with peppermint. The bath tubs, kitchen sink, and wash sink in the barracks were not in good repair, improperly trapped, without vents, and the soil pipe receiving the discharges from these fixtures was not ventilated in any way. This drain connects with that from the company sinks, making safe and reliable traps an imperative necessity. The hospital has an old zinc-lined wash sink, a zinc-lined bath tub, an old siphoned closet and urinal. The soil pipe has no running trap or fresh-air inlet, and does not extend above the fixtures. There is a continued complaint from the hospital attendants and patients of the odor in the bathroom, and disinfectants have to be frequently used. The plumbing in officers' quarters No. 1 was found to be in good condition. The remaining five sets of quarters could not be tested with peppermint oil without opening the main drains, as they had no fresh-air inlets, and in two cases the soil pipe did not extend above the fixtures. In all of these quarters I found old "pan closets," "knot traps," and the whole plumbing was in a decidedly unsafe and unsanitary condition. The rain leaders in two of the sets served as ventilators, and discharged sewer air under bedroom windows. There are five pit closets. They are made by digging a hole in the ground and supporting the sides and ends by boards. Four of these are in daily use. They have not been cleaned out for some time, nor have they been regularly disinfected. Five drains of vitrified ware, from 12 to 4 inches in diameter, carry the sewage to the beach. These drains have been broken, so that 2 of them discharge on the beach above high water, and 2 open on the cliff at some distance above the beach. There are no manholes or other means of ventilating them.

FORT SHERMAN, IDAHO.—*Maj. A. A. Woodhull*: Latrines, earth pits; drainage into cess pits. It is probable that some of the kitchen waste pipes are coated with grease containing other animal matter, and that this coating diminishes their caliber and gives some odor. A strong, hot, alkaline solution poured into them at stated intervals will obviate or diminish this, and I recommend that instructions to the following effect be issued: Company, troop, and detachment commanders and officers occupying quarters will cause their kitchen sinks to be cared for in this manner: Once each week, after the sink has been cleaned, a quarter of a pound of lye dissolved in 1 quart of boiling water will be poured gently, while still very hot, into the waste pipe, and allowed to remain in the trap overnight. No other water must be used in the sinks until the next morning: The contained grease will then be dissolved and will be carried off when the trap is flushed next day. * * * Relative to proposed sewer, especial attention is invited to the importance of the pipe being sufficiently small. The constant temptation is to have the caliber of the sewer too great, in which case the force of the flow is diminished and the waste lodges instead of passing off. No material increase of the post need be anticipated or provided for as with a growing town, and as storm water should not enter the sewers, a very moderate caliber will suffice for the future as well as for the present. A 6-inch main will be ample and a smaller one would probably suffice. In fact, on the Long Island coast, a settlement of 23 country houses with water closets and bath tubs used for 9 years, and probably is still using, a 4-inch sewer, laid across a salt marsh for 2,800 feet, having a total fall of only 3 inches, in which no stoppage has occurred and no trouble of any sort has been met with. A 3-inch pipe from the quarters and the same from the barracks will be sufficient. A too large pipe will admit bottles, brushes, shoes, and other solids that experience shows soldiers will introduce until well instructed in using water-closets and sewers. The most important point, however, is that of construction. It is vital that the sewer line have all the proper accessories, and that the material be of first class, and also be laid by skilled workmen under the careful supervision of an expert. Such mechanics and agents are scarce, but a good sewer properly laid is indestructible except by violence, while a poor line poorly built is a never-ending source of trouble, exposure, and danger. I regret to say that poorly laid sewers are too common at military posts. Unskilled workmen and inexperienced overseers can not lay such a system. I recommend, therefore, that the estimates provide not only for perfect material, but for expert service as indicated.

UNITED STATES MILITARY ACADEMY, WEST POINT, N. Y.—*Maj. Henry McElderry*: The drainage and sanitary condition of the cadet hospital, officers' quarters, and cadet sinks remain unsatisfactory—the same as already reported in my special and last two monthly sanitary reports.

After the repairs made by the post plumbers of the water-closet pipes of the cadet hospital were completed, as reported in my last sanitary report, the soil pipes throughout the hospital were again tested, and several of the water-closets were found still leaking. It is probable, as reported already by the post quartermaster, that the water-closets themselves are defective, and that the leaks occur around the handles of the pull-up, the side water seal being siphoned out.

It has been observed that in many officers' quarters the soil pipe inside the walls of the house is of earthenware instead of iron, as it should be, and that the connec-

tion of the earthenware and iron pipe being made of cement is liable to leakage; several leaks in the soil pipe in officers' quarters have occurred from this cause during the month.

The quarters occupied by Lieuts. Boughton and Alvord have been filled with sewer gas during the month by the soil pipes not being properly extended above the roof; one of the soil pipes ending just below the roof, and the other extending a short distance above, being capped and a space left between the soil pipe and the roof, and the soil pipe not being trapped, the gases from the sewer readily found an entrance into the house. I recommend that an examination be at once made of the manner in which the soil pipe extends above the roof in all the officers' quarters, and if any be found thus defective, that the unsanitary condition of affairs be remedied.

There have been three cases of scarlet fever during the month among the corps of cadets, viz: Cadet Louis H. Bash, fourth class; taken sick April 1, now convalescent, out of quarantine; Cadet Louis B. Lawton, fourth class, taken sick April 5, now convalescent, still in quarantine; Cadet Frank M. Caldwell, first class, taken sick April 5, returned to duty April 15.

Cadet Ernest B. Gose, first class, was taken sick April 4 with diphtheria, and is now under treatment, convalescent. The rooms and clothing of these cadets, and that of their roommates, were, on the appearance of each case, immediately disinfected by burning sulphur and washing with solution bichloride of mercury, and every precaution taken by isolation and disinfection in hospital to prevent a further spread of the disease. There has been one case of diphtheritic scarlatina at the post during the month, in the person of the elder son of Maj. Spurgin; he is now convalescent.

One case of varioloid has occurred at the post during the month; the son (a child 8 years old) of Lieut. Weaver, being taken sick with the disease April 10, 1890. The case was slight, but well developed. The family were all promptly vaccinated, and all unprotected persons at the post have also since been vaccinated or revaccinated.

In my opinion the last 2 cases of disease were both caused by sewer gas. The water-closet in Maj. Spurgin's quarters is an old-fashioned pull-up closet like those in the cadet hospital, and is liable to leak in the same manner. His 2 other younger children have been several times sick with fever and sore throats since my arrival at the post.

The case of varioloid occurred in Lieut. Weaver's family immediately after the family had been quarantined for several weeks on account of fever with sore throats, which at first was feared might be scarlet fever, and while sewer gas was known to be permeating the house.

The amount of the water supply seems to be ample for all purposes; the insufficient supply in certain cases for flushing the water-closets being due to the need of modern style of water-closets with cisterns and proper flushing appliances.

The quality of the water supply is apparently good; that is, I know of no cases of disease that have occurred among officers and their families or cadets that could be attributed to the quality of their drinking water.

The number of water-closets and urinals at the post, however, supplied directly from the water pipes, are so numerous that under certain conditions it would seem possible the supply might be contaminated.

UNITED STATES MILITARY ACADEMY, WEST POINT, N. Y., SOLDIERS' HOSPITAL.—
Capt. W. F. Carter: My inspections have been carefully made, and the following are the points to which it seems most necessary that your attention should be called:

(1) The waste pipe from the kitchen sink in the cavalry barracks is a small pipe ($1\frac{1}{2}$ or $1\frac{1}{4}$ inch), which passes into a large pipe ($3\frac{1}{2}$ or 4 inch), extending some few inches above the cement floor; the small pipe simply projects into the large one and has no close connection with it. The large pipe could not be examined beneath the floor, but in all likelihood it is provided with a trap somewhere between the end projecting into the room and the point at which it enters the main sewer or catch basin. At the time of my inspection there was a distinctly disagreeable odor escaping from the large pipe under the sink, and I was informed by the cook and sergeant in charge of the kitchen that they had at times noticed the same odor, especially when hot water was allowed to flow into the sink. It is probable that the offensive gas proceeds from the large pipe under the sink, or it is possible that it comes from the main sewer. The large pipe must inevitably become foul and offensive, since it can never be flushed or scoured by the small stream discharged into it by the $1\frac{1}{2}$ -inch pipe. This should receive attention, as in cold weather, when doors and windows are closed, the air of the apartment may become dangerously polluted.

(2) The waste pipe from one of the kitchen sinks in the artillery detachment barracks has been battered in near the floor so as to compromise the caliber of the pipe. This should be remedied, as the pipe will not be properly scoured unless a full stream of water be allowed to pass through it.

(3) It is recommended that the pit under the privy used by the band men and their

families be thoroughly flushed. This, I think, should be done as often as possible. Daily flushing during the hot weather would not do more than keep them fairly clean.

The examination so far made leads me to the conclusion that the entire sewerage system of the post is defective in construction and decidedly wrong in principle. There may be exceptions in the few instances of recent construction or repairs, in which the quartermaster has done the best that could be done in building up an old and defective system. It is not expected, however, that more can be done by the commanding officer and post quartermaster (apart from some slight changes or improvements here and there) than to repeat the recommendation which they have already made looking to the reconstruction of the entire system.

The house drainage, as far as I have examined, is radically wrong. In the barracks the waste pipes (which are generally lead pipes) from sinks and basins run for a greater or less distance to terminate in brick boxes or into the sewer itself. These waste pipes in some instances extend from a fixture across the entire length or width of the building, and in almost every instance pass directly to and under the floor (be it a plank, brick, or cement floor), by which they are concealed throughout the rest of their course. So concealed, these pipes may become defective and leaky without exciting suspicion. A striking illustration of this was afforded in the set of quarters which I now occupy. Upon the assignment of these quarters to me the quartermaster kindly offered to do all in his power with the limited means at his command to repair and improve the plumbing in the building. The waste pipes from the several fixtures in the house were renewed or repaired down to the floors, at which point they all disappeared from sight, passing under the floors to converge to a common brick basin (outside the building), into which a trapped branch from the sewer opens. After the workmen had gone thus far it was deemed advisable to determine the condition of the pipes under the floors; accordingly they were successively subjected to hydrostatic pressure by closing the outer ends and filling them with water. The first waste pipe tried was that from the kitchen sink, and it was found that the water receded almost as rapidly as it entered the pipe. The leak in this pipe was then looked for, and was found under the floor of the laundry room. The pipe at this point had been nearly cut in two, and by far the greater part of the waste from the sink had been discharged upon the ground under this floor. The soil under the floor space was to a great extent saturated with filthy, offensive matter, and the floor joists and flooring were more or less decayed.

In this particular case the fouling of the soil and decay of the woodwork had gone so far as to emit a decidedly disagreeable odor. Capt. Williams, assistant quartermaster, seconded by the Superintendent, Col. Wilson, was prompt in remedying the evil so far as possible; but he could not of course materially alter the plan of the plumbing without incurring considerable expense.

VANCOUVER BARRACKS, WASH.—*Maj. W. E. Waters*: The recent completion of three buildings, divided into water-closets and urinals for eight companies, provides substitution for all the old pit sinks connected with the barracks, a want that has been felt at this post for a long time. As none of the new water-closets have been referred to in detail in the monthly sanitary reports, I will furnish a brief description of each.

The following were completed in 1887: A water-closet, 21 yards in rear of the cavalry barracks, 6 feet by 18, and 14 feet high, with six iron hoppers and flushing tanks, and one urinal trough, flushed by perforated iron pipes. In the same year two new water-closets were constructed in one building, 18 feet by 19 feet, situated in rear of barracks No. 41. They are of the same size, one-half that of the building, and each contains Mott's iron privy sink, 17 feet long, with patent overflow plug and lever attachment, and one plain iron urinal, 6 feet long. There are six privy stalls in each.

There was built at the same time, and in connection with the new guardhouse, in 1888, a water-closet and bathroom, 20 feet in rear of the guardhouse, connected with it by a covered way, containing a Mott's iron privy sink, one iron urinal, and two bathing compartments, each containing an iron bath tub supplied with hot and cold water.

The following new water-closets have just been completed: One in rear of and contiguous to barracks Nos. 34 and 36, which is 22 by 19 feet, and 14 feet high, with cement floor, divided into three rooms, one for each of the barracks, and each furnished with a Mott's iron privy sink and the usual attachments, and an iron urinal with flushing attachment. Each water-closet contains five privy stalls.

A similar building, divided and supplied as the one just described, has been erected in the rear of barracks Nos. 38, 39, and 40. In the rear of barracks Nos. 45 and 46 is a smaller building, containing two rooms for water-closets and urinals for the occupants of the adjacent barracks, fitted up as the others built this year. These buildings are all of wood with substantial brick foundations, and painted in keeping with the barracks and making a sightly appearance.

WATER SUPPLIES.

The water supplies of the Army have been improved considerably during the past few years, so that medical officers have had progressively less and less to say about them until at last their reports become condensed into a satisfactory conjunction of adjectives such as "pure and plentiful," "excellent and ample," "sufficient and good." Of 79 posts at which reference is made to the water supply, the reports are of this brief but gratifying character in 59, and to only 3 of these has it been considered needful to enlarge by special remarks: (1) At Fort Washakie, Wyo., manure was packed about the distribution pipes to prevent freezing, and in certain instances this packing was carried for some distance under the building, making the ground air in such cases exceedingly offensive. This nuisance was in part abated by using sawdust to replace the original packing. (2) Analyses in the laboratory of the Surgeon-General's Office condemned 2 of the 3 wells at Watertown Arsenal, whereupon the commanding officer had these two closed; but the third is sufficient for the supply of the garrison. (3) Vancouver Barracks, Wash., formerly derived its supply from the water mains of the town and suffered by the increase of the civilian settlement without a corresponding expansion of the water system.* It is now independent of the municipal water-works, having 2 artesian wells, 2 pumps with a combined daily power of 650,000 gallons, a tank of 50,000, and a reservoir of 626,000 gallons; the last two are connected with each other, with both pumps and with the distribution pipes, so that if either well or either pump becomes inefficient the other continues the supply, and should both fail the mains may be filled from the town supply.

In 7 more of the 79 reports the water is said to be good; but, although in some of these instances, as at Fort Bennett, S. Dak., it is affirmed to be also ample, a doubt arises as to its sufficiency, inasmuch as it has to be wagoned from its source for distribution. Fort Bennett derives its ample supply from the Missouri. The water wagon is still an institution at Fort Sully, S. Dak., Eagle Pass, Tex., and Fort Du Chesne, Utah. It brings the supply of Fort Brady, Mich., from the city waterworks, and distributes from the artesian wells at Fort Sheridan, Ill. It also brought a supply of spring water for drinking at Fort Verde, Ariz., but that post was abandoned in December, 1890, and there are now but six posts at which the wagon is reported as in use.

In seven of the seventy-nine cases the supply is said to be insufficient, but in only one of these is a slur cast on its quality. (1) The exceptional instance occurs at Fort Schuyler, N. Y., where the cisterns and wells which furnish the water of doubtful wholesomeness are now being replaced by an artesian well. Rain water is always a good water if proper precautions are taken for its collection and storage. Its sufficiency depends upon the preservation of the proper relations between the garrison to be supplied on the one hand and the shedding surface in connection with the minimum rainfall on the other. When attention has been paid to all these conditions, as at Fort Gibson, Ind. T., and Jackson Barracks, La., the water is reported as good and plentiful, (2) but at Fort Barrancas, Fla., some of the points in relation to quantity have been apparently neglected as the supply has been deficient; at no time has there been a sufficiency for bathing. It has been suggested that a plentiful supply could be easily piped from springs about half a mile distant from the post or by sinking an artesian well, for such wells

* Vide report for 1889, p. 83.

have been a success in Pensacola and its vicinity. (3) The supply for Boisé Barracks, Idaho, was formerly wagoned from the Overland Hotel at Boisé City. Recently a main was laid from the waterworks, but this does not give a sufficient supply. (4) The drain on the pipes running through the city of St. Louis, Mo., reduced the water supply of Jefferson Barracks so that at times in June no water could be drawn from the hydrants; but as it was found that the pressure increased at night a sufficiency was obtained to give an imperfect flush to the closets and sewers and to permit a partial supply to be stored up for use on the following day. (5) Fort Leavenworth, Kans., is similarly dependent on its neighboring city for its water. On account of the costliness of the present supply, its liability to interruption by the needs of the city, and the possible danger of its contamination by the sewage of the post, which flows into the river above the intake, Colonel Woodhull suggested that it would be in the interest both of economy and sanitation to provide reservoirs and pumps for this important station. His recommendation meets with the approval of this office. (6) At Fort Assiniboine, Mont., the supply from Beaver Creek is so low during the autumn months as to be a source of much anxiety. Capt. La Garde thus describes the condition of affairs:

On account of the low stage of water in Beaver Creek the water contains a great deal of organic débris. Since the latter is a fruitful source of the malaria which prevails every autumn, I would recommend that the water for drinking purposes be boiled, aerated, and mixed with a liberal amount of ice. Ten per cent of the admissions this month are due to fever and ague.

In August he remarks: The question of the water supply for this large and important post demands the immediate attention of the authorities. In order to maintain the normal volume of water in Beaver Creek I recommend the construction of a number of dams at favorable points. By restraining water in the creek bed the underlying soil will remain more or less impermeable in dry seasons, like this, and the water from the mountains will reach the source of supply the year round. There was a dam thrown across the creek bed about 7 miles above the post two years ago that served a good purpose during last season. It was as late as the latter part of November before water came down in the dry season of 1885. Last year the season was again dry and the water came down during the latter part of September, as soon as the frost had destroyed all vegetation. The early appearance of the water last year as compared to the time it made its appearance in 1885, is, in my opinion, to be explained by the detention of water above the 7-mile dam. The bed above this point remained wet constantly and when the water came down it made its appearance near the source of supply at once, instead of being consumed on the way to fill the cracks and crevices that must have obtained in a dry bed. The volume of water can be increased only by surface and artesian wells. Several of the former kind are now in use, but the potability of their water is questionable since they are prone to cause bowel troubles. The commanding officer informs me that he has recommended an artesian well. If we should be so fortunate as to hit upon good drinking water from this source, the water supply of the post will then remain solved.

In September he states: Notwithstanding a number of good soaking rains during the early part of the month, the creek bed is as dry as it has ever been. The Chinaman's spring referred to in my last report, upon which the command has depended for its drinking water, is about to run dry. It is safe to say it will have stopped flowing two weeks hence. Unless active steps have been undertaken to increase the volume of water for this post, I would recommend that a board of officers be appointed to thoroughly investigate the subject, and to recommend what measures are best to insure a permanent water supply. No pains should be spared and no time lost in the inauguration of active steps to remedy this alarming state of affairs. The time is ripe for a full understanding of our situation, and I trust that a board may be sent to judge for itself. A plentiful supply of good potable water stands preëminent in determining the welfare and health of a community, and for that reason I deem the slender thread upon which we now depend to be fraught with danger.

The post commander in forwarding the preceding report says: "The flow of water from the spring upon which the post has for the past two months depended for its water supply is diminishing perceptibly, but by managing to utilize more of the flow and possibly a further development of the spring, it is hoped we may get along until the creek commences to flow."

The sanitary report for October contains a sketch showing springs in the vicinity

of the post. In this report Assistant Surgeon La Garde remarks: "The water from the Chinaman's spring is practically exhausted, and because of its liability to contamination, recommendation was made to haul water from a distance of $2\frac{1}{4}$ miles above the present source, where a good stream is now flowing. * * * The prospects of abundant potable water at our original source are very good." Capt. and Assistant Surgeon Walter W. R. Fisher reports that there is a good flowing stream less than 3 miles from the post. In 1886 the water reached the post about November 28.

The seventh and last post at which an insufficiency is reported is Fort Warren, the most important defensive work in Boston Harbor. During the month of July the cistern supply gave out and it became needful to purchase water in Boston, transport it by boat to the island, and transfer it to the various cisterns by means of the post fire engine. The insufficiency at this important post could not be expressed with greater emphasis than by the statement of its failure when occupied by a merely nominal garrison, notwithstanding the exercise of the greatest care in husbanding its resources. Concerning this Capt. McCreery observes:

Money is being expended at present for the purpose of increasing the existing supply, but the work has been planned without a proper appreciation of the physical problem to be solved, and the expenditure when made will be without result. The use of sea water, by means of an extensive condensing plant, or the introduction of the city water, will be the only satisfactory method of overcoming the difficulty, and the preference should be given to the latter method. The city mains already extend to Long Island, thence to Galloupes; and thence to Fort Warren is a matter presenting but few engineering difficulties, and the water supply would be assured. The question is a grave one and deserves earnest consideration.

Doubt is thrown upon the quality of two of the seventy-nine supplies. (1) The camps and other settlements in the cañon above Fort Douglas, Utah, continue to interfere to some extent with the purity of the small stream which feeds the reservoir. (2) The water supply of Fort Apache, Ariz., is led from the creek, by a ditch, to the pump. According to Capt. W. C. Shannon—

The ditch is partly filled with mud and washings from the hill along which it passes. In many places the flow is obstructed by green, slimy moss, such as is seen in stagnant pools and frog ponds, lodged wood, twigs, and decaying leaves. It has been reported that the Mexicans, who have been making adobes along this waterway, use it for washing themselves and their clothing. This ditch also receives from the creek the irrigation water from the company gardens and Indian farms. Considering the filthy condition of the ditch, the inflow of polluted water from the gardens, etc., the uses to which the Mexicans put the water on its way to the post, it will be seen that the supply is unclean, unwholesome, distasteful, and disgusting. It is recommended that the ditch be at once cleaned, to remove all fungus growths and decaying matter, and to give the water a swifter current; that the Mexicans be moved to where they can not make use of the ditch as a lavatory and laundry. As to drainage from gardens and farms, it is impossible to suggest a remedy so long as the water supply is taken from the creek, as at present. The construction of the proposed supply (McMurray's system) should be hastened, that a wholesome water may be supplied to the many people whose health is jeopardized by the present conditions.

Three of the seventy-nine waters have been charged with the production of sickness: (1) At Fort Wadsworth, N. Y., the water, generally good, becomes brackish in June and December from admixture of sea water by high tides. At these times it is often unpalatable and causes diarrhœa. (2) The saline matters in the shallow wells dug in the bed of the San Carlos River, Arizona, occasionally induce diarrhœal attacks. (3) At Fort Elliott, Tex., there is stronger evidence of the production of disease by the water supply. The water was wagoned from a well, a spring, and from Sweetwater Creek. The well was near some old and disused privy vaults in the vicinity of the hospital. Typhoid fever appeared at the post and ceased after the development of thirteen cases on closing up the well.* This post was abandoned October 13, 1890.

*Vide *supra*, page 27.

FOOD AND COOKING.

The reports of the past year appear to show that the United States soldier has, as a rule, a sufficiency of good food properly cooked and presented in an inviting manner in the company mess halls; for when defects exist in relation to the ration or its preparation they are not usually overlooked by medical officers in their sanitary reports. A great improvement in the diet of the men has been made within the past year, so that complaints are infrequent and defects are due to local causes.

At Fort Stanton, N. Mex., complaints were made as to the quality of the beef issued during the winter and spring. The medical director of the department, after a personal examination of this post, became satisfied that in many instances the complaints were well founded and the beef of such quality as would warrant its rejection. Nevertheless, such beef is often received by the responsible officers, although provision for its rejection is found in the body of the contract made by the subsistence department. Boards of survey in some cases seem unwilling to mulct the contractor in the sum he would lose were his beef rejected and other beef purchased in open market. It is said in certain cases that if the poor beef is rejected the troops would be for that issue deprived of their meat ration because of the want of a market in which to buy, and therefore the contractor's supplies are accepted. This might be an excusable course where a single issue of beef is concerned, but it is not so where there is ground for continuous complaint. In such case a market might be looked for before hand.

If people in the neighborhood became aware of the facts and were told that on the next occurrence of the kind the beef would be rejected and other beef bought in open market, it is probable that some one would be found to make provision for the contingency, furnish the beef wanted, and charge such price as would compensate him for the risk he ran in providing it. The difference in price thus paid for a few times by the contractor or his sureties, as a penalty, would be the surest means to induce him to fulfill his contract.

At Jackson Barracks, La., the character and cooking of the ration were not considered satisfactory. The men complained of the cooking and of the insufficiency of the meat supply. The bread also was not good; the flour used had been kept in the bake house for several months and the warm moist atmosphere had caused changes in it that prevented the making of sweet, wholesome bread. The post commander, commenting on these criticisms, acknowledged the absence of competent cooks, and explained that the want of ice is the cause of much loss in the food supply. He said:

The men of both companies have been getting all their rations and more too, for the company funds of both batteries have been constantly reduced by the purchase of food. In other words, the purchases of food have been greater than the savings. This can not last long, and as rations are limited in quantity and kind the men will have to abide the situation or else contribute to their mess fund as many other organizations do who who are stationed in the South. As soon as it has been in operation long enough the increase of the ration by 1 pound of fresh vegetables will, I think, mend matters.

This is the only suggestion of a contributed mess fund to be found in the reports save in those from Alcatraz Island, Cal., and camp at Eagle Pass, Tex., where exceptional conditions are present. Not long ago at many of the posts in Texas the companies had to eke out their supply of vegetables by assessment on the members. The post surgeon at Fort

Ringgold, Capt. W. F. Carter, explains the cause of this improved condition. He says:

We can but note the great benefit arising to the enlisted men under modern and progressive methods of dealing with the ration. The return of the savings upon bread to the company funds and the restriction of these funds to the purchase of food alone have secured a much better diet, and at no personal cost to the men as, in former years, when almost throughout the department the men paid for their potatoes from their private means. Another source of revenue to the food fund has resulted from the establishment of the post canteen. * * * The question, at least, of the means to purchase a suitable diet seems settled, and it can not but be sincerely hoped that the canteen is a permanent establishment in our Army, for it has brought a large measure of contentment and has proved an unexpected source of much needed revenue for the improvement of the diet of the troops.

The conditions at Alcatraz Island were reported by Capt. Dietz as follows:

The meat furnished to the various organizations has been of fair quality; it is probably as good as can be expected for the price, 5.36 cents per pound. One shipment to the prison, however, was condemned as unwholesome, a large abscess of the hip-joint being found by the board of survey. The bread issued is good. A constant and general complaint is made by prisoners that they do not get enough to eat, and my observation leads me to believe that this is a just one. The enlisted men in the batteries state that the regulation ration is insufficient; the proportion of pork is too large while that of beef is too small; and that in order to get enough to eat they have to maintain for each battery a mess fund, into which every man pays monthly from 50 cents to \$1, the earnings of certain billiard tables being also covered into this fund. In connection with this, it is to be remembered that there are no vegetable gardens at the post, the products of which form such a desirable addition to the dietary of more favorably located garrisons.

The prison mess not having, as formerly, an income accruing from the proceeds of the shoe shop, tailor shop, carpenter shop, etc., is now limited to the bare army ration.

Later in the year Capt. Dietz expressed the satisfaction which the issue of vegetables by a recent order had given to the men of this garrison.

At Fort Niagara, N. Y., the local cause which interfered with the satisfactory character of the ration was the absence of a cellar under the bakehouse. Maj. A. C. Girard reported thus:

The bread is improving since a better grade of flour was obtained, but it can never be really good so long as the present makeshift of yeast cakes takes the place of properly fermented potato yeast. The objection seems to be the irregularity of the temperature in the rooms where the yeast is allowed to work, in absence of a cellar. That there should be no cellar in a newly built bakehouse is a strange oversight, but I believe the matter can be remedied by digging under the foundation from the outside. A cellar 6 by 6 by 6 would be large enough and remove the last impediment in the preparation of wholesome bread.

At the camp at Eagle Pass, Tex., the chief defects in the food supply appear to have arisen from the spoiled condition of certain of the canned supplies which were inadequate originally, a nine months' supply having been estimated for on the strength of the small garrison at the time the requisition was made, while at the time the supplies were being used the strength had been materially increased. The report of the post surgeon, Capt. Paul Clendenin, is as follows:

The rations of the men are good and are well cooked, being supplemented by vegetables from the troop garden at Fort Clark, and potatoes and onions purchased from the subsistence department. The pork is rarely eaten by the men, indeed it is rarely drawn from the commissary, being turned in at once, and there it remains to be issued and sold back again and again until it spoils, despite the utmost care for its preservation, and when it becomes offensive it is presented for the action of the board of survey, and later of an inspector, and thus disposed of. I venture to say that pork is a more expensive part of the ration than is bacon, which, by the way, is relished by the men, while the pork is repugnant to the vast majority of them, for the pork for the most part is finally condemned and thrown away. It is a matter of regret that there is no post garden at this camp, but the whole reservation lies on high ground back

from the river, and nothing will grow here without irrigation. The water supply is insufficient to furnish water for that purpose, nor is there material to build a fence around the garden. The hospital corps live very poorly here, and are compelled to contribute to their mess, and so do also the troops. A small number of men with but few sick find it very hard to manage the ration to advantage. The hospital corps gets no fresh vegetables but the few that are given them through the kindness of the troop.

The following remarks on the new mess hall at Jefferson Barracks show the advantages which a large garrison has over a small one, although both are provided with the same ration per man:

The new mess hall is now in successful operation, and is a decided improvement over the former company mess system. The food is well cooked and neatly served. The whole command sits down to the tables at the same time, without any confusion, and the uniformity in kind and quantity of food does away with any complaints as to the inequality or cooking which so frequently occur in the separate messes in companies serving at the same post.

General mess halls have been built and the messes are in operation at Davids Island, N. Y., Columbus Barracks, Ohio, Jefferson Barracks, Mo., and Fort Riley, Kans. The advantages of a large mess over a small one in improving the diet are evident when other things, such as the general management, cooking, and attendance, are equal. Inasmuch, however, as it is easier to provide capable stewardship and good cooks for small than for general messes, the chances are against the ultimate success of the latter, unless special care or means are taken to insure that the men on these important duties are fully qualified by previous training and experience. Maj. John Van R. Hoff gives expression to these views in a recent report, which shows the defects of the system as manifested at Fort Riley, Kans.:

Attention is respectfully invited to the fact that, while the quality and quantity of food supplied the command is above criticism, the cooking is not. As general messes are doubtless to become the custom at large posts, it would seem that sufficient experience must have by this time been had to justify them. But such experience certainly has not been gained at this post. After a trial of nearly two years I believe no man here can say that the advantages of a general mess outweigh its disadvantages; and I am sure I voice the opinion of every officer and man of this command when I assert that here at least the new system has not equaled the old.

This certainly has not been due to any lack of effort upon the part of the officers having the mess hall in charge, for no men could have labored harder than they in the accomplishment of a thankless task, but it is due, I believe, to a want of knowledge how to properly handle the enormous masses of food needed to feed a command of this size. To feed even fifty men requires knowledge and an effort. Multiply that number by ten and then not only adaptability to the work is needed but long experience as well. If there are to be general messes, there should be established a class of men—make them noncommissioned officers, if needs be—whose duties will correspond to those of the steward of a large hotel; there must be cooks, trained in the manipulation of large masses of food, there must be waiters. In a word, every general mess hall requires a corps of attendants which can not and should not be furnished by details from the command. The mess hall should indeed be a school of cookery, but the teachers should be experts and the scholars willing learners, not forced by the inexorable mandate of the company roster.

CLOTHING.

There are not many complaints concerning the clothing in the reports of this year, and such as are found are merely repetitions of those that have appeared frequently heretofore in the annual reports of the Surgeon-General of the Army. From Texas, Arizona, and other hot climates comes a call for lighter underclothing, and from the Dakotas, Wyoming, and the higher altitudes of the South, a call for drawers of a heavier nonconducting material. Capt. Clendenin, at Camp Eagle Pass, Tex. denounces the undershirt as too heavy and coarse to be comfortable in the climate of Texas for nine months of the year, and sug-

gests that during the three other months a light woolen shirt of finer quality than that now issued would not be too thin, inasmuch as the overshirt worn is heavy. A considerable number of the men purchase light cotton shirts for use during the greater part of the year, and this constitutes a serious drain on their scanty resources. Capt. P. E. Egan, from Fort McIntosh, Tex., presents similar views regarding the undershirt, adding that the Quartermaster's Department should furnish a gauze undershirt for use in Texas, as the irritation of the knitted undershirt is intolerable to most men, and keeps the skin in perspiration for months at a time. So also from Fort Gibson, Ind. T., Capt. Owen calls for lighter drawers and flannel shirts, while Capt. N. S. Jarvis realizes that there is something inconsistent, not to say unreasonable, in requiring troops at Fort Verde, Ariz., to wear cotton flannel drawers and heavy woolen shirts and socks, such as are issued to those serving at posts in the far Northwest for use during the times that the cold waves are materializing. Like Capt. Clendenin, he states that most of the men purchase comfortable underclothes out of their slender income. On the other hand, Maj. Lauderdale, at Fort Ontario, N. Y., in giving credit to the Quartermaster's Department for furnishing clothing of good materials and suitable for winter wear in the cold and damp climate of his post, can not refrain from the suggestion that the drawers should be of heavy woolen stuff. Acting Assistant Surg. Holland and Capt. C. F. Mason echo this suggestion from Fort Pembina, N. Dak., and Fort Washakie, Wyo., respectively, the latter asserting that the insufficient protection of the limbs by the present garment is a prime factor in the production of rheumatism; and Maj. P. J. A. Cleary coincides in these views from Fort Wingate, N. Mex., adding that attention has been frequently invited to this subject.

Maj. Cleary is correct in his statement. If the records be examined it will be found that the medical officers of the Army have steadily and persistently denounced the idea of a uniformity that would give the same clothing, and insist upon its being worn, to troops on the burning sands of southern Arizona and to those in the zero temperatures of the Canada frontier. Col. Vollum has said: *

The subject of the clothing of troops in this semitropical region is a matter that evidently has not received the serious attention that its importance demands. No argument is needed to show that health requires cool, light clothing in a climate like that of the Lower Rio Grande Valley, which is one of the hottest regions in the world occupied by white troops.

In the early days of English occupation of India, the military commanders remained for a time stiff-necked against any departure from the home woolen uniform, which, owing to prejudice against change, was worn for some time even in southern India; but the suffering, inconvenience, and depressing effect of the heavy clothing, only suitable for the climate of England, in time caused a reform, and quite naturally the dust-colored light cloth of the natives was first put to use, but this gave way to white drill trousers and calico jackets, which are now used for fatigue purposes throughout Lower India, British West Indies, West Coast of Africa, Egypt, Hongkong, and all other points occupied by English troops in tropical and semitropical countries. Holland, Germany, France, and all other nations clothe their troops serving in hot countries about in the same manner as the English do in such climates.

The United States stands alone in the measure of forcing its troops to wear the same uniform during all seasons and in all latitudes; and in the twenty-four degrees embraced within the boundaries of our country there are some places as hot as any occupied by white troops anywhere in the world. In this tardiness in adapting the clothing of our troops to the climate, we stand about where the English did in the first days of their occupancy of India. * * *

Complaints of the oppressiveness of the heavy woolen uniform in this region in summer date back in my memory to 1853-1856, when I served in this State. At that time the unsuitableness of the uniform, which was about as heavy as it is now, was a constant topic for grumbling and discontentedness.

* Report of the Surgeon-General of the Army, 1887, p. 79.

Much has been gained since the *ante bellum* dates to which Col. Vol- lum refers: at first in the North and Northwest, where the intensity of the winter's cold called with appreciable urgency for the needful protection from it, and afterward in the South, where more slowly the necessity for the adaptation of clothing to climate was recognized; and now there seems little remaining to be accomplished other than to give a practical response to the requests of these medical officers for thinner and less irritating underwear in the South and a better protection for the lower limbs in the North. No doubt this will speedily be effected, and the Army of the United States, although scattered over so many degrees of latitude, with altitudes reaching as high as 7,500 feet above the sea level, and with temperatures as low and as high as those to which the troops of *all* other nations are exposed, will have a schedule of clothing which will be appropriate for every one of its subordinate commands.

Another point which has been frequently referred to by medical officers is the summer head covering, particularly in warm climates. Capt. Havard, from Fort Buford, N. Dak., states that—

In my opinion the summer helmet could be improved in shape. The front brim or visor is too short to give such protection to the face as it should.

And Capt. Clendenin, at Camp Eagle Pass, Tex., goes more into detail on the subject:

I desire to compare the regulation white helmet issued to enlisted men with a Chinese pith helmet worn by the officers at this camp when not on duty. The great advantage of the latter is the large crown with the distance from the head band to the wall of the helmet, and the wide brim shading the face and head all round. The disadvantage of the regulation helmet is that it does *not* shade the eyes, face, and neck; and the men do not like to wear it, judging from my own observation that they seldom do except when compelled to. The pith helmet is not as serviceable as the cork one, as it does not stand wetting, but a coating of shellac or other varnish would add considerably to its durability. A cork helmet with wider brim and greater air space would be an improvement on the present one, and would not weigh over 7 or at the most 8 ounces. As a rule the men when permitted to choose wear straw hats in preference to the white helmet, and, wherever I have served, commanding officers have not insisted on the helmet being worn except perhaps when on duty, knowing how uncomfortable a head gear it is, with *no provision for shade to the eyes* in the hot glare of the sun in Texas, not to mention the stiffness due to the small space between the head band and the unyielding wall of the crown. Such a helmet as I have suggested is, I know by personal experience, infinitely more comfortable than the regulation helmet, and is, from a sanitary point of view, better than either the present helmet or the straw hat, besides presenting a more soldierly appearance than the latter.

On this the post commander remarks:

The white helmet is not what it might be, and is popular neither with officers nor men. *It has all the faults mentioned*, and is easily soiled and spoiled by one rain. Straw hats are light, cheap, and afford shelter from the sun. The men at the camp all wear the same pattern.

The italics in the above extract are not in the original, but have been placed there to show how they bear out the views of Capt. Havard. Looking at the page of the report of the Surgeon-General just cited, we find Capt. W. F. Carter stating that—

The helmet would be the best covering for the head I know for this climate if it were made after the pattern of the English [Indian] helmet, but as issued to our troops it is cut too short in front and rear. It does not protect the face and neck.

And picking up the next report Capt. Macauley is found to express the same views:*

* Report of the Surgeon-General of the Army, 1888, p. 116.

They also wore straw hats while I wore the regulation white helmet, which, although as cool as the straw where the head proper is concerned, is much heavier, and by reason of its faulty construction does not give the same protection to the face, ears, and neck.

These citations suffice to show that the defects of the helmet have been pointed out long before Capts. Havard and Clendenin referred to them during the past year. They should be remedied.

Two references to the regulation blouse are found in the reports: Maj. Pope, at Whipple Barracks, Ariz., considers that it is fitted so closely to the body as to impede respiration during exercise, particularly at high altitudes (his post is 5,340 feet above the sea level) and he suggests that lung expansion and abdominal movement should be unimpeded during exertion to avoid heart strain. He therefore recommends that during active drills, bayonet exercise, etc., the blouse be officially loosened about the neck, chest, and abdomen, and that the waist belt be fitted low down about the hips. Col. Woodhull's suggestion may, however, come in place here advantageously. He says:

The practice of allowing the guard to serve in their blue shirts, without coats, during the hot season, has conducted greatly to their comfort and is to be commended from a sanitary point of view. I hope the day may come when a shirt dress will supplant every form of coat for the rank and file under ordinary conditions of weather.

HABITS, CLEANLINESS, ETC.

Little is said in the sanitary reports concerning the habits of the men. More may be learned from a study of the prevalence of alcoholism and venereal diseases in the Army and at the various military stations than from the special reports of medical officers. One thing is certain, that drunkenness is on the decrease among our troops. The average annual rate per thousand of strength during the decade 1879-'88 was, among the white men, 62.22; during 1889, it was 45.64; and during 1890, 44.45. The colored soldier is seldom on sick report from this cause; his average annual rate during the decade was 4.42, the rate of last year was 2.07, and of the present year 5.59. The admission rate for venereal diseases among the white troops during the decade was 77.33 annually; it was above this average last year, but fell during 1890, to 72.02. Looking over the past twelve years there is seen to have been a manifest decrease in the prevalence of these foul and disabling disorders. The highest admission rate at any of the larger military posts was 462 per thousand men in 1889, and 380 in 1890. The number of men discharged from the Army annually on this account during the decade was 101.6; the number discharged in 1890, was only 71.

Every medical officer who refers to the canteen system approves of it with the exception of Capt. R. P. Ball, temporarily in charge at Fort Riley, Kans.:

The post surgeon is yet skeptical as to the sanitary value of the canteen. He has treated more cases of alcoholism and has sewed up more cut heads in a given time since its establishment than previous, and this does not argue in its favor. He is unable to see how giving the soldier double the quantity of beer for the same money can conduce to his sobriety and efficiency.

Capt. Ball's remarks would have more value as against the canteen if Fort Riley was a post with a reputation for alcoholism; but as a matter of fact it had just six cases of drunkenness during the year in its garrison of 649 men, or an admission-rate of 9.35 per 1,000 as compared with the average rate of the Army, 40.73. Only 13 posts had a better record in this respect, and 108 had a worse. (See Table XVII.)

These facts appear to argue in favor of the canteen, notwithstanding the views of Capt. Ball.

On the other hand, there are many such reports as the following :

FORT WINGATE, N. MEX.—*Maj. P. J. A. Cleary*: The habits of the men are generally clean and soldierly. Since the post trader was prohibited selling light wines and beer intemperance has markedly increased.

ALCATRAZ ISLAND, CAL.—*Capt. W. D. Dietz*: The canteen recently established is an appreciated innovation which will render the enlisted men more contented with the monotonous life at this rather circumscribed and lonely station.

FORT BENNETT, S. DAK.—*Acting Assistant Surgeon J. B. Ferguson*: The canteen system at this post, with the authorized sale of beer, has been a success. There has been no drunkenness from it, and I believe it makes the men more contented.

FORT BUFORD, N. DAK.—*Maj. Valery Havard*: There were four cases of alcoholism and four of venereal disease under treatment during the same month, the greatest number of both classes of cases recorded in any month this year. This sudden increase denotes a deterioration of habits due in my opinion to the exclusion of all alcoholic drinks from the canteen.

FORT HUACHUCA, ARIZ.—*Maj. J. H. Patzki*: The canteen has a beneficial effect upon the habits and contentment of the men.

FORT LEAVENWORTH, KANS.—*Maj. A. A. Woodhull*: It is worth remarking that there have been more cases of alcoholism (never very common here) under treatment within the past six weeks than for a long time before. Whether this has more than an incidental relation with the stoppage of the sale of beer in the canteen I can not tell.

FORT NIAGARA, N. Y.—*Maj. A. C. Girard*: A remarkable change has taken place in the habits of the men as to sobriety since the establishment of the canteen. Signs of intoxication are rarely to be seen, and the guardhouse is without occupants.

CAMP POPLAR RIVER, MONT.—*Lieut. J. D. Poindexter*: I am of the opinion that in this respect the influence of the canteen has been for good.

FORT WASHAKIE, WYO.—*Lieut. Charles T. Mason*: Though it would be difficult to show any direct effects of the canteen upon the health of the command, yet I am convinced that indirectly its influence has been favorable by giving the soldiers a place where they can meet socially and without unnecessary restraint, where they can obtain light refreshments when fatigued, and by keeping them from other objectionable places. I believe their habits and health are both improved by the existence of the canteen.

To determine the influence of the canteen on the habits of the men so far as the statistics of alcoholism would show it, the medical records of our military stations for the years 1889, 1890, as given in Table XVII, and 1891 up to June 30, were examined. Little value is to be attached to the record of a single post, as the canteen system may there be modified by more powerful local conditions, as in Kansas, according to Maj. Woodhull, by prohibition; but the aggregates of the Army might be expected to give testimony of some value. These aggregates appear to sustain the views of our medical officers who express themselves as in favor of the system. They show that the canteen has relieved our military posts of one-third of the cases of alcoholism that formerly tended to the demoralization of the individual, infractions of discipline, assaults, injuries, and death. They are presented below, together with the falling rates of a few of the posts. At Willets Point, a large post which has had a bad reputation for drunkenness, the impression made presumably by the canteen is distinctly marked.

	Annual admission rate for alcoholism per thousand of strength.		
	1889.	1890.	1891.
Posts with canteen	42.95	41.76	39.82
Posts without canteen	54.78	61.04	60.50
Willels Point, N. Y.	272.97	157.50	70.46
Fort Mackinac, Mich.	197.52	127.66	70.18
Fort Spokane, Wash.	118.72	80.00	50.96
Fort Wayne, Mich.	44.95	113.74	41.16
Fort Hancock, Tex.	130.43	40.82	39.22
Vancouver Barracks, Wash.	104.44	73.81	31.96
Fort Hamilton, N. Y.	78.95	35.35	25.52
Fort Bliss, Tex.	93.22	16.26	18.34
Boisé Barracks, Idaho.	79.22	28.57	16.80
Fort McIntosh, Tex.	100.77	30.77	13.88
Presidio of San Francisco, Cal.	114.05	28.57	8.68
Dauids Island, N. Y.	25.91	11.52	7.54
Columbus Barracks, Ohio.	20.03	17.93	3.54
Jefferson Barracks, Mo.	4.72	4.93	0.00
Mount Vernon Barracks, Ala.	137.92	45.05	0.00
Fort Sherman, Idaho.	40.65	77.21	0.00

From a few posts come complaints of the inadequacy of the facilities for personal cleanliness; but from the very infrequency of these complaints it will be appreciated that as a rule military stations are satisfactorily provided in this respect.

CAMP EAGLE PASS, TEX.—*Capt. Paul Clendenin*: There is but one bath tub for the troop of 50 or more men, and no means of heating the water. I am confident that the requirements of one bath weekly is not obeyed by the men, for some have come to me on sick report that to my positive belief have not bathed for a month. Moreover, I do not think a weekly bath sufficient for a cavalryman who grooms his horse twice daily and works about a dusty corral. He should be required to bathe at least twice a week in winter and every day in summer; and facilities should be provided for a daily bath for all if they wish. I would respectfully suggest that two additional tubs be provided, with a barrack stove and large water heater to be placed in the bath room, and that it be made the duty of the noncommissioned officer in charge of the quarters to see that the fire is kept up during the winter and during northers; that the water heater be kept filled, and that the men bathe frequently. I know that the average cavalryman despises the idea of bathing in warm water, thinking it effeminate; but it is difficult, if not impossible, to take an efficient bath hastily and shivering, and I am confident that men will bathe more frequently and more carefully when they can do so comfortably. An interesting point was brought out in my inquiry regarding bathing. It appears that many of the men will take a washtub and give themselves a sponge rather than go into the general bath tub which has been used by men with venereal diseases. On this the post commander indorses as follows: Until there is a better water supply I see no way to have better bathing facilities. * * * The tub in use exhausts the water supply, and this is the reason why the other tub was turned in. * * * The men bathe in the river, a thing I have encouraged, for every soldier should not only be able to swim, but have confidence in himself in the water. Noncommissioned officers in charge of squads have special instructions concerning baths and washing the feet, and although there may have been some cases of negligence I have not detected them. As a whole the men of this troop are the neatest and cleanest soldiers I have ever seen, and no sickness from any lack of bathing has come to my notice.

FORT DU CHESNE, UTAH.—*Capt. C. E. Price*: Very poor accommodations for bathing. Lack of bath tubs, lack of conveniences for warming water, and room, and lack of privacy makes bathing uncomfortable, so I have no doubt it is frequently neglected. If the proposed waterworks, including bath tubs, are not to be put in very soon, tubs should be procured for the company at once.

FORT LOGAN, COLO.—*Capt. Charles Richards*: In the new guardhouse the bathing facilities are of but little use in cold weather, there being no means for heating water. The cleanliness of the prisoners is a sanitary necessity, and a hot-water supply should not be regarded as a luxury. All deserters who have been brought to this post have been exceedingly dirty and generally infested with vermin. That they may be properly cleaned they must be taken to one of the company bathrooms, where hot water is obtainable, thus inflicting injustice upon the men of the companies, who

run the risk of becoming infested with vermin. Some arrangement for supplying hot water could easily be introduced.

NEWPORT BARRACKS, KY.—*Capt. H. J. Raymond*: The bathing facilities for the enlisted men are wholly inadequate; there being about 80 soldiers dependent upon two bath tubs in the company quarters. Two additional tubs are needed. The hot-water supply is deficient, the water having to be heated in an ordinary wash boiler at times when the range is not otherwise occupied. The practical result is that bathing is neglected by many. Cleanliness of the skin conduces largely to the health, comfort, and contentment of any company or command. A boiler attachment to the kitchen range or ranges, with delivery pipes to the bath tubs, is recommended.

FORT PORTER, N. Y.—*Capt. E. F. Gardner*: The bathing facilities are not as good as they should be. In this climate a cold bath is an impossibility for nine men out of ten. The present facilities for heating water for bathing by boilers connected with the company kitchen stoves are not sufficient, as they can not furnish enough of hot water for more than two or three baths in the course of a day. Some kind of boiler for heating water should be put up in the barracks so as to furnish at all times an unlimited supply of hot water for bathing purposes for both companies.

FORT WASHAKIE, WYO.—*Lieut. C. F. Mason*: I desire to invite attention to the absence of any facilities for bathing in the company quarters. The hot springs, 2 miles away, are resorted to by the men for this purpose, but the distance is so great that they are not used with sufficient frequency during the winter months.

FORT BENNETT, S. DAK.—*Acting Assistant Surg. J. B. Ferguson*: To the need of a good bathing room for the use of the enlisted men attention is invited. The one in use, although better than none, is so small that there is scarcely room in it to turn around, and being only a shed attached to the quarters, built of old material and without any plastering, it can not be otherwise but cold and drafty in winter, and liable to increase the number of men on sick report with coughs, colds, etc.

FORT DOUGLAS, UTAH.—*Maj. W. D. Wolverton*: Additional bath tubs are required for the use of the troops at this post, placed in properly selected rooms. At present only one bath tub is provided for each company in any small alcove or open room available in the barracks, and usually protected from intrusion only by a small cloth screen. During winter the bathing places are not sufficiently warm to protect the men from dangerous exposure. Frequent bathing is necessary to the health and comfort of soldiers, and to insure this two bath tubs should be provided for the use of detachments or companies of more than 30 men, and three where companies or batteries number more than 50 men. On this report the medical director remarked:

Bathrooms should not be attached to separate company barracks in our large and permanent posts. It is much wiser and more economical to provide this facility in a building apart where the administration can be concentrated and direct. Such a building should, in my opinion, contain a swimming pool, and for the most part the ordinary bath tub should be dispensed with. In its stead the bath cell and water jet should be used both as more cleanly in practice, simple in design, and economical in use of water.

I strongly recommend the establishment at each post of a systematic course of athletic exercises to improve the physique of the men. Military drills have little influence in perfecting the physique, and after a time they become monotonous, and being looked upon as a task, fail to interest the men. Only one medical officer during the past year has referred to this subject in his reports, although I am aware that it has occupied the attention of many.

Lieut. CHAS. F. MASON, *Fort Washakie, Wyo.*, says: "During this winter systematic exercise in the gymnasium has been at times compulsory, and though the course was not maintained for a sufficient length of time to show any very marked change in the physique of the men, yet I am confident that during these periods there was much less willingness shown in appearing upon sick report. A compulsory graded course in gymnastics, under the supervision of a qualified officer, would be excellent preparation for the summer marches. Such a course should embrace walking, running, leaping, vaulting, and swimming, besides the exercise with fixed apparatus. It could be held through the winter and spring months, and would form a most useful and agreeable substitute for some of the monotonous and tiresome drills. There can be no doubt that such a course would result in a marked improvement in the physical condition of the soldier, and also in his cheerfulness and contentment. The modern soldier is liable to sudden calls for severe and prolonged strain, and he should be fitted for such emergencies by the development of the hard muscles, supple frame, and increased heart and lung power which properly regulated gymnastic exercise would give him."

The need for the systematic development of the physique of our troops is shown with emphasis by certain measurements of 161 colored men, 80 of the Tenth Cavalry, and 81 of the Twenty-fourth Infantry, taken by Capt. Edward Everts at Fort Apache, Ariz., in accordance with orders from headquarters of the department. The object of the order was to improve the physical condition of the soldiers by two months of systematic and well-directed exercise, and to demonstrate the results by accurate measurements taken before and after the gymnastic course. Unfortunately the full intent of the order was not carried out; the cause of this failure is not stated. The close inspection given to these men in taking their measurements shows that their physical condition was much below the proper standard. Stooping shoulders, sunken chests, soft and weak muscles, and heavy dull appearance were noted with startling frequency. The forced respiratory movement, as taken, represents imperfectly the possible respiratory action of the lungs in most cases.

	Average.	Maximum.	Minimum.
1. Age.....years..	30.1	57	21
2. Length of service.....do..	7.8	24	1
3. Weight*.....pounds..	147.92	224.5	108
4. Height.....inch..	67.55	76.58	61.30
5. Circumference of neck†.....do..	14.49	16.69	12.44
6. Chest at inspiration‡.....do..	37.16	42.99	32.84
7. Chest at expiration.....do..	35.64	41.73	31.50
8. Chest movement.....do..	1.53	3.54	.12
9. Waist§.....do..	29.81	39.37	21.65
10. Circumference of biceps, fixed.....do..	12.72	16.06	10.39
11. Circumference of biceps, extended.....do..	11.38	14.21	9.13
12. Circumference of forearm, extended.....do..	11.06	13.54	9.74
13. Circumference of hips.....do..	35.03	38.66	31.93
14. Circumference of middle thigh.....do..	20.49	24.96	17.09
15. Circumference of calf.....do..	14.17	17.36	12.01

* Average of infantrymen: Weight 151.6 pounds, height 67.82 inches. Of cavalrymen 144.2 and 67.26. There were 9 men over 6 feet in height and 1 under 5 feet 3 inches.

† Below thyroid cartilage.

‡ Horizontally over or below nipples.

§ This and the measurements following it were taken at the largest circumference.

APPENDED PAPERS.

In closing I have the honor to invite attention to a series of tables which give in detail the statistical data on which the statements of this report are based. They consist of—

I. A numerical view of the effects of disease and injury on the Army during the calendar year 1890, as compared with the corresponding data of the year 1889 and of the decade ending December 31, 1888.

II. The relative sickness of the troops, white and colored, in the various military departments.

III. The military posts in each department, alphabetically arranged, with mean strength, admissions for disease and injury; also deaths and discharges, with ratios per thousand of strength for admissions and noneffectiveness, the averages of daily sickness, and the meteorological data for the year 1890.

IV. A general view of the results of disease and injury at each of the various military stations, arranged in the order of their mean strength.

V. Twenty posts having the highest rates of admission for the year; the said rates compared with those of 1885-'89, inclusive.

VI. Twenty posts having the highest rates of noneffectiveness during the year; the said rates compared with those of 1885-'89, inclusive.

VII. Twenty posts having the highest admission rates for *disease*, excluding venereal diseases, vaccina, and alcoholism, together with their ratios for deaths, discharges, and constant noneffectiveness; also the corresponding average rates of the Army.

VIII. Twenty posts having the highest noneffective rates for *disease*, excluding venereal diseases, vaccina, and alcoholism, together with the average number sick daily, and average duration of each case; also the corresponding average rates of the Army.

IX. The military posts in each department, showing the rates of admission, death, discharge, and noneffectiveness for *disease*, not including venereal diseases, vaccina, nor alcoholism.

X. The monthly prevalence of disease among the white and colored troops of the Army.

XI. The rates, per thousand of strength, of admission, death, discharge, and noneffectiveness of the Army and of the troops in the several departments for the year, as compared with those of the decade 1879-88, and of certain foreign armies.

XII. Admission rates for specific febrile diseases in various armies.

XIII. Distribution of specific febrile diseases at United States military posts during the year.

XIV. The distribution of pneumonia at United States military posts during the year.

XV. Twenty posts giving the largest admission rates for malarial diseases, rheumatism, diarrhoeal and venereal diseases, respectively.

XVI. Twenty posts giving the highest noneffective rates for malarial diseases, rheumatism, diarrhoeal and venereal diseases, respectively.

XVII. The prevalence of alcoholism at the various posts and its influence on the effective force of the garrison.

XVIII. Showing the relation of certain classes of disease to arm of service and age of individual.

XIX. Showing the relation of certain classes of disease to nativity and length of service.

XX. Showing the relation of certain specified diseases to arm of service and age of individual.

XXI. Showing the relation of certain specified diseases to nativity and length of service.

XXII. The causes and ratios of rejection among 19,926 recruits examined during the year; white, 18,437, colored, 1,489.

Respectfully submitted.

CHARLES SUTHERLAND,
Surgeon-General.

Hon. REDFIELD PROCTOR,
Secretary of War.

APPENDED PAPERS.

STATISTICAL TABLES.

TABLE I.—*A numerical view of the effects of disease and injury on the Army during the calendar year 1880, as compared with the corresponding data from the reports of 1889 and of the decade 1879-'88.*

United States Army.	White.	Colored.	Total.
Average strengths as shown by returns of the Adjutant-General . . .	*24,167	*2,517	*26,684
as shown by reports of the Medical Department . . .	†21,910	†2,324	†24,234
All admissions to sick report during the year . . .	29,519	4,027	33,546
treated in hospital . . .	14,090	1,856	15,946
treated in quarters . . .	14,298	2,067	16,365
treated in field . . .	1,181	104	1,285
Ratios of all admissions per 1,000 of mean strength . . .	1,347.28	1,732.79	1,384.25
for the previous year . . .	1,318.67	1,280.93	1,315.02
for the preceding decade . . .	1,528.91	1,688.32	1,544.23
Admissions for disease . . .	24,333	3,307	27,640
ratios per 1,000 of mean strength . . .	1,110.59	1,422.98	1,140.54
for the previous year . . .	1,073.70	997.10	1,066.30
for the preceding decade . . .	1,286.59	1,411.10	1,298.56
Admissions for injury . . .	5,186	720	5,906
ratios per 1,000 of mean strength . . .	236.69	309.81	243.71
for the previous year . . .	244.96	283.82	248.72
for the preceding decade . . .	242.32	277.22	245.67
Ratios per 1,000 of mean strength of cases treated in hospital . . .	643.08	798.63	658
of cases treated in quarters . . .	652.58	889.41	675.29
of cases treated in field . . .	51.62	44.75	50.96
Number constantly noneffective during the year . . .	924.38	110.76	1,035.14
ratios per 1,000 of mean strength . . .	42.19	47.66	42.71
for the previous year . . .	44.44	41.09	44.12
for the preceding decade . . .	43.51	43.33	43.49
Number of days lost on account of sickness during the year . . .	337,397	40,430	377,827
average for each man of the Army . . .	15.4	17.4	15.6
for the previous year . . .	16.2	15	16.1
for the preceding decade . . .	15.9	15.8	15.9
Average number of days each case was treated . . .	11.4	10	11.3
for the previous year . . .	12.3	11.7	12.2
for the preceding decade . . .	10.4	9.4	10.3
Average days treatment for patients returned to duty . . .	10.0	8.4	9.8
discharged for disability . . .	73.5	80.4	74.3
who died . . .	23.4	32.7	24.6
Number of discharges for disability . . .	542	72	614
ratios per 1,000 of mean strength . . .	22.43	28.61	23.01
for the previous year . . .	22.65	24.14	22.79
for the preceding decade . . .	32.13	30.67	31.99
Number of discharges for disease . . .	495	57	552
ratios per 1,000 of mean strength . . .	20.48	22.65	20.69
for the previous year . . .	19.33	22.22	19.61
for the preceding decade . . .	28.40	26.29	28.20
Number of discharges for injury . . .	47	15	62
ratios per 1,000 of mean strength . . .	1.95	5.96	2.32
for the previous year . . .	3.32	1.92	3.18
for the preceding decade . . .	3.73	4.38	3.79
Number of deaths from all causes . . .	203	29	232
ratios per 1,000 of mean strength . . .	8.40	11.52	8.69
for the previous year . . .	5.99	9.58	6.33
for the preceding decade . . .	8.97	11.69	9.23
Number of deaths from disease . . .	118	22	140
ratios per 1,000 of mean strength . . .	4.88	8.74	5.25
for the previous year . . .	3.64	6.90	3.95
for the preceding decade . . .	5.85	7.16	5.98
Number of deaths from injury . . .	85	7	92
ratios per 1,000 of mean strength . . .	3.52	2.78	3.45
for the previous year . . .	2.35	2.68	2.38
for the preceding decade . . .	3.12	4.53	3.25

* Used in computing the ratios of deaths and discharges for the whole Army.

† Used in computing all ratios for the Army except those of deaths and discharges.

TABLE II.—*The relative sickness among the troops, white and colored, in the various military departments during the year 1890.*

Army by departments.		Mean strength of command.	Admissions during the year 1890.						Admission rate per 1,000 of mean strength.	Troops per 1,000 of mean strength constantly non-effective from sickness.
			Quarters.	Hospital.	Field.	Disease.	Injury.	Total.		
East.....	W..	5,463	3,618	4,545	84	7 059	1,188	8,247	1,509.61	43.99
	C..	64	15	124	.....	130	9	139	2,171.87	112.11
	T..	5,527	3,633	4,669	84	7,189	1,197	8,386	1,517.28	44.77
Platte	W..	2,445	1,419	1,271	98	2,251	537	2,788	1,140.29	33.02
	C..	607	469	552	8	820	209	1,029	1,605.22	37.73
	T..	3,052	1,888	1,823	106	3,071	746	3,817	1,250.66	38.96
Dakota.....	W..	3,670	1,733	1,677	679	3,229	860	4,089	1,114.17	32.54
	C..	462	180	325	92	490	107	597	1,292.21	35.29
	T..	4,132	1,913	2,002	771	3,719	967	4,686	1,134.08	32.63
Missouri.....	W..	3,682	2,642	2,338	63	4,116	927	5,043	1,369.64	42.58
	C..	94	40	132	1	129	44	173	1,840.43	72.84
	T..	3,776	2,682	2,470	64	4,245	971	5,216	1,381.36	43.33
Texas.....	W..	2,095	1,793	1,558	55	2,922	484	3,406	1,625.78	50.75
California.....	W..	1,157	707	658	125	1,102	288	1,390	1,201.38	36.54
Columbia.....	W..	1,464	1,121	802	26	1,571	378	1,949	1,331.28	40.18
	C..	1,892	1,265	1,323	1	2,065	524	2,589	1,368.39	45.93
Arizona.....	W..	1,092	1,363	723	3	1,738	351	2,089	1,613.00	48.57
	C..	2,984	2,628	2,046	4	3,803	875	4,678	1,567.69	46.90
Hot Springs, Ark..	W..	42	.....	18	.....	18	.....	18	.....	.....
	C..	5	.....	.....	.....	.....	.....	.....	.....	.....
	T..	47	.....	18	.....	18	.....	18	.....	.....
At large:										
Miscellaneous deaths and discharges.	W..	.....	.....	.....	.....	.....	.....	.....	.....	.....
	C..	.....	.....	.....	.....	.....	.....	.....	.....	.....
	T..	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total for the Army.....	W..	21,910	14,298	14,090	1,131	24,333	5,186	29,519	1,347.28	42.19
	C..	2,324	2,067	1,856	104	3,307	720	4,027	1,732.79	47.66
	T..	24,234	16,365	15,946	1,235	27,640	5,906	33,546	1,384.25	42.71

Army by departments.		Deaths.	Annual death rate per 1,000 of mean strength.	Discharges for disability.	Annual discharge rate per 1,000 of mean strength.	Average duration of treatment among patients.			Death rate per 1,000 of admissions.	Discharge rate per 1,000 of admissions.	Recoveries per 1,000 of admissions.	Average sick daily.	Average duration of treatment among all admissions.
						Who died.	Discharged for disability.	Recovered.					
East.....	W..	33	6.22	121	22.15	25.0	58.3	9.3	4.12	14.67	968.11	240.33	10.6
	C..	.....	.....	9	140.62	.....	44.7	14.7	.....	64.75	848.92	7.17	18.8
	T..	33	6.15	130	23.52	25.0	57.3	9.4	4.05	15.50	966.13	247.50	10.8
Platte.....	W..	18	7.36	32	13.69	32.9	78.8	9.5	6.46	11.48	978.48	80.74	8.1
	C..	7	11.53	12	19.77	31.7	82.1	6.7	6.80	11.66	988.34	22.90	9.9
	T..	25	8.19	44	14.42	32.6	79.7	8.6	6.55	11.63	981.14	103.64	10.7
Dakota.....	W..	51	13.90	60	16.35	7.5	74.2	9.3	12.47	14.67	950.84	119.44	9.4
	C..	4	8.66	9	19.48	18.2	85.2	7.4	6.70	15.08	934.67	15.38	10.5
	T..	55	13.31	69	16.70	8.3	75.7	9.1	11.74	14.72	948.78	134.81	11.3
Missouri.....	W..	42	11.41	93	25.26	21.4	65.1	10.1	8.33	18.44	965.50	156.78	6.85
	C..	2	21.28	7	74.47	17.5	34.3	15.4	11.36	40.46	947.98	6.85	11.5
	T..	44	11.65	100	26.48	21.3	62.9	10.2	8.44	19.17	964.92	163.63	11.4
Texas.....	W..	14	6.68	55	26.25	23.0	58.1	10.6	4.11	16.15	962.71	106.32	11.1
California.....	W..	3	2.59	35	30.25	166.3	71.8	9.3	2.16	25.18	958.27	42.28	11.0
Columbia.....	W..	11	7.51	30	20.49	25.5	77.0	9.2	5.64	15.39	972.29	58.82	12.3
	C..	13	6.87	59	31.18	45.5	72.5	10.1	5.02	22.79	972.58	86.90	9.3
Arizona.....	W..	15	13.74	29	26.56	33.0	77.2	7.0	7.18	13.88	957.87	53.04	10.9
	C..	28	9.38	88	29.49	38.8	74.0	8.7	5.99	18.81	966.01	139.94	32.76
Hot Springs, Ark..	W..	2	.....	27	167.5	277.1	169.5	.....	.....	.....	.....	5.42	.....
	C..	1	.....	4	124.0	289.0	234.6	.....	.....	.....	.....	38.19	.....
	T..	3	.....	31	163.0	278.6	180.6	.....	.....	.....	.....	.....	.....
At large:													
Miscellaneous deaths and discharges.	W..	15	.....	30	.....	.....	.....	.....	.....	.....	.....	.....	.....
	C..	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
	T..	15	.....	32	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total for the Army.....	W..	202	8.40	542	22.43	23.4	73.5	10.0	6.84	18.36	967.55	924.38	11.4
	C..	29	11.52	72	28.61	32.7	80.4	8.4	7.20	17.88	961.51	110.77	10.0
	T..	231	8.69	614	23.01	24.5	74.3	9.8	6.89	18.30	966.62	1,035.14	11.3

TABLE III.—*Military posts in each department, alphabetically arranged, with mean strength, admissions for disease and injury, also deaths and discharges, with ratios per thousand of strength for admissions and noneffectiveness, the averages of daily sickness, and meteorological data for 1890.*

DEPARTMENT OF THE EAST.

Names of stations.	Mean strength.	Cases.			Admission rate per 1,000 of mean strength.	Average number of sick daily.	Constantly noneffective per 1,000 of mean strength.	Discharge for disability.	Deaths.	Altitude of stations.	Temperature.			Total precipitation.
		Disease.	Injury.	Total.							Mean.	Maximum.	Minimum.	
Adams, Fort, R. I.	197	115	39	154	781.73	5.00	25.38	5	1	Feet.	30	48.8	93	43.87
Allegheny Arsenal, Pa.	29	16	4	20	689.66	.85	29.48	...	1	704	...	98	-2	53.02
Augusta Arsenal, Ga.	26	23	1	24	923.08	1.70	65.54	2	...	600	66.4	102	23	42.98
Barrancas, Fort, Fla.	86	128	16	144	1,674.42	5.03	58.49	1	2	30	69.9	96	25	61.15
Brady, Fort, Mich.	95	107	14	121	1,273.68	2.99	31.49	...	...	600	...	88	34	33.37
Columbus Barracks, Ohio	502	870	72	942	1,876.49	38.93	77.55	32	3	740	53.3	97	45	1.25
Columbus, Fort, N. Y.	164	150	26	176	1,073.17	6.44	39.27	8	3	25	52.8	93	8	51.32
David's Island, N. Y.	434	625	88	713	1,642.86	22.76	52.45	5	2	30	50.3	93	4	46.69
Frankford Arsenal, Pa.	198	50	3	53	1,394.74	1.83	48.16	1	2	50	54.2	99	7	53.83
Hamilton, Fort, N. Y.	198	269	53	322	1,626.26	8.30	41.91	13	...	47	52.3	91	7	44.84
Indianapolis Arsenal, Ind.	25	42	4	46	1,840.00	1.42	56.99	1	...	698	54.0	97	45	4.87
Jackson Barracks, La.	92	166	33	199	2,163.04	6.50	70.64	2	2	10	...	...	...	52.60
Kennebec Arsenal, Me.	15	27	2	29	1,933.33	.39	26.48	...	1	200	41.3	88	-20	32.66
McHenry, Fort, Md.	99	117	20	137	1,383.84	6.31	63.73	5	...	36	56.6	98	12	46.96
McPherson, Fort, Ga.	188	408	60	468	2,489.36	11.50	61.16	1	21	1,078	...	101	10	45.82
Mackinac, Fort, Mich.	94	125	26	151	1,606.38	2.51	26.73	2	...	728	40.3	81	-14	28.50
Madison Barracks, N. Y.	248	295	51	346	1,395.16	7.56	30.50	1	1	262	...	100	-19	32.14
Monroe, Fort, Va.	433	633	107	740	1,709.01	19.93	46.04	3	1	8	60.7	96	22	46.97
Mount Vernon Barracks, Ala.	111	157	12	169	1,522.52	7.61	68.57	1	2	155	66.6	101	20	48.97
Myer, Fort, Va.	137	154	31	185	1,350.36	5.10	37.20	2	2	200	53.3	99	12	39.31
Newport Barracks, Ky.	62	89	18	107	1,725.81	3.22	51.92	1	...	588	55.6	96	7	47.88
Niagara, Fort, N. Y.	114	103	26	129	1,131.58	3.28	28.74	2	2	271	49.4	97	7	34.62
Ontario, Fort, N. Y.	43	67	6	73	1,697.67	2.15	49.89	4	...	282	45.6	93	0	40.86
Plattsburg Barracks, N. Y.	47	58	8	66	1,404.26	1.64	34.92	1	...	186	...	...	-15	37.39
Porter, Fort, N. Y.	95	82	14	96	1,010.53	3.13	33.28	1	1	660	47.1	89	7	46.55
Preamble, Fort, Me.	54	57	15	72	1,333.33	1.72	31.91	...	...	38	...	...	...	48.25
Sandy Hook, N. J.	32	47	11	58	1,822.50	.55	17.04	...	...	...	52.8	91	8	51.33
Schuyler, Fort, N. Y.	78	51	17	68	871.79	2.62	33.58	2	...	25	53.8	95	6	52.30
Springfield Armory, Mass.	28	13	2	15	535.71	.56	20.06	...	1	250	48.7	95	0	54.88
St. Francis Barracks, Fla.	65	116	15	131	2,015.38	4.34	66.76	4	...	15	...	95	28	52.27
Thomas, Fort, Ky.	31	33	7	40	1,290.32	.51	16.35	...	...	...	55.6	96	7	47.88
Trumbull, Fort, Conn.	52	44	14	58	1,115.38	1.78	34.19	1	...	25	51.8	95	5	47.70
Wadsworth, Fort, N. Y.	111	100	19	119	1,072.07	3.30	29.69	1	1	140	53.1	97	7	53.92
Warren, Fort, Mass.	86	69	21	90	1,046.51	2.98	34.63	1	1	38	45.8	90	2	41.79
Washington Barracks, D. C.	255	287	52	339	1,329.41	13.22	51.86	17	1	106	55.9	99	15	35.07
Watertown Arsenal, Mass.	33	31	4	35	1,060.61	.79	23.91	...	...	100	49.1	95	0	50.21
Watervliet Arsenal, N. Y.	60	64	18	82	1,366.67	1.47	24.57	2	...	50	...	97	-8	44.90
Wayne, Fort, Mich.	211	250	33	283	1,341.23	7.98	37.84	3	...	580	45.9	97	3	38.44
West Point, N. Y.	378	458	96	554	1,465.61	11.63	30.77	1	1	167	47.3	98	-1	50.16
Willets Point, N. Y.	400	604	121	725	1,812.50	17.24	43.10	4	1	80	52.2	92	-2	...
Wood, Fort, N. J.	46	21	2	23	500.00	.13	2.92	...	...	...	52.8	91	8	51.32
Field.	35	68	16	84	2,400.00	.55	15.58	...	...	...	...	...	...	...
Total	5,527	7,189	1,197	8,386	1,517.28	247.50	44.78	130	34	...	...	...	...	...

DEPARTMENT OF DAKOTA.

Abraham Lincoln, Fort, N. Dak.	95	95	26	121	1,273.68	3.04	31.95	2	....	1,914	41.4	105	-34	18.11
Assiniboine, Fort, Mont	437	475	90	565	1,292.91	15.56	35.61	10	1	12,720	41.0	99	-40	9.76
Bennett, Fort, S. Dak ...	58	45	6	51	879.31	1.55	26.64	....	....	21,510	46.6	107	-28	13.59
Buford, Fort, N. Dak ...	259	219	60	279	1,077.22	8.51	32.86	8	1	1,930	39.8	100	-43	14.24
Custer, Fort, Mont.	331	385	72	457	1,380.66	19.17	57.91	6	....	3,040	45.2	100	-34	9.66
Keogh, Fort, Mont.	347	167	67	234	674.35	8.90	25.66	1	12	5,642	3.3	105	-47	11.52
Maginnis, Fort, Mont ...	76	110	22	132	1,736.84	3.45	45.35	2	1	14,340	(*)	(*)	(*)	(*)
Meade, Fort, S. Dak.	308	213	50	263	853.90	10.89	35.34	7	23	624	46.4	101	-29	16.23
Missoula, Fort, N. Dak. .	168	177	39	216	1,285.71	4.86	28.93	3	13	375	43.1	104	-18	13.39
Pembina, Fort, N. Dak. .	75	50	10	60	800.00	1.15	15.38	....	....	900	38.3	97	-46	....
Pierre, Fort, S. Dak.	34	30	3	33	970.59	.82	24.01	....	1	....	(*)	(*)	(*)	(*)
Poplar River, Camp Mont.	97	151	22	173	1,783.51	3.25	33.47	....	2	2,030	39.7	99	-46	11.20

* No reports.

TABLE III.—Military posts in each department, alphabetically arranged, with mean strength, admissions for disease and injury, etc.—Continued.

DEPARTMENT OF DAKOTA—Continued.

Names of stations.	Mean strength.	Cases.			Admission rate per 1,000 of mean strength.	Average number of sick daily.	Constantly non-effective per 1,000 of mean strength.	Discharge for disability.	Deaths.	Altitude of stations.	Temperature.			Total precipitation.
		Disease.	Injury.	Total.							Mean.	Maximum.	Minimum.	
Randall, Fort, S. Dak.	102	103	20	123	1,205.88	3.55	34.76	.....	.....	<i>Feet.</i> 1,245	48.5	104	-24	14.04
Shaw, Fort, Mont.	159	154	28	182	1,144.65	5.58	35.06	4	2	3,550	45.0	101	-39	12.37
Sheridan, Camp, Wyo.	65	60	22	82	1,261.54	2.56	39.41	2	.....	.....	.....	91	-30	28.43
Snelling, Fort, Minn.	290	235	90	325	1,120.64	10.56	36.42	8	4	840	42.7	98	-22	24.86
Sully, Fort, S. Dak.	112	83	22	105	937.50	3.89	34.74	3	1	1,678	45.8	103	-30	13.28
Totten, Fort, N. Dak.	65	61	6	67	1,930.77	2.08	32.03	.....	.....	1,487	(*)	(*)	(*)	.....
Yates, Fort, N. Dak.	287	376	71	447	1,557.49	14.68	51.14	12	1	1,670	43.9	101	-28	15.71
Field	767	530	241	771	1,005.22	10.79	14.06	1	35	.....	.....	.....	.....	.....
Total	4,132	3,719	967	4,686	1,134.08	134.81	32.63	69	55	.....	.....	.....	.....	.....

* No reports.

DEPARTMENT OF THE PLATE.

Bridger, Fort, Wyo.	142	113	37	150	1,056.34	4.36	30.68	.....	.....	1,670	.....	92	-30	.....
D. A. Russell, Wyo.	348	289	77	366	1,051.72	9.61	27.61	4	2	6,021	45.1	104	-31	17.99
Douglas, Fort, Utah	423	369	93	462	1,092.20	15.80	37.36	4	3	4,904	51.9	100	-6	11.24
Du Chesne, Fort, Utah	260	316	73	389	1,496.15	8.27	31.81	5	.....	.....	46.9	100	-23	5.50
Government Sawmill, Utah.	14	11	8	19	1,357.14	.19	13.89	.....	.....	.....	(*)	(*)	(*)	(*)
Laramie, Fort, Wyo.	14	30	2	32	2,285.71	.30	21.72	.....	.....	4,241	(*)	(*)	(*)	(*)
McKinney, Fort, Wyo.	146	96	28	124	849.32	4.49	30.76	1	1	15,175	46.4	97	-22	8.98
Niobrara, Fort, Nebr.	378	452	103	555	1,468.25	12.39	32.78	4	2	2,750	43.8	108	-34	14.79
Omaha, Fort, Nebr.	415	231	48	279	872.29	13.21	31.83	15	3	960	51.1	101	-12	22.45
Pilot Butte, Camp, Wyo.	78	88	23	111	1,422.08	2.11	27.01	.....	1	.....	41.4	94	-28	7.20
Robinson, Fort, Nebr.	393	632	113	745	1,895.67	17.49	44.51	3	10	3,675	.....	102	-23	11.76
Sidney, Fort, Nebr.	204	199	54	253	1,240.20	9.00	44.12	5	1	4,320	.....	103	-13	.....
Washakie, Fort, Wyo.	111	175	51	226	2,036.04	5.55	49.98	3	5	5,462	48.1	93	-24	7.74
Field	126	70	36	106	841.27	.87	6.87	.....	1	.....	.....	.....	.....	.....
Total	3,052	3,071	746	3,817	1,250.66	103.64	33.96	44	25	.....	.....	.....	.....	.....

DEPARTMENT OF THE MISSOURI.

Crawford, Fort, Colo.	67	58	15	73	1,089.55	1.84	27.52	2	.....	6,200	.....	92	-11	.....
Chicago, Headquarters Division of the Missouri.	58	16	.....	16	275.86	.82	14.22	1	2	661	48.8	96	-5	532.69
Elliott, Fort, Tex.	122	201	41	242	1,983.61	9.36	76.71	3	3	2,650	(*)	(*)	(*)	(*)
Gibson, Fort, Ind. T.	47	21	1	22	468.09	1.15	24.37	.....	1	600	(*)	(*)	(*)	(*)
Guthrie, Camp, Okla.	43	42	13	55	1,279.07	1.37	31.86	1	.....	.....	62.2	108	-6	30.02
Jefferson Barracks, Mo.	406	346	60	406	1,000.00	15.09	38.65	17	2	475	57.1	101	-13	35.32
Leavenworth, Fort, Kans.	586	587	150	787	1,257.68	31.59	53.91	24	9	844	52.2	98	-8	27.80
Leavenworth, Prison Guard, Kans.	115	100	8	108	939.13	2.13	18.53	2	.....	844	52.2	98	-8	27.80
Lewis, Fort, Colo.	198	199	62	261	1,318.18	8.64	43.66	3	4	5,500	44.3	89	-17	24.27
Little Rock Barracks, Ark.	59	90	12	102	1,728.81	3.35	56.70	2	2	290	62.8	97	-16	63.72
Logan, Fort, Colo.	278	283	55	338	1,215.83	16.26	58.49	.....	6	.....	51.1	97	-11	7.84
Oklahoma, Camp, Okla.	78	65	23	88	1,128.21	3.09	39.62	.....	1	.....	(*)	(*)	(*)	(*)
Reno, Fort, Okla.	296	460	109	569	1,922.30	16.73	56.53	6	4	3,200	60.4	105	-0	28.79
Riley, Fort, Kans.	642	617	207	824	1,283.49	23.40	36.45	11	41	1,300	54.0	103	-12	22.09
Rock Island Arsenal, Ill.	60	80	9	89	1,483.33	1.82	30.37	3	1	528	49.7	102	-11	33.49
Sheridan, Fort, Ill.	101	86	12	98	970.30	2.25	22.30	2	1	.....	48.5	98	-7	38.94
Sill, Fort, Okla.	330	717	125	842	2,551.52	15.65	47.41	12	4	1,200	61.0	103	-6	30.90
St. Louis, Headquarters Dept. of the Missouri.	32	3	.....	3	93.75	.06	1.88	.....	.....	.....	56.8	98	-4	37.69
Supply, Fort, Ind. T.	209	223	56	279	1,334.93	7.59	36.32	8	3	2,300	.....	105	-1	.....
Field	49	51	13	64	1,306.12	.82	16.77	3						
Total	3,776	4,245	971	5,216	1,381.36	163.61	43.33	100	44					

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TABLE III.—*Military posts in each department, alphabetically arranged, with mean strength, admissions for disease and injuries, etc.—Continued.*

DEPARTMENT OF TEXAS.

Names of stations.	Mean strength.	Cases.			Admission rate per 1,000 of mean strength.	Average number of sick daily.	Constantly non-effective per 1,000 of mean strength.	Discharge for disability.	Deaths.	Altitude of stations.	Temperature.			Total precipitation.
		Disease.	Injury.	Total.							Mean.	Maximum.	Minimum.	
										<i>Feet.</i>				<i>In.</i>
Bliss, Fort, Tex.	123	106	14	120	975.61	2.76	22.47	6	.....	3,600	65.0	103	15	.....
Brown, Fort, Tex.	135	202	52	254	1,881.48	8.81	65.23	3	1	50	.....	96	29	.....
Clark, Fort, Tex.	481	701	102	803	1,669.44	31.38	65.25	17	31,000	.....	100	24	21.66	.....
Davis, Fort, Tex.	201	210	37	247	1,228.86	10.11	50.80	2	14,928	(*)	(*)	(*)	(*)	.....
Del Rio, Camp, Tex.	13	21	.....	21	1,615.32	.34	26.34	.....	.....	820	(*)	(*)	(*)	.....
Eagle Pass, Camp, Tex.	56	91	24	115	2,053.57	3.34	59.59	1	.....	800	71.8	107	17	21.09
Hancock, Fort, Tex.	49	45	13	58	1,183.67	2.20	44.95	1	3,000	62.1	107	7	4.89	.....
Langtry, Camp, Tex.	13	10	3	13	1,000.00	.43	33.09	.....	.....	(*)	(*)	(*)	(*)	.....
McIntosh, Fort, Tex.	130	83	13	96	738.46	3.29	25.31	1	3	380	72.2	102	23	15.74
Pena Colorado, Camp, Tex.	54	36	7	43	796.30	1.07	19.74	.....	.....	3,800	62.5	103	11	.....
Ringgold, Fort, Tex.	119	86	17	103	865.55	3.17	26.61	1	1	521	74.2	107	20	13.43
San Houston, Fort, Tex.	606	1,285	188	1,473	2,430.69	38.33	63.25	23	5	781	69.5	99	21	20.77
San Antonio, Hdqrs. Department of Texas.	32	5	.....	5	156.25	.13	3.94	.....	.....	781	69.5	99	21	20.77
Field	83	41	14	55	662.65	.87	10.53	.....	.....	.....	.....	.....	.....	.....
Total	2,095	2,922	484	3,406	1,625.78	106.33	50.76	55	14	.....	.....	.....	.....	.....

* No reports.

DEPARTMENT OF CALIFORNIA.

Alcatraz Island, Cal.	92	86	13	99	1,076.09	4.09	44.43	2	.....	136	53.4	85	26	23.33
Angel Island, Cal.	188	139	34	173	920.21	5.16	27.44	9	1	.....	55.4	91	29	19.55
Benicia Arsenal, Cal. ..	52	32	8	40	769.23	1.40	26.87	3	1	64	57.7	100	27	22.78
Benicia Barracks, Cal. ..	76	84	13	97	1,276.32	3.19	42.63	2	.....	64	57.7	100	27	22.78
Bidwell, Fort, Cal.	71	83	18	101	1,422.54	1.65	23.31	1	.....	4,680	(*)	(*)	(*)	.....
Gaston, Fort, Cal.	40	39	7	46	1,150.00	1.10	27.40	1	.....	397	55.1	105	24	57.98
Mason, Fort, Cal.	64	56	10	66	1,031.25	2.72	42.51	4	.....	113	54.4	81	35	23.42
Presidio of San Francisco, Cal.	455	488	155	643	1,413.19	20.91	45.96	11	1	60	.....	84	28	.....
Field	119	95	33	125	1,050.42	2.06	17.31	2	.....	.....	.....	.....	.....	.....
Total	1,157	1,102	288	1,390	1,201.38	42.28	36.54	35	3	.....	.....	.....	.....	.....

* No reports.

DEPARTMENT OF COLUMBIA.

Boisé Barracks, Idaho ..	105	95	26	121	1,152.38	3.47	33.01	2	.....	2,880	49.1	106	-12	11.22
Cauty, Fort, Wash.	63	55	16	71	1,126.98	1.59	25.22	1	.....	179	49.8	85	17	53.95
Klamath, Fort, Oregon.	5	5	.....	5	1,000.00	.10	20.27	.....	.....	4,200	(*)	(*)	(*)	.....
Sherman, Fort, Idaho.	272	407	93	500	1,838.24	12.01	44.15	5	32	198	47.0	98	27	.....
Spokane, Fort, Wash.	200	193	59	252	1,260.00	8.91	44.55	6	11,600	47.0	10	5	-22	13.86
Townsend, Fort, Wash.	58	37	11	48	827.59	.97	16.77	.....	.....	135	49.1	84	9	19.95
Vancouver Barracks, Wash.	420	425	84	509	1,211.90	16.39	39.02	9	6	50	50.7	99	3	37.97
Walla Walla, Fort, Wash.	318	334	83	417	1,311.32	15.17	47.71	7	11,018	51.5	106	-13	11.01	.....
Field	23	20	6	26	1,130.43	.22	9.41	.....	.....	.....	.....	.....	.....	.....
Total	1,464	1,571	378	1,949	1,331.28	58.82	40.18	30	11	.....	.....	.....	.....	.....

* No reports.

TABLE III.—*Military posts in each department, alphabetically arranged, with mean strength, admissions for disease and injury, etc.—Continued.*

DEPARTMENT OF ARIZONA.

Names of stations.	Mean strength.	Cases.			Admission rate per 1,000 of mean strength.	Average number of sick daily.	Constantly non-effective per 1,000 of mean strength.	Discharge for disability.	Deaths.	Altitude of stations.	Temperature.			Total precipitation.
		Disease.	Injury.	Total.							Mean.	Maximum.	Minimum.	
Apache, Fort, Ariz.....	242	469	105	574	2,371.90	13.43	55.51	11	4	<i>Feet.</i> 5,050	65.3	97	8	26.72
Bayard, Fort, N. Mex....	292	364	69	433	1,482.88	15.15	51.89	7	4	6,040	...	94	9	15.86
Bowie, Fort, Ariz.....	119	185	54	239	2,038.40	4.76	39.99	1	...	4,826	60.9	95	18	17.65
Grant, Fort, Ariz.....	327	589	133	722	2,207.95	16.45	50.30	5	7	4,856	61.5	96	19	16.74
Huachuca, Fort, Ariz....	275	153	49	193	701.82	6.05	22.02	7	15	1,173	...	98	11	...
Lowell, Fort, Ariz.....	170	165	42	207	1,217.65	5.82	34.25	7	12	530	67.3	109	20	20.23
McDowell, Fort, Ariz....	52	42	11	53	1,019.23	1.63	31.35	1	...	1,800	(*)	(*)	(*)	(*)
Marcy, Fort, N. Mex.....	110	103	30	133	1,209.09	3.45	31.36	1	1	6,846	49.5	(*)	(*)	12.11
Mojave, Fort, Ariz.....	28	44	5	49	1,750.00	2.11	75.24	...	...	800	(*)	(*)	(*)	(*)
San Carlos, Ariz.....	250	340	52	392	1,568.00	8.80	35.21	7	1	2,156	64.3	109	20	18.62
San Diego Barracks, Cal.	61	71	9	80	1,311.45	7.47	122.46	5	2	150	62.6	90	34	7.85
Selden, Fort, N. Mex....	17	16	1	17	1,000.00	.36	21.43	1	...	1,250	(*)	(*)	(*)	(*)
Stanton, Fort, N. Mex....	133	168	53	221	1,661.65	9.02	67.83	4	2	7,500	52.7	90	6	11.87
Thomas, Fort, Ariz.....	106	139	22	157	1,481.13	3.76	35.49	...	1	2,710	64.9	108	18	13.93
Union, Fort, N. Mex.....	142	75	35	110	774.65	3.77	26.53	2	...	6,700	46.6	95	—	14.73
Verde, Fort, Ariz.....	52	37	9	46	884.62	1.12	21.44	3	...	3,160	(*)	(*)	(*)	(*)
Whipple Barracks, Ariz	241	329	77	406	1,684.65	14.89	61.80	14	15	340	(*)	(*)	(*)	(*)
Wingate, Fort, N. Mex...	359	516	126	642	1,788.30	21.84	60.82	12	2	6,649	51.6	98	—	8
Field.....	8	2		4	500.00	.05	6.51	...	...	...	...	...	...	...
Total.....	2,984	3,803	875	4,678	1,567.69	139.94	46.89	88	28	...	...	...	...	...

* No reports.

TABLE IV.—*Giving a general view of the results of disease and injury at each of the various military stations, arranged in the numerical order of their mean strength.*

GROUP 1.—Fourteen stations, garrisoned by 400 to 700 men each. Average, 474.

Military stations.	Mean strength.	Admissions.		Constantly non-effective.		Deaths.		Discharges.	
		No.	Ratio per 1,000.	No.	Ratio per 1,000.	No.	Ratio per 1,000.	No.	Ratio per 1,000.
Fort Riley, Kans.....	642	824	1,283.49	23.40	36.45	4	6.23	11	17.13
Fort Sam Houston, Tex.....	606	1,473	2,430.69	38.32	63.25	5	8.25	23	37.95
Fort Leavenworth, Kans.....	586	737	1,257.68	31.59	53.91	9	15.36	24	40.96
Columbus Barracks, Ohio.....	502	942	1,876.49	38.93	77.55	3	5.98	32	63.75
Fort Clark, Tex.....	481	803	1,669.44	31.38	65.25	3	6.24	17	35.34
Presidio, San Francisco, Cal.....	455	643	1,413.19	20.91	45.96	1	2.20	11	24.18
Fort Assiniboine, Mont.....	437	565	1,292.91	15.56	35.61	1	2.29	10	22.68
David's Island, N. Y.....	434	713	1,612.86	22.76	52.45	2	4.61	5	11.52
Fort Monroe, Va.....	433	740	1,709.01	19.93	46.04	1	2.31	3	6.93
Fort Douglas, Utah.....	423	462	1,092.20	15.80	37.36	3	7.09	4	9.46
Vancouver Barracks, Wash.....	420	509	1,211.90	16.39	39.02	6	14.29	9	21.43
Fort Omaha, Nebr.....	415	279	672.29	13.21	31.83	3	7.23	15	36.14
Jefferson Barracks, Mo.....	406	406	1,000.00	15.69	38.65	2	4.93	17	41.87
Wille's Point, N. Y.....	400	725	1,812.50	17.24	43.10	1	2.50	4	10.00
Summary.....	6,640	9,821	1,479.07	321.13	48.36	44	6.63	185	27.86

TABLE IV.—*Giving a general view of the results of disease and injury at each of the various military stations, etc.—Continued.*

GROUP 2.—Eleven stations garrisoned by 300 to 400 men each. Average, 347.

Military stations.	Mean strength.	Admissions.		Constantly non-effective.		Deaths.		Discharges.	
		No.	Ratio per 1,000.	No.	Ratio per 1,000.	No.	Ratio per 1,000.	No.	Ratio per 1,000.
Fort Robinson, Nebr.....	393	745	1,895.67	17.49	44.51	10	25.45	3	7.63
Fort Niobrara, Nebr.....	378	555	1,468.25	12.39	32.78	2	5.29	4	10.58
West Point, N. Y.....	378	554	1,465.61	11.63	30.77	1	2.65	1	2.65
Fort Wingate, N. Mex.....	359	642	1,788.30	21.84	60.82	2	5.57	12	33.43
Fort D. A. Russell, Wyo.....	348	366	1,051.72	9.61	27.61	2	5.75	4	11.49
Fort Keogh, Mont.....	347	234	674.35	8.90	25.66	1	2.88	1	2.88
Fort Custer, Mont.....	331	457	1,380.66	19.17	57.91	1	2.88	6	18.13
Fort Sill, Okla.....	330	842	2,551.52	15.65	47.41	4	12.12	12	36.36
Fort Grant, Ariz.....	327	722	2,207.95	16.45	50.30	7	21.41	5	15.29
Fort Walla Walla, Wash.....	318	417	1,311.32	15.17	47.71	1	3.14	7	22.01
Fort Meade, S. Dak.....	308	263	853.90	10.89	35.34	2	6.49	7	22.73
Summary	3,817	5,797	1,518.73	159.18	41.70	32	8.38	62	16.25

GROUP 3.—Nineteen stations garrisoned by 200 to 300 men each. Average, 251.

Fort Reno, Ind. T.....	296	569	1,922.30	16.73	56.53	4	13.51	6	20.27
Fort Bayard, N. Mex.....	292	433	1,482.88	15.13	51.89	4	13.70	7	23.97
Fort Snelling, Minn.....	290	325	1,120.69	10.56	36.42	4	13.79	8	27.59
Fort Yates, N. Dak.....	287	447	1,557.49	14.68	51.14	1	3.48	12	41.81
Fort Logan, Colo.....	278	338	1,215.83	16.26	58.49	6	21.58	4	13.79
Fort Huachuca, Ariz.....	275	193	701.82	6.05	22.02	1	3.64	7	25.45
Fort Sherman, Idaho.....	272	500	1,838.24	12.01	44.15	3	11.03	5	18.38
Fort Du Chesne, Utah.....	260	389	1,496.15	8.27	31.81	1	3.86	5	19.23
Fort Buford, N. Dak.....	259	279	1,077.22	8.51	32.86	1	3.86	8	30.89
Washington Barracks, D. C.....	255	339	1,329.41	13.22	51.86	1	3.92	17	66.67
San Carlos, Ariz.....	250	392	1,568.00	8.80	35.21	1	4.00	7	28.00
Madison Barracks, N. Y.....	248	346	1,395.16	7.56	30.50	1	4.03	1	4.03
Fort Apache, Ariz.....	242	574	2,371.90	13.43	55.51	4	16.53	11	45.45
Whipple Barracks, Ariz.....	241	406	1,684.65	14.89	61.80	1	4.15	14	58.09
Fort Wayne, Mich.....	211	283	1,341.23	7.98	37.84	1	4.15	3	14.22
Fort Supply, Ind. T.....	209	279	1,334.93	7.59	36.32	1	4.15	8	38.28
Fort Sidney, Nebr.....	204	253	1,240.20	9.00	44.12	1	4.90	5	24.51
Fort Davis, Tex.....	201	247	1,228.86	10.22	50.80	1	4.98	2	9.95
Fort Spokane, Wash.....	200	252	1,260.00	8.91	44.55	1	5.00	6	30.00
Summary	4,770	6,844	1,434.80	209.84	43.99	35	7.34	132	27.67

GROUP 4.—Thirty-one stations, garrisoned by 100 to 200 men each. Average, 138.

Fort Hamilton, N. Y.....	198	322	1,626.26	8.30	41.91	.....	.....	13	65.66
Fort Lewis, Colo.....	198	261	1,318.18	8.84	43.66	4	20.20	3	15.15
Fort Adams, R. I.....	197	154	781.73	5.00	25.38	1	5.08	5	25.38
Fort McPherson, Ga.....	188	468	2,489.36	11.50	61.16	2	10.64	1	5.32
Angel Island, Cal.....	188	173	920.21	5.16	27.44	1	5.32	9	47.87
Fort Lowell, Ariz.....	170	207	1,217.65	5.82	34.25	1	5.88	7	41.18
Fort Missoula, Mont.....	168	216	1,285.71	4.86	28.93	1	5.95	3	17.86
Fort Columbus, N. Y.....	164	176	1,073.17	6.44	39.27	2	12.20	8	48.78
Fort Shaw, Mont.....	159	182	1,144.65	5.58	35.06	2	12.58	4	25.16
Fort McKinney, Wyo.....	146	124	849.32	4.49	30.76	1	6.85	1	6.85
Fort Bridger, Wyo.....	142	160	1,056.34	4.98	30.68	1	7.04	.....	.....
Fort Union, N. Mex.....	142	110	774.65	3.77	26.53	1	7.04	2	14.08
Fort Myer, Va.....	137	185	1,350.36	6.10	37.20	2	14.60	2	14.60
Fort Brown, Tex.....	135	254	1,881.48	8.81	65.23	1	7.41	3	22.22
Fort Stanton, N. Mex.....	133	221	1,661.65	9.02	67.83	2	15.04	4	30.08
Fort McIntosh, Tex.....	130	96	738.46	3.29	25.31	3	23.08	1	7.69
Fort Bliss, Tex.....	123	120	975.61	2.76	22.47	.....	.....	6	48.78
Fort Elliott, Tex.....	122	242	1,983.61	9.36	76.71	3	24.59	3	24.59
Fort Bowie, Ariz.....	119	239	2,008.40	4.76	39.99	.....	.....	1	8.40
Fort Ringgold, Tex.....	119	103	865.55	3.17	26.61	1	8.40	1	8.40
Leavenworth Prison.....	115	108	939.13	2.13	18.53	.....	.....	2	17.39
Fort Niagara, N. Y.....	114	129	1,131.58	3.28	28.74	2	17.54	2	17.54
Fort Sully, S. Dak.....	112	105	937.50	3.89	34.74	1	8.93	3	26.79
Fort Washakie, Wyo.....	111	226	2,036.04	5.55	49.98	.....	.....	3	27.03

TABLE IV.—*Giving a general view of the results of disease and injury at each of the various military stations, etc.—Continued.*

GROUP 4—Continued.

Military stations.	Mean strength.	Admissions.		Constantly non-effective.		Deaths.		Discharges.	
		No.	Ratio per 1,000.	No.	Ratio per 1,000.	No.	Ratio per 1,000.	No.	Ratio per 1,000.
Mount Vernon Barracks, Ala	111	169	1,522.52	7.62	68.57	2	18.02	1	9.01
Fort Wadsworth, N. Y.	111	119	1,072.07	3.30	29.69	1	9.01	1	9.01
Fort Marcy, N. Mex.	110	133	1,209.09	3.45	31.36	1	9.09	1	9.09
Fort Thomas, Ariz.	106	157	1,481.13	3.76	35.49	1	9.43	.....	.....
Boisé Barracks, Idaho	105	121	1,152.38	3.47	33.01	.....	.....	2	19.05
Fort Randall, S. Dak.	102	123	1,205.88	3.55	34.76	.....	.....	.....	.....
Fort Sheridan, Ill.	101	98	970.30	2.25	22.30	1	9.90	2	19.80
Summary.....	4,276	5,401	1,284.14	162.40	37.98	37	8.65	94	21.98

GROUP 5.—Sixty-four stations, garrisoned by 1 to 100 men each. Average, 54.

Fort McHenry, Md.	99	137	1,383.84	6.31	63.73	.....	.....	5	50.50
Camp Poplar River, Mont.	97	173	1,783.51	3.25	33.47	2	20.62	.....	.....
Fort Abraham Lincoln, N. Dak.	95	121	1,273.68	3.04	31.95	.....	.....	2	21.05
Fort Brady, Mich.	95	121	1,273.68	2.99	31.49	.....	.....	.....	.....
Fort Porter, N. Y.	95	96	1,010.53	3.13	33.28	1	10.53	1	10.53
Fort Mackinac, Mich.	94	151	1,606.38	2.51	26.73	.....	.....	2	21.28
Jackson Barracks, La.	92	199	2,163.04	6.50	70.64	2	21.74	2	21.74
Alcatraz Island, Cal.	92	99	1,076.09	4.09	44.43	.....	.....	2	21.74
Fort Barrancas, Fla.	86	144	1,674.42	5.03	58.49	2	23.26	1	11.63
Fort Warren, Mass.	86	90	1,046.51	2.98	34.63	1	11.63	1	11.63
Camp Pilot Butte, Wyo.	78	111	1,423.08	2.11	27.01	1	12.82	.....	.....
Camp Oklahoma, Okla.	78	88	1,128.21	3.09	39.62	1	12.82	.....	.....
Fort Schuyler, N. Y.	78	68	871.79	2.62	33.58	.....	.....	2	25.64
Fort Maginnis, Mont.	76	132	1,736.84	3.45	45.35	1	13.16	2	26.32
Benicia Barracks, Cal.	76	97	1,276.32	3.19	42.03	.....	.....	2	26.32
Fort Pembina, N. Dak.	75	60	800.00	1.15	15.38	.....	.....	.....	.....
Fort Bidwell, Cal.	71	101	1,422.54	1.65	23.31	.....	.....	1	14.08
Fort Crawford, Colo.	67	73	1,089.55	1.84	27.52	.....	.....	2	29.85
St. Francis Barracks, Fla.	65	131	2,015.38	4.34	66.76	.....	.....	4	61.54
Camp Sheridan, Wyo.	65	82	1,261.54	2.56	39.41	.....	.....	2	30.77
Fort Totten, N. Dak.	65	67	1,030.77	2.08	32.03	.....	.....	.....	.....
Fort Mason, Cal.	64	66	1,031.25	2.73	42.51	.....	.....	4	62.50
Fort Canby, Wash.	63	71	1,126.98	1.59	25.22	.....	.....	1	15.87
Newport Barracks, Ky.	62	107	1,725.81	3.22	51.92	.....	.....	1	16.13
San Diego Barracks, Cal.	61	80	1,311.48	7.47	122.48	2	32.79	5	81.97
Rock Island Arsenal, Ill.	60	89	1,483.33	1.82	30.37	1	16.67	3	50.00
Watervliet Arsenal, N. Y.	60	82	1,366.67	1.47	24.57	.....	.....	2	33.33
Little Rock Barracks, Ark.	59	102	1,728.81	3.35	56.70	2	33.90	2	33.90
Fort Bennett, S. Dak.	58	51	879.31	1.55	26.64	2	34.48	.....	.....
Fort Townsend, Wash.	58	48	827.59	.97	16.77	.....	.....	.....	.....
Chicago, Headquarters Division of the Missouri	58	16	275.86	.82	14.22	2	34.48	1	17.24
Camp at Eagle Pass, Tex.	56	115	2,053.57	3.34	69.59	.....	.....	1	17.86
Fort Preble, Me.	54	72	1,333.33	1.72	31.91	.....	.....	.....	.....
Camp Peña Colorado, Tex.	54	43	796.30	1.07	19.74	.....	.....	.....	.....
Fort Trumbull, Conn.	52	58	1,115.28	1.78	34.19	.....	.....	1	19.23
Fort McDowell, Ariz.	52	53	1,019.23	1.63	31.35	.....	.....	1	19.23
Fort Verde, Ariz.	52	46	884.62	1.12	21.44	.....	.....	3	57.69
Benicia Arsenal, Cal.	52	40	769.23	1.40	26.87	1	19.23	3	57.69
Fort Hancock, Tex.	49	58	1,183.67	2.20	44.95	.....	.....	1	20.41
Plattsburg Barracks, N. Y.	47	66	1,404.26	1.64	34.92	.....	.....	1	21.28
Fort Gibson, Ind. T.	47	22	468.09	1.15	24.37	1	21.28	.....	.....
Fort Wood, N. J.	46	23	500.00	.13	2.92	.....	.....	.....	.....
Fort Ontario, N. Y.	43	73	1,697.67	2.15	49.89	.....	.....	4	93.02
Camp Guthrie, Okla.	43	55	1,279.07	1.37	31.86	.....	.....	1	23.26
Fort Gaston, Cal.	40	46	1,150.00	1.10	27.40	.....	.....	1	25.00
Frankford Arsenal, Pa.	38	53	1,394.74	1.83	48.16	2	52.63	1	26.32
Fort Pierre, S. Dak.	34	33	970.59	.82	24.01	1	29.41	.....	.....
Watertown Arsenal, Mass.	33	35	1,060.61	.79	23.91	.....	.....	.....	.....
Sandy Hook, N. J.	32	58	1,812.50	.55	17.04	.....	.....	.....	.....
San Antonio (headquarters), Tex.	32	5	156.25	.13	3.94	.....	.....	.....	.....
St. Louis, Mo., Headquarters Department of the Missouri.	32	3	93.75	.06	1.88	.....	.....	.....	.....
Fort Thomas, Ky.	31	40	1,290.32	.67	16.35	.....	.....	.....	.....
Allegheny Arsenal, Pa.	29	20	689.66	.85	29.48	1	34.48	.....	.....

TABLE IV.—*Giving a general view of the results of disease and injury at each of the various military stations, etc.*—Continued.

GROUP 5—Continued.

Military stations.	Mean strength.	Admissions.		Constantly non-effective.		Deaths.		Discharges.	
		No.	Ratio per 1,000.	No.	Ratio per 1,000.	No.	Ratio per 1,000.	No.	Ratio per 1,000.
Fort Mojave, Ariz.....	28	49	1,750.00	2.17	75.24				
National Armory, Springfield, Mass.	28	15	535.71	.56	20.06	1	35.71		
Augusta Arsenal, Ga.....	26	24	923.08	1.70	65.54			2	76.92
Indianapolis Arsenal, Ind.....	25	46	1,840.00	1.42	56.99	1	40.00	1	40.00
Fort Selden, N. Mex.....	17	17	1,000.00	.36	21.43	1	58.82	1	58.82
Kennebec Arsenal, Me.....	15	29	1,933.33	.39	26.48	1	66.67		
Fort Laramie, Wyo.....	14	32	2,285.71	.30	21.72				
Government Saw Mill, Utah.....	14	19	1,357.14	.19	13.89				
Camp Del Rio, Tex.....	13	21	1,615.38	.34	26.34				
Camp Langtry, Tex.....	13	13	1,000.00	.43	33.09				
Fort Klamath, Oregon.....	5	5	1,060.00	.10	20.27				
Summary.....	3,474	4,340	1,249.28	128.14	36.89	30	8.64	72	20.73

GROUP 6.—Field.

Department of Dakota.....	787	771	1,005.22	10.79	14.06	35	45.63	1	1.30
Department of the Platte.....	126	106	841.27	.87	6.87	1	7.94		
Department of California.....	119	125	1,050.42	2.06	17.31			2	16.81
Department of Texas.....	83	55	662.65	.87	10.53				
Department of the Missouri.....	49	64	1,306.12	.82	16.77			3	61.22
Department of the East.....	35	84	2,400.00	.55	15.58				
Department of the Columbia.....	23	26	1,130.43	.22	9.41				
Department of Arizona.....	8	4	500.00	.05	6.51				
Summary.....	1,210	1,235	1,020.66	16.22	13.41	36	29.75	6	4.96
Hot Springs, Ark.....	47	18	382.98	38.19	812.53	3	63.83	31	659.57
At large.....						15		32	
Total for the Army.....	24,234	33,546	1,384.25	1,035.14	42.71	231		614	

SUMMARY OF THE SIX GROUPS.

Range of the several means in each group.	Number of posts in each group and average strength of each.		Mean strength	Ratios per 1,000 of mean strength.				Daily average sick.	
	No.	Average strength.		Admissions.	Constantly non-effective.	Deaths.	Discharges.	All posts.	Average for each post.
Group 1, 400 to 700 men.....	14	474	6,640	1,479.09	48.36	6.63	27.86	321.13	22.94
Group 2, 300 to 400 men.....	11	347	3,817	1,518.73	41.70	8.38	16.25	159.18	14.47
Group 3, 200 to 300 men.....	19	251	4,770	1,434.80	43.99	7.34	27.67	209.84	11.04
Group 4, 100 to 200 men.....	31	138	4,276	1,284.14	37.98	8.65	21.98	162.40	5.24
Group 5, 1 to 100 men.....	64	54	3,474	1,249.28	36.89	8.64	20.73	128.14	2.00
Group 6, field.....			1,210	1,020.66	13.41	29.75	4.96	16.22	

TABLE V.—*Twenty posts having the highest admission rates for the year 1890, also their admission rates for the years 1885 to 1889, inclusive.*

Names of stations.	Mean strength.	Ratios per 1,000 of mean strength.				Admission rates per 1,000 of mean strength.				
		Admissions.	Deaths.	Discharges for disability.	Constantly non-effective.	1889.	1888.	1887.	1886.	1885.
Fort Sill, Okla.....	330	2,551.52	12.12	36.36	47.41	1,797.10	1,592.06	1,744.68	1,642	2,211
Fort McPherson, Ga.....	188	2,489.36	10.64	5.32	61.16	3,416.67				
Fort Sam Houston, Tex.....	606	2,430.69	8.25	37.95	63.25	1,262.61	943.60	1,570.67	1,192	1,293
Fort Apache, Ariz.....	242	2,371.90	16.53	45.45	55.51	1,029.41	933.67	968.42	1,934	941
Fort Grant, Ariz.....	327	2,207.95	21.41	15.29	50.30	967.85	1,010.35	1,703.52	1,520	1,448
Jackson Barracks, La.....	92	2,163.04	21.74	21.74	70.64	1,875.00	910.45	884.61	937	1,247
Camp at Eagle Pass, Tex.....	56	2,053.57	-----	17.86	59.59	1,145.45	788.46	821.43	1,143	-----
Fort Washakie, Wyo.....	111	2,036.04	-----	27.03	49.98	2,007.94	1,706.35	1,129.03	1,008	1,277
St. Francis Barracks, Fla.....	65	2,015.38	-----	61.54	66.76	1,568.97	1,378.79	1,718.75	1,942	1,705
Fort Bowie, Ariz.....	119	2,008.40	-----	8.40	39.99	1,303.92	884.89	966.67	482	735
Fort Elliott, Tex.....	122	1,983.61	24.59	24.59	76.71	1,761.91	1,245.81	884.82	381	486
Fort Reno, Okla.....	296	1,922.30	13.51	20.27	56.53	1,474.51	1,378.55	1,607.97	1,543	2,004
Fort Robinson, Nebr.....	393	1,895.67	25.45	7.63	44.51	1,454.33	925.56	1,283.08	1,593	1,297
Fort Brown, Tex.....	135	1,881.48	7.41	22.22	65.23	3,710.34	3,812.50	1,583.33	1,797	2,181
Columbus Barracks, Ohio.....	502	1,876.49	5.98	63.75	77.55	2,318.86	2,075.66	1,942.36	1,550	1,832
Fort Sherman, Idaho.....	272	1,838.24	-----	18.38	44.15	1,308.94	1,271.19	1,031.75	916	1,077
Willetts Point, N. Y. H.....	400	1,812.50	11.03	10.00	43.10	2,388.45	2,243.70	2,342.13	2,055	2,782
Fort Wingate, N. Mex.....	359	1,788.30	2.50	33.43	60.82	1,036.46	955.41	1,424.62	1,538	1,771
Camp Poplar River, Mont.....	97	1,783.51	5.57	-----	33.47	1,177.08	1,378.95	1,886.60	2,030	1,694
Newport Barracks, Ky.....	62	1,725.81	20.62	16.13	51.92	1,134.62	581.40	800.00	1,023	696
U. S. Army.....	24,234	1,384.25	-----	23.01	42.71	1,315.02	1,270.73	1,246.88	1,263	1,355
			8.66							

TABLE VI.—*Twenty posts having the highest non-effective rates for the year 1890, also their non-effective rates for the years 1885 to 1889, inclusive.*

Names of stations.	Mean strength.	Constantly non-effective per 1,000 mean strength.	Average sick daily.	Average of days each case was treated.	Constantly non-effective per 1,000 of mean strength.				
					1889	1888.	1887.	1886.	1885.
San Diego Barracks, Cal.....	61	122.48	7.47	34.09	77.07	53.87	54.31	96	132
Columbus Barracks, Ohio.....	502	77.55	38.91	15.08	92.74	81.87	74.51	63	82
Fort Elliott, Tex.....	122	76.71	9.36	14.82	67.64	29.95	29.73	18	18
Jackson Barracks, La.....	92	70.64	6.50	11.92	35.75	17.78	19.07	28	66
Mount Vernon Barracks, Ala.....	111	68.57	7.61	10.44	54.86	37.82	36.71	41	48
Fort Stanton, N. Mex.....	133	67.83	9.02	14.90	39.13	25.05	39.50	36	39
St. Francis Barracks, Fla.....	65	66.76	4.34	12.10	32.40	34.57	40.95	44	44
Fort Clark, Tex.....	481	65.25	31.38	14.27	60.05	51.71	36.45	57	57
Fort Brown, Tex.....	135	65.23	8.11	12.65	114.44	96.48	76.94	75	79
Fort McHenry, Md.....	99	63.73	6.31	16.81	53.71	62.99	59.67	30	46
Fort Sam Houston, Tex.....	606	63.25	38.33	9.50	50.64	38.41	51.59	39	35
Whipple Barracks, Ariz.....	241	61.80	14.89	13.39	56.20	46.37	55.05	23	34
Fort McPherson, Ga.....	188	61.16	11.50	8.97	72.80	-----	-----	-----	-----
Fort Wingate, N. Mex.....	359	60.82	21.84	12.41	33.03	37.30	30.51	53	50
Camp at Eagle Pass, Tex.....	56	59.59	3.34	10.59	60.17	38.15	37.57	23	-----
Fort Barrancas, Fla.....	86	58.49	5.03	12.75	48.42	33.98	34.06	38	45
Fort Logan, Colo.....	278	58.49	16.26	17.76	70.78	76.95	26.03	-----	-----
Fort Custer, Mont.....	331	57.91	19.17	15.31	49.72	49.58	47.81	46	42
Fort Reno, Okla.....	296	56.53	16.73	10.73	61.55	46.85	46.81	37	56
Fort Apache, Ariz.....	242	55.51	13.43	8.54	36.53	27.60	40.14	41	26
U. S. Army.....	24,234	42.71	1,035.14	11.26	44.12	41.91	42.38	39	41

TABLE VII.—Twenty posts having the highest admission rates for disease, excluding venereal diseases, vaccinia, and alcoholism, together with their ratios for deaths, discharges, and constant non-effectiveness; also, the corresponding average rates of the Army, year, 1890.

Names of stations.	Mean strength.	Ratios per 1,000 of mean strength.			
		Admissions.	Deaths.	Discharges.	Constantly non-effective.
Fort Sill, Ind. T.	330	2,109.10	.....	27.27	36.25
Fort Sam Houston, Tex.	606	1,917.49	6.60	31.35	45.78
Fort Apache, Ariz.	242	1,830.57	8.26	28.93	34.84
Fort McPherson, Ga.	188	1,739.35	5.32	.....	30.72
Fort Grant, Ariz.	327	1,663.61	15.29	12.23	32.09
St. Francis Barracks, Fla.	65	1,646.16	.....	61.54	49.97
Fort Elliott, Tex.	122	1,508.36	24.59	24.59	53.63
Fort Robinson, Nebr.	393	1,493.65	20.36	7.63	32.32
Fort Bowie, Ariz.	119	1,487.39	.....	8.40	28.21
Fort Reno, Ind. T.	296	1,483.11	6.76	16.89	42.39
Jackson Barracks, La.	92	1,456.54	21.74	10.87	37.35
Fort Washakie, Wyo.	111	1,414.41	.....	18.02	30.21
Camp Poplar River, Mont.	97	1,340.20	10.31	.....	19.57
Fort Sherman, Idaho.	272	1,338.23	7.35	11.03	32.32
Mount Vernon Barracks, Ala.	111	1,324.31	9.01	9.01	64.17
Fort Wingate, N. Mex.	359	1,323.12	.....	22.29	37.89
Fort Monroe, Va.	433	1,297.92	.....	4.62	28.31
San Carlos, Ariz.	250	1,280.00	4.00	20.00	26.35
Fort Hamilton, N. Y.	198	1,257.59	.....	45.45	30.92
Fort Clark, Tex.	481	1,247.40	2.08	29.10	42.73
U. S. Army.	24,234	992.16	5.57	19.68	28.47

TABLE VIII.—Twenty posts having the highest non-effective rates for disease, excluding venereal diseases, vaccinia, and alcoholism, together with the average number sick daily, and average duration of each case; also the corresponding average rates of the Army, year 1890.

Names of stations.	Mean strength.	Constantly non-effective.	Average number of sick daily.	Average number of days each case was treated.
San Diego Barracks, Cal.	61	116.51	7.1	39.3
Mount Vernon Barracks, Ala.	111	64.17	7.1	17.7
Fort Elliott, Tex.	122	63.63	6.5	12.2
St. Francis Barracks, Fla.	65	49.97	3.2	11.0
Fort Stanton, N. Mex.	133	48.82	6.5	16.3
Fort Sam Houston, Tex.	606	45.78	27.7	8.7
Fort McHenry, Md.	99	44.92	4.4	16.9
Whipple Barracks, Ariz.	241	44.58	10.7	14.5
Fort Clark, Tex.	481	42.73	20.6	12.5
Fort Reno, Ind. T.	296	42.39	12.5	10.4
Fort Custer, Mont.	331	39.63	13.1	13.2
Fort Barrancas, Fla.	86	39.27	3.4	12.6
Fort Davis, Tex.	201	38.34	7.7	15.3
Fort Wingate, N. Mex.	359	37.89	13.6	10.5
Benicia Barracks, Cal.	76	37.74	2.9	13.3
Jackson Barracks, La.	92	37.35	3.4	9.4
Fort Bayard, N. Mex.	292	36.98	10.8	11.7
Fort Logan, Colo.	278	36.50	10.2	16.3
Fort Sill, Ind. T.	330	36.25	12.0	6.4
Fort Ontario, N. Y.	43	35.74	1.5	11.9
U. S. Army.	24,234	28.47	689.90	10.5

TABLE IX.—The military posts in each department, showing the rates of admission, death, discharge, and constant non-effectiveness for disease, not including venereal diseases, vac-cina, nor alcoholism, year 1890.

DEPARTMENT OF THE EAST.

Names of stations.	Mean strength.	Admission rate per 1,000 of mean strength.	Death rate.	Discharge rate.	Constantly non-effective.
Fort McPherson, Ga	188	1,739.35	5.32	.....	30.72
Kennebec Arsenal, Me	15	1,733.33	66.67	.....	23.93
Indianapolis Arsenal, Ind.	25	1,680.00	40.00	.....	49.75
St. Francis Barracks, Fla	65	1,646.16	.....	61.54	49.97
Sandy Hook, N. J.	32	1,468.75	.....	.....	14.21
Jackson Barracks, La.	92	1,456.54	21.74	10.87	37.35
Mount Vernon Barracks, Ala.	111	1,324.31	9.01	9.01	64.17
Frankford Arsenal, Pa	38	1,315.79	52.63	26.32	45.35
Fort Monroe, Va	433	1,297.92	.....	4.62	28.31
Fort Hamilton, N. Y.	198	1,257.59	.....	45.45	30.92
Willels Point, N. Y.	400	1,230.00	2.50	10.00	26.36
Fort Mackinac, Mich.	94	1,180.85	.....	10.64	15.01
Newport Barracks, Ky	62	1,177.41	.....	16.13	32.18
Fort Barrancas, Fla	86	1,139.52	.....	11.63	39.27
West Point, N. Y.	378	1,137.56	2.65	2.65	23.75
Madison Barracks, N. Y.	248	1,129.03	4.03	4.03	22.72
Fort Ontario, N. Y.	43	1,093.03	.....	46.50	35.74
Fort McHenry, Md.	99	1,030.50	.....	20.20	44.92
Fort Myer, Va	137	1,021.89	14.60	7.30	20.22
Columbus Barracks, Ohio	502	1,013.96	3.99	15.94	32.24
Watervliet Arsenal, N. Y.	60	1,000.00	.....	33.33	17.90
Washington Barracks, D. C.	255	984.30	3.92	66.67	34.17
Fort Wayne, Mich.	211	957.36	.....	14.22	28.84
Plattsburg Barracks, N. Y.	47	936.17	.....	21.28	23.72
David's Island, N. Y.	434	884.79	2.30	11.52	27.49
Augusta Arsenal, Ga	26	884.62	.....	76.92	64.91
Fort Niagara, N. Y.	114	877.20	8.77	17.54	22.80
Fort Brady, Mich.	95	863.16	.....	18.61	18.81
Fort Preble, Me	54	796.30	.....	.....	15.88
Fort Wadsworth, N. Y.	111	783.78	9.01	9.01	21.46
Fort Columbus, N. Y.	164	749.99	12.20	36.58	26.76
Fort Thomas, Ky	31	741.93	.....	.....	8.31
Fort Trumbull, Conn.	52	730.77	.....	19.23	24.03
Watertown Arsenal, Mass.	33	727.28	.....	.....	19.76
Fort Porter, N. Y.	95	705.27	10.53	.....	26.07
Fort Warren, Mass.	86	697.68	11.63	11.63	22.46
Fort Adams, R. I.	197	548.21	5.08	20.30	17.90
Fort Schuyler, N. Y.	78	525.64	.....	12.82	22.77
Springfield Armory, Mass.	28	464.28	35.71	.....	11.32
Allegheny Arsenal, Pa	29	448.27	.....	.....	26.45
Fort Wood, N. Y.	46	347.81	.....	.....	1.25
Field	35	1,742.86	.....	.....	10.09
Department of the East.	5,527	1,055.93	4.52	15.57	28.15

DEPARTMENT OF THE PLATTE.

Fort Laramie, Wyo	14	2,071.42	.....	.....	18.98
Fort Robinson, Nebr.	393	1,493.65	20.36	7.63	32.32
Fort Washakie, Wyo	111	1,414.41	.....	18.02	30.21
Fort Dr. Chesne, Utah	260	1,130.77	.....	15.38	21.95
Fort Niobrara, Nebr.	378	1,087.29	2.66	10.58	23.71
Camp Pilot Butte, Wyo.	78	948.72	12.82	.....	19.00
Fort Sidney, Nebr.	204	887.26	4.90	14.71	31.26
Government Saw Mill, Utah	14	785.72	.....	.....	5.87
Fort D. A. Russell, Wyo	348	775.87	2.87	5.75	19.94
Fort Douglas, Utah	423	758.83	7.09	4.73	24.24
Fort Bridger, Wyo	142	654.94	7.04	.....	20.35
Fort McKinney, Wyo.	146	547.93	.....	.....	17.68
Fort Omaha, Nebr.	415	460.23	7.23	28.92	19.00
Field	126	500.00	.....	.....	3.59
Department of the Platte.	3,052	904.98	6.22	10.48	22.91

TABLE IX.—*The military posts in each department, showing the rates of admission, death discharge, and constant noneffectiveness for disease, etc.—Continued.*

DEPARTMENT OF DAKOTA.

Names of stations.	Mean strength.	Admission rate per 1,000 of mean strength.	Death rate.	Discharge rate.	Constantly non-effective.
Camp Poplar River, Mont.	97	1,340.20	10.31	.....	19.57
Fort Maginnis, Mont.	76	1,302.63	13.16	26.31	28.44
Fort Yates, N. Dak.	287	1,139.37	3.48	31.36	34.20
Fort Custer, Mont.	331	1,096.67	.....	9.06	39.63
Fort Missoula, Mont.	168	982.14	5.95	5.95	18.40
Fort Randall, S. Dak.	102	980.39	.....	.....	26.22
Fort Shaw, Mont.	159	918.24	6.29	18.87	27.76
Fort Assiniboine, Mont.	437	887.87	2.29	20.59	21.35
Camp Sheridan, Wyo.	65	876.94	.....	30.77	27.52
Fort Totten, N. Dak.	65	876.93	.....	.....	28.87
Fort Pierre, S. Dak.	34	823.53	.....	.....	17.81
Fort Snelling, Minn.	290	782.07	10.34	24.14	24.94
Fort Abraham Lincoln, N. Dak.	95	757.90	.....	21.05	21.11
Fort Buford, N. Dak.	259	741.32	.....	27.03	20.70
Fort Sully, S. Dak.	112	669.64	.....	8.93	22.60
Fort Meade, S. Dak.	308	649.36	.....	22.73	24.50
Fort Bennett, S. Dak.	58	637.93	34.48	.....	18.46
Fort Pembina, N. Dak.	75	600.01	.....	.....	13.62
Fort Keogh, Mont.	347	406.35	2.88	2.88	19.61
Field.	787	642.76	2.61	1.30	8.33
Department of Dakota.	4,132	807.36	3.39	13.31	21.96

DEPARTMENT OF THE MISSOURI.

Fort Sill, Okla.	330	2,109.10	.....	27.27	36.25
Fort Elliott, Tex.	122	1,598.36	24.59	24.59	53.63
Fort Reno, Okla.	296	1,453.11	6.76	16.89	42.39
Little Rock Barracks, Ark.	59	1,305.07	33.90	16.95	38.40
Rock Island Arsenal, Ill.	60	1,183.33	16.67	50.00	26.12
Fort Lewis, Colo.	198	929.30	10.10	15.15	25.29
Fort Supply, Ind. T.	209	885.18	.....	28.71	17.96
Camp Guthrie, Okla.	43	883.73	.....	23.26	19.30
Fort Leavenworth (post), Kans.	586	878.85	10.24	35.84	35.48
Fort Riley, Kans.	642	868.25	.....	14.02	22.12
Fort Logan, Colo.	278	820.14	17.09	.....	36.56
Fort Leavenworth (prison), Kans.	115	817.38	.....	17.39	13.67
Fort Crawford, Colo.	67	746.27	.....	29.85	20.77
Camp Oklahoma, Okla.	78	705.13	.....	.....	18.30
Fort Sheridan, Ill.	101	702.98	9.90	19.80	13.94
Jefferson Barracks, Mo.	406	512.31	2.46	22.17	17.73
Fort Gibson, Ind. T.	47	382.96	.....	.....	14.69
Chicago (Headquarters Div. Mo.), Ill.	58	275.86	34.48	17.24	14.22
St. Louis (Headquarters), Mo.	32	93.75	.....	.....	1.88
Field.	49	959.18	.....	40.82	11.97
Department of the Missouri.	3,776	990.75	6.62	20.92	27.76

DEPARTMENT OF TEXAS.

Fort Sam Houston, Tex.	606	1,917.49	6.60	31.35	45.78
Camp Del Rio, Tex.	13	1,307.71	.....	.....	22.13
Fort Clark, Tex.	481	1,247.40	2.08	29.10	42.73
Camp at Eagle Pass, Tex.	56	1,232.13	.....	17.86	25.59
Fort Brown, Tex.	135	1,200.02	7.41	14.81	34.34
Fort Davis, Tex.	201	915.44	.....	9.95	38.34
Fort Hancock, Tex.	49	857.14	.....	20.41	32.59
Camp Langtry, Tex.	13	769.23	.....	.....	26.13
Fort Bliss, Tex.	123	764.23	.....	40.65	18.24
Fort Ringgold, Tex.	119	613.44	8.40	8.40	20.64
Fort McIntosh, Tex.	130	530.76	15.38	7.69	14.85
Camp Pena Colorado, Tex.	54	500.00	.....	.....	12.68
San Antonio, Tex.	32	156.25	.....	.....	3.94
Field.	83	397.60	.....	.....	6.55
Department of Texas.	2,095	1,215.75	4.29	21.96	34.50

TABLE IX.—*The military posts in each department, showing the rates of admission, death, discharge, and constant noneffectiveness for disease, etc.—Continued.*

DEPARTMENT OF CALIFORNIA.

Names of stations.	Mean strength.	Admission rate per 1,000 of mean strength.	Death rate.	Discharge rate.	Constantly non-effective.
Fort Bidwell, Cal.	71	1, 112. 69	.....	14. 08	15. 62
Benicia Barracks, Cal.	76	1, 039. 47	.....	26. 32	37. 74
Presidio, San Francisco, Cal.	455	956. 05	2. 20	19. 78	27. 93
Alcatraz Island, Cal.	92	750. 00	.....	10. 87	19. 74
Fort Mason, Cal.	64	703. 14	.....	62. 50	33. 23
Fort Gaston, Cal.	40	650. 00	.....	25. 00	15. 35
Benicia Arsenal, Cal.	52	615. 38	.....	38. 46	20. 13
Angel Island, Cal.	188	601. 07	5. 32	31. 91	13. 61
Field.	119	705. 89	.....	16. 81	10. 97
Department of California.	1, 157	831. 46	1. 73	24. 20	22. 60

DEPARTMENT OF THE COLUMBIA.

Fort Sherman, Idaho.	272	1, 338. 23	7. 35	11. 03	32. 32
Fort Klamath, Oregon.	5	1, 000. 00	.....	.....	20. 27
Vancouver Barracks, Wash.	420	885. 71	7. 14	19. 05	26. 20
Fort Walla Walla, Wash.	318	867. 93	3. 14	12. 58	25. 44
Fort Spokane, Wash.	200	865. 00	.....	20. 00	28. 87
Boisé Barracks, Idaho.	105	828. 57	.....	19. 05	26. 54
Fort Canby, Wash.	63	809. 52	.....	15. 87	14. 17
Fort Townsend, Wash.	58	517. 25	.....	.....	8. 60
Field.	23	782. 60	.....	.....	4. 76
Department of the Columbia.	1, 464	939. 88	4. 10	15. 03	25. 98

DEPARTMENT OF ARIZONA.

Fort Apache, Ariz.	242	1, 830. 57	8. 26	28. 93	34. 84
Fort Grant, Ariz.	327	1, 663. 61	15. 29	12. 23	32. 09
Fort Mojave, Ariz.	28	1, 500. 00	.....	.....	61. 15
Fort Bowie, Ariz.	119	1, 487. 39	.....	8. 40	28. 21
Fort Wingate, N. Mex.	359	1, 323. 12	.....	22. 29	37. 89
San Carlos, Ariz.	250	1, 280. 00	4. 00	20. 00	26. 35
Fort Thomas, Ariz.	106	1, 179. 24	9. 43	.....	27. 79
Fort Bayard, N. Mex.	292	1, 150. 69	13. 70	13. 70	36. 98
Whipple Barracks, Ariz.	241	1, 124. 50	4. 15	53. 94	44. 58
Fort Stanton, N. Mex.	133	1, 090. 23	.....	30. 08	48. 82
San Diego Barracks, Cal.	61	1, 081. 97	32. 79	81. 97	116. 51
Fort Selden, N. Mex.	17	882. 36	.....	58. 82	20. 30
Fort Lowell, Ariz.	170	847. 05	.....	29. 42	21. 75
Fort Marcy, N. Mex.	110	754. 55	9. 09	9. 09	24. 96
Fort McDowell, Ariz.	52	750. 00	.....	19. 23	20. 60
Fort Verde, Ariz.	52	673. 08	.....	38. 46	10. 60
Fort Huachuca, Ariz.	275	527. 27	.....	21. 81	16. 58
Fort Union, N. Mex.	142	422. 53	.....	7. 04	10. 68
Field.	8	250. 00	.....	.....	3. 77
Department of Arizona.	2, 984	1, 161. 85	5. 70	22. 78	32. 42

REPORT OF THE SECRETARY OF WAR.

TABLE X.—The monthly prevalence of disease among the white and colored troops in the Army during the year 1890.

Months.		Admitted to sick report.							Constantly non-effective.						
		Number.			Ratios per 1,000 of mean strength.				Days.			Ratios per 1,000 of mean strength.			
		Venereal, alcoholism, and injuries.	Other diseases.	All diseases and injuries.	Venereal, alcoholism, and injuries.	Other diseases.	All diseases and injuries.	Mean strength.	Venereal, alcoholism, and injuries.	Other diseases.	All diseases and injuries.	Venereal, alcoholism, and injuries.	Other diseases.	All diseases and injuries.	
Jan.	W.	599	4,853	5,452	25.97	210.43	236.40	23,062	8,479	35,598	44,077	11.86	49.79	61.65	
	C.	86	740	826	35.27	303.53	338.80	2,438	1,307	3,917	5,224	17.29	51.83	69.12	
	T.	685	5,593	6,278	26.86	219.33	246.20	25,500	9,786	39,515	49,301	12.38	49.99	62.37	
Feb.	W.	580	1,877	2,457	24.79	80.24	105.03	23,392	8,204	21,910	30,114	12.53	33.45	45.98	
	C.	79	338	417	32.48	138.98	171.46	2,432	1,435	2,628	4,063	21.07	38.59	59.67	
	T.	659	2,215	2,874	25.52	85.77	111.29	25,824	9,639	24,538	34,177	13.33	33.94	47.27	
Mar.	W.	695	1,615	2,310	29.94	69.57	99.51	23,213	9,648	21,029	30,677	13.41	29.22	42.63	
	C.	91	222	313	37.89	92.42	130.31	2,402	1,599	2,167	3,766	21.47	29.10	50.57	
	T.	786	1,837	2,623	30.69	71.72	102.40	25,615	11,247	23,196	34,443	14.16	29.21	43.37	
Apr.	W.	674	1,379	2,053	29.31	59.97	89.29	22,993	8,960	17,827	26,787	12.99	25.84	38.83	
	C.	90	194	284	37.10	79.97	117.06	2,426	1,300	1,998	3,298	17.86	27.45	45.31	
	T.	764	1,573	2,337	30.06	61.88	91.94	25,419	10,260	19,825	30,085	13.45	26.00	39.45	
May.	W.	714	1,414	2,128	31.58	62.55	94.13	22,607	8,810	16,499	25,309	12.57	23.54	36.11	
	C.	64	195	259	27.47	83.69	111.16	2,330	1,030	2,128	3,158	14.26	29.46	43.72	
	T.	778	1,609	2,387	31.20	64.52	95.72	24,937	9,840	18,627	28,467	12.73	24.09	36.82	
June.	W.	641	1,575	2,216	28.82	70.81	99.63	22,243	8,153	17,177	25,330	12.22	25.74	37.96	
	C.	64	172	236	28.55	76.72	105.26	2,242	825	1,934	2,759	12.27	28.75	41.02	
	T.	705	1,747	2,452	28.79	71.35	100.14	24,485	8,978	19,111	28,089	12.22	26.02	38.24	
July.	W.	793	1,885	2,678	36.89	87.69	124.58	21,496	9,413	18,850	28,263	14.12	28.29	42.41	
	C.	82	205	287	36.87	92.18	129.05	2,224	898	1,973	2,871	13.02	28.62	41.64	
	T.	875	2,090	2,965	36.89	88.11	125.00	23,720	10,311	20,823	31,134	14.02	28.32	42.34	
Aug.	W.	622	1,702	2,324	29.23	79.99	109.22	21,278	8,451	19,079	27,530	12.81	28.92	41.74	
	C.	74	202	276	32.56	88.87	121.43	2,273	974	1,876	2,850	13.82	26.62	40.45	
	T.	696	1,904	2,600	29.55	80.85	110.40	23,551	9,425	20,955	30,380	12.91	28.70	41.61	
Sept.	W.	659	1,594	2,253	31.73	76.75	108.48	20,769	8,260	18,186	26,446	13.26	29.19	42.44	
	C.	86	194	280	38.84	87.62	126.47	2,214	1,048	2,011	3,059	15.78	30.28	46.05	
	T.	745	1,728	2,533	32.42	77.80	110.21	22,983	9,308	20,197	29,505	13.50	29.29	42.79	
Oct.	W.	601	1,332	1,933	28.95	64.16	93.11	20,760	8,250	17,499	25,749	12.82	27.19	40.01	
	C.	87	196	283	37.89	85.37	123.26	2,296	950	2,145	3,095	13.35	30.14	43.48	
	T.	688	1,528	2,216	29.84	66.27	96.11	23,056	9,200	19,644	28,844	12.87	27.48	40.36	
Nov.	W.	559	1,266	1,825	27.09	61.36	88.45	20,634	8,485	15,335	23,820	13.71	24.77	38.48	
	C.	101	218	319	43.42	93.72	137.15	2,326	1,085	2,268	3,353	15.55	32.50	48.05	
	T.	660	1,484	2,144	28.75	64.63	93.88	22,960	9,570	17,603	27,173	13.89	25.56	39.45	
Dec.	W.	618	1,272	1,890	30.19	62.15	92.34	20,467	8,271	15,024	23,295	13.04	23.68	36.72	
	C.	75	172	247	32.75	75.11	107.86	2,290	1,035	1,899	2,934	14.58	26.75	41.33	
	T.	693	1,444	2,137	30.45	63.45	93.91	22,757	9,306	16,923	26,229	13.19	23.99	37.18	
Year	W.	7,755	21,764	29,519	353.95	993.33	1,347.28	21,910	103,384	234,013	337,397	12.93	29.26	42.19	
	C.	979	3,048	4,027	421.26	1,311.53	1,732.79	2,324	13,486	26,944	40,430	15.90	31.76	47.66	
	T.	8,734	24,812	33,546	360.40	1,023.85	1,384.25	24,234	116,870	260,957	377,827	13.21	29.50	42.71	

TABLE XI.—The rates, per 1,000 of strength, of admission, death, discharge, and non-effectiveness of the U. S. Army, and of the troops in the several departments, for the year 1890, as compared with those of the decade 1879-'88, and of certain foreign armies.

Names of army or departments.	U. S. Army, 1890.				U. S. Army, white, 1890.				U. S. Army, colored, 1890.			
Mean strength (corrected for time).	24,234.				21,910.				2,324.			
Causes of admission to sick report.	Admission.	Deaths.	Discharges.	Constantly non-effective.	Admissions.	Deaths.	Discharges.	Constantly non-effective.	Admissions.	Deaths.	Discharges.	Constantly non-effective.
Enteric fever	5.24	.49	.....	.76	5.48	.50	.....	.80	3.01	.40	.....	.36
Other specific contagious and infectious diseases, including erysipelas	175.07	.34	.....	3.02	163.08	.33	.....	2.96	288.30	.40	.....	3.55
Malarial fevers and resulting conditions	92.92	.15	.22	2.79	96.58	.08	.25	2.89	58.52	.79	.....	1.86
Typho-malarial fever	.17	.04	.....	.04	.18	.....	.....	.04	.....	.40	.....	.08
Diarrhoea, including cholera-morbus	188.55	.....	.11	1.41	116.43	.....	.12	1.45	138.54	.....	.....	1.00
Dysentery	5.74	.....	.19	.23	5.66	.....	.17	.20	6.45	.....	.40	.46
Other miasmatic diseases	.08	.....	.....	.001	.09	.....	.....	.001	.....	.....	.....	.....
Gonorrhoea and results	35.40	.....	.26	1.84	34.69	.....	.29	1.87	42.17	.....	.....	1.53
Syphilis and results	19.72	.....	2.40	1.70	18.89	.....	2.07	1.63	27.54	.....	5.56	2.38
Other venereal diseases	20.09	.....	.....	1.32	18.44	.....	.....	1.21	35.71	.....	.....	2.39
Vaccina	32.44	.....	.....	1.08	33.59	.....	.....	1.12	21.51	.....	.....	.72
Other enthetic diseases	1.24	.04	.....	.04	1.23	.04	.....	.04	1.29	.....	.....	.05
Alcoholism	40.73	.19	.15	.45	44.45	.21	.17	.49	5.59	.....	.....	.06
Other dietetic diseases	.78	.....	.30	.06	.82	.....	.29	.06	.43	.....	.40	.02
Rheumatism (including muscular)	83.19	.04	2.06	4.05	76.54	.04	1.99	3.78	145.86	.....	2.78	6.64
Other constitutional diseases	4.75	.30	.52	.43	4.75	.29	.50	.40	4.73	.40	.79	.69
Developmental diseases	.50	.....	.71	.08	.50	.....	.79	.08	.43	.....	.....	.03
Parasitic diseases	3.42	.....	.....	.09	3.65	.....	.....	.09	1.29	.....	.....	.04
Headache and neuralgia	49.89	.....	.19	.92	45.32	.....	.17	.90	92.94	.....	.40	1.06
Other diseases of the nervous system	9.74	.79	2.32	1.21	10.00	.83	2.48	1.23	7.31	.40	.79	1.04
Diseases of the eye	16.88	.....	1.46	.81	15.97	.....	1.37	.78	25.39	.....	2.38	1.08
Diseases of the ear	9.04	.....	.82	.42	9.54	.....	.91	.41	4.30	.....	.....	.50
Cataracts and common colds	21.50	.....	.....	.22	20.31	.....	.....	.21	32.70	.....	.....	.33
Bronchitis	74.07	.....	.22	1.44	74.85	.....	.21	1.48	66.69	.....	.40	1.02
Pneumonia	3.96	.52	.....	.41	3.51	.37	.....	.37	8.18	1.99	.....	.75
Pulmonary phthisis	3.26	.71	1.57	.83	3.10	.66	1.66	.78	4.73	1.19	.79	1.25
Pleuritis	2.68	.07	.11	.19	2.15	.04	.08	.47	7.75	.40	.40	.35
Other diseases of the respiratory system	5.98	.19	.34	.26	5.57	.17	.37	.24	9.90	.40	.....	.37
Diseases of the heart and valves	7.01	.26	1.57	.57	6.89	.21	1.49	.61	8.18	.79	2.38	.21
Other diseases of the circulatory system	1.69	.22	.52	.17	1.87	.21	.58	.18	.....	.40	.....	.....
Tonsillitis	33.59	.....	.....	.48	31.67	.....	.....	.47	51.63	.....	.....	.61
Dyspepsia, colic, and constipation	59.17	.....	.30	.78	56.46	.....	.25	.78	84.77	.....	.79	.83
Other diseases of the digestive system	77.94	.34	1.87	2.08	75.12	.37	1.94	2.10	104.56	.....	1.19	1.90
Diseases of the kidneys	1.98	.40	.19	.19	1.64	.50	.21	.17	5.16	.40	.....	.37
Other diseases of the genitourinary system (non-venereal)	16.13	.....	1.05	.94	15.65	.....	.99	.95	20.65	.....	1.59	.91
Diseases of the locomotor system (excluding muscular rheumatism)	4.29	.....	.71	2.07	4.20	.....	.70	.42	5.16	.....	.79	.41
Diseases of the integumentary system	76.21	.04	.19	.42	77.86	.04	.17	2.07	60.67	.....	.40	2.06
All other diseases	25.46	.04	.30	1.08	23.83	.....	.29	1.07	40.88	.40	.40	1.22
Heat stroke	3.01	.....	.07	.08	3.24	.....	.04	.08	.86	.....	.40	.10
Frost-bite and general freezing	2.48	.....	.04	.14	1.87	.....	.04	.11	8.18	.....	.....	.39
Contusions and sprains	128.28	.....	.19	3.14	125.96	.....	.17	3.13	150.17	.....	.40	3.28
Dislocations	2.56	.....	.11	.17	2.56	.....	.08	.17	2.58	.....	.40	.08
Fractures (not gunshot)	6.85	.07	.64	1.14	6.80	.08	.66	1.17	7.31	.....	.40	.94
Incised, lacerated, contused, and punctured wounds	56.20	.11	.07	1.63	52.26	.12	.08	1.55	93.37	.....	.....	2.37
Shot wounds	4.79	2.29	.75	.51	4.38	2.32	.54	.44	8.61	1.99	2.78	1.19
All other injuries	39.53	.98	.46	1.04	39.62	.99	.33	1.03	38.73	.79	1.59	1.19
Total for disease	1,140.55	5.25	20.69	34.86	1,110.59	4.88	20.48	34.51	1,422.97	8.74	22.65	38.15
Total for injuries	243.70	3.45	2.52	7.85	236.69	3.52	1.94	7.68	309.82	2.78	5.96	9.51
Total for all causes	1,384.25	8.69	23.01	42.71	1,347.28	8.40	22.43	42.19	1,732.79	11.52	28.61	47.66

TABLE XI.—*The rates, per 1,000 of strength, of admission, death, discharge, and non-effectiveness of the U. S. Army, and of the troops in the several departments, for the year 1890, as compared with those of the decade 1879-'88, and of certain foreign armies.*

Names of army or departments.	U. S. army 1879-'88.				U. S. Army, white, 1879-'88.				U. S. Army, colored, 1879-'88.			
Mean strength (corrected for time).	23, 828.				21, 542.				2, 286.			
Causes of admission to sick report.	Admissions.	Deaths.	Discharges.	Constantly non-effective.	Admissions.	Deaths.	Discharges.	Constantly non-effective.	Admissions.	Deaths.	Discharges.	Constantly non-effective.
Enteric fever.....	4.91	.74	.04	....	5.12	.75	.04	....	3.02	.68	....	....
Other specific contagious and infectious diseases, including erysipelas.....	19.72	.18	.03	....	18.78	.17	.03	....	28.60	.28	.04	....
Malarial fevers and resulting conditions.....	162.03	.25	.18	....	162.43	.25	.19	....	158.63	.28	.12	....
Typho-malarial fever.....	2.31	.27	.004	....	2.38	.24	.004	....	1.66	.56	....	....
Diarrhoea, including cholera morbus.....	169.97	.09	.31	....	169.87	.09	.31	....	170.83	.08	.36	....
Dysentery.....	15.18	.21	.19	....	13.65	.20	.19	....	29.65	.32	.20	....
Other miasmatic diseases.....	.03	.04	....	....	.03	.04	....	....	.04	.04	....	....
Gonorrhoea and results.....	40.54	....	.30	....	40.03	....	.31	....	44.48	....	.20	....
Syphilis and results.....	37.48	.03	3.59	....	35.61	.03	3.53	....	55.07	.04	4.14	....
Other venereal diseases.....	1.74	....	.03	....	1.69	....	.03	....	2.19	....	....	....
Vaccina.....	9.34	....	....	....	9.27	....	....	....	10.02	....	....	....
Other enthetic diseases.....	2.39	.004	.01	....	2.26	.004	.01	....	3.59	....	....	....
Alcoholism.....	56.68	.17	.47	....	62.22	.19	.52	....	4.42	....	....	....
Other dietic diseases.....	.49	.01	.04	....	.44	.01	.05	....	.96	....	....	....
Rheumatism (including muscular.....	110.73	.05	3.01	....	107.14	.05	2.97	....	144.65	.04	3.42	....
Other constitutional diseases.....	8.78	.20	.70	....	8.64	.19	.65	....	10.06	.28	1.19	....
Developmental diseases.....	....	....	....	....	....	....	....	....	....	....	....	....
Parasitic diseases.....	3.34	....	.004	....	3.53	....	.004	....	1.53	....	....	....
Headache and neuralgia.....	93.03	....	.40	....	90.07	....	.41	....	120.93	....	.36	....
Other diseases of the nervous system.....	11.52	.52	3.68	....	11.73	.54	3.74	....	9.58	.40	3.10	....
Diseases of the eye.....	24.64	....	1.29	....	24.20	....	1.29	....	28.82	....	1.35	....
Diseases of the ear.....	8.49	.01	.83	....	8.97	.01	.88	....	4.02	....	.36	....
Catarrhs and common colds.....	100.14	....	.03	....	97.95	....	.03	....	120.75	....	.04	....
Bronchitis.....	69.66	.10	.64	....	68.49	.11	.67	....	80.74	....	.40	....
Pneumonia.....	4.75	.86	.16	....	4.46	.76	.15	....	7.52	1.79	.24	....
Pulmonary phthisis.....	3.55	.57	2.08	....	3.50	.54	2.07	....	4.02	.84	2.11	....
Pleuritis.....	3.89	.03	.12	....	3.54	.03	.12	....	7.13	.04	.12	....
Other diseases of the respiratory system.....	7.99	.09	.46	....	7.57	.08	.48	....	11.98	.16	.32	....
Diseases of the heart and valves.....	3.36	.31	1.58	....	3.42	.32	1.64	....	2.80	.24	1.03	....
Other diseases of the circulatory system.....	4.90	.36	1.05	....	5.11	.36	1.10	....	2.93	.36	.52	....
Tonsillitis.....	55.22	....	.01	....	53.52	....	.01	....	71.21	....	....	....
Dyspepsia, colic, and constipation.....	82.25	....	.22	....	79.06	....	.24	....	112.33	....	.08	....
Other diseases of the digestive system.....	48.77	.57	2.21	....	48.62	.59	2.26	....	50.08	.48	1.75	....
Diseases of the kidneys.....	1.35	.20	.25	....	1.36	.20	.25	....	1.27	.20	.32	....
Other diseases of the genito-urinary system (non-venereal).....	17.63	.04	1.52	....	17.34	.05	1.48	....	20.34	....	1.87	....
Diseases of the locomotor system (excluding muscular rheumatism).....	5.80	.01	1.37	....	5.77	.004	1.34	....	6.12	.08	1.50	....
Diseases of the integumentary system.....	98.28	.004	.42	....	100.97	.004	.43	....	72.83	....	.40	....
All other diseases.....	7.69	.05	.94	....	7.84	.05	.97	....	6.25	....	.68	....
Heat stroke.....	1.59	.03	.02	....	1.70	.03	.03	....	.52	....	....	....
Frost-bite and general freezing.....	8.36	.09	.13	....	6.33	.10	.11	....	27.46	.04	.36	....
Contusions and sprains.....	150.23	.03	.64	....	150.22	.03	.63	....	150.50	.04	.72	....
Dislocations.....	2.43	.01	.17	....	2.44	.01	.17	....	2.32	....	.16	....
Fractures (not gunshot).....	6.66	.14	.76	....	6.95	.14	.79	....	3.94	.12	.44	....
Incised, lacerated, contused, and punctured wounds.....	43.53	.15	.34	....	42.00	.15	.32	....	57.73	.16	.44	....
Shot wounds.....	5.57	1.54	1.12	....	4.89	1.34	1.06	....	11.98	8.46	1.67	....
All other injuries.....	27.33	1.27	.61	....	27.81	1.33	.62	....	22.74	.72	.60	....
Total for disease.....	1,298.56	5.98	28.20	....	1,286.59	5.85	28.40	....	1,411.10	7.16	26.29	....
Total for injuries.....	245.07	3.25	3.79	....	242.32	3.12	3.73	....	277.22	4.59	4.38	....
Total for all causes.....	1,544.23	9.23	31.99	....	1,528.91	8.97	32.13	....	1,688.32	11.69	30.67	....

TABLE XI.—*The rates, per 1,000 of strength, of admission, death, discharge, and non-effectiveness, of the U. S. Army, and of the troops in the several departments, for the year 1890, as compared with those of the decade 1879-'88, and of certain foreign armies.*

Names of army or departments.	Austria-Hungary, 1889.			Belgium, 1889.			Great Britain, 1888.			Prussia, Saxony, Wurttemberg, 1887-'88.		
Mean strength (corrected for time).	281,569			46,471			101,695			417,104		
Causes for admission to sick report.	Admissions.	Deaths.	Discharges.	Admissions.	Deaths.	Discharges.	Admissions.	Deaths.	Discharges.	Admissions.	Deaths.	Discharges.
Enteric fever	4.62	.75	.03	7.38	.73	...	1.24	.33	...	4.38	.33	...
Other specific contagious and infectious diseases, including erysipelas	18.45	.06	.01	8.04	.11	...	10.98	.16	...	6.98	.15	...
Malarial fevers and resulting conditions	34.57	...	.09	.41	...	...	4.94	.01	...	4.71	...	...
Typho-malarial fever	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhoea	43.08	.01	.01	.58	...	...	4.84	.04	...	16.56	...	...
Dysentery	.70	.09	...	.02	...	.02	.71	.04	.07	.14	...	...
Other miasmatic diseases	.05	.04	...	...	...	...	.04	.03	...	.04	.04	...
Gonorrhoea and results	31.78	...	...	19.43	...	...	91.13	...	.03	15.73	...	...
Syphilis and results	18.58	...	.07	5.53	...	...	106.52	.11	.93	6.30	...	.04
Other venereal diseases	14.93	...	...	4.11	...	...	26.96	...	...	4.34	...	...
Vaccina	...	...	...	...	...	...	...	...	...	...	...	...
Other enthetic diseases	.17	...	...	...	.02	...	...	...	...	.27	.01	...
Alcoholism	.12	...	.03	.28	.02	...	3.47	.03	...	.24	.01	...
Other dietetic diseases	.80	.02	...	...	...	...	.17	...	...	.13	.01	...
Rheumatism (including muscular)	28.17	...	.34	16.12	...	.17	36.95	.04	.77	33.23	.03	.37
Other constitutional diseases	10.05	.22	1.06	9.62	...	3.81	5.51	.22	.43	3.19	.06	.48
Developmental diseases	...	...	.15	...	...	...	6.68	.02	1.11	.22	.01	1.44
Parasitic diseases	5.91	...	...	.41	...	...	26.08	.01	...	8.47	...	...
Headache and neuralgia	...	...	...	...	...	...	...	...	...	...	...	...
Other diseases of the nervous system	7.36	.50	1.68	9.88	.23	1.66	9.17	.49	2.12	5.01	.17	2.71
Diseases of the eye	50.32	...	5.25	28.58	...	.75	12.03	...	.59	28.62	...	3.74
Diseases of the ear	15.32	...	4.02	9.79	...	1.16	6.08	.01	.58	11.46	.01	1.42
Bronchitis	116.60	...	1.00	26.86	.13	1.36	47.20	.07	...	50.39	.01	...
Pneumonia	8.85	.57	.03	3.01	.17	.02	9.76	.83	...	11.63	.48	...
Pulmonary phthisis	3.76	1.18	2.46	1.53	1.08	.26	4.20	1.09	...	2.35	.48	...
Pleuritis	4.91	.22	.29	4.20	.13	.11	3.77	.06	2.62	4.67	.12	5.88
Other diseases of the respiratory system (including catarrh and common colds)	5.16	.10	.33	6.74	...	.39	2.08	.09	...	23.37	.03	...
Diseases of the heart and valves	...	...	...	...	...	...	...	...	...	...	...	...
Other diseases of the circulatory system	9.10	.17	2.66	5.75	.19	1.36	8.70	.30	3.12	1.84	.08	3.24
Tonsillitis, other diseases of the mouth and throat	...	...	...	...	...	...	1.42	.11	...	1.26	...	...
Other diseases of the digestive system	53.36	...	.13	19.73	...	...	58.15	...	...	78.17	...	5.49
Diseases of the kidneys	90.30	.27	6.59	45.02	.13	2.35	30.77	.34	.94	50.00	.15	...
Other diseases of the genito-urinary system (non-venereal)	.36	.10	.05	.22	.09	...	.50	.16	...	.50	.11	.64
Pulmonary phthisis	15.79	.02	1.07	6.28	...	.62	20.05	.03	.60	5.99	.01	...
Diseases of the locomotor system (excluding muscular rheumatism)	25.19	.09	4.89	7.40	.02	.99	7.28	.08	.87	25.95	.06	5.30
Diseases of the integumentary system	182.71	...	.90	46.82	.04	.65	71.70	.03	.28	205.40	.02	.40
All other diseases	32.55	...	8.73	16.76	.86	.45	27.39	.01	.12	24.22	...	.32
Heat stroke	.12	...	...	.28	...	...	...	...	...	.21	.01	...
Frostbite and general freezing	3.85	.01	.09	1.48	...	...	...	...	...	8.37	...	...
Contusions and sprains	...	...	...	17.69	...	.04	...	...	...	94.98	.02	...
Dislocations	.73	...	.29	.49	...	...	...	...	...	1.06	...	...
Fractures (not gunshot)	2.10	.01	.95	1.92	...	.02	94.42	.80	.73	2.82	.02	...
Incised, lacerated, contused, and punctured wounds	...	...	...	26.88	...	...	...	...	...	26.21	.01	...
Shot wounds	1.26	1.24	.22	.09	.13	...	...	...	...	58.58	.26	...
All other injuries	109.61	.63	1.32	9.46	.30	.47	...	...	...	34.18	.53	...
Total for disease	833.62	4.41	41.87	310.77	5.96	16.48	646.47	4.72	15.18	635.72	2.38	31.47
Total for injuries	117.67	1.89	2.86	58.58	.43	.54	94.42	.80	.73	168.41	.86	.73
Total for all causes	951.29	6.30	44.73	369.35	6.39	17.02	740.89	5.52	15.91	804.13	3.24	32.20

Austria-Hungary.—The discharge rate is no doubt somewhat too high. The medical report states the number of discharges to have been 12,594, and referring this number to a total, consisting of the standing army, of the reserves, of the landwehr, etc., in all over 900,000 men, gives the rate as 13.8. But as 8,165 men, serving one year or less, were discharged from the standing army, and as many discharges from the same source must necessarily have taken place among men of longer service, it would seem that comparatively few discharges occurred among men outside of those serving with their colors, and that it would be more correct for the sake of comparison with our Army to refer all the discharges to a mean strength of 281,569, equivalent to that of the Austrian standing army for 1889.

Seven thousand nine hundred and thirty-two patients=28.4 per 1,000 of mean strength, were furloughed to their homes for recuperation from disease.

Belgium.—The total admission rate was 1330.6, of which 961.2 were treated in quarters and 369.4 in hospital. As the diseases of patients of the former category are not given in detail, but are only roughly stated as fevers, conjunctivites, diseases of the eye, venereal diseases, and scabies, the Belgian statement of admissions is limited to the cases treated in hospital.

One thousand six hundred and seventy-nine patients=36.1 per 1,000 of mean strength, were sent to their homes to await recovery. About one-third of the discharges occurred among men serving one year or less.

Prussia, Saxony, Württemberg.—About one-half of the discharges made were among men serving less than one year and for disabilities contracted before conscription.

TABLE XI.—*The rates, per 1,000 of strength, of admission, death, discharge, and non-effectiveness of the U. S. Army, and of the troops in the several departments, for the year 1890, as compared with those of the decade 1879-88, and of certain foreign armies.*

Names of army or departments.	Department of the East.				Department of the Platte.				Department of Dakota.			
Mean strength (corrected for time).	5,527.				3,052.				4,132.			
Causes of admission to sick report.	Admissions.	Deaths.	Discharges.	Constantly non-effective.	Admissions.	Deaths.	Discharges.	Constantly non-effective.	Admissions.	Deaths.	Discharges.	Constantly non-effective.
Enteric fever.....	2.89	.54	....	.38	7.21	1.31	....	.93	3.87	....	....	.54
Other specific contagious and infectious diseases, including erysipelas.....	162.65	.54	....	3.38	143.51	....	....	1.87	194.11	.24	....	3.25
Malarial fevers and resulting conditions.....	87.02	....	.36	2.73	38.99	....	....	.78	20.81	....	....	.48
Typho-malarial fever.....	.54	....	.10	....	....	....	....	....	....	....	....	....
Diarrhœa, including cholera morbus.....	157.94	....	....	1.92	112.72	....	....	1.04	73.33	....	....	.67
Dysentery.....	5.43	....	....	.18	5.90	....	....	.21	8.71	....	.24	.15
Other miasmatic diseases.....	....	....	....	....	....	....	....	....	....	....	....	....
Gonorrhœa and results.....	54.82	....	.54	2.80	23.92	....	....	.96	19.12	....	.24	.34
Syphilis and results.....	26.59	....	4.70	2.05	14.09	....	.66	.95	6.29	....	.73	.46
Other venereal diseases.....	25.87	....	....	1.64	7.86	....	....	.48	14.04	....	....	.81
Vaccina.....	80.15	....	....	3.13	5.57	....	....	.21	30.49	....	....	.79
Other enthetic diseases.....	.72	.18	....	.01	.98	....	....	.03	.97	....	....	.08
Alcoholism.....	57.36	.36	.36	.69	49.80	....	....	.58	22.75	.48	....	.20
Other dietetic diseases.....	.54	....	....	.03	.33	....	....	.06	.24	....	....	.04
Rheumatism (including muscular).....	73.99	....	1.09	2.71	99.93	.33	1.31	4.14	76.96	....	1.94	3.33
Other constitutional diseases.....	5.25	.18	.72	.43	4.26	....	.66	.58	3.63	.97	.24	.26
Developmental diseases.....	.18	....	.18	.03	1.31	....	1.64	.04	.24	....	.73	.02
Parasitic diseases.....	6.33	....	....	.16	2.29	....	....	.11	1.94	....	....	.05
Headache and neuralgia.....	53.55	....	.36	.80	48.17	....	....	.99	44.05	....	....	.60
Other diseases of the nervous system.....	9.95	1.09	.80	.98	8.19	.33	....	.34	7.50	.48	.73	1.15
Diseases of the eye.....	15.74	....	.54	.71	16.71	....	1.31	.70	15.49	....	.97	.63
Diseases of the ear.....	9.95	....	.54	.48	9.17	....	.66	.40	10.41	....	.97	.31
Catarrhs and common colds.....	9.77	....	....	.10	20.66	....	....	.24	22.51	....	....	.27
Bronchitis.....	96.80	....	....	1.93	72.74	....	....	1.49	62.20	....	.73	1.12
Pneumonia.....	3.08	.36	....	.50	7.86	.98	....	.76	4.84	.73	....	.31
Pulmonary phthisis.....	8.44	.36	2.17	.70	4.91	.98	1.97	.87	1.94	.24	.73	.27
Pleuritis.....	2.71	....	.18	.28	3.60	.33	....	.22	1.69	....	....	.11
Other diseases of the respiratory system.....	7.42	.18	.54	.27	3.93	....	....	.15	4.11	.24	.48	.16
Diseases of the heart and valves.....	9.23	....	2.89	.73	5.90	....	.98	.48	7.26	.48	.73	.83
Other diseases of the circulatory system.....	1.63	.36	.72	.11	.98	.33	....	.05	1.94	....	....	.22
Tonsillitis.....	43.96	....	....	.61	37.03	....	....	.61	34.85	....	....	.49
Dyspepsia, colic, and constipation.....	66.04	....	.36	.65	54.39	....	.33	.72	41.14	....	.24	.49
Other diseases of the digestive system.....	81.06	.18	1.63	2.15	88.14	.98	.33	1.91	71.88	....	2.90	1.75
Diseases of the kidneys.....	1.81	.54	....	.17	1.31	.66	....	.06	1.45	....	.24	.11
Other diseases of the genito-urinary system (non-venereal).....	20.26	....	1.45	.84	9.83	....	.66	.35	13.31	....	.97	1.12
Diseases of the locomotor system (excluding muscular rheumatism).....	3.98	....	.54	.33	6.55	....	....	.52	3.63	....	.48	.40
Diseases of the integumentary system.....	83.41	....	....	2.34	61.60	....	....	1.60	50.10	....	....	1.69
All other diseases.....	28.59	....	.36	1.42	25.88	....	.33	.66	22.27	....	....	1.06
Heat stroke.....	3.08	....	....	.06	.98	....	....	.05	2.66	....	....	.10
Frostbite and general freezing.....	....	....	....	....	....	....	....	....	....	....	....	....
Contusions and sprains.....	.54	....	....	.01	5.57	....	....	.19	7.74	....	.24	.51
Dislocations.....	115.07	....	.18	2.80	119.93	....	....	2.83	107.93	....	.24	2.46
Fractures (not gunshot).....	1.63	....	.54	.03	1.97	....	....	.12	2.90	....	....	.21
Incised, lacerated, contused, and punctured wounds.....	6.87	....	.72	1.08	7.54	....	....	.76	4.84	....	.73	1.35
Shot wounds.....	49.57	....	.18	1.42	64.88	....	....	2.12	56.15	....	....	1.30
Shot wounds.....	1.27	.54	.54	.15	2.62	.98	2.29	.86	12.83	8.71	.73	.61
All other injuries.....	38.53	.73	.18	.76	40.96	.98	.98	.95	38.96	.73	.48	.92
Total for disease.....	1,300.70	4.88	21.17	38.46	1,006.23	6.22	11.14	26.09	900.05	3.87	14.28	25.16
Total for injuries.....	216.58	1.27	2.35	6.32	244.43	1.97	3.28	7.87	234.02	9.44	2.42	7.47
Total for all causes.....	1,517.28	6.15	23.52	44.78	1,250.66	8.19	14.42	33.96	1,134.08	13.31	16.70	32.63

TABLE XI.—*The rates, per 1,000 of strength, of admission, death, discharge, and non-effectiveness of the U. S. Army, and of the troops in the several departments, for the year 1890, as compared with those of the decade 1879-'88, and of certain foreign armies.*

Names of army or departments.	Department of the Missouri.				Department of Texas.				Department of California.			
Mean strength (corrected for time).	3, 776.				2, 085.				1, 157.			
Causes of admission to sick report.	Admissions.	Deaths.	Discharges.	Constantly non-effective.	Admissions.	Deaths.	Discharges.	Constantly non-effective.	Admissions.	Deaths.	Discharges.	Constantly non-effective.
Enteric fever	7.41	1.32		1.41	14.32			1.73	2.59			.31
Other specific, contagious, and infectious diseases, including erysipelas	136.12	.26		2.83	131.74	.48		2.12	179.77	.86		3.14
Malarial fevers and resulting conditions	182.73	.26	.53	4.42	244.39	.48	.48	9.84	69.14			1.27
Typho-malarial fever												
Diarrhœa, including cholera morbus	111.74		.26	1.69	191.40			2.36	57.91			.74
Dysentery	3.18		.26	.19	9.55		.95	.30				
Other miasmatic diseases												
Gonorrhœa and results	29.39		.26	1.80	56.80		.95	3.09	36.30			1.97
Syphilis and results	21.45		3.71	1.66	29.12		1.43	2.88	15.56			2.59
Other venereal diseases	23.57			1.72	32.46			2.22	23.33			1.29
Vaccina	36.81			.90	9.55			.21	15.56			.36
Other enthetic diseases	1.59			.03	2.86			.14				
Alcoholism	22.25			.31	51.07	.48	.48	.53	30.25			.23
Other dietic diseases	1.06		.53	.06	.48			.01	.86		.86	.02
Rheumatism (including muscular)	64.35		2.38	2.46	79.23		.95	2.29	73.46		3.46	3.01
Other constitutional diseases	3.44			.10	4.77		1.43	.46	6.05		.86	.64
Developmental diseases	.26		1.32	.01			.95		1.73		1.73	.44
Parasitic diseases	3.18			.07	4.30			.11	.86			.01
Headache and neuralgia	36.55			.61	85.92			.91	22.47			.58
Other diseases of the nervous system	10.33	.79	1.85	1.18	10.50	.48	1.43	.79	8.64		1.73	1.45
Diseases of the eye	14.30		.79	.84	15.75		2.86	.79	12.96		3.46	.91
Diseases of the ear	6.36		.79	.26	10.50		.95	.54	3.46			.20
Catarrahs and common colds	25.69			.24	37.71			.34	28.52			.37
Bronchitis	58.52		.26	1.27	39.62		.48	.89	87.29			1.70
Pneumonia	3.44	.53		.31	.95			.08	3.46			.49
Pulmonary phthisis	1.85	.79	1.06	.32	5.73	.95	4.30	1.41	3.46	.86	.86	.86
Pleuritis	2.38	.26	.26	.06	1.43			.24	4.32			.18
Other diseases of the respiratory system	8.21	.53	.53	.45	2.39		.48	.20	3.46			.64
Diseases of the heart and valves	5.03		1.59	.35	4.30		.48	.26	3.46		1.73	.32
Other diseases of the circulatory system	2.65	.26	.79	.25	1.91		1.43	.14	1.73		.86	.16
Tonsillitis	24.63			.35	15.75			.18	20.74			.35
Dyspepsia, colic, and constipation	58.26		.26	.81	63.69			.81	31.98			.31
Other diseases of the digestive system	72.30	.79	3.18	2.40	62.53	.48	2.39	1.68	70.01		2.59	1.72
Diseases of the kidneys	1.32	.79		.04	3.34	.95	.95	.32	2.59			.03
Other diseases of the genito-urinary system (non-venereal)	16.68		2.12	1.17	21.48			.91	19.01		1.73	1.03
Diseases of the locomotor system (excluding muscular rheumatism)	5.03		1.32	.51	3.82		.48	.80	2.59		1.73	.05
Diseases of the integumentary system	110.70		.26	2.44	92.12	.48		2.60	95.94		.86	1.65
All other diseases	11.89		.53	.63	52.98		.95	1.73	12.96			.61
Heat stroke	1.59			.02	10.98			.32				
Frostbite and general freezing	.53											
Contusions and sprains	142.74		.26	4.33	122.67			2.89	146.93		.86	4.32
Dislocations	4.50			.84	2.39			.09	2.59			.35
Fractures (not gunshot)	7.41			1.35	7.64		.48	1.29	4.32		2.59	1.15
Incised, lacerated, contused, and punctured wounds	54.56	.79	.26	1.56	51.07			1.58	45.81			1.26
Shot wounds	4.77	2.65	.53	.45	1.91	.48		.27	3.46			.14
All other injuries	41.05	1.59	.53	1.08	34.37	1.43	.95	.98	45.81	.86		1.01
Total for disease	1,124.21	6.62	24.89	34.15	1,394.75	4.77	24.82	43.43	952.46	1.73	26.79	23.32
Total for injuries	257.15	5.03	1.59	9.19	231.03	1.91	1.43	7.32	248.92	.86	3.46	8.22
Total for all causes	1,381.36	11.65	26.48	43.33	1,625.78	6.68	26.25	50.75	1,201.38	2.59	30.25	36.54

TABLE XI.—*The rates, per 1,000 of strength, of admission, death, discharge, and noneffectiveness of the U. S. Army, and of the troops in the several departments, for the year 1890, as compared with those of the decade 1879-'88, and of certain foreign armies.*

Names of army or departments. Mean strength (corrected for time).	Department of the Columbia.				Department of Arizona.			
	1,464.				2,984.			
Causes of admission to sick report.	Admissions.	Deaths.	Discharges.	Constantly non-effective.	Admissions.	Deaths.	Discharges.	Constantly non-effective.
Enteric fever	4.78	.....	.....	.86	1.68	.....	.....	.23
Other specific contagious and infectious diseases, including erysipelas	143.43	.....	.....	3.15	299.60	.34	.....	3.96
Malarial fevers and resulting conditions	56.01	.....	.....	1.90	67.69	.67	.34	2.13
Typho-malarial fever .....	.....	.....	.....	.....	.34	.34	.....	.16
Diarrhœa, including cholera morbus	83.33	.....	.....	.85	114.27	.....	.34	1.15
Dysentery .....	.....	.....	.....	.....	7.71	.....	.....	.46
Other miasmatic diseases .....	.....	.....	.....	.....	.67	.....	.....	.01
Gonorrhœa and results	25.96	.....	.....	1.56	31.17	.....	.....	1.49
Syphilis and results	29.37	.....	2.73	3.01	19.44	.....	2.68	1.60
Other venereal diseases	8.20	.....	.....	.35	22.12	.....	.....	1.71
Vaccina	8.20	.....	.....	.18	8.69	.....	.....	.06
Other enthetic diseases	.68	.....	.....	.01	2.01	.....	.....	.04
Alcoholism	61.48	.....	.....	.72	36.19	.....	.34	.31
Other dietic diseases	1.37	.....	.68	.21	2.01	.....	1.34	.09
Rheumatism, (including muscular).	90.85	.....	.....	2.65	117.63	.....	1.68	4.59
Other constitutional diseases	4.78	.....	.68	.36	7.04	1.01	.34	.76
Developmental diseases .....	.....	.....	.....	.....	1.01	.....	.34	.32
Parasitic diseases	2.73	.....	.....	.05	2.35	.....	.....	.05
Headache and neuralgia	35.52	.....	.....	.81	62.67	.....	.67	1.28
Other diseases of the nervous system	11.61	.68	1.37	.65	11.39	.34	1.68	1.85
Diseases of the eye	25.27	.....	2.05	1.13	22.79	.....	3.35	.99
Diseases of the ear	16.39	.....	2.73	.90	6.37	.....	.67	.41
Catarrhs and common colds	12.30	.....	.....	.12	28.15	.....	.....	.27
Bronchitis	162.57	.....	.68	2.60	45.91	.....	.....	.83
Pneumonia	5.46	1.37	.....	.47	2.68	.34	.....	.30
Pulmonary phthisis	2.05	1.37	.....	.41	3.35	.34	1.68	1.98
Pleuritis	2.73	.....	.....	.16	3.69	.....	.....	.12
Other diseases of the respiratory system	6.83	.....	.....	.15	8.38	.34	.34	.41
Diseases of the heart and valves	11.61	.....	.68	.36	7.37	.67	3.35	.69
Other diseases of the circulatory system .....	.....	.....	.....	.....	1.34	.34	1.01	.28
Tonsillitis	26.64	.....	.....	.43	41.89	.....	.....	.59
Dyspepsia, colic, and constipation	58.74	.....	.68	1.08	85.79	.....	.34	1.30
Other diseases of the digestive system	91.53	.68	2.05	2.47	85.79	.....	1.68	2.26
Diseases of the kidneys	1.37	.....	.68	.51	3.69	.67	.34	.40
Other diseases of the genito-urinary system (non-venereal)	12.98	.....	.68	.95	15.08	.....	1.01	1.21
Diseases of the locomotor system (excluding muscular rheumatism)	2.73	.....	1.37	.29	4.02	.....	1.34	.21
Diseases of the integumentary system	55.33	.....	.68	2.05	63.00	.....	.67	1.77
All other diseases	10.25	.....	.....	.41	34.52	.34	.34	1.33
Heat stroke	4.78	.....	.....	.07	2.01	.....	.67	.10
Frostbite and general freezing	2.05	.....	.....	.07	1.01	.....	.....	.11
Contusions and sprains	147.53	.....	.....	2.86	160.52	.....	.34	3.31
Dislocations	4.10	.....	.....	.46	1.34	.....	.....	.02
Fractures (not gunshot)	6.15	.....	2.05	1.11	9.05	.67	1.01	1.10
Incised, lacerated, contused, and punctured wounds	56.69	.....	.....	2.13	70.04	.....	.....	1.99
Shot wounds	.68	2.05	.68	.002	7.04	1.68	1.34	1.35
All other injuries	36.20	1.37	.....	1.68	42.23	1.34	.34	1.33
Total for disease	1,073.08	4.10	17.76	31.80	1,274.46	5.70	25.80	37.59
Total for injuries	258.20	3.41	2.73	8.38	293.23	3.69	3.69	9.30
Total for all causes	1,331.28	7.51	20.49	40.18	1,567.69	9.38	29.49	46.89

TABLE XII.—*Specific febrile and acute infectious diseases in various armies.*

[Admission rates per 1,000 of strength.]

Diseases.	United States.			Austria-Hungary, 1869.	Belgium, 1869.	Great Britain, 1868.	Prussia, Saxony, Württemberg, 1867-1868.
	1890.	1889.	1879-1888.				
Cerebro-spinal fever	.04	.....	.09	.02	.10	.01	.....
Chicken pox .....	.....	.04	.16	.....	.04	.08	.01
Cholera .....	.....	.....	.....	.....	.....	.....	.01
Diphtheria	.21	.16	.42	.09	.02	.12	1.07
Enteric fever	5.24	5.32	4.91	4.62	7.38	1.24	4.38
Measles	2.48	3.76	3.43	.49	.41	1.73	.95
Mumps	.87	8.32	3.32	2.00	.45	1.04	(*)
Scarlet fever	.25	.08	.18	.26	.20	2.33	.86
Smallpox	.04	.16	.15	.35	.....	.....	.....
Varioloid .....	.....	.08	.13	.....	.15	.14	.....
Typhus fever .....	.....	.....	.03	.02	.....	2.58	.....
Whooping cough	.21	.04	.07	.....	.....	.01	.01
Yellow fever .....	.....	.....	.20	.....	.....	.....	.16

* Mumps are enumerated under the digestive system.

TABLE XIII.—*Distribution of specific febrile diseases, etc., at United States military posts during the year 1890.*

Posts.	Specific febrile and acute infectious diseases, excluding influenza, quinsy, and erysipelas.										Influenza.	Quinsy.	Erysipelas.	Aggregate.	Ratios per 1,000 of mean strength.
	Cerebro-spinal fever.	Dengue.	Diphtheria.	Enteric fever.	Measles.	Mumps.	Scarlet fever.	Smallpox.	Whooping cough.	Other infectious diseases.	Total.				
Fort Sam Houston, Tex.				29	.....	1	.....	.....	.....	.....	30	49.50	104	.....	134
Columba Barracks, Ohio				21	.....	1	.....	.....	.....	.....	22	43.82	29	.....	51
Fort Leavenworth, Kans.				8	4	1	.....	.....	.....	.....	13	22.18	67	5	85
Fort Elliott, Tex.				12	.....	.....	.....	.....	.....	.....	12	98.36	55	1	68
Fort Yates, N. Dak.				5	.....	.....	.....	4	.....	.....	9	31.36	142	.....	151
Fort Niobrara, Nebr.				5	3	.....	.....	.....	.....	.....	8	21.16	67	1	76
Fort Walla Walla, Wash.				6	.....	1	.....	.....	.....	.....	7	22.01	43	.....	50
Fort Buford, N. Dak.					6	.....	.....	.....	.....	.....	6	69.77	.....	6	69.77
Fort Custer, Mont.				1	5	.....	.....	.....	.....	.....	6	23.17	57	.....	63
Fort McIntosh, Tex.				6	.....	.....	.....	.....	.....	.....	6	18.13	129	1	136
Fort Robinson, Nebr.											6	46.15	1	.....	8
Fort Douglas, Utah				5	.....	.....	.....	.....	.....	.....	6	15.27	120	2	128
Fort Logan, Colo.				1	3	.....	1	.....	.....	.....	5	11.92	42	1	48
Fort Sherman, Idaho				1	4	.....	.....	.....	.....	.....	5	17.99	14	6	25
Whipple Barracks, Ariz.				5	.....	.....	.....	.....	.....	.....	5	18.38	93	1	101
Fort Monroe, Va.											5	20.75	36	.....	41
Fort Reno, Okla.				3	.....	.....	.....	.....	.....	.....	4	9.24	108	2	114
Fort Myer, Va.				4	.....	.....	.....	.....	.....	.....	4	13.51	.....	4	13.51
Fort D. A. Russell, Wyo.				1	.....	2	.....	.....	.....	.....	3	21.90	23	.....	26
Vancouver Barracks, Wash.				3	.....	.....	.....	.....	.....	.....	3	8.62	16	.....	19
Field Department of Dakota											3	7.14	.....	2	5
Fort Assiniboine, Mont.				1	1	.....	.....	.....	.....	.....	3	3.91	1	.....	4
Fort Canby, Wash.				2	.....	.....	.....	.....	.....	.....	2	4.58	97	.....	99
Fort Hamilton, N. Y.											2	31.75	3	.....	5
Fort Keogh, Mont.											2	10.10	38	.....	40
Fort Marcy, N. Mex.											2	5.76	1	3	6
Fort McPherson, Ga.											2	18.18	6	.....	9
Mt. Vernon Barracks, Ala.				1	.....	.....	.....	.....	.....	.....	2	10.64	37	1	39
Fort Niagara, N. Y.				2	.....	.....	.....	.....	.....	.....	2	18.02	19	3	24
Camp Pilot Butte, Wyo.				1	.....	.....	.....	.....	.....	.....	2	17.54	23	.....	25
Fort Porter, N. Y.				2	.....	.....	.....	.....	.....	.....	2	25.64	13	1	16
Presidio of San Francisco, Cal.											2	21.05	14	.....	16
Fort Sidney, Nebr.				2	.....	.....	.....	.....	.....	.....	2	4.40	83	1	86
Fort Snelling, Minn.											2	8.80	.....	3	5
Fort Stanton, N. Mex.											2	6.90	24	.....	26
Fort Trumbull, Conn.											2	15.04	47	.....	49
Watervliet Arsenal, N. Y.				2	.....	.....	.....	.....	.....	.....	2	38.46	18	.....	20
.....											2	33.33	4	.....	6

TABLE XIII.—*Distribution of specific febrile diseases, etc., at United States military posts during the year 1890.—Continued.*

Posts.	Specific febrile and acute infectious diseases, excluding influenza, quinsy, and erysipelas.										Influenza.	Quinsy.	Erysipelas.	Aggregate.	Ratios per 1,000 of mean strength.
	Cerebrospinal fever.	Dengue.	Diphtheria.	Enteric fever.	Measles.	Mumps.	Scarlet fever.	Smallpox.	Whooping cough.	Other infectious diseases.	Total.	Ratios per 1,000 of mean strength.			
Fort Adams, R. I.						1					1	5.08	22	23	116.75
Chicago Headquarters, Ill.			1								1	17.24	3	4	68.97
Fort Columbus, N. Y. H.			1								1	6.10	12	14	85.37
David's Island, N. Y. H.				1							1	2.30	44	47	108.30
Camp Del Rio, Tex.			1								1	76.92	1	2	153.85
Frankford Arsenal, Pa.		1									26.32	15		16	421.05
Fort Grant, Ariz.					1						3.06	213		214	654.43
Camp Guthrie, Okla.			1								23.26	1		2	46.51
Hot Springs, Ark.				1							21.28	1		2	42.55
Jackson Barracks, La.					1						10.87	15		16	173.91
Jefferson Barracks, Mo.			1								2.46		1	2	4.93
Kennebec Arsenal, Me.			1								66.67	10		11	733.33
Fort Lewis, Colo.					1						5.05	40	1	42	212.12
Fort Abraham Lincoln, N. Dak.	1										10.53	36		37	389.47
Madison Barracks, N. Y.			1								4.03	29		30	120.97
Fort Maginnis, Mont.						1					13.16	46	1	48	631.58
Fort McHenry, Md.						1					10.10	24		25	252.53
Fort McKinney, Wyo.					1						6.85		1	1	6.85
Fort Meade, S. Dak.			1								3.25	19	1	21	68.18
Camp Pena Colorado, Tex.					1						18.52	3	4	4	74.07
Fort Pierre, S. Dak.					1						29.41	6		7	205.88
Plattsburg Barracks, N. Y.					1						21.28	12		13	276.60
San Carlos, Ariz.					1						4.00	.75		76	304.00
St. Francis Barracks, Fla.		1									15.38		1	1	15.38
Fort Sully, S. Dak.					1						8.93			1	8.93
Fort Warren, Mass.			1								11.63	5		6	69.77
Washington Barracks, D. C.				1							3.92	3		4	15.69
Fort Wayne, Mich.				1							4.74	40		41	194.31
Willels Point, N. Y.			1								2.50	44	1	46	115.00
Field Department of the East.				1							28.57			1	28.57
Field Department of the Missouri.						1					20.41			1	20.41
Field Department of California.				1							8.40		1	2	18.81
Fort Wingate, N. Mex.											145		1	146	406.69
West Point, N. Y.											139			139	367.72
Fort Clark, Tex.											112			112	232.85
Fort Sill, Okla.											91		1	92	278.79
Fort Apache, Ariz.											85			85	351.24
Fort Riley, Kans.											70			70	109.03
Fort Washakie, Wyo.											70			70	630.63
Fort Huachuca, Ariz.											58		4	62	225.45
Camp Poplar River, Mont.											51		2	53	546.39
Fort Missoula, Mont.											52			52	309.52
Fort Randall, S. Dak.											51		1	52	509.80
Fort Spokane, Wash.											49			49	245.00
Fort Mackinac, Mich.											44			44	468.09
Fort Omaha, Nebr.											41			41	98.80
Fort Bidwell, Cal.											40			40	563.38
Fort Thomas, Ariz.											39			39	367.92
Fort Lowell, Ariz.											34			34	200.00
Fort Supply, Ind. T.											32			32	153.11
Fort Bayard, N. Mex.											31			31	106.16
Fort Bowie, Ariz.											30			30	252.10
Leavenworth Prison Guard, Kans.											29			29	252.17
Fort Laramie, Wyo.											28			28	2,000*
Angel Island, Cal.											27			27	143.62
Fort Du Chesse, Utah.											25		1	26	100.00
Little Rock Barracks, Ark.											25			25	423.73
Rock Island Arsenal, Ill.											23			23	383.33
Fort Verde, Ariz.											22			22	423.08
Fort Crawford, Cal.											20		1	21	313.43
Fort McDowell, Ariz.											21			21	403.85

* Fort Laramie. This rate (2,000) is excessive. Post was abandoned in March, the average strength becoming only 14 for the year, while it was 77 during the prevalence of the disease, January, 1890. The rate to actual strength is 363.63.

TABLE XIII.—*Distribution of specific febrile diseases, etc., at United States military posts during the year 1890—Continued.*

Posts.	Specific febrile and acute infectious diseases, excluding influenza, quinsy, and erysipelas.										Influenza.	Quinsy.	Erysipelas.	Aggregate.	Ratio per 1,000 of mean strength.
	Cerebro-spinal fever.	Dengue.	Diphtheria.	Enteric fever.	Measles.	Mumps.	Scarlet fever.	Smallpox.	Whooping cough.	Other infectious diseases.	Total.				
Benicia Barracks, Cal	...	...	...	...	...	...	...	...	...	...	...	18	...	18	236.84
Alcatraz Island, Cal	...	...	...	...	...	...	...	...	...	...	...	17	...	17	184.78
Fort Bliss, Tex	...	...	...	...	...	...	...	...	...	...	...	17	...	17	138.21
Fort Shaw, Mont	...	...	...	...	...	...	...	...	...	...	...	16	...	16	100.63
Fort Mojave, Ariz	...	...	...	...	...	...	...	...	...	...	...	14	...	14	500.00
Camp Sheridan, Wyo	...	...	...	...	...	...	...	...	...	...	...	14	...	14	215.38
Fort Totten, N. Dak	...	...	...	...	...	...	...	...	...	...	...	14	...	14	215.38
Fort Wadsworth, N. Y	...	...	...	...	...	...	...	...	...	...	...	14	...	14	126.13
Fort Ringgold, Tex	...	...	...	...	...	...	...	...	...	...	...	13	...	13	109.24
Fort Bennett, S. Dak	...	...	...	...	...	...	...	...	...	...	...	11	1	12	206.90
Indianapolis Arsenal, Ind	...	...	...	...	...	...	...	...	...	...	...	12	...	12	480.00
Fort Mason, Cal	...	...	...	...	...	...	...	...	...	...	...	11	1	12	187.50
Fort Union, N. Mex	...	...	...	...	...	...	...	...	...	...	...	7	5	12	84.51
Fort Brady, Mich	...	...	...	...	...	...	...	...	...	...	...	11	...	11	115.79
Fort Hancock, Tex	...	...	...	...	...	...	...	...	...	...	...	11	...	11	224.49
Fort Ontario, N. Y	...	...	...	...	...	...	...	...	...	...	...	11	...	11	255.81
Benicia Arsenal, Cal	...	...	...	...	...	...	...	...	...	...	...	9	...	9	173.08
San Diego Barracks, Cal	...	...	...	...	...	...	...	...	...	...	...	9	...	9	147.54
Fort Sheridan, Ill	...	...	...	...	...	...	...	...	...	...	...	9	...	9	89.11
Camp Oklahoma, Okla	...	...	...	...	...	...	...	...	...	...	...	8	...	8	102.56
Fort Pembina, N. Dak	...	...	...	...	...	...	...	...	...	...	...	6	...	6	80.00
Augusta Arsenal, Ga	...	...	...	...	...	...	...	...	...	...	...	5	...	5	192.31
Fort Preble, Me	...	...	...	...	...	...	...	...	...	...	...	5	...	5	92.59
Fort Selden, N. Mex	...	...	...	...	...	...	...	...	...	...	...	5	...	5	294.12
Watertown Arsenal, Mass	...	...	...	...	...	...	...	...	...	...	...	5	...	5	151.52
Fort Wood, N. Y	...	...	...	...	...	...	...	...	...	...	...	4	...	4	86.96
Fort Klamath, Oregon	...	...	...	...	...	...	...	...	...	...	...	3	...	3	600.00
Camp Langtry, Tex	...	...	...	...	...	...	...	...	...	...	...	3	...	3	230.77
Fort Townsend, Wash	...	...	...	...	...	...	...	...	...	...	...	3	...	3	51.72
Fort Bridger, Wyo	...	...	...	...	...	...	...	...	...	...	...	2	...	2	14.08
San Antonio Headquarters, Tex	...	...	...	...	...	...	...	...	...	...	...	2	...	2	62.50
Springfield National Ar- mory, Mass	...	...	...	...	...	...	...	...	...	...	...	2	...	2	71.43
Boisé Barracks, Idaho	...	...	...	...	...	...	...	...	...	...	...	...	1	1	9.52
Newport Barracks, Ky	...	...	...	...	...	...	...	...	...	...	...	1	...	1	16.13
Sandy Hook, N. J	...	...	...	...	...	...	...	...	...	...	...	1	...	1	31.25
Total	1	7	5	127	60	21	6	1	5	2	235	4,070	6	59	4,370

TABLE XIV.—Showing the distribution of pneumonia at United States military posts during the year 1890.

[Cases of pneumonia, complications of other diseases not included.]

Names of posts.	Admissions.			Dispositions.			Right lung.			Left lung.			Both lungs.											
	Total.	White.	Colored.	Duty.	Died.	Otherwise.	Upper lobe.	Middle lobe.	Lower lobe.	Middle and lower lobes.	Entire.	Total.	Upper lobe.	Lower lobe.	Entire.	Total.	Lower lobes.	Entire.	Upper and lower right and lower left.	Lower left and upper right.	Both upper.	Total.	Lung not given.	
Fort Robinson, Nebr.	12	3	9	9	3				7			7		4		4	1					1		
Columbus Barracks, Ohio	6	6		3	1	2						2		2		2						2		
Fort Douglas, Utah	5	5		4	1				1			1		2		2								
Fort Leavenworth, Kans.	5	4	1	2	1	2			2			2		3		3								
Fort Abraham Lincoln, S. Dak.	3	3		2		1			2			2		1		1								
Dakota, Field	3	3				3			2			2				1							1	
David's Island, N. Y.	3	3		2	1				1	1	1	3						1						
Fort Omaha, Nebr.	3	3		1		2	1		1	1		2			1	1								
Fort Totten, N. Dak.	3	3		3					1			1			1	1			1			1		
Vancouver Barracks, Wash.	3	3		1	1	2	1		1			2					1				1		1	
Fort Bayard, N. Mex.	2	2		2	1								1	2								1		1
Fort Custer, Mont.	2	2		1		1								1	2									
Fort Grant, Ariz.	2	1	1	1		1						1	1		2									
Fort McKimney, Wyo.	2	2		2					1			1		1	1									
Fort Meade, S. Dak.	2	2		2					1			1		1		1								
Presidio of San Francisco, Cal.	2	2		2																			2	
Fort Shaw, Mont.	2		2		1	1			1			1		1		1								
Fort Sherman, Idaho	2	2		1	1				1	1	1	2												
Fort Walla Walla, Wash.	2	2		2								1		1		1								
Fort Wingate, N. Mex.	2	2		2										2		2								
Fort Assiniboine, Mont.	1	1		1							1	1												
Augusta Arsenal, Ga.	1	1		1																			1	
Fort Barrancas, Fla.	1	1				1				1		1											1	
Fort Bennett, S. Dak.	1	1																					1	
Benicia Barracks, Cal.	1	1				1																	1	
Boisé Barracks, Idaho	1	1				1					1	1											1	
Chicago, Ill.	1	1		1										1		1								
Fort Davis, Tex.	1	1		1								1				1								
Fort D. A. Russell, Wyo.	1	1		1					1			1											1	
Fort Gibson, Ind. T.	1	1		1																			1	1
Fort Lewis, Colo.	1	1		1								1											1	1
Little Rock Bks, Ark.	1	1				1			1															
Fort Maginnis, Mont.	1	1		1								1							1				1	
Fort Monroe, Va.	1	1		1					1			1												
Camp at Monterey, Cal.	1	1				1								1	1									
Camp Pilot Butte, Wyo.	1	1		1					1						1									
Fort Porter, N. Y.	1	1		1								1		1										
Fort Reno, Ind. T.	1	1				1			1						1	1								
Rock Island Arsenal, Ill.	1	1		1								1			1									
San Carlos, Ariz.	1	1		1	1				1															
St. Francis Bks, Fla.	1	1				1						1							1				1	
Fort Sam Houston, Tex.	1	1		1							1	1												
Fort Sheridan, Ill.	1	1		1							1	1												
Fort Snelling, Minn.	1	1				1					1	1												
Fort Sully, S. Dak.	1	1		1					1															
Fort Supply, S. Dak.	1	1		1										1		1								
Fort Thomas, Ariz.	1		1	1										1		1								
Washington Bks, D. C.	1	1		1								1												1
Watertown Arsenal, Mass.	1	1		1					1			1												
West Point, N. Y.	1	1		1							1													
Total	96	77	19	61	13	22	4	28	5	8	45	2	26	6	34	2	5	1	1	1	2	11	6	
At large					1												1							

TABLE XV.—Twenty posts giving the highest admission rates for malarial diseases, rheumatism, diarrhœa, and venereal diseases, respectively during 1890.

I.—MALARIAL DISEASES.

Names of stations.	Mean strength.	Ratios per 1,000 of mean strength.			
		Admissions.	Deaths.	Discharges for disability.	Constantly non-effective.
Fort Sill, Okla.....	330	754.55	.....	3.03	12.12
St. Francis Barracks, Fla.....	65	646.20	.....	.....	26.65
Fort Clark, Tex.....	481	451.14	2.08	.....	18.38
Newport Barracks, Ky.....	62	371.00	.....	.....	4.33
Camp at Eagle Pass, Tex.....	56	357.14	.....	.....	8.07
Jackson Barracks, La.....	92	330.96	.....	.....	5.33
Fort Reno, Okla.....	296	334.46	3.38	3.38	10.49
Fort Brown, Tex.....	135	325.91	.....	.....	8.32
Fort Sam Houston, Tex.....	606	247.51	.....	1.65	10.59
Fort Apache, Ariz.....	242	235.53	.....	4.13	7.87
Mount Vernon Barracks, Ala.....	111	225.22	.....	.....	19.58
Fort Davis, Tex.....	201	208.95	.....	.....	15.09
Jefferson Barracks, Mo.....	406	192.12	.....	.....	5.22
Fort Myer, Va.....	137	175.17	.....	.....	7.60
Fort Lewis, Col.....	198	171.71	.....	.....	3.00
Plattsburg Barracks, N. Y.....	47	170.22	.....	.....	2.74
Fort Hamilton, N. Y.....	198	161.61	.....	.....	4.26
Fort Barrancas, Fla.....	86	139.53	.....	.....	5.77
Fort Bowie, Ariz.....	119	134.45	.....	.....	1.89
Fort Elliott, Tex.....	122	131.14	.....	.....	1.50

II.—RHEUMATISM.

[Muscular and articular.]

Fort Canby, Wash.....	63	222.22	.....	.....	8.96
Rock Island Arsenal, Ill.....	60	216.67	.....	50.00	10.64
Fort Apache, Ariz.....	242	214.87	.....	4.13	4.39
Fort Grant, Ariz.....	327	195.72	.....	3.06	9.78
Fort Washakie, Wyo.....	111	171.17	.....	.....	4.32
Fort Totten, N. Dak.....	65	169.22	.....	.....	4.21
San Carlos, Ariz.....	250	168.00	.....	4.00	4.54
Fort Robinson, Nebr.....	393	165.39	.....	2.54	7.19
San Diego Barracks, Cal.....	61	163.93	.....	.....	4.63
Fort Bowie, Ariz.....	119	159.65	.....	.....	4.51
Benicia Barracks, Cal.....	76	157.89	.....	13.16	11.32
Fort Snelling, Minn.....	290	148.25	.....	3.45	8.41
Fort Stanton, N. Mex.....	133	142.75	.....	.....	3.19
Fort Lewis, Colo.....	198	141.41	.....	5.05	4.94
Camp Sheridan, Wyo.....	65	138.46	.....	.....	3.54
Fort McPherson, Ga.....	188	138.30	.....	.....	3.29
Benicia Arsenal, Cal.....	52	134.61	.....	19.23	2.95
Fort Sheridan, Ill.....	101	128.72	.....	.....	4.91
Fort Sherman, Idaho.....	272	128.68	.....	.....	2.56
Whipple Barracks, Ariz.....	241	128.63	.....	.....	5.71

III.—DIARRHOEAL DISEASES.

Fort Sam Houston, Tex.....	606	430.70	.....	1.65	5.75
Fort Sill, Okla.....	330	384.84	.....	.....	7.13
Fort Barrancas, Fla.....	86	372.10	.....	.....	6.82
Madison Barracks, N. Y.....	248	342.73	.....	.....	4.42
Fort Monroe, Va.....	433	339.50	.....	.....	4.40
Fort McPherson, Ga.....	188	324.48	.....	.....	2.80
Jackson Barracks, La.....	92	304.34	.....	.....	4.52
Mount Vernon Barracks, Ala.....	111	270.27	.....	.....	5.03
Williets Point, N. Y. H.....	400	270.00	.....	.....	2.07
San Carlos, Ariz.....	250	252.00	.....	.....	3.25
Camp Pena Colorado, Tex.....	54	240.74	.....	.....	4.21
Fort Hamilton, N. Y.....	198	237.37	.....	.....	2.37
Fort Niobrara, Nebr.....	378	230.15	.....	.....	1.36
Fort Reno, Okla.....	296	229.73	.....	.....	5.13
Fort Robinson, Nebr.....	393	223.91	.....	.....	1.53
Watervliet Arsenal, N. Y.....	60	216.67	.....	.....	1.55
Fort Myer, Va.....	137	204.38	.....	.....	3.78
Fort Apache, Ariz.....	242	190.07	.....	.....	1.31
Fort Brown, Tex.....	135	185.18	.....	.....	1.83
Fort Du Chesne, Utah.....	260	165.38	.....	.....	.83

TABLE XV.—*Twenty posts giving the highest admission rates for malarial diseases, rheumatism, diarrhoea, etc—Continued.*

IV.—VENEREAL DISEASES.

Names of stations.	Mean strength.	Ratios per 1,000 of mean strength.			
		Admissions.	Deaths.	Discharges for disability.	Constantly non-effective.
Columbus Barracks, Ohio	502	380.46	.....	41.83	24.74
Camp at Eagle Pass, Tex	56	303.58	.....	.....	18.15
Fort McPherson, Ga	188	223.40	.....	5.32	17.46
Fort Barrancas, Fla	86	197.68	.....	.....	10.42
Fort Ontario, N. Y	43	186.04	.....	23.26	5.61
Fort Brady, Mich	95	178.95	.....	.....	6.08
Jefferson Barracks, Mo	406	167.49	.....	17.24	10.31
Jackson Barracks, La	92	163.04	.....	10.87	19.40
Fort Brown, Tex	135	162.95	.....	7.41	14.04
Newport Barracks, Ky	62	161.29	.....	.....	6.80
Fort Clark, Tex	481	153.85	.....	2.08	12.69
Plattsburg Barracks, N. Y	47	148.93	.....	.....	6.59
Fort Preble Me	54	148.14	.....	.....	6.19
Fort Sam Houston, Tex	606	141.92	.....	3.30	8.87
Fort Walla Walla, Wash	318	135.21	.....	6.29	10.91
Alcatraz Island, Cal	92	119.56	.....	10.87	8.40
Fort Grant, Ariz	327	119.27	.....	.....	7.88
Washington Barracks, D. C	255	117.66	.....	.....	10.19
Fort Wayne, Mich	211	113.74	.....	.....	3.67
Dauids Island, N. Y. H	434	105.99	.....	.....	5.86

TABLE XVI.—*Twenty posts giving the highest non-effective rates for malarial diseases, rheumatism, diarrheal and venereal diseases, respectively, during 1890.*

I.—MALARIAL DISEASES.

Names of stations.	Mean strength.	Constantly noneffective per 1,000 of mean strength.	Average number sick daily.	Average number of days each case was treated.
St. Francis Barracks, Fla	65	26.05	1.69	14.71
Mount Vernon Barracks, Ala	111	19.58	2.17	31.72
Fort Clark, Tex	481	18.38	8.84	14.87
Fort Davis, Tex	201	15.09	3.03	26.36
Fort Sill, Okla	330	12.12	4.00	5.86
Fort Sam Houston, Tex	606	10.50	6.42	15.62
Fort Reno, Okla	296	10.49	3.10	11.44
Fort Brown, Tex	135	8.32	1.12	9.32
Camp at Eagle Pass, Tex	56	8.07	0.45	8.25
Fort Apache, Ariz	242	7.87	1.90	12.19
Fort Myer, Va	137	7.60	1.04	15.83
Fort McPherson, Ga	188	6.38	1.20	18.25
Fort Barrancas, Fla	86	5.77	0.50	15.08
Fort McHenry, Md	99	5.65	0.56	29.14
Boisé Barracks, Idaho	105	5.48	0.58	30.00
Jackson Barracks, La	92	5.33	0.49	5.77
Fort Leavenworth (post) Kans	586	5.28	3.10	15.48
Jefferson Barracks, Mo	406	5.22	2.12	9.92
Fort Marcy, N. Mex	110	4.33	0.48	19.33
Columbus Barracks, Ohio	502	4.32	2.17	14.14

TABLE XVI.—*Twenty posts giving the highest non-effective rates for malarial diseases, rheumatism, etc.—Continued.*

II.—RHEUMATISM.

[Muscular and articular.]

Names of stations.	Mean strength.	Constantly noneffective per 1,000 of mean strength.	Average number sick daily.	Average number of days each case was treated.
Benicia Barracks, Cal.	76	11.32	0.86	26.17
Rock Island Arsenal, Ill.	60	10.64	0.64	17.92
Fort McHenry, Md.	99	10.40	1.03	34.18
Fort Grant, Ariz.	327	9.78	3.20	18.25
Fort Snelling, Minn.	290	8.41	2.44	20.70
Fort Sidney, Nebr.	204	7.51	1.53	22.36
Fort Robinson, Nebr.	393	7.19	2.83	15.88
Fort Mead, S. Dak.	308	6.64	2.04	37.30
Fort Wingate, N. Mex.	359	6.51	2.34	26.68
Fort Douglas, Utah.	423	6.48	2.74	25.67
Fort Thomas, Ariz.	106	6.46	0.68	31.25
Fort Logan, Colo.	278	6.06	1.68	19.84
Whipple Barracks, Ariz.	241	5.71	1.38	16.19
Fort Elliott, Tex.	122	5.61	0.68	41.67
Fort Bennett, S. Dak.	58	5.48	0.32	116.00
Fort Bayard, N. Mex.	292	5.30	1.55	16.62
Fort Lewis, Colo.	198	4.94	0.98	12.75
Fort Custer, Mont.	331	4.92	1.63	22.00
Fort Sheridan, Ill.	101	4.91	0.50	13.92
Fort Pembina, N. Dak.	75	4.79	0.36	131.00

III.—DIARRHOEAL DISEASES.

Fort Schuyler, N. Y.	78	8.11	0.63	77.00
Fort Sill, Okla.	330	7.13	2.35	6.76
Fort Barrancas, Fla.	86	6.82	0.69	6.69
Fort Sidney, Nebr.	204	6.21	1.27	20.09
Fort Sam Houston, Tex.	606	5.75	3.49	4.88
San Diego Barracks, Cal.	61	5.48	0.33	40.67
Fort Reno, Okla.	296	5.13	1.52	8.19
Mount Vernon Barracks, Ala.	111	5.03	0.56	6.58
Jackson Barracks, La.	92	4.52	0.42	5.43
Madison Barracks, N. Y.	248	4.42	1.10	4.73
Fort Monroe, Va.	433	4.40	1.90	4.73
Camp Pena Colorado, Tex.	54	4.21	0.23	6.38
Fort Myer, Va.	137	3.78	0.52	6.75
Fort Ringgold, Tex.	119	3.48	0.41	8.88
Fort Elliott, Tex.	122	3.44	0.42	8.50
San Carlos, Ariz.	250	3.25	0.81	4.71
Fort McPherson, Ga.	188	2.80	0.53	3.15
Fort Wadsworth, N. Y.	111	2.76	0.31	28.00
Whipple Barracks, Ariz.	241	2.66	0.64	6.88
Fort Huachuca, Ariz.	275	2.61	0.72	29.11

IV.—VENEREAL DISEASES.

Columbus Barracks, Ohio.	502	24.74	12.42	23.73
Camp at Eagle Pass, Tex.	56	18.15	1.02	21.82
Fort McPherson, Ga.	188	17.46	3.28	28.52
Jackson Barracks, La.	92	16.40	1.51	36.73
Fort Brown, Tex.	135	14.04	1.90	31.45
Fort Clark, Tex.	481	12.69	6.10	30.11
Fort Walla Walla, Wash.	318	10.91	3.47	29.44
Fort Logan, Colo.	278	10.76	2.99	43.68
Fort Barrancas, Fla.	86	10.42	0.90	19.24
Jefferson Barracks, Mo.	406	10.31	4.19	22.49
Washington Barracks, D. C.	255	10.19	2.60	31.63
Fort Sam Houston, Tex.	606	8.87	5.38	22.81
Fort Gibson, Ind. T.	47	8.57	0.40	147.00
Alcatraz Island, Cal.	92	8.40	0.77	25.64
Fort McHenry, Md.	99	8.33	0.82	50.17
Fort Grant, Ariz.	327	7.88	2.58	24.13
Fort Supply, Ind. T.	209	7.65	1.60	27.81
Fort Wingate, N. Mex.	359	7.38	2.65	33.34
Fort Apache, Ariz.	242	7.02	1.70	31.00
Fort McDowell, Ariz.	52	6.95	0.36	66.00

TABLE XVII.—*Prevalence of alcoholism at the various posts and its influence on the effective force of the garrisons for the year 1890.*

Posts.	Mean strength.	Ratio per 1,000 of mean strength.		Posts.	Mean strength.	Ratio per 1,000 of mean strength.	
		Admissions.	Constantly noneffective.			Admissions.	Constantly noneffective.
Fort Ontario, N. Y.	43	279.07	3.19	Fort Lowell, Ariz.	170	41.18	.56
Camp Del Rio, Tex.	13	230.75	3.16	Fort Hancock, Tex.	49	40.82	.34
Watertown Arsenal, Mass.	33	212.12	1.41	Field, Dept. of the Missouri	49	40.82	.11
Fort McPherson, Ga.	188	191.50	2.11	Fort Verde, Ariz.	52	38.46	.47
Camp Pena Colorado, Tex.	54	166.67	1.22	Angel Island, Cal.	188	37.23	.35
Jackson Barracks, La.	92	163.03	2.95	Fort Columbus, N. Y.	164	36.59	.28
Whipple Barracks, Ariz.	241	157.07	1.06	Field, Dept. of Texas.	83	36.14	.26
Willets Point, N. Y.	400	157.50	1.89	Fort Washakie, Wyo.	111	36.04	.10
Camp Pilot Butte, Wyo.	78	153.84	1.40	Fort Hamilton, N. Y.	198	35.35	5.05
Rock Island Arsenal, Ill.	60	150.00	1.28	Fort McKinney, Wyo.	146	34.25	.30
Fort Marcy, N. Mex.	110	136.36	.82	Fort Wingate, N. Mex.	359	33.43	.43
Fort Brown, Tex.	135	133.33	1.58	Fort Canby, Wash.	63	31.75	.57
Fort Mackinac, Mich.	94	127.66	1.25	Fort McIntosh, Tex.	130	30.77	.19
Fort Bridger, Wyo.	142	126.76	1.43	Fort Robinson, Nebr.	393	30.63	.28
Fort Wayne, Mich.	211	113.74	1.18	Fort Pierre, S. Dak.	34	29.41	.08
St. Francis Barracks, Fla.	65	107.69	1.48	Fort Leavenworth, Kans.	586	29.01	.36
Allegheny Arsenal, Pa.	29	103.45	.57	Presidio of San Francisco, Cal.	455	28.57	.23
Fort Stanton, N. Mex.	133	97.74	.97	Boise Barracks, Idaho	105	28.57	.18
Fort Thomas, Ky.	31	96.78	.53	Camp Oklahoma, Okla.	78	25.64	.14
Fort Barrancas, Fla.	86	93.03	.96	Fort Schuyler, N. Y.	78	25.64	.07
Fort McHenry, Md.	99	90.91	3.87	Field, Dept. of California.	119	25.21	.12
Fort Crawford, Colo.	67	89.55	1.35	Fort Gaston, Cal.	40	25.00	.07
Plattsburg Barracks, N. Y.	47	85.11	.68	Field, Dept. of the Platte.	128	23.81	.24
Fort Brady, Mich.	95	84.21	.52	Fort Gibson, Ind. T.	47	21.28	.23
Fort Porter, N. Y.	95	84.21	1.07	Fort Sill, Okla.	330	21.21	.32
Newport Barracks, Ky.	62	80.65	.35	Fort Union, N. Mex.	142	21.13	.21
Fort Spokane, Wash.	200	80.00	.64	Fort Lewis, Colo.	198	20.20	1.40
Fort Mason, Cal.	64	78.12	.64	Washington Barracks, D. C.	255	19.61	.26
Fort Sherman, Idaho	272	77.21	.59	Fort Randall, S. Dak.	102	19.61	.83
Fort Preble, Me.	54	74.07	.20	Fort McDowell, Ariz.	52	19.23	.05
Vancouver Barracks, Wash.	420	73.87	1.28	Columbus Barracks, Ohio	502	17.93	.17
Fort A. Lincoln, Nebr.	95	73.68	.58	Fort Missoula, Mont.	168	17.86	.13
Fort Du Chesne, Utah.	260	73.08	.51	Fort Bennett, S. Dak.	58	17.24	.24
Camp at Eagle Pass, Tex.	56	71.43	.73	Fort Townsend, Wash.	58	17.24	.09
Fort Mojave, Ariz.	28	71.43	.59	Fort Ringgold, Tex.	119	16.81	.12
Fort Laramie, Wyo.	14	71.43	.39	Fort Elliott, Tex.	122	16.39	.27
Fort Douglas, Utah.	423	66.19	1.03	San Diego Barracks, Cal.	61	16.39	.31
Fort Buford, N. D.	259	65.64	.67	Fort Bliss, Tex.	123	16.26	.07
Fort Wadsworth, N. Y.	111	63.06	.81	Camp Sheridan, Wyo.	65	15.38	.04
Fort Trumbull, Conn.	52	57.69	.21	Fort Totten, N. Dak.	65	15.38	.13
Fort Logan, Colo.	278	57.56	.71	Fort Supply, Ind. T.	209	14.35	.13
Field, Dept. of the East.	35	57.14	.31	Fort Bidwell, Cal.	71	14.08	.12
Fort Davis, Tex.	201	54.72	.49	Fort Snelling, Minn.	290	13.79	.16
Fort Sidney, Nebr.	204	53.92	.42	Fort Meade, S. Dak.	308	12.99	.26
Fort Pembina, N. Dak.	75	53.33	.26	Fort Omaha, Nebr.	415	12.05	.28
Benicia Barracks, Cal.	76	52.83	.25	David's Island, N. Y.	434	11.52	.07
Fort Keogh, Mont.	347	51.87	.32	Alcatraz Island, Cal.	92	10.87	.12
Camp Poplar River, Mont.	97	51.55	.20	Fort Riley, Kans.	649	9.35	.09
Fort Clark, Tex.	481	49.89	.59	Fort Grant, Ariz.	327	9.17	.06
Fort Sheridan, Ill.	101	49.50	.57	Fort Assiniboine, Mont.	437	9.16	.09
Fort D. A. Russell, Wyo.	348	48.85	.58	Field, Dept. of Dakota.	787	9.13	.04
Fort Walla Walla, Wash.	318	47.17	.51	Fort Sully, S. Dak.	112	8.93	.05
Fort Warren, Mass.	86	46.51	.41	Fort Apache, Ariz.	242	8.26	.07
Fort Yates, N. Dak.	287	45.30	.41	West Point, N. Y.	378	7.94	.05
Mt. Vernon Barracks, Ala.	111	45.05	.50	Fort Myer, Va.	137	7.30	.08
Fort Niobrara, Nebr.	378	44.97	.42	Fort Huachuca, Ariz.	275	7.25	.04
Madison Barracks, N. Y.	248	44.35	.46	Fort Bayard, N. Mex.	292	6.85	.03
Field, Dept. of the Columbia	23	43.48	.36	Fort Reno, Okla.	298	6.76	.06
Fort Bowie, Ariz.	119	42.02	.39	Fort Adams, R. I.	197	5.08	.01
Fort Monroe, Va.	433	41.57	.33	Jefferson Barracks, Mo.	406	4.93	.03
Fort Sam Houston, Tex.	606	41.25	.47	Fort Custer, Mont.	331	3.02	.02

TABLE XVIII.—Showing the relation of certain classes

Orders of diseases, etc.	Total.	Arms of service.							
		Infantry.	Cavalry.	Artillery.	Ordnance.	Engineers.	Medical Department.	Re- cruits.	All other.
<i>Specific febrile and acute infectious diseases.</i>									
Admissions:									
Officers	174.26	207.71	207.35	240.00	75.00	25.32	113.64	.....	41.38
Enlisted men	180.72	172.88	240.35	175.63	244.93	223.00	132.95	82.16	29.70
Total	180.32	174.84	238.89	180.54	229.37	192.08	129.92	82.16	31.17
Noneffectiveness:									
Officers	6.36	5.48	10.89	10.52	1.64	2.01	3.36	.....	1.30
Enlisted men	3.61	3.56	4.38	3.43	7.31	4.26	2.32	2.34	.66
Total	3.78	3.67	4.67	3.97	6.79	3.91	2.48	2.34	.74
Deaths:									
Officers	.47	.....	2.34	.....	.....	.....	.....	.....	.....
Enlisted men	.86	.75	.87	1.52	2.34	.....	.....	.....	1.83
Total	.82	.69	.96	1.37	2.06	.....	.....	.....	1.54
<i>Malarial diseases.</i>									
Admissions:									
Officers	55.63	60.30	86.96	75.00	.....	.....	45.46	.....	.....
Enlisted men	95.37	84.02	130.17	98.31	98.48	98.59	39.60	83.50	34.65
Total	92.93	82.67	128.22	96.54	89.44	83.16	40.52	83.50	30.30
Noneffectiveness:									
Officers	2.79	2.56	3.82	2.92	.....	.....	6.91	.....	.....
Enlisted men	2.79	2.75	3.35	3.09	1.92	1.59	1.20	2.77	.88
Total	2.79	2.74	3.39	3.08	1.75	1.35	2.10	2.77	.77
Deaths:									
Officers	.47	.....	2.34	.....	.....	.....	.....	.....	.....
Enlisted men	.12	.19	.15	.....	.....	.....	.....	.....	.....
Total	.15	.17	.27	.....	.....	.....	.....	.....	.....
Discharges:									
Enlisted men	.24	.19	.15	.....	.....	.....	1.31	1.25	.....
<i>Typho-malarial fever.</i>									
Admissions:									
Enlisted men	.18	.....	.47	.....	.....	.....	.....	.....	.99
Total	.17	.....	.45	.....	.....	.....	.....	.....	.87
Noneffectiveness:									
Enlisted men	.05	.....	.13	.....	.....	.....	.....	.....	.20
Total	.04	.....	.13	.....	.....	.....	.....	.....	.18
Deaths:									
Enlisted men	.04	.....	.15	.....	.....	.....	.....	.....	.....
Total	.04	.....	.14	.....	.....	.....	.....	.....	.....
<i>Diarrhoeal diseases.</i>									
Admissions:									
Officers	65.68	78.73	76.92	100.00	25.00	.....	53.03	.....	.....
Enlisted men	128.13	120.69	147.30	185.93	108.59	295.77	35.36	61.95	40.59
Total	124.29	118.31	144.13	179.40	100.92	249.50	38.14	61.95	35.50
Noneffectiveness:									
Officers	1.78	1.67	1.70	5.29	.48	.....	.60	.....	.....
Enlisted men	1.63	1.47	2.05	2.01	4.18	2.37	.30	.73	.50
Total	1.64	1.48	2.03	2.26	3.85	2.00	.85	.73	.44
Discharges:									
Enlisted men	.33	.28	.44	.38	.....	.....	1.31	.....	.....
<i>Septic disease.</i>									
Admissions:									
Enlisted men	.09	.20	.....	.....	.....	.....	.....	.....	.....
Total	.08	.19	.....	.....	.....	.....	.....	.....	.....
Noneffectiveness:									
Enlisted men	.001	.002	.....	.....	.....	.....	.....	.....	.....
Total	.001	.002	.....	.....	.....	.....	.....	.....	.....
<i>Venereal diseases.</i>									
Admissions:									
Officers	8.04	10.05	3.34	20.00	.....	.....	7.58	.....	.....
Enlisted men	79.63	70.42	78.13	104.48	2.53	77.46	18.39	191.93	28.71
Total	75.22	66.99	74.77	98.06	2.29	65.35	16.69	191.93	25.11

of disease to arm of service and age of individual.

Ages—years.									
19 and under.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 and over
-----	372.88	231.09	184.87	198.20	157.30	182.74	111.11	45.45	58.82
170.37	224.99	183.03	150.46	165.73	162.79	114.46	120.27	75.76	368.41
170.37	226.43	184.61	152.30	168.78	162.30	126.07	116.37	56.82	169.80
-----	16.07	10.28	7.19	5.80	5.28	4.85	3.37	3.46	2.66
4.25	4.80	3.39	2.62	3.52	3.13	2.75	3.52	6.10	12.83
4.25	4.91	3.62	2.86	3.74	3.33	3.11	3.46	4.45	6.31
-----	-----	-----	-----	-----	3.92	-----	-----	-----	-----
-----	.94	.92	.66	-----	1.57	.96	-----	13.89	-----
-----	.92	.88	.61	-----	1.85	.76	-----	4.37	-----
-----	50.85	67.23	42.02	81.08	16.85	65.99	32.41	118.18	-----
70.37	135.23	97.69	76.41	76.35	57.66	58.19	41.24	45.45	-----
70.37	134.40	96.70	74.58	76.80	53.93	57.86	37.48	90.91	-----
-----	1.11	1.88	4.91	5.86	.26	3.46	1.28	1.59	-----
2.03	4.15	3.06	2.02	2.08	1.25	.93	1.54	1.36	-----
2.03	4.12	3.02	2.17	2.44	1.16	1.37	1.43	1.51	-----
-----	-----	2.92	-----	-----	-----	-----	-----	-----	-----
-----	.31	-----	-----	.43	-----	-----	-----	-----	-----
-----	.31	.13	-----	.38	-----	-----	-----	-----	-----
3.44	.16	.26	-----	-----	.52	-----	3.19	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
-----	.51	-----	-----	.47	-----	-----	-----	-----	-----
-----	.50	-----	-----	.42	-----	-----	-----	-----	-----
-----	.14	-----	-----	.09	-----	-----	-----	-----	-----
-----	.14	-----	-----	.09	-----	-----	-----	-----	-----
-----	.16	-----	-----	-----	-----	-----	-----	-----	-----
-----	.15	-----	-----	-----	-----	-----	-----	-----	-----
-----	84.75	84.03	63.03	31.53	50.56	71.07	101.85	45.45	29.41
85.18	160.83	133.56	97.71	121.04	100.62	88.45	178.69	75.76	52.63
85.18	160.07	131.93	95.86	112.66	96.04	85.49	145.95	56.82	37.74
-----	.70	4.67	.85	.25	.75	.85	.98	6.03	2.26
.52	1.96	1.33	1.50	1.70	1.58	1.42	5.15	2.82	.43
.52	1.95	1.44	1.47	1.57	1.51	1.32	3.39	4.88	1.60
-----	.47	.13	.22	1.29	-----	-----	-----	-----	-----
-----	-----	.28	-----	-----	-----	-----	-----	-----	-----
-----	-----	.27	-----	-----	-----	-----	-----	-----	-----
-----	-----	.002	-----	.003	-----	-----	-----	-----	-----
-----	-----	.002	-----	.002	-----	-----	-----	-----	-----
-----	33.90	16.80	16.80	4.50	-----	-----	4.63	-----	-----
107.44	143.15	91.03	48.02	28.86	10.18	6.24	3.44	-----	-----
107.41	142.06	88.60	46.36	26.58	9.24	5.18	3.94	-----	-----

TABLE XVIII.—Showing the relation of certain classes of disease

Orders of diseases, etc.	Total.	Arms of service.							
		Infantry.	Cavalry.	Artillery.	Ordnance.	Engineers.	Medical Department.	Recruits.	All other.
<i>Venereal diseases—Continued.</i>									
Noneffectiveness:									
Officers	.33	.32	.71	.41	.....	.....	.06	.....	.....
Enlisted men	5.16	4.59	5.13	6.88	.05	4.15	.96	11.95	2.20
Total	4.86	4.34	4.93	6.39	.05	3.50	.82	11.95	1.93
Discharges:									
Enlisted men	2.89	1.68	2.62	1.91	.....	.....	1.31	18.09	.....
<i>Zoögenous diseases.</i>									
Admissions:									
Enlisted men	35.88	18.23	17.29	25.92	10.10	84.51	4.24	280.12	2.97
Total	33.67	17.20	16.52	23.95	9.18	71.29	3.58	280.12	2.60
Noneffectiveness:									
Enlisted men	1.19	.49	.40	1.29	.05	1.84	.03	10.57	.07
Total	1.12	.46	.39	1.19	.05	1.55	.03	10.57	.06
Deaths:									
Enlisted men	.04	.....	.....	.38	.....	.....	.....	.....	.....
Total	.04	.....	.....	.34	.....	.....	.....	.....	.....
<i>Dietic diseases.</i>									
Admissions:									
Officers	5.36	6.70	13.38	.....	.....	.....	.....	.....	.....
Enlisted men	43.88	59.64	20.44	60.47	55.56	147.89	31.12	4.71	14.85
Total	41.51	56.63	20.12	55.87	50.46	124.75	26.22	4.71	12.99
Noneffectiveness:									
Officers	.08	.11	.16	.....	.....	.....	.....	.....	.....
Enlisted men	.53	.69	.23	.81	.61	1.78	.31	.12	.35
Total	.50	.66	.23	.75	.55	1.50	.26	.12	.31
Deaths:									
Enlisted	.20	.28	.29	.....	.....	.....	.....	.....	.....
Total	.19	.26	.27	.....	.....	.....	.....	.....	.....
Discharges:									
Enlisted men	.49	.47	.58	.76	.....	.....	1.31	.....	.....
<i>Constitutional diseases.</i>									
Admissions:									
Officers	90.48	127.30	63.55	140.00	50.00	12.66	53.03	.....	13.79
Enlisted men	87.77	91.98	100.93	81.86	113.64	147.89	62.23	43.77	24.75
Total	87.94	93.98	99.25	86.28	107.81	126.73	60.78	43.77	23.38
Noneffectiveness:									
Officers	6.83	9.21	6.22	10.11	2.47	.07	2.26	.....	2.85
Enlisted men	4.33	4.65	4.56	4.31	6.21	3.73	3.60	3.29	1.19
Total	4.48	4.91	4.64	4.75	5.87	3.16	3.39	3.29	1.40
Deaths:									
Enlisted men	.37	.37	.15	.38	.....	.....	1.31	.....	1.84
Total	.34	.35	.14	.34	.....	.....	1.05	.....	1.54
Discharges:									
Enlisted men	2.81	2.52	3.06	3.43	9.35	4.34	1.31	3.12	.....
<i>Developmental diseases.</i>									
Admissions:									
Officers	.67	1.68	.....	.....	.....	.....	.....	.....	.....
Enlisted men	.48	.60	.47	.41	.....	.....	.....	.67	.....
Total	.50	.67	.45	.38	.....	.....	.....	.67	.....
Noneffectiveness:									
Officers	.42	1.05	.....	.....	.....	.....	.....	.....	.....
Enlisted men	.05	.04	.02	.21	.....	.....	.....	.10	.....
Total	.08	.10	.02	.19	.....	.....	.....	.10	.....
Discharges:									
Enlisted men	.77	1.03	.58	.76	.....	.....	.....	.....	1.84
<i>Parasitic diseases.</i>									
Admissions:									
Enlisted men	3.65	2.22	3.77	3.29	.....	2.35	.....	18.18	.99
Total	3.42	2.09	3.60	3.04	.....	1.98	.....	18.18	.87
Noneffectiveness:									
Enlisted men	.09	.07	.06	.12	.....	.03	.....	.49	.02
Total	.09	.07	.06	.11	.....	.03	.....	.49	.02

to arm of service and age of individual—Continued.

Ages—years.									
19 and under.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 and over.
	.65	1.32	.31	.04			.27		
4.18	8.79	6.06	3.54	2.01	.79	.56	.10		
4.18	8.71	5.90	3.37	1.82	.72	.46	.17		
3.44	4.99	3.15	1.97	1.29	.52	.96			
88.89	84.88	27.93	12.78	9.31	4.52	5.20	13.75		
88.89	84.04	27.02	12.09	8.44	4.11	4.32	7.89		
2.46	2.97	.93	.35	.26	.04	.12	.13		
2.46	2.94	.90	.33	.24	.04	.10	.08		
		.13							
		.13							
		4.20	4.20	13.51	5.62	10.15			
3.70	13.30	25.52	47.55	86.13	111.36	103.02	158.08	106.06	157.89
3.70	13.17	24.82	45.24	79.33	101.09	87.22	90.73	39.77	56.60
		.02	.07	.16	.23	.08			
.02	.18	.26	.53	.75	1.49	2.16	2.01	1.66	1.73
.02	.17	.25	.50	.70	1.36	1.81	1.16	.62	.62
		.13			.52	.96	6.37		
		.13			.46	.76	3.21		
	.78	.39	.22	.43	.52	.96			
	50.85	42.02	67.23	40.54	146.07	157.36	125.00	100.00	58.82
18.52	78.31	75.00	62.93	127.56	132.28	136.32	213.06	378.79	263.16
18.52	78.04	73.93	63.16	119.41	133.33	139.89	175.53	204.53	132.06
	11.56	1.36	5.04	.78	9.54	8.44	10.83	14.45	15.47
.61	3.18	3.96	3.99	5.44	6.59	6.56	10.45	24.44	9.37
.61	3.27	3.88	4.05	5.00	6.86	6.88	10.61	18.20	13.28
	.16	.13		1.29	1.57		3.18		
	.15	.13		1.14	1.39		1.61		
	1.72	2.76	1.97	3.45	5.76	3.86	9.55	13.89	50.00
									29.41
	.37	.57			.67	2.08	3.44		52.63
	.33	.55			.51	1.73	1.97		37.74
	.02	.04			.02	.07	.76		18.37
	.02	.04			.02	.06	.44		26.37
									21.25
	.78	.53	.22		1.05	1.93	9.55	27.78	
7.41	6.06	4.11	1.89	2.33	.57	2.08			
7.41	6.00	3.98	1.79	2.11	.51	1.73			
.08	.20	.07	.07	.10	.005	.03			
.08	.19	.07	.07	.09	.004	.03			

TABLE XVIII.—Showing the relation of certain classes of

Orders of diseases, etc.	Total.	Arms of service.							
		Infantry.	Cavalry.	Artillery.	Ordnance.	Engineers.	Medical De- partment.	Re- cruits.	All other.
<i>Diseases of the nervous system.</i>									
Admissions:									
Officers	75.07	100.50	63.55	60.00	100.00	12.66	90.91	.....	27.59
Enlisted men	58.61	57.53	65.56	67.87	55.56	89.20	32.53	47.81	25.74
Total	59.63	59.96	65.47	67.28	59.64	77.23	41.72	47.81	25.97
Noneffectiveness:									
Officers	8.16	13.61	5.36	.40	2.12	.45	11.39	.....	5.08
Enlisted men	1.73	1.85	1.67	1.80	1.01	2.67	2.09	1.58	.65
Total	2.13	2.51	1.84	1.70	1.11	2.32	3.55	1.58	1.21
Deaths:									
Officers	4.68	8.19	.....	.....	35.09	.....	5.26	.....	.....
Enlisted men	.45	.47	.29	.38	.....	.....	1.31	.62	.92
Total	.79	1.04	.27	.34	4.12	.....	2.10	.62	.77
Discharges:									
Enlisted men	2.73	3.36	2.91	1.52	.....	2.17	3.93	1.87	.....
<i>Diseases of the eye.</i>									
Admissions:									
Officers	14.74	21.78	10.03	15.00	.....	.....	7.58	.....	13.79
Enlisted men	17.02	17.23	21.22	18.92	20.20	37.56	2.83	3.37	3.96
Total	16.88	17.48	20.72	18.62	18.55	31.68	3.58	3.37	5.19
Noneffectiveness:									
Officers	2.56	1.90	1.22	4.79	.....	.....	1.43	.....	8.07
Enlisted men	.69	.91	.59	.69	.53	.77	.53	.12	.21
Total	.81	.97	.62	1.01	.48	.65	.67	.12	1.20
Discharges:									
Enlisted men	1.59	1.96	1.46	1.14	.....	.....	2.62	.....	2.75
<i>Diseases of the ear.</i>									
Admissions:									
Officers	3.35	1.68	.....	15.00	.....	.....	7.58	.....	.....
Enlisted men	9.41	11.18	8.17	8.64	10.10	16.43	7.07	8.75	.99
Total	9.04	10.64	7.81	9.12	9.18	13.86	7.15	8.75	.87
Noneffectiveness:									
Officers	.11	.03	.....	.73	.....	.....	.....	.....	.....
Enlisted men	.43	.55	.31	.18	.28	1.22	.31	.83	.01
Total	.42	.52	.29	.22	.25	1.03	.26	.83	.01
Discharges:									
Enlisted men	.90	1.31	.44	.76	.....	.....	2.62	.62	.....
<i>Diseases of the nose.</i>									
Admissions:									
Officers	1.34	1.68	3.34	.....	.....	.....	.....	.....	.....
Enlisted men	2.46	2.32	2.04	4.11	5.05	18.78	.....	.....	.....
Total	2.39	2.28	2.10	3.80	4.59	15.84	.....	.....	.....
Noneffectiveness:									
Officers	.46	.59	1.14	.....	.....	.....	.....	.....	.....
Enlisted men	.12	.10	.13	.11	.36	1.25	.....	.....	.....
Total	.14	.13	.18	.10	.33	1.06	.....	.....	.....
Discharges:									
Enlisted men	.16	.19	.29	.....	.....	.....	.....	.....	.....
<i>Diseases of the respiratory system.</i>									
Admissions:									
Officers	125.34	165.83	150.50	150.00	25.00	25.32	60.61	.....	13.79
Enlisted men	110.54	115.66	109.42	153.02	189.40	213.61	39.60	50.50	28.71
Total	111.45	118.50	111.26	152.80	174.31	184.15	42.91	50.50	26.84
Noneffectiveness:									
Officers	5.47	6.34	4.33	8.96	1.78	.73	7.49	.....	1.21
Enlisted men	3.20	3.18	3.13	4.66	7.51	5.72	1.33	2.13	.46
Total	3.34	3.36	3.18	4.98	6.99	4.94	2.30	2.13	.56
Deaths:									
Officers	.94	2.34	.....	.....	.....	.....	.....	.....	.....
Enlisted men	1.51	1.03	2.18	1.52	.....	.....	1.31	1.87	2.75
Total	1.46	1.12	2.06	1.37	.....	.....	1.05	1.87	2.31
Discharges:									
Enlisted men	2.44	2.05	2.62	4.95	4.67	2.17	1.31	1.25	.92

disease to arm of service and age of individual—Continued.

Ages—years.									
19 and under.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 and over.
-----	84.75	33.61	105.04	72.07	112.36	65.99	87.96	45.45	29.41
29.63	65.17	58.27	49.21	61.92	55.40	54.11	79.04	166.67	105.26
29.63	65.37	57.47	52.18	62.87	60.60	56.13	82.84	90.91	56.60
-----	9.24	1.12	9.50	4.38	10.07	10.90	14.69	8.64	1.85
1.02	1.45	1.35	1.87	2.33	1.97	3.52	2.49	6.35	3.75
1.02	1.52	1.34	2.28	2.52	2.71	4.77	7.69	7.78	2.53
-----	-----	.26	.88	6.31	3.92	7.07	12.94	6.37	-----
-----	-----	.25	.82	.76	.52	1.93	6.37	-----	-----
-----	-----	-----	-----	-----	.92	3.03	9.63	4.37	-----
-----	3.28	2.36	2.85	3.02	2.09	.96	6.37	13.89	-----
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
-----	16.95	33.61	16.81	27.03	5.62	-----	-----	16.18	-----
3.70	18.36	20.84	14.67	9.31	11.87	11.45	41.24	30.30	105.26
3.70	18.84	21.26	14.78	10.97	11.30	9.50	23.67	22.73	37.74
-----	.42	2.50	6.50	2.69	.09	.54	-----	8.44	-----
.61	.65	.76	.65	.34	.41	1.25	2.90	2.82	4.90
.01	.64	.82	.96	.66	.38	1.13	1.66	6.34	1.76
-----	1.25	1.84	1.53	.86	1.57	1.93	6.37	13.89	-----
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
-----	-----	4.20	4.20	9.01	-----	-----	-----	9.09	-----
-----	12.63	9.64	7.57	8.38	7.35	6.24	6.87	-----	-----
-----	12.51	9.46	7.39	8.44	6.68	5.18	3.94	5.68	-----
-----	-----	.10	.15	.38	-----	-----	-----	.15	-----
-----	.70	.41	.28	.51	.14	.24	.05	-----	-----
-----	.70	.41	.27	.56	.13	.20	.03	.09	-----
-----	1.09	.92	.44	1.29	.52	.96	-----	13.89	-----
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
-----	2.86	3.12	1.89	.93	11.24	-----	-----	-----	-----
-----	2.83	3.02	1.79	.84	3.39	-----	3.44	-----	-----
-----	-----	-----	-----	-----	4.11	-----	1.97	-----	-----
-----	-----	-----	-----	-----	3.88	-----	-----	-----	-----
-----	.15	.16	.07	.01	.17	-----	.47	-----	-----
-----	.15	.15	.07	.01	.51	-----	.27	-----	-----
-----	.16	.26	.22	-----	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
-----	152.54	109.24	105.04	85.59	134.83	142.13	157.41	154.55	147.06
37.04	117.88	106.62	107.40	106.15	119.84	106.14	137.46	212.12	105.26
37.04	118.23	106.71	107.27	104.22	121.21	112.26	145.95	176.13	132.06
-----	1.53	3.70	2.22	3.46	10.33	8.01	7.01	5.68	10.07
.48	3.04	2.82	3.18	4.36	4.32	2.23	3.32	15.48	3.61
.48	3.02	2.85	3.13	4.28	4.87	3.21	4.90	9.36	7.75
-----	-----	-----	-----	-----	7.84	-----	-----	-----	-----
-----	1.40	.93	.66	3.02	2.62	1.93	6.37	13.89	50.00
-----	1.39	.88	.61	2.66	3.23	1.52	3.21	4.37	14.70
-----	2.81	2.23	2.63	2.59	2.62	-----	3.10	13.89	-----

TABLE XVIII.—Showing the relation of certain classes of

Orders of diseases, etc.	Total.	Arms of service.							
		Infan- try.	Cavalry.	Artil- lery.	Ord- nance.	Engi- neers.	Medi- cal De- part- ment.	Re- cruits.	All other.
<i>Diseases of the circu- latory system.</i>									
Admissions:									
Officers	6.03	10.05	3.34	10.00					
Enlisted men	8.88	9.57	7.55	12.75	15.15	11.74	7.07	4.04	5.94
Total	8.71	9.60	7.36	12.54	13.76	9.90	5.96	4.04	5.19
Noneffectiveness:									
Officers	1.76	3.67	.34	1.67					
Enlisted men	.67	.83	.49	1.08	.96	.15	.16	.29	.23
Total	.74	.99	.49	1.13	.87	.12	.13	.29	.20
Deaths:									
Officers	1.40	1.17							9.62
Enlisted men	.41	.47	.44	.38					.92
Total	.49	.52	.41	.34					2.31
Discharges:									
Enlisted men	2.28	2.33	1.60	5.72	7.03			1.25	
<i>Diseases of the diges- tive system.</i>									
Admissions:									
Officers	151.47	175.88	183.95	185.00	100.00	37.97	128.79		34.48
Enlisted men	171.97	172.27	196.82	191.69	128.79	260.56	55.16	146.80	61.37
Total	170.70	172.48	196.25	191.19	128.15	225.73	66.75	146.80	59.74
Noneffectiveness:									
Officers	8.30	8.70	8.59	5.10	.68	.45	20.03		6.16
Enlisted men	3.02	2.98	3.23	3.61	2.42	5.89	1.64	2.66	1.29
Total	3.35	3.31	3.47	3.73	2.26	5.04	4.53	2.66	1.90
Deaths:									
Officers	1.87	3.51							4.81
Enlisted men	.24	.28			4.68	2.17			
Total	.38	.52			4.12	1.75			.77
Discharges:									
Enlisted men	2.33	1.96	2.04	4.57		4.35	3.93	2.50	1.84
<i>Diseases of the lym- phatic system.</i>									
Admissions:									
Officers	2.68	5.03		5.00					
Enlisted men	6.16	5.54	6.60	10.28	5.05		4.24	8.75	
Total	5.94	5.51	6.31	9.88	4.59		3.58	8.75	
Noneffectiveness:									
Officers	.08	.09		.34					
Enlisted men	.56	.45	.62	.87	1.54		.18	.80	.02
Total	.53	.45	.60	.83	1.39		.15	.80	.02
Discharges:									
Enlisted men	.04	.09							
<i>Diseases of the genito- urinary system.</i>									
Admissions:									
Officers	22.12	21.78	36.79	40.00	25.00				
Enlisted men	17.85	17.43	16.35	20.98	25.25	25.82	11.31	26.94	8.91
Total	18.11	17.67	17.27	22.42	25.23	21.78	9.54	26.94	7.79
Noneffectiveness:									
Officers	3.41	1.97	11.43	2.10	1.71				
Enlisted men	.98	.93	1.15	.92	1.13	1.77	.42	1.13	.30
Total	1.13	.99	1.61	1.01	1.18	1.49	.35	1.13	.26
Deaths:									
Officers	2.34	1.17	7.01		17.04				
Enlisted men	.33	.37	.15		2.34		1.31		.92
Total	.49	.43	.55		4.12		1.05		.77
Discharges:									
Enlisted men	1.34	1.03	1.60	1.91	2.34			3.12	
<i>Diseases of the loco- motor system.</i>									
Admissions:									
Officers	4.02	6.70	3.34				7.58		
Enlisted men	4.31	4.23	5.19	6.17	2.53		5.66	2.02	
Total	4.29	4.37	5.11	5.70	2.29		5.96	2.02	

disease to arm of service and age of individual—Continued.

Ages—years.									
19 and under.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 and over.
			4.20		5.62	20.30	4.63	18.18	-----
3.70	9.77	7.09	7.10	6.52	15.26	17.69	13.75	15.15	-----
3.70	9.67	6.86	6.94	5.91	14.38	18.13	9.86	17.04	-----
			.01	1.42	.97	5.60	3.89	1.74	-----
.26	.75	.47	.62	.37	1.23	1.55	1.21	.12	-----
.26	.74	.46	.59	.47	1.21	2.24	2.36	1.14	-----
							9.71	-----	-----
		.13		.86	2.62	1.93	-----	-----	-----
		.13		.76	2.31	1.52	4.82	-----	-----
	2.81	1.71	1.53	1.73	4.19	2.89	6.37	13.89	-----
	152.54	168.07	176.47	153.15	129.21	126.90	162.04	100.00	205.88
159.26	228.86	176.52	140.53	136.87	129.45	96.77	147.77	166.67	-----
159.26	228.11	176.23	142.44	138.40	129.42	101.90	153.85	124.99	132.06
	8.13	3.58	8.76	9.22	12.34	12.45	6.54	2.62	16.76
2.57	3.60	2.82	2.79	3.17	2.74	1.80	5.12	2.94	-----
2.57	3.64	2.85	3.11	3.73	3.62	3.61	5.73	2.74	10.75
						3.53	6.47	-----	20.83
	.16	.26		.43	.52		3.18	-----	-----
	.15	.26		.38	.46	.76	4.82	-----	14.70
	2.18	1.97	2.63	2.59	3.14	.96	9.55	13.89	-----
			16.81						
5.70	8.08	7.23	5.44	5.12	2.83	-----	3.44	-----	-----
3.70	8.00	6.99	6.05	4.64	2.57	-----	1.97	-----	-----
			.52						
.19	.87	.60	.42	.40	.40	-----	.07	-----	-----
.19	.86	.58	.42	.96	.37	-----	.04	-----	-----
	.16								
	16.95	25.21	25.21	18.02	11.24	30.46	18.50	27.27	29.41
7.41	29.81	16.31	13.01	8.38	11.30	14.57	10.31	30.30	-----
7.41	29.68	16.60	13.66	9.28	11.30	17.27	18.81	28.41	18.87
	.14	5.86	4.81	5.50	1.22	1.49	2.61	2.09	.24
.19	1.41	1.06	.06	.69	.56	.87	.45	1.91	-----
.19	1.40	1.21	.88	1.14	.62	.97	1.37	2.02	.16
			2.92			3.53	9.71	-----	-----
	.16	.13		1.29	.52	.96	-----	13.89	-----
	.15	.13	.20	1.14	.46	1.52	4.82	4.37	-----
	3.12	1.05	.66	.43	-----	.96	-----	-----	-----
		21.01					4.63	-----	-----
3.70	4.04	4.25	5.44	3.26	5.65	1.04	6.87	-----	-----
3.70	4.00	4.80	5.15	2.95	5.14	.86	5.92	-----	-----

TABLE XVIII.—Showing the relation of certain classes of

Orders of diseases, etc.	Total.	Arms of service.							
		Infan- try.	Cavalry.	Artil- lery.	Ord- nance.	Engi- neers.	Medi- cal De- part- ment.	Re- cruits.	All other.
<i>Diseases of the loco- motor system—Con- tinued.</i>									
Noneffectiveness:									
Officers	.48	1.11	.14				.12		
Enlisted men	.41	.41	.48	.45	1.74		.44	.11	
Total	.42	.45	.46	.44	1.58		.39	.12	
Discharges:									
Enlisted men	.77	.75	1.02	1.14				.62	
<i>Diseases of the integu- mentary system.</i>									
Admissions:									
Officers	28.82	33.50	26.76	60.00		12.66	15.15		
Enlisted men	79.32	66.99	106.59	99.55	65.66	112.68	18.39	72.73	23.76
Total	76.22	65.09	103.01	96.54	59.64	97.03	17.88	72.73	20.78
Noneffectiveness:									
Officers	1.28	2.34	.91	.99		.17	.27		
Enlisted men	2.11	1.89	2.70	2.61	1.20	3.08	.71	1.94	.70
Total	2.07	1.91	2.62	2.49	1.09	2.63	.64	1.94	.61
Deaths:									
Officers	.47		2.34						
Total	.04		.14						
Discharges:									
Enlisted men	.20	.28	.29						
<i>Unclassified.</i>									
Admissions:									
Officers	10.05	10.05	10.03	20.00			15.15		
Enlisted men	17.59	17.53	19.34	17.28	7.58	9.39	12.73	27.61	3.96
Total	17.12	17.10	18.92	17.48	6.88	7.92	13.11	27.61	3.46
Noneffectiveness:									
Officers	.36	.51	.59	.18			.15		
Enlisted men	.41	.41	.35	.42	.16	.24	.14	1.15	.08
Total	.41	.42	.36	.40	.14	.20	.12	1.15	.07
Deaths:									
Enlisted men	.04		.15						
Total	.04		.14						
Discharges:									
Enlisted men	.12	.09		.76					
<i>Total for diseases.</i>									
Admissions:									
Officers	545.17	1,046.90	943.14	1,135.00	400.00	126.58	606.06		144.53
Enlisted men	1,159.92	1,118.38	1,304.20	1,347.59	1,164.14	1,873.24	520.51	1,166.33	343.56
Total	1,140.55	1,114.32	1,287.99	1,331.43	1,094.04	1,600.00	533.97	1,166.33	318.61
Noneffectiveness:									
Officers	51.04	61.25	57.56	54.49	10.89	3.88	54.09		24.67
Enlisted men	33.80	32.83	35.20	39.60	39.17	42.51	16.62	45.12	10.05
Total	34.86	34.44	36.21	40.73	36.58	36.47	22.52	45.12	11.88
Deaths:									
Officers	12.63	16.37	14.02		52.63		5.26		14.42
Enlisted men	4.60	4.20	4.81	4.57	9.35	2.17	5.24	2.50	9.17
Total	5.25	5.10	5.35	4.12	14.44	1.75	5.25	2.50	10.01
Discharges:									
Enlisted men	22.49	21.56	21.70	29.72	23.36	13.04	20.96	33.69	7.24
<i>Total for injuries.</i>									
Admissions:									
Officers	70.38	82.08	107.02	70.00		12.66	45.46		20.69
Enlisted men	255.08	231.71	354.35	301.11	194.44	370.89	28.29	140.74	50.50
Total	243.70	223.22	343.24	283.55	176.60	314.85	30.99	140.74	46.75
Noneffectiveness:									
Officers	4.35	6.47	3.24	5.84		.73	2.78		.47
Enlisted men	8.08	7.21	11.64	9.30	4.69	10.69	1.11	4.48	1.75
Total	7.85	7.17	11.27	9.04	4.26	9.13	1.37	4.48	1.59
Deaths:									
Officers	1.87	3.51	2.34						
Enlisted men	3.58	2.05	7.72	1.91	4.68		2.62	1.87	.92
Total	3.45	2.16	7.40	1.72	4.12		2.10	1.87	.77
Discharges:									
Enlisted men	2.53	2.61	3.06	3.05	2.34			3.50	

disease to arm of service and age of individual—Continued.

Age—years.									
19 and under.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 and over.
		2.95					.08		
.12	.19	.53	.67	.36	.33	.23	.17		
.12	.20	.61	.63	.33	.30	.18	.13		
	.62	1.18	.88		.52	.96			
	67.80	33.61	42.02	27.03	22.47	30.46	13.50		29.41
122.22	111.48	84.08	56.78	58.19	54.27	42.66	44.67	15.15	
122.22	111.05	82.43	55.99	55.27	51.36	40.59	33.53	5.68	18.87
	.60	.85	1.72	.42	4.11	1.95	.18		.64
2.96	2.61	2.04	1.80	2.57	1.43	1.51	1.02	.37	
2.96	2.59	2.00	1.80	2.37	1.68	1.58	.66	.14	.41
			2.92						
			.20						
		.13	.22	.86		.96			
	16.95	12.61	8.40	9.01	16.86	15.23	4.63		
3.70	25.60	17.72	13.72	13.04	11.87	10.41	13.75		52.63
3.70	25.51	17.56	13.44	12.66	12.33	11.23	9.86		18.87
	.23	.68	.07	.17	1.54	.13	.04		
.05	.63	.35	.27	.29	.53	.19	.46		6.79
.05	.63	.36	.26	.28	.63	.18	.28		2.43
		.13							
		.13							
	.16	.13							50.00
	1,101.69	886.56	882.35	770.27	825.84	918.78	833.33	681.82	617.65
925.92	1,482.15	1,150.43	920.51	1,035.85	1,009.02	875.13	1,240.55	1,318.18	1,263.16
925.92	1,478.40	1,141.82	918.48	1,010.97	992.30	882.56	1,067.06	920.45	849.06
	50.38	40.86	52.64	40.53	60.61	58.76	51.77	54.89	68.33
22.01	42.44	32.49	27.89	31.39	29.13	27.97	41.43	66.42	69.79
22.01	42.52	32.76	29.21	32.25	32.01	33.21	45.83	59.21	68.85
		2.92	5.85	6.31	15.69	14.13	38.84	6.37	20.83
	3.28	3.15	2.19	7.33	10.47	8.68	25.48	41.67	50.00
	3.23	3.14	2.45	7.21	11.09	9.85	32.10	17.47	29.41
6.87	26.52	21.03	18.19	19.84	23.04	18.32	54.14	125.00	100.00
	84.75	84.03	79.83	76.58	56.18	60.91	50.93	90.91	29.41
177.78	296.23	297.46	212.68	209.03	190.50	152.97	185.57	106.06	157.89
177.78	294.15	290.50	205.60	196.63	178.22	137.30	128.21	96.59	75.47
	14.63	4.22	2.10	3.81	3.39	4.53	3.46	9.32	.32
4.97	8.33	9.36	7.14	6.74	6.78	7.77	6.12	3.56	1.87
4.97	8.40	9.31	6.87	6.47	6.47	7.22	4.99	7.16	.86
		8.77			3.92				
6.87	3.74	3.81	3.51	3.45	3.14	1.93	3.18		
6.87	3.70	4.02	3.26	3.04	3.23	1.52	1.61		
3.44	2.34	3.15	1.97	2.59	2.62	1.93			

TABLE XVIII.—*Showing the relation of certain classes of*

Names of disease, etc.	Total.	Arms of service.							
		Infantry.	Cavalry.	Artillery.	Ordnance.	Engineers.	Medical Department.	Recruits.	All other.
<i>Total diseases and injuries.</i>									
Admissions:									
Officers	915.55	1,128.98	1,050.17	1,205.00	400.00	139.24	651.52	.....	165.52
Enlisted men	1,415.00	1,350.00	1,658.54	1,648.70	1,358.59	2,244.13	548.80	1,307.07	394.06
Total	1,384.25	1,337.55	1,631.23	1,614.98	1,270.64	1,914.85	564.96	1,307.07	365.36
Noneffectiveness:									
Officers	55.38	67.72	60.80	60.33	10.89	4.61	56.87	.....	25.15
Enlisted men	41.88	40.04	46.84	48.91	43.86	53.20	17.73	49.60	11.80
Total	42.71	41.61	47.48	49.77	40.84	45.60	23.89	49.60	13.47
Deaths:									
Officers	14.50	19.88	16.36	.....	52.63	.....	5.26	.....	14.42
Enlisted men	8.18	6.25	12.53	6.48	14.02	2.17	7.86	4.37	10.09
Total	8.69	7.26	12.75	5.84	18.56	1.75	7.35	4.37	10.78
Discharges:									
Enlisted men	25.01	24.17	24.76	32.77	25.70	13.04	20.96	36.18	7.34

disease to arm of service and age of individual—Continued.

Ages—years.									
19 and under.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 and over.
-----	1,186.44	970.59	062.18	846.85	882.02	979.70	884.26	772.73	647.06
1,103.70	1,778.38	1,447.89	1,133.19	1,244.88	1,199.55	1,028.10	1,426.12	1,424.24	1,421.05
1,103.70	1,772.55	1,432.32	1,124.08	1,207.60	1,170.52	1,019.86	1,195.27	1,017.04	924.53
-----	65.01	45.08	54.74	44.34	64.00	63.29	55.23	64.21	68.65
26.98	50.77	41.84	35.03	38.13	35.91	35.74	47.55	69.99	71.66
26.98	50.92	42.07	36.08	38.72	38.48	40.43	50.82	66.37	69.73
-----	-----	11.70	5.85	6.31	19.61	14.13	38.84	6.87	20.83
6.87	7.02	6.96	5.70	10.79	13.61	10.61	28.66	41.67	50.00
6.87	6.93	7.17	5.71	10.25	14.32	11.37	33.71	17.47	29.41
10.31	28.86	24.17	20.16	22.43	25.65	20.25	54.14	125.00	100.00

TABLE XIX.—Showing the relation of certain classes

Orders of diseases, etc.	Total.	Nativities.				
		American U. S.	Irish.	German.	English,	Canadian.
<i>Specific febrile and acute infectious diseases.</i>						
Admissions:						
Officers.....	174.26	171.26	133.33	266.67	250.00	285.71
Enlisted men.....	180.72	195.14	175.86	157.62	161.42	131.76
Total.....	180.32	192.89	175.45	158.16	162.18	134.26
Noneffectiveness:						
Officers.....	6.36	6.41	2.37	4.75	4.45	7.04
Enlisted men.....	3.61	3.77	3.74	3.05	3.78	3.80
Total.....	3.78	4.02	3.72	3.06	3.79	3.85
Deaths:						
Officers.....	.47	.49	.....	.....	.....	.....
Enlisted men.....	.86	.75	1.78	.94	.....	.....
Total.....	.82	.72	1.76	.94	.....	.....
<i>Malarial diseases.</i>						
Admissions:						
Officers.....	55.63	49.54	133.33	133.33	.....	.....
Enlisted men.....	95.37	96.61	98.84	99.66	95.34	103.53
Total.....	92.93	92.16	99.17	99.83	94.52	101.85
Noneffectiveness:						
Officers.....	2.79	2.84	1.28	2.92	.....	.....
Enlisted men.....	2.79	2.80	2.73	2.71	3.61	3.83
Total.....	2.79	2.80	2.71	2.71	3.58	3.77
Deaths:						
Officers.....	.47	.49	.....	.....	.....	.....
Enlisted men.....	.12	.21	.....	.....	.....	.....
Total.....	.15	.24	.....	.....	.....	.....
Discharges:						
Enlisted men.....	.24	.14	.....	.94	.....	.....
<i>Typho-malarial fever.</i>						
Admissions:						
Enlisted men.....	.18	.22	.32	.....	.....	.....
Total.....	.17	.20	.32	.....	.....	.....
Noneffectiveness:						
Enlisted men.....	.05	.06	.07	.....	.....	.....
Total.....	.04	.06	.07	.....	.....	.....
Deaths:						
Enlisted men.....	.04	.07	.....	.....	.....	.....
Total.....	.04	.06	.....	.....	.....	.....
<i>Diarrheal diseases.</i>						
Admissions:						
Officers.....	65.68	63.69	66.67	66.67	125.00	142.86
Enlisted men.....	128.13	131.08	147.95	106.78	137.59	157.65
Total.....	124.29	124.71	147.17	106.57	137.48	157.40
Noneffectiveness:						
Officers.....	1.78	1.77	.73	.55	2.40	1.96
Enlisted men.....	1.63	1.49	1.92	1.96	2.10	2.69
Total.....	1.64	1.52	1.90	1.95	2.10	2.68
Discharges:						
Enlisted men.....	.33	.41	.30	.....	.....	.....
<i>Septic diseases.</i>						
Admissions:						
Enlisted men.....	.09	.07	.32	.....	.....	.....
Total.....	.08	.07	.32	.....	.....	.....
Noneffectiveness:						
Enlisted men.....	.001	.001	.002	.....	.....	.....
Total.....	.001	.001	.002	.....	.....	.....
<i>Venereal diseases.</i>						
Admissions:						
Officers.....	8.04	7.79	.....	66.67	.....	.....
Enlisted men.....	79.63	83.80	58.09	54.58	61.76	87.06
Total.....	75.22	85.66	57.53	54.63	61.22	85.65
Noneffectiveness:						
Officers.....	.33	.34	.....	.73	.....	.....
Enlisted.....	5.16	6.23	3.37	3.52	3.56	4.66
Total.....	4.86	5.67	3.34	3.51	3.53	4.59
Discharges:						
Enlisted men.....	2.89	3.63	1.78	1.57	1.00	4.36

of disease to nativity and length of service.

Nativities.							Length of service— years.	
Scandina- vian.	Scotch.	Swiss.	Austrian.	Danish.	French.	All other.	Under 1.	1 and over.
1,500.00	166.67	-----	1,000.00	-----	-----	200.00	31.25	177.40
141.28	107.30	82.47	171.05	183.49	148.93	143.59	185.60	179.75
147.25	108.78	81.63	174.67	183.49	144.33	144.30	184.31	179.57
73.97	4.57	-----	19.18	-----	-----	1.10	5.65	6.38
3.37	2.75	1.75	3.34	2.81	3.67	2.77	3.95	3.54
3.68	2.80	1.73	3.41	2.81	3.56	2.75	3.97	3.74
-----	-----	-----	-----	4.24	-----	-----	1.72	.48
-----	-----	-----	-----	4.24	-----	-----	1.69	.68
-----	-----	-----	-----	-----	-----	-----	-----	.67
59.61	81.55	108.25	57.02	64.22	31.91	1,400.00	120.29	58.85
59.34	79.50	107.14	56.77	64.22	30.93	82.05	119.27	90.43
-----	-----	-----	-----	-----	-----	98.73	-----	88.03
1.60	1.93	4.12	1.44	2.24	.38	13.70	3.99	2.85
1.60	1.88	4.08	1.44	2.24	.37	3.43	3.96	2.55
-----	-----	-----	-----	-----	-----	3.56	-----	2.57
-----	-----	-----	-----	-----	-----	-----	-----	.48
-----	-----	-----	-----	-----	-----	-----	-----	.15
-----	-----	-----	-----	-----	-----	-----	-----	.18
-----	-----	-----	4.07	-----	-----	-----	.49	.20
-----	-----	-----	-----	-----	-----	-----	-----	.21
-----	-----	-----	-----	-----	-----	-----	-----	.20
-----	-----	-----	-----	-----	-----	-----	-----	.05
-----	-----	-----	-----	-----	-----	-----	-----	.05
-----	-----	-----	-----	-----	-----	-----	-----	.05
-----	-----	-----	-----	-----	-----	-----	-----	.04
105.97	333.33	-----	100.88	114.68	333.33	-----	150.82	67.12
105.49	111.59	77.32	100.44	114.68	53.19	76.92	149.55	123.63
-----	117.15	76.53	-----	-----	61.86	75.95	-----	119.59
-----	13.24	-----	-----	-----	5.48	-----	-----	1.82
1.44	1.48	.73	1.06	1.51	.76	.59	1.91	1.57
1.43	1.78	.73	1.05	1.51	.90	.58	1.89	1.59
2.04	-----	-----	-----	-----	-----	-----	.49	.29
-----	-----	-----	-----	-----	-----	-----	-----	.11
-----	-----	-----	-----	-----	-----	-----	-----	.10
-----	-----	-----	-----	-----	-----	-----	-----	.001
-----	-----	-----	-----	-----	-----	-----	-----	.001
57.40	68.67	25.77	57.02	77.98	127.66	46.15	162.24	8.22
57.15	66.95	25.51	56.77	77.98	123.71	45.57	160.86	63.24
-----	-----	-----	-----	-----	-----	-----	-----	59.30
3.97	3.61	1.58	4.39	5.35	5.10	3.47	10.33	.34
3.96	3.52	1.57	4.37	5.35	4.94	3.43	10.25	4.13
-----	-----	-----	-----	-----	-----	-----	-----	3.86
4.09	-----	-----	4.07	-----	-----	2.38	8.80	1.71

TABLE XIX.—Showing the relation of certain classes

Orders of diseases, etc.	Total.	Nativities.				
		American U. S.	Irish.	German.	English.	Canadian.
<i>Zoögenous diseases.</i>						
Admissions:						
Enlisted men	35.88	42.31	31.45	12.54	23.84	47.06
Total	33.67	38.31	31.15	12.48	23.63	46.30
Noneffectiveness:						
Enlisted men	1.19	1.57	.83	.26	.39	1.33
Total	1.12	1.42	.82	.25	.39	1.31
Deaths:						
Enlisted men	.04		.30			
Total	.04		.29			
<i>Dietic diseases.</i>						
Admissions:						
Officers	5.36	5.66				
Enlisted men	43.88	37.95	89.54	27.46	62.84	30.59
Total	41.51	34.91	88.68	27.32	62.30	30.10
Noneffectiveness:						
Officers	.08	.08				
Enlisted men	.53	.46	1.07	.34	.82	.34
Total	.50	.43	1.06	.34	.81	.34
Deaths:						
Enlisted men	.20	.21	.59			
Total	.19	.18	.59			
Discharges:						
Enlisted men	.49	.69	.30		1.00	
<i>Constitutional diseases.</i>						
Admissions:						
Officers	90.48	87.05	300.00		125.00	
Enlisted men	87.77	88.25	93.39	89.83	69.34	87.06
Total	87.94	88.14	95.36	89.37	69.81	85.65
Noneffectiveness:						
Officers	6.83	6.23	34.43		39.73	
Enlisted men	4.33	4.37	4.61	4.57	2.47	3.97
Total	4.42	4.55	4.90	4.54	2.79	3.91
Deaths:						
Enlisted men	.37	.21		.63	1.00	
Total	.34	.18		.62	.99	
Discharges:						
Enlisted men	2.81	3.08	2.08	3.45		4.36
<i>Developmental diseases.</i>						
Admissions:						
Officers	.67	.71				
Enlisted men	.48	.30	.96	.68	2.17	
Total	.50	.33	.95	.67	2.15	
Noneffectiveness:						
Officers	.42	.44				
Enlisted men	.05	.02	.06	.25	.09	
Total	.08	.06	.06	.25	.09	
Discharges:						
Enlisted men	.77	.41	1.49	1.26	2.01	
<i>Parasitic diseases.</i>						
Admissions:						
Enlisted men	3.65	3.85	1.93	5.42	2.17	
Total	3.42	3.48	1.91	5.40	2.15	
Noneffectiveness:						
Enlisted men	.09	.10	.10	.12	.04	
Total	.09	.09	.10	.12	.04	
<i>Diseases of the nervous system.</i>						
Admissions:						
Officers	75.07	72.89	100.00	200.00		
Enlisted men	58.61	61.99	56.80	53.90	47.67	37.65
Total	59.63	63.02	57.22	54.64	47.26	37.04
Noneffectiveness:						
Officers	8.16	8.08	22.74	.73		5.09
Enlisted men	1.73	1.63	1.85	1.59	1.20	1.14
Total	2.13	2.23	2.05	1.58	1.19	1.20

of disease to nativity and length of service—Continued.

Nativities.							Length of service— years.	
Scandina- vian.	Scotch.	Swiss.	Austrian.	Danish.	French.	All other.	Under 1.	1 and over.
55.19	21.46	10.31	61.40	64.22	21.28	12.82	171.80	8.91
54.94	20.92	10.20	61.14	64.22	20.62	12.66	170.35	8.27
1.48	.75	.23	.83	1.61	.44	.35	6.12	2.1
1.48	.73	.22	.83	1.61	.42	.35	6.07	.20
								.05
								.04
								5.48
24.28	47.21	10.31	43.86	9.17	42.55	35.90	23.63	47.90
24.18	46.02	10.20	43.67	9.17	41.24	35.44	23.43	44.87
								.09
.30	.43	.15	.43	.09	.50	.48	.38	.56
.30	.42	.15	.43	.09	.48	.48	.37	.53
								.24
								.22
							1.23	.34
		500.00			333.33		31.25	91.78
97.14	42.92	82.47	83.33	105.50	42.55	76.92	69.57	91.38
96.70	41.84	86.74	82.96	105.50	51.55	75.95	69.25	91.41
		5.48			8.22		.95	6.96
7.14	.72	6.44	4.80	3.61	.96	2.15	3.55	4.48
7.11	.70	6.43	4.79	3.61	1.19	2.12	3.53	4.66
2.04		4.78		4.24				.44
2.04		4.74		4.24				.40
			8.13	4.24		2.38	3.20	2.73
								.68
							.80	.42
							.79	.44
								.43
							.07	.05
							.07	.08
				8.47			.74	.78
	12.88		8.77	4.59		2.56	11.42	2.11
	12.55		8.73	4.59		2.53	11.32	1.96
	.21		.12	.11		.03	.27	.06
	.21		.12	.11		.03	.27	.06
	166.67				333.33	200.00		76.71
55.19	42.92	51.55	43.86	59.63	95.74	56.41	70.37	56.28
54.94	46.02	51.02	43.67	59.63	103.10	58.23	69.77	57.74
	.91				.91	3.84		8.33
2.84	3.48	.93	.31	3.78	3.52	4.78	2.00	1.68
2.83	3.42	.92	.31	3.78	3.45	4.77	1.99	2.15

TABLE XIX.—Showing the relation of certain classes

Orders of diseases, etc.	Total.	Nativities.				
		American U. S.	Irish.	German.	English.	Canadian.
<i>Diseases of the nervous system—Continued.</i>						
Deaths:						
Officers	4.68	4.94	-----	-----	-----	-----
Enlisted men	.45	.21	.89	.31	-----	4.36
Total	.79	.78	.88	.31	-----	4.26
Discharges:						
Enlisted men	2.73	1.78	4.76	3.14	4.02	6.54
<i>Diseases of the eye.</i>						
Admissions:						
Officers	14.74	14.86	-----	66.67	-----	-----
Enlisted men	17.02	16.50	17.97	17.29	19.50	16.47
Total	16.88	16.34	17.80	17.54	19.33	16.20
Noneffectiveness:						
Officers	2.66	2.67	-----	3.10	-----	-----
Enlisted men	.69	.62	.69	.89	.73	.60
Total	.81	.82	.69	.90	.73	.59
Discharges:						
Enlisted men	1.59	1.10	2.08	2.51	4.02	4.36
<i>Diseases of the ear.</i>						
Admissions:						
Officers	3.35	2.83	33.33	-----	-----	-----
Enlisted men	9.41	8.58	8.34	10.51	15.17	11.76
Total	9.04	8.04	8.58	10.45	15.04	11.57
Noneffectiveness:						
Officers	.11	.10	.55	-----	-----	-----
Enlisted men	.43	.40	.22	.43	1.24	.27
Total	.42	.37	.22	.43	1.22	.26
Discharges:						
Enlisted men	.90	.89	.30	.63	3.01	-----
<i>Diseases of the nose.</i>						
Admissions:						
Officers	1.34	1.42	-----	-----	-----	-----
Enlisted men	2.46	2.52	1.93	3.39	1.08	-----
Total	2.39	2.41	1.91	3.37	1.07	-----
Noneffectiveness:						
Officers	.46	.49	-----	-----	-----	-----
Enlisted men	.12	.13	.09	.14	.15	-----
Total	.14	.16	.09	.14	.15	-----
Discharges:						
Enlisted men	.16	.14	.30	.31	-----	-----
<i>Diseases of the respiratory system.</i>						
Admissions:						
Officers	125.34	118.90	266.67	466.67	125.00	285.71
Enlisted men	110.54	118.06	113.29	85.42	113.76	110.59
Total	111.45	118.14	114.75	87.35	113.85	113.42
Noneffectiveness:						
Officers	5.47	5.08	27.58	7.67	1.37	3.91
Enlisted men	3.20	3.26	3.62	2.78	2.42	2.91
Total	3.34	3.44	3.85	2.80	2.40	2.93
Deaths:						
Officers	.94	.99	-----	-----	-----	-----
Enlisted men	1.51	1.57	1.78	1.57	2.01	-----
Total	1.46	1.50	1.76	1.56	1.98	-----
Discharges:						
Enlisted men	2.44	2.46	2.08	2.51	1.00	6.54
<i>Diseases of the circulatory system.</i>						
Admissions:						
Officers	6.03	5.66	-----	-----	-----	-----
Enlisted men	8.88	7.92	11.23	11.86	8.67	11.76
Total	8.71	7.70	11.12	11.80	8.59	11.57
Noneffectiveness:						
Officers	1.76	1.79	-----	-----	-----	-----
Enlisted men	.67	.57	.96	.94	.46	.19
Total	.74	.68	.95	.95	.46	.19

of disease to nativity and length of service—Continued.

Nativities.							Length of service— years.	
Scandina navian.	Scotch.	Swiss.	Austrian.	Danish.	French.	All other.	Under 1.	1 and over.
								4.78
		4.78	4.07				.25	.49
		4.74	4.05				.24	.89
6.13			4.07	4.24		7.13	4.18	2.44
								15.07
19.87	17.17	10.31	13.16	18.35	10.64	23.08	13.28	17.76
19.78	16.74	10.20	13.10	18.35	10.30	22.78	13.16	17.57
								2.61
.44	.47	.95	.17	.61	2.51	1.71	.45	.78
.44	.46	.94	.17	.62	2.43	1.69	.44	.88
		4.78				2.38	1.23	1.66
								3.42
8.83	8.58	10.31	8.77	9.17	21.28	20.51	15.40	8.22
8.79	8.37	10.20	8.73	9.17	20.62	20.25	15.27	7.88
								.11
.11	.46	.14	.71	.09	.29	2.25	.97	.33
.11	.45	.14	.71	.09	.28	2.22	.96	.31
						7.13	1.97	.68
								1.37
6.62	4.29				10.64		2.92	2.37
6.59	4.18				10.31		2.90	2.30
								.46
.42	.14				.06		.15	.12
.42	.14				.05		.15	.14
								.20
								128.08
79.48	115.88	92.78	83.33	82.57	333.33	79.49	107.28	111.19
79.12	112.97	91.84	82.96	82.57	127.66	78.48	106.37	112.40
								5.59
5.32	4.55	1.58	2.40	2.65	2.18	1.44	3.02	3.23
5.30	4.44	1.57	2.39	2.65	2.20	1.42	3.00	3.40
								.96
				4.24			.98	1.61
				4.24			.97	1.55
6.13	7.94						2.46	2.44
								6.16
2.21	17.17	5.15	13.16	4.59	10.64	200.00	2.56	8.75
2.20	16.74	5.10	13.10	4.59	10.31	5.06	9.48	8.56
								1.80
.05	2.03	.78	2.02	.45	.29	20.27	.19	.07
.05	1.97	.77	2.01	.45	.28	.44	.66	.76

TABLE XIX.—Showing the relation of certain classes

Orders of diseases.	Total.	Nativities.				
		American U. S.	Irish.	German.	English.	Canadian.
<i>Diseases of the circulatory system—Continued.</i>						
Deaths:						
Officers	1.40	1.48	-----	-----	-----	-----
Enlisted men	.41	.48	.89	-----	-----	-----
Total	.49	.60	.88	-----	-----	-----
Discharges:						
Enlisted men	2.28	1.99	2.97	3.14	3.01	-----
<i>Diseases of the digestive system.</i>						
Admissions:						
Officers	151.47	153.57	100.00	132.33	-----	142.86
Enlisted men	171.97	182.79	163.03	158.31	165.76	124.71
Total	170.70	180.03	162.42	158.19	164.32	125.00
Noneffectiveness:						
Officers	8.30	8.49	5.66	3.84	-----	21.13
Enlisted men	3.02	3.07	3.23	3.02	3.02	2.02
Total	3.35	3.58	3.25	3.03	3.00	2.33
Deaths:						
Officers	1.87	1.98	-----	-----	-----	-----
Enlisted men	.24	.14	.89	.31	-----	-----
Total	.38	.36	.88	.31	-----	-----
Discharges:						
Enlisted men	2.36	1.78	2.97	2.83	3.01	4.36
<i>Diseases of the lymphatic system.</i>						
Admissions:						
Officers	2.68	2.83	-----	-----	-----	-----
Enlisted men	6.16	6.66	5.13	6.10	6.50	7.06
Total	5.94	6.30	5.09	6.07	6.46	6.94
Noneffectiveness:						
Officers	.08	.09	-----	-----	-----	-----
Enlisted men	.56	.66	.60	.39	.25	.41
Total	.53	.61	.59	.37	.24	.41
Discharges:						
Enlisted men	.04	.07	-----	-----	-----	-----
<i>Diseases of the genito-urinary system.</i>						
Admissions:						
Officers	22.12	21.94	33.33	66.67	-----	-----
Enlisted men	17.85	19.46	11.87	19.66	16.25	14.12
Total	18.11	19.69	12.08	19.90	16.11	13.89
Noneffectiveness:						
Officers	3.41	3.44	.91	12.78	-----	-----
Enlisted men	.98	.97	.61	1.03	.90	3.83
Total	1.13	1.21	.61	1.09	.89	3.77
Deaths:						
Officers	2.34	1.98	-----	-----	-----	100.00
Enlisted men	.33	.41	-----	.31	-----	-----
Total	.49	.60	-----	.31	-----	2.13
Discharges:						
Enlisted men	1.34	1.44	.89	1.57	1.00	2.18
<i>Diseases of the locomotor system.</i>						
Admissions:						
Officers	4.02	4.25	-----	-----	-----	-----
Enlisted men	4.31	4.07	1.93	6.44	6.50	2.35
Total	4.29	4.09	1.91	6.41	6.46	2.31
Noneffectiveness:						
Officers	.48	.51	-----	-----	-----	-----
Enlisted men	.41	.34	.11	.86	.49	.08
Total	.42	.36	.11	.85	.48	.08
Discharges:						
Enlisted men	.77	.55	1.18	1.26	3.01	-----
<i>Diseases of the integumentary system.</i>						
Admissions:						
Officers	28.82	30.43	-----	-----	-----	-----
Enlisted men	79.32	86.92	65.15	74.58	65.01	80.00
Total	76.22	81.58	64.53	74.20	64.45	78.70

of disease to nativity and length of service—Continued.

Nativities.							Length of service— years.	
Scandinavian.	Scotch.	Swiss.	Austrian.	Danish.	French.	All other.	Under 1.	1 and over.
								1.43
							.49	.39
							.48	.49
		4.78	8.13	4.24			2.71	2.20
					666.67	200.00	31.25	154.11
145.71	111.59	154.64	162.28	128.44	191.49	138.46	215.88	163.26
145.05	108.78	153.05	161.57	128.44	206.20	130.23	214.33	162.60
					3.65	.55	.51	8.47
2.10	1.03	4.35	2.29	1.75	3.76	3.54	3.59	2.91
2.10	1.01	4.31	2.27	1.75	3.76	3.52	3.57	3.31
							.25	1.91
							.24	.25
								.39
2.05		9.57		4.24	9.91	7.13	3.44	2.15
								2.74
2.21	8.58		4.39		10.64	5.13	7.70	5.85
2.20	8.37		4.37		10.31	5.06	7.63	5.63
								.08
.02	.35	.31	.06	.74	.99	.18	.75	.52
.02	.34	.31	.06	.74	.96	.17	.75	.49
							.25	
								22.68
15.45	12.88	20.62	13.16	22.94	10.64	10.26	31.33	15.11
15.38	12.55	20.41	13.10	22.94	10.31	10.13	31.07	15.71
								3.48
1.20	1.00	1.29	.41	1.50	.47	.55	1.90	.98
1.20	.97	1.27	.41	1.50	.45	.55	1.88	.90
				4.24				2.39
				4.24				.39
								.58
				8.47			3.94	.83
								4.20
6.62	12.88	5.15	13.16			2.56	5.58	4.06
6.59	12.55	5.10	13.10			2.53	5.53	4.06
								.48
2.11	.96	.14	.22			.46	.54	.38
2.09	.94	.14	.22			.46	.54	.40
							.74	.78
								29.45
55.19	51.50	77.32	48.25	64.22	63.83	74.36	114.71	72.30
54.94	50.21	76.53	48.03	64.22	61.86	73.42	113.74	69.24

TABLE XIX.—Showing the relation of certain classes

Orders of diseases, etc.	Total.	Nativities.				
		American U. S.	Irish.	German.	English.	Canadian.
<i>Diseases of the integumentary system—Continued.</i>						
Noneffectiveness:						
Officers.....	1.28	1.80	2.47			
Enlisted men.....	2.11	2.17	2.28	2.17	1.34	1.66
Total.....	2.07	2.09	2.28	2.16	1.32	1.66
Deaths:						
Officers.....	.47	.49				
Total.....	.04	.06				
Discharges:						
Enlisted men.....	.20	.14	.30		1.00	
<i>Unclassified.</i>						
Admissions:						
Officers.....	10.05	10.62				
Enlisted men.....	17.59	18.72	15.40	15.59	10.83	25.88
Total.....	17.12	17.95	15.26	15.51	10.74	25.46
Noneffectiveness:						
Officers.....	.36	.38				
Enlisted men.....	.41	.41	.36	.49	.15	.43
Total.....	.41	.41	.36	.49	.15	.42
Deaths:						
Enlisted men.....	.04	.07				
Total.....	.04	.06				
Discharges:						
Enlisted men.....	.12	.07	.30	.31		
<i>Total for diseases.</i>						
Admissions:						
Officers.....	545.17	825.90	1,166.67	1,466.67	625.00	857.14
Enlisted men.....	1,159.92	1,223.78	1,170.73	1,017.63	1,083.17	1,087.06
Total.....	1,140.55	1,186.12	1,170.69	1,019.90	1,069.15	1,083.33
Noneffectiveness:						
Officers.....	51.04	50.54	98.72	37.08	47.95	39.14
Enlisted men.....	33.80	35.11	33.12	31.51	29.20	34.17
Total.....	34.86	36.58	33.75	31.54	29.37	34.25
Deaths:						
Officers.....	12.63	12.85				100.00
Enlisted men.....	4.60	4.32	7.14	4.08	3.01	4.30
Total.....	5.25	5.36	7.04	4.06	2.98	6.40
Discharges:						
Enlisted men.....	22.49	20.77	24.09	25.44	27.11	32.68
<i>Total for injuries.</i>						
Admissions:						
Officers.....	70.38	68.65	133.33	66.67	250.00	
Enlisted men.....	255.08	264.83	278.88	217.63	237.27	268.24
Total.....	243.70	246.26	277.50	216.86	237.38	263.89
Noneffectiveness:						
Officers.....	4.35	3.97	14.43	16.44	21.92	
Enlisted men.....	8.08	7.96	9.92	7.49	7.22	6.42
Total.....	7.85	7.59	9.98	7.56	7.34	6.31
Deaths:						
Officers.....	1.87	1.48				
Enlisted men.....	3.58	3.43	3.27	4.08	5.02	2.18
Total.....	3.45	3.19	3.23	4.05	4.96	2.13
Discharges:						
Enlisted men.....	2.53	2.60	2.68	3.14	2.01	
<i>Total diseases and injuries.</i>						
Admissions:						
Officers.....	915.55	894.55	1,300.00	1,533.34	875.00	857.14
Enlisted men.....	1,415.00	1,488.61	1,449.61	1,235.25	1,330.44	1,355.29
Total.....	1,384.25	1,432.38	1,448.19	1,236.76	1,326.53	1,347.22
Noneffectiveness:						
Officers.....	55.38	54.50	113.15	53.52	69.87	39.14
Enlisted men.....	41.88	43.07	43.05	39.00	36.42	40.60
Total.....	42.71	44.17	43.73	39.09	36.71	40.56
Deaths:						
Officers.....	14.50	14.33				100.00
Enlisted men.....	8.18	7.74	10.41	8.17	8.03	6.54
Total.....	8.69	8.55	10.27	8.10	7.94	8.53
Discharges:						
Enlisted men.....	25.01	23.37	26.76	28.58	29.12	32.68

of disease, to nativity and length of service—Continued.

Nativities.							Length of service— years.	
Scandinavian.	Scotch.	Swiss.	Austrian.	Danish.	French.	All others.	Under 1.	1 and over.
								1.31
1.45	1.14	2.20	.82	1.22	1.05	3.66	2.90	1.96
1.44	1.11	2.18	.81	1.22	1.02	3.61	2.88	1.91
								.48
								.04
				4.24			.25	.20
								10.27
17.66	12.88	15.46	13.16	9.17	21.28	28.21	29.74	15.18
17.58	12.55	15.30	13.10	9.17	20.62	27.85	29.49	14.83
								.37
.48	.09	.13	.08	.06	3.58	.79	.77	.34
.48	.09	.13	.08	.06	3.47	.77	.77	.34
								.05
								.04
							.25	.10
1,500.00	666.67	500.00	1,000.00		2,000.00	2,200.00	93.75	861.64
955.85	909.87	840.21	1,000.00	1,022.94	1,042.55	917.95	1,519.91	1,088.48
958.24	903.77	836.73	1,000.00	1,022.94	1,072.17	934.17	1,507.90	1,072.28
73.97	18.72	5.48	19.18		21.00	39.45	7.11	51.99
35.86	27.61	27.81	25.90	30.19	30.51	32.80	48.30	30.92
36.03	27.37	27.58	25.86	30.19	30.22	32.93	47.96	32.42
								12.91
2.05		9.57	4.07	16.95			3.69	4.78
2.04		9.48	4.05	16.95				5.54
20.45	7.94	19.14	28.46	38.14	9.90	28.50	36.41	19.72
								71.92
220.75	266.09	500.00	197.37	146.79	244.68	194.87	297.13	246.73
219.78	259.41	201.03	196.50	146.79	237.11	192.40	294.63	234.24
		17.81						4.45
9.69	11.93	6.33	4.84	3.28	4.55	7.91	8.92	7.92
9.65	11.64	6.44	4.82	3.28	4.41	7.82	8.85	7.67
500.00								1.91
6.14	3.97		8.13			4.75	3.94	3.52
8.15	3.83		8.10			4.67	3.89	3.37
4.09						2.38	2.95	2.44
1,500.00	666.67	1,000.00	1,000.00		2,000.00	2,200.00	93.75	933.56
1,176.60	1,175.97	1,041.24	1,197.37	1,169.73	1,287.23	1,112.82	1,817.05	1,335.21
1,178.02	1,163.18	1,040.82	1,196.50	1,169.73	1,309.28	1,126.58	1,802.53	1,306.52
73.97	18.72	23.29	19.18		21.00	39.45	7.11	56.44
45.56	39.53	34.13	30.74	33.47	35.06	40.71	57.22	38.84
45.68	39.01	34.02	30.69	33.47	34.63	40.75	56.81	40.09
500.00								14.82
8.18	3.97	9.57	12.20	16.95		4.75	7.63	8.30
10.18	3.83	9.48	12.15	16.95		4.67	7.54	8.91
24.54	7.94	19.14	28.46	38.14	9.90	30.88	39.36	22.17

TABLE XX.—Showing the relation of certain specified

Names of diseases, etc.	Total.	Arms of service							
		Infan- try.	Cavalry.	Artil- lery.	Ord- nance.	Engi- neers.	Medi- cal De- part- ment.	Re- cruits.	All other.
<i>Cerebro-spinal fever.</i>									
Admissions:									
Enlisted men	.04	.10							
Total	.04	.10							
Noneffectiveness:									
Enlisted men	.01	.02							
Total	.01	.02							
<i>Dengue.</i>									
Admissions:									
Officers	.67					12.66			
Enlisted men	.26	.40	.31						
Total	.29	.38	.30			1.98			
Noneffectiveness:									
Officers	.01					.21			
Enlisted men	.003	.005	.003						
Total	.003	.004	.002			.03			
<i>Diphtheria.</i>									
Admissions:									
Enlisted men	.22	.20		.41	2.53		1.41		
Total	.21	.19		.38	2.29		1.19		
Noneffectiveness:									
Enlisted men	.006	.005		.02	.04		.03		
Total	.01	.005		.02	.04		.03		
Deaths:									
Enlisted men	.04				2.34				
Total	.04				2.06				
<i>Enteric fever.</i>									
Admissions:									
Officers	4.69	3.35	10.03	5.00		12.66			
Enlisted men	5.28	5.94	7.23	2.88	10.10		1.41	.67	1.98
Total	5.24	5.80	7.36	3.04	9.17	1.98	1.19	.67	1.73
Noneffectiveness:									
Officers	1.07	.61	3.08	.97		1.39			
Enlisted men	.74	.80	1.14	.33	.92		.13	.18	.18
Total	.76	.79	1.23	.38	.84	.22	.11	.18	.17
Deaths:									
Enlisted men	.53	.47	.73	.38					1.83
Total	.49	.43	.69	.34					1.54
<i>Influenza.</i>									
Admissions:									
Officers	164.87	199.32	190.63	230.00	75.00		113.63		41.88
Enlisted men	168.14	159.38	227.94	162.90	229.79	223.00	127.29	63.97	24.75
Total	167.93	161.63	226.29	168.00	215.60	188.10	125.14	63.97	26.84
Noneffectiveness:									
Officers	4.85	4.58	6.31	9.40	1.64	.42	3.36		1.30
Enlisted men	2.55	2.44	3.02	2.65	6.17	4.26	2.03	1.37	.37
Total	2.69	2.56	3.16	3.16	5.76	3.66	2.24	1.37	.51
Deaths:									
Officers	.47		2.34						
Enlisted men	.20	.09	.15	1.14					
Total	.22	.09	.27	1.03					
<i>Measles.</i>									
Admissions:									
Officers	1.34		6.69						
Enlisted men	2.55	2.22	.47	3.70			1.41	15.49	
Total	2.48	2.09	.75	3.42			1.19	15.49	
Noneffectiveness:									
Officers	.30		1.50						
Enlisted men	.11	.11	.01	.13			.08	.70	
Total	.13	.10	.08	.12			.07	.70	
<i>Mumps.</i>									
Admissions:									
Enlisted men	.92	.81	1.26	2.06					
Total	.87	.76	1.20	1.90					

TABLE XX.—Showing the relation of certain specified

Names of diseases, etc.	Total.	Arms of service.							
		Infan- try.	Cavalry.	Artil- lery.	Ord- nance.	Engi- neers.	Medi- cal De- part- ment.	Re- cruits.	All other.
<i>Mumps—Continued.</i>									
Noneffectiveness:									
Enlisted men . . .	.03	.02	.03	.11					
Total	.03	.02	.03	.10					
<i>Quincy.</i>									
Admissions:									
Enlisted men . . .	.26	.30	.47						
Total	.25	.29	.45						
Noneffectiveness:									
Enlisted men . . .	.006	.01	.01						
Total	.01	.01	.01						
<i>Scarlet fever.</i>									
Admissions:									
Enlisted men . . .	.26	.10	.47	.41					.99
Total	.25	.10	.45	.38					.87
Noneffectiveness:									
Enlisted men . . .	.02	.01	.03	.05					.02
Total	.02	.01	.03	.04					.02
<i>Small-pox.</i>									
Admissions:									
Enlisted men . . .	.04	.10							
Total	.04	.10							
Noneffectiveness:									
Enlisted men . . .	.004	.01							
Total	.004	.01							
<i>Whooping cough.</i>									
Admissions:									
Enlisted men . . .	.22	.30	.16	.41					
Total	.21	.29	.15	.38					
Noneffectiveness:									
Enlisted men . . .	.01	.01	.01	.06					
Total	.01	.01	.01	.05					
<i>Erysipelas.</i>									
Admissions:									
Officers	2.01	5.03							
Enlisted men . . .	2.46	3.02	2.04	2.47	2.53	1.41	2.02	1.98	
Total	2.43	3.14	1.95	2.28	2.29	1.19	2.02	1.73	
Noneffectiveness:									
Officers	.11	.28							
Enlisted men . . .	.10	.12	.12	.08	.18	.04	.09	.03	
Total	.11	.13	.12	.07	.16	.04	.09	.03	
Deaths:									
Enlisted men . . .	.08	.19							
Total	.07	.17							
<i>Other specific febrile and acute infectious diseases.</i>									
Admissions:									
Officers	.67			5.00					
Enlisted men . . .	.04			.41					
Total	.08			.76					
Noneffectiveness:									
Officers	.02			.15					
Enlisted men . . .	.001			.01					
Total	.002			.01					
<i>Bronchitis.</i>									
Admissions:									
Officers	80.43	105.53	93.65	100.00	25.00	12.66	45.46		6.90
Enlisted men . . .	73.65	79.08	61.62	115.18	118.69	190.14	28.29	35.69	16.83
Total	74.07	80.57	63.06	114.03	110.09	162.38	30.99	35.69	15.58

TABLE XX.—Showing the relation of certain specified

Names of diseases, etc.	Total.	Arms of service.							
		Infan- try.	Cavalry.	Artil- lery.	Ord- nance.	Engi- neers.	Medi- cal De- part- ment.	Re- cruits.	All other.
<i>Bronchitis—Con- tinued.</i>									
Noneffectiveness:									
Officers	2.54	2.47	2.68	3.50	1.71	.38	4.75	.....	.49
Enlisted men	1.37	1.53	1.04	1.84	2.68	3.22	.99	1.01	.19
Total	1.44	1.59	1.11	1.97	2.60	2.78	1.59	1.01	.22
Discharges:									
Enlisted men	.24	.37	.15	.....	.....	.....	1.31	.....	.....
<i>Pulmonary Phthisis.</i>									
Admissions:									
Officers	1.34	1.68	.....	5.00	.....	.....	.....	.....	.....
Enlisted men	3.39	3.42	3.62	4.94	2.53	7.04	.....	2.02	.99
Total	3.26	3.33	3.45	4.94	2.29	5.94	.....	2.02	.87
Noneffectiveness:									
Officers	.94	1.63	.28	.29	.....	.....	2.11	.....	.....
Enlisted men	.82	.80	.80	1.65	.38	1.60	.....	.48	.....
Total	.83	.85	.78	1.55	.33	1.35	.33	.48	.....
Deaths:									
Officers	.94	2.34	.....	.....	.....	.....	.....	.....	.....
Enlisted men	.69	.56	.73	1.52	.....	.....	.....	.62	.92
Total	.71	.69	.69	1.37	.....	.....	.....	.62	.77
Discharges:									
Enlisted men	1.71	1.49	1.60	3.81	4.67	.....	.....	1.28	.92
<i>Pneumonia.</i>									
Admissions:									
Officers	2.68	1.68	6.69	5.00	.....	.....	2.83	6.06	1.98
Enlisted men	4.04	3.73	4.40	4.11	10.10	.....	2.83	6.06	1.98
Total	3.96	3.61	4.50	4.18	9.17	.....	2.38	6.06	1.73
Noneffectiveness:									
Officers	.28	.10	.49	1.10	.....	.....	.22	.47	.13
Enlisted men	.41	.30	.43	.53	3.61	.08	.22	.47	.13
Total	.41	.29	.43	.58	3.19	.07	.19	.47	.11
Deaths:									
Enlisted men	.57	.37	.73	.....	.....	.....	1.31	1.25	1.83
Total	.52	.35	.69	.....	.....	.....	1.05	1.25	1.54
<i>Pleuritis.</i>									
Admissions:									
Officers	.67	1.68	.....	.....	.....	.....	.....	.....	.....
Enlisted men	2.81	2.62	4.09	2.06	10.10	2.35	1.41	.....	.99
Total	2.68	2.57	3.90	1.90	9.17	1.98	1.19	.....	.87
Noneffectiveness:									
Officers	.59	.65	.....	2.38	.....	.....	.....	.....	.....
Enlisted men	.16	.20	.14	.10	.45	.69	.03	.....	.01
Total	.19	.23	.14	.27	.42	.58	.02	.....	.01
Deaths:									
Enlisted men	.08	.....	.29	.....	.....	.....	.....	.....	.....
Total	.07	.....	.27	.....	.....	.....	.....	.....	.....
Discharges:									
Enlisted men	.12	.09	.15	.....	.....	2.17	.....	.....	.....
<i>Rheumatic fever.</i>									
Admissions:									
Officers	2.68	3.35	.....	10.00	.....	.....	.....	.....	.....
Enlisted men	5.54	5.90	4.87	5.76	5.05	4.69	5.66	8.75	1.98
Total	5.36	5.70	4.65	6.08	4.58	3.96	4.77	8.75	1.73
Noneffectiveness:									
Officers	.48	.62	.....	1.74	.....	.....	.....	.....	.....
Enlisted men	.59	.65	.43	.73	.81	.67	.43	.97	.15
Total	.58	.65	.41	.80	.74	.56	.36	.97	.14
Deaths:									
Enlisted men	.005	.....	.....	.38	.....	.....	.....	.....	.....
Total	.004	.....	.....	.34	.....	.....	.....	.....	.....
Discharges:									
Enlisted men	.12	.09	.15	.38	.....	.....	.....	.....	.....

diseases to arm of service and age of individual—Continued.

Ages—years.									
19 and under.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 and over.
	1.21	1.15	1.00	2.12	2.14	3.94	5.16	2.44	5.32
.28	1.25	1.35	1.12	1.90	1.62	.94	2.51	8.33	1.05
.28	1.26	1.34	1.11	1.92	1.66	1.69	3.65	4.64	3.72
		.13		1.29	.52		3.18		
			4.20		5.62				
	4.55	2.84	3.31	3.72	2.83	1.04		30.30	
	4.50	2.74	3.36	3.38	3.08	.86		11.36	
			.60		7.05				
	.90	.59	.88	1.09	1.48	.09		5.10	
	.89	.57	.87	.99	1.99	.08		1.91	
					7.84				
	.78	.39	.22	1.29	1.57	.96		13.89	
	.77	.38	.20	1.14	2.31	.76		4.37	
	2.50	1.58	1.53	1.29	1.57			13.89	
			4.20		5.62	5.08		9.09	
	4.55	4.11	3.78	4.66	1.70	3.12	10.31	15.15	
	4.50	3.98	3.81	4.22	2.05	3.45	5.92	11.36	
			.24		.29	.47		1.99	
.13	.36	.46	.35	.67	.29	.27	.44	1.78	2.74
.13	.36	.44	.35	.61	.29	.30	.24	1.91	.98
	.62	.26	.22	1.29	.52	.96	3.18		50.00
	.62	.25	.20	1.14	.46	.76	1.61		14.71
	1.52	2.13	4.26	4.18	3.39	5.08			
	1.50	2.06	4.03	3.80	3.08	6.24	3.44		
						6.04	1.97		
		1.98				1.97			
	.10	.16	.28	.12	.08	.33	.04		
	.10	.22	.26	.11	.08	.61	.02		
		.13	.22						
		.13	.20						
	.16	.26							
			4.20		5.62	5.08		9.09	
3.70	5.39	4.82	4.02	6.98	7.91	10.41	6.87	15.15	
3.70	5.33	4.66	4.03	6.33	7.70	9.49	3.94	11.36	
			.64	.07	1.15	.76		1.77	
.31	.66	.53	.45	.53	.97	.70	1.08	.33	
.31	.65	.51	.46	.49	.96	.71	.62	1.23	
		.13							
		.13							
	.16	.13			.52				

TABLE XX.—Showing the relation of certain specified

Names of diseases, etc.	Total.	Arms of service.							
		Infan- try.	Cavalry.	Artil- lery.	Ord- nance.	Engi- neers.	Medi- cal De- part- ment.	Re- cruits.	All other.
<i>Myalgia and muscu- lar rheumatism.</i>									
Admissions:									
Officers.....	55.63	80.40	50.17	65.00	25.00	12.66	22.73	.....	13.79
Enlisted men.....	53.60	55.46	64.77	51.42	75.76	105.63	31.12	16.84	14.85
Total.....	53.78	56.35	64.11	52.45	71.10	91.09	29.80	16.83	14.72
Noneffectiveness:									
Officers.....	2.04	2.79	1.53	2.12	1.03	.07	.19	.....	2.85
Enlisted men.....	1.83	2.03	1.89	2.13	2.79	2.31	1.86	.29	.40
Total.....	1.84	2.07	1.88	2.13	2.63	1.96	1.60	.29	.71
Discharges:									
Enlisted men.....	.98	.93	1.02	.76	4.67	2.17	.....	1.25	.....
<i>Other rheumatism.</i>									
Admissions:									
Officers.....	25.47	38.53	10.03	40.00	.....	.....	30.30	.....	.....
Enlisted men.....	24.01	26.76	26.10	20.98	32.83	35.21	21.22	12.12	4.95
Total.....	24.10	27.18	25.38	22.43	29.82	29.70	22.65	12.11	4.33
Noneffectiveness:									
Officers.....	2.78	3.07	4.48	3.51	.....	.....	2.08	.....	.....
Enlisted men.....	1.55	1.66	1.85	1.20	2.50	.75	.75	1.28	.40
Total.....	1.63	1.74	1.96	1.38	2.27	.63	.96	1.28	.35
Discharges:									
Enlisted men.....	1.14	1.21	.87	1.14	4.67	2.17	1.31	1.25	.....
<i>Total rheumatism.</i>									
Admissions:									
Officers.....	83.78	122.28	60.20	115.00	25.00	12.66	53.03	.....	13.79
Enlisted men.....	83.15	88.13	95.74	78.15	113.63	145.53	57.98	37.71	21.78
Total.....	83.19	89.23	94.14	80.96	105.50	124.75	57.22	37.69	20.78
Noneffectiveness:									
Officers.....	5.30	6.47	6.06	7.37	1.03	.07	2.26	.....	2.85
Enlisted men.....	3.97	4.33	4.17	4.05	6.10	3.73	3.04	2.54	.96
Total.....	4.05	4.46	4.25	4.31	5.64	3.16	2.92	2.54	1.20
Deaths:									
Enlisted men.....	.005	.....	.....	.38	.....	.....	.....	.....	.....
Total.....	.004	.....	.....	.34	.....	.....	.....	.....	.....
Discharges:									
Enlisted men.....	2.24	2.24	2.04	2.29	9.34	4.34	1.31	2.50	.....

diseases to arm of service and age of individual—Continued.

Ages—years.									
19 and under.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 and over.
-----	16.95	33.61	37.81	40.54	89.89	96.45	55.56	63.64	58.82
7.41	41.26	45.65	55.59	66.11	83.66	74.92	134.02	181.82	105.26
7.40	41.01	45.26	54.65	63.71	84.23	78.59	100.59	107.95	75.47
-----	.51	.45	1.01	.70	2.75	3.23	4.13	1.87	8.30
.20	1.10	1.39	3.05	2.69	2.85	3.97	4.53	6.10	4.90
.20	1.09	1.37	2.00	2.51	2.84	3.84	4.36	3.46	7.08
-----	.31	.26	.66	2.59	3.14	2.89	3.18	-----	50.00
-----	33.90	4.20	25.21	-----	44.94	55.84	32.41	27.27	-----
3.70	18.69	19.57	22.47	29.79	32.22	47.87	65.26	181.82	157.89
3.70	18.84	19.06	22.62	27.00	33.38	49.22	51.28	85.23	56.60
-----	.42	.25	3.38	-----	4.83	4.45	3.34	5.03	7.17
.02	1.18	1.55	1.34	1.69	2.53	1.77	1.85	18.01	4.47
.02	1.17	1.51	1.45	1.53	2.74	2.22	2.49	9.90	6.20
-----	.78	1.44	.66	.86	1.57	.96	6.37	13.89	-----
-----	50.85	37.82	67.23	40.54	140.44	157.35	87.96	100.00	58.82
14.81	65.34	70.04	82.09	102.88	123.79	133.20	206.18	378.79	263.16
14.81	65.18	68.99	81.30	97.05	125.32	137.31	155.82	204.54	132.07
-----	.93	.70	5.04	.78	8.74	8.44	7.47	8.67	15.47
.54	2.94	3.47	8.85	4.92	6.31	6.44	7.47	24.45	9.37
.54	2.92	3.38	3.91	4.53	6.54	6.78	7.47	14.59	13.28
-----	-----	.13	-----	-----	-----	-----	-----	-----	-----
-----	-----	.13	-----	-----	-----	-----	-----	-----	-----
-----	1.25	1.84	1.31	3.45	5.23	3.86	9.55	13.89	50.00

TABLE XXI.—Showing the relation of certain

Names of diseases, etc.	Total.	Nativities.				
		American U. S.	Irish.	German.	English.	Canadian.
<i>Cerebro-spinal fever.</i>						
Admissions:						
Enlisted men.....	.04				1.08	
Total.....	.04				1.07	
Noneffectiveness:						
Enlisted men.....	.01				.25	
Total.....	.01				.25	
<i>Dengue.</i>						
Admissions:						
Officers.....	.67	.71				
Enlisted men.....	.26	.30	.32			
Total.....	.29	.33	.32			
Noneffectiveness:						
Officers.....	.01	.01				
Enlisted men.....	.003	.003	.002			
Total.....	.003	.004	.002			
<i>Diphtheria.</i>						
Admissions:						
Enlisted men.....	.22	.22	.32	.34		
Total.....	.21	.20	.32	.34		
Noneffectiveness:						
Enlisted men.....	.006	.01	.01	.004		
Total.....	.01	.01	.01	.004		
Deaths:						
Enlisted men.....	.04		.30			
Total.....	.04		.29			
<i>Enteric fever.</i>						
Admissions:						
Officers.....	4.69	4.95				
Enlisted men.....	5.28	4.88	5.78	5.42	5.42	9.41
Total.....	5.24	4.89	5.72	5.40	5.37	9.26
Noneffectiveness:						
Officers.....	1.07	1.13				
Enlisted men.....	.74	.74	.65	.75	.69	1.43
Total.....	.76	.77	.65	.74	.69	1.41
Deaths:						
Enlisted men.....	.53	.41	1.19	.63		
Total.....	.49	.36	1.16	.62		
<i>Influenza.</i>						
Admissions:						
Officers.....	164.87	161.36	133.35	266.67	250.00	285.70
Enlisted men.....	168.14	181.39	163.99	148.13	149.50	115.29
Total.....	167.93	179.50	163.70	148.72	150.37	118.05
Noneffectiveness:						
Officers.....	4.85	4.82	2.37	4.75	4.45	7.04
Enlisted men.....	2.55	2.64	2.85	2.20	2.49	2.25
Total.....	2.69	2.84	2.85	2.22	2.51	2.33
Deaths:						
Officers.....	.47	.49				
Enlisted men.....	.20	.21	.30	.31		
Total.....	.22	.24	.29	.31		
<i>Measles.</i>						
Admissions:						
Officers.....	1.34	1.42				
Enlisted men.....	2.55	3.99	.32		1.08	
Total.....	2.48	3.75	.32		1.07	
Noneffectiveness:						
Officers.....	.30	.32				
Enlisted men.....	.11	.18	.01		.06	
Total.....	.13	.19	.01		.06	
<i>Mumps.</i>						
Admissions:						
Enlisted men.....	.92	1.26	.32	.34		2.35
Total.....	.87	1.14	.32	.34		2.31

TABLE XXI.—Showing the relation of certain specified

Names of diseases, etc.	Total.	Nativities.				
		American U. S.	Irish.	German.	English.	Canadian.
<i>Mumps—Continued.</i>						
Noneffectiveness:						
Enlisted men.....	.03	.04	.02	.01	-----	.07
Total.....	.03	.03	.02	.01	-----	.07
<i>Quinsy.</i>						
Admissions:						
Enlisted men.....	.26	.30	.32	-----	1.08	-----
Total.....	.25	.27	.32	-----	1.07	-----
Noneffectiveness:						
Enlisted men.....	.006	.01	.01	-----	.01	-----
Total.....	.01	.01	.01	-----	.01	-----
<i>Scarlet fever.</i>						
Admissions:						
Enlisted men.....	.26	.30	-----	.34	1.07	-----
Total.....	.25	.27	-----	.34	1.07	-----
Noneffectiveness:						
Enlisted men.....	.02	.02	.01	.01	.09	-----
Total.....	.02	.02	.01	.01	.09	-----
<i>Small-pox.</i>						
Admissions:						
Enlisted men.....	.04	.07	-----	-----	-----	-----
Total.....	.04	.07	-----	-----	-----	-----
Noneffectiveness:						
Enlisted men.....	.004	.01	-----	-----	-----	-----
Total.....	.004	.01	-----	-----	-----	-----
<i>Whooping cough.</i>						
Admissions:						
Enlisted men.....	.22	.22	.32	.34	-----	-----
Total.....	.21	.20	.32	.34	-----	-----
Noneffectiveness:						
Enlisted men.....	.01	.02	.03	.01	-----	-----
Total.....	.01	.02	.03	.01	-----	-----
<i>Erysipelas.</i>						
Admissions:						
Officers.....	2.01	2.12	-----	-----	-----	-----
Enlisted men.....	2.46	2.15	4.17	2.71	2.17	4.71
Total.....	2.43	2.14	4.18	2.70	2.15	4.63
Noneffectiveness:						
Officers.....	.11	.12	-----	-----	-----	-----
Enlisted men.....	.10	.11	.15	.07	.18	.05
Total.....	.11	.11	.15	.07	.18	.04
Deaths:						
Enlisted men.....	.08	.14	-----	-----	-----	-----
Total.....	.07	.12	-----	-----	-----	-----
<i>Other specific febrile and acute infectious diseases.</i>						
Admissions:						
Officers.....	.67	.71	-----	-----	-----	-----
Enlisted men.....	.04	.07	-----	-----	-----	-----
Total.....	.08	.13	-----	-----	-----	-----
Noneffectiveness:						
Officers.....	.02	.02	-----	-----	-----	-----
Enlisted men.....	.001	.002	-----	-----	-----	-----
Total.....	.002	.004	-----	-----	-----	-----
<i>Bronchitis.</i>						
Admissions:						
Officers.....	80.43	75.73	200.00	333.33	125.00	142.86
Enlisted men.....	73.65	77.67	82.16	55.93	78.01	72.94
Total.....	74.07	77.49	88.28	57.34	78.41	74.07
Noneffectiveness:						
Officers.....	2.54	2.17	19.36	6.57	1.38	1.96
Enlisted men.....	1.37	1.39	1.66	.86	1.33	1.72
Total.....	1.44	1.47	1.73	.89	1.33	1.72
Discharges:						
Enlisted men.....	.24	.27	-----	31	-----	-----

diseases to nativity and length of service—Continued.

Nativities.							Length of service— years.	
Scandina- vian.	Scotch.	Swiss.	Austrian.	Danish.	French.	All other.	Under 1.	1 and over.
.05							.04	.03
.05							.04	.03
							.27	.26
							.26	.24
							.002	.01
							.002	.01
							.27	.26
							.26	.24
							.01	.02
							.01	.02
							.27	
							.26	
							.03	
							.03	
							.27	.21
							.26	.20
							.02	.01
							.02	.01
2.21	4.29						1.86	2.5
2.20	4.18						1.84	2.58
								2.54
								.11
.05	.04						.08	.11
.05	.03						.08	.11
							.25	.05
							.24	.04
								.68
							.27	
							.26	.05
								.02
							.01	
							.01	.001
								82.19
48.57	68.67	56.70	48.24	50.46	85.11	56.41	78.07	72.77
48.35	66.95	56.12	48.04	50.46	82.49	55.70	77.41	73.45
								2.59
2.01	2.36	1.13	.75	2.06	1.38	1.15	1.43	1.35
1.99	2.29	1.15	.75	2.05	1.36	1.14	1.43	1.44
2.04								.29

TABLE XXI.—Showing the relation of certain specified

Names of diseases, etc.	Total.	Nativities.				
		American U. S.	Irish.	German.	English.	Canadian.
<i>Pulmonary phthisis.</i>						
Admissions:						
Officers.....	1.34	1.42				
Enlisted men.....	3.39	3.40	4.91	2.03	3.25	2.35
Total.....	3.26	3.21	4.77	2.02	3.22	2.31
Noneffectiveness:						
Officers.....	.94	.99				
Enlisted men.....	.82	.76	1.36	.70	.45	.16
Total.....	.83	.78	1.35	.70	.45	.15
Deaths:						
Officers.....	.94	.99				
Enlisted men.....	.69	.69	1.19	.31	2.01	
Total.....	.71	.72	1.17	.31	1.98	
Discharges:						
Enlisted men.....	1.71	1.71	2.08	1.26	1.00	4.36
<i>Pneumonia.</i>						
Admissions:						
Officers.....	2.68	2.83				
Enlisted men.....	4.04	4.73	1.93	5.08	2.17	2.35
Total.....	3.96	4.55	1.91	5.06	2.15	2.31
Noneffectiveness:						
Officers.....	.28	.30				
Enlisted men.....	.41	.49	.20	.51	.26	.16
Total.....	.41	.47	.20	.51	.26	.15
Deaths:						
Enlisted men.....	.57	.48	.59	1.26		
Total.....	.52	.42	.59	1.25		
<i>Pleuritis.</i>						
Admissions:						
Officers.....	.67	.71				
Enlisted men.....	2.81	2.81	4.17	1.02	4.33	2.35
Total.....	2.68	2.61	4.13	1.01	4.30	2.31
Noneffectiveness:						
Officers.....	.59	.61				
Enlisted men.....	.16	.15	.09	.16	.19	.69
Total.....	.19	.19	.09	.15	.19	.68
Deaths:						
Enlisted men.....	.08	.14				
Total.....	.07	.12				
Discharges:						
Enlisted men.....	.12	.07		.31		2.18
<i>Rheumatic fever.</i>						
Admissions:						
Officers.....	2.68	2.83				
Enlisted men.....	5.64	6.14	3.56	5.42	4.33	4.71
Total.....	5.36	5.83	3.50	5.40	4.30	4.63
Noneffectiveness:						
Officers.....	.48	.51				
Enlisted men.....	.59	.63	.49	.61	.43	.78
Total.....	.58	.61	.49	.61	.43	.77
Deaths:						
Enlisted men.....	.005			.31		
Total.....	.004			.31		
Discharges:						
Enlisted men.....	.12	.14		.31		
<i>Myalgia and muscular rheumatism.</i>						
Admissions:						
Officers.....	55.63	54.49	133.33			
Enlisted men.....	53.60	53.41	54.56	55.93	48.75	65.88
Total.....	53.73	53.51	55.30	55.65	48.34	64.82
Noneffectiveness:						
Officers.....	2.04	2.02	4.84			
Enlisted men.....	1.82	1.80	2.09	2.07	1.08	1.72
Total.....	1.84	1.82	2.12	2.06	1.07	1.69
Discharges:						
Enlisted men.....	.98	1.03	.30	1.57		4.36

diseases to nativity and length of service—Continued.

Nativities.							Length of service— years.	
Scandina- vian.	Scotch.	Swiss.	Austrian.	Danish.	French.	All other.	Under 1.	1 and over.
								1.37
8.83	4.29				10.64		3.98	3.27
8.79	4.18				10.31		3.85	3.13
								.96
2.91	.52				.55		.65	.85
2.91	.50				.54		.64	.86
								.95
							.49	.73
							.49	.76
4.09	3.97						1.97	1.66
								2.74
	8.58			9.17			4.25	4.00
	8.37			9.17			4.21	3.91
								.29
	1.01			.48			.43	.41
	.98			.48			.43	.40
				4.24			.25	.63
				4.24			.24	.58
								.68
2.21	4.29		13.16				1.33	3.11
2.20	4.18		13.10				1.32	2.94
								.59
.21	.07		1.42				.11	.17
.21	.07		1.41				.10	.20
							.25	.05
							.24	.04
							.25	.10
								2.74
8.83	4.29	5.15		9.17		5.13	7.70	5.11
8.79	4.18	5.10		9.17		5.06	7.64	4.94
								.49
1.08	.14	.18		1.13		.21	.91	.53
1.08	.14	.18		1.13		.21	.91	.52
								.005
								.004
							.25	.10
		500.00			333.33		31.25	56.16
48.57	25.75	30.93	52.63	77.98	42.55	54.48	37.44	56.81
48.35	25.10	35.71	52.40	77.98	51.55	54.70	37.39	56.76
		5.48			8.22		.94	2.06
2.31	.31	1.84	.80	1.60	.96	1.30	1.05	1.98
2.30	.30	1.87	.80	1.60	1.19	1.34	1.04	1.99
				4.24			.49	1.07

TABLE XXI.—Showing the relation of certain specified

Names of diseases, etc.	Total.	Nativities.				
		American U. S.	Irish.	German.	English.	Canadian.
<i>Other rheumatism.</i>						
Admissions:						
Officers.....	25.47	22.65	166.67	-----	125.00	-----
Enlisted men.....	24.01	23.89	30.49	25.42	13.00	16.47
Total.....	24.10	23.77	31.79	25.30	13.94	16.20
Noneffectiveness:						
Officers.....	2.78	2.08	29.60	-----	39.73	-----
Enlisted men.....	1.55	1.61	1.60	1.57	.74	1.33
Total.....	1.63	1.66	1.86	1.56	1.08	1.33
Discharges:						
Enlisted men.....	1.14	1.30	1.19	.94	-----	-----
<i>Total rheumatism.</i>						
Admissions:						
Officers.....	83.78	79.97	300.00	-----	125.00	-----
Enlisted men.....	83.15	83.44	88.57	86.77	66.09	87.06
Total.....	83.19	83.11	90.59	86.34	66.59	85.65
Noneffectiveness:						
Officers.....	5.30	4.61	34.43	-----	39.73	-----
Enlisted men.....	3.97	4.04	4.18	4.26	2.26	3.83
Total.....	4.05	4.10	4.47	4.23	2.58	3.77
Deaths:						
Enlisted men.....	.005	-----	-----	.31	-----	-----
Total.....	.004	-----	-----	.31	-----	-----
Discharges:						
Enlisted men.....	2.24	2.47	1.49	2.83	-----	4.36

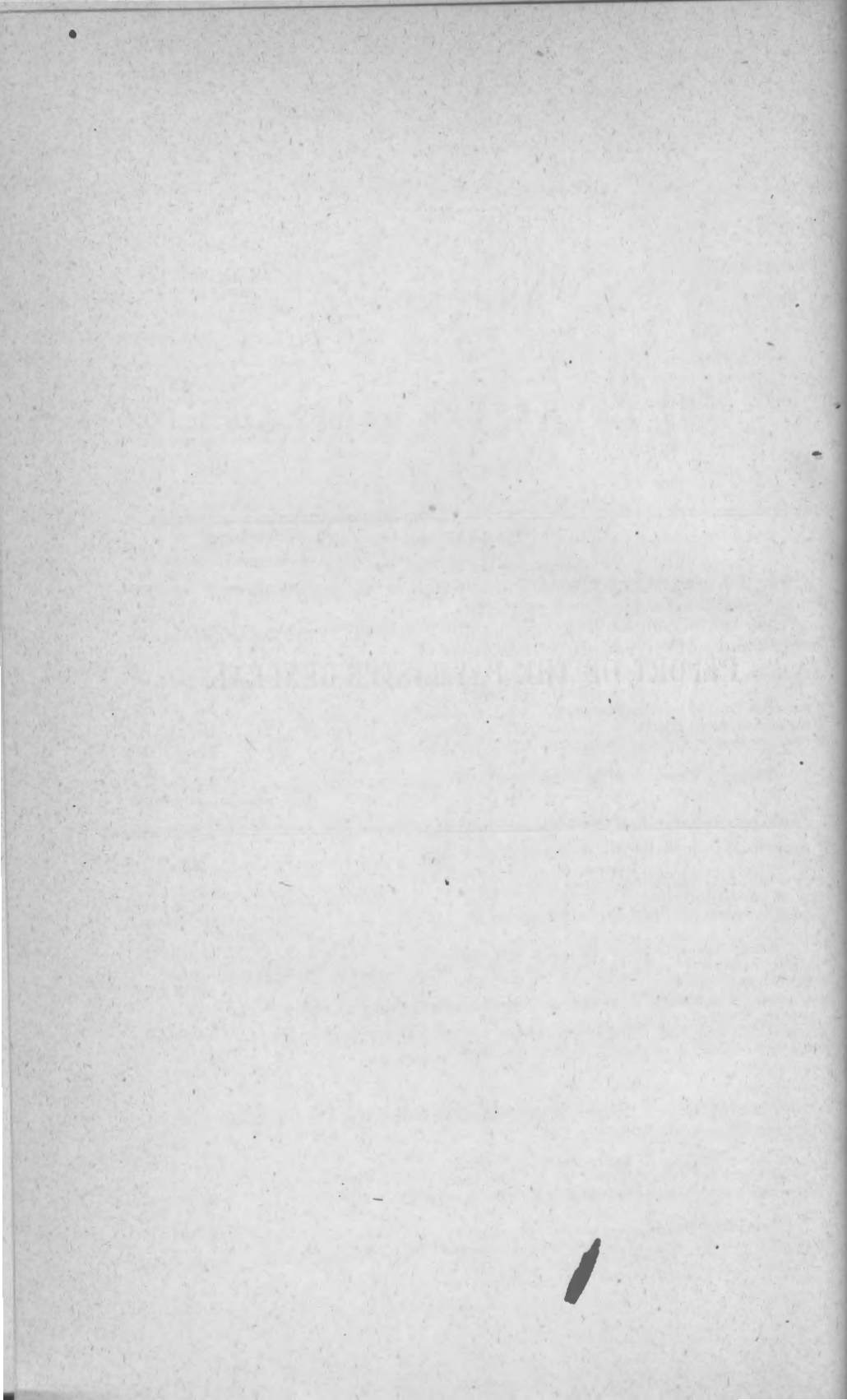
diseases to nativity and length of service—Continued.

Nativities.							Length of service, years.	
Scandinavian.	Scotch.	Swiss.	Austrian.	Danish.	French.	All other.	Under 1.	1 and over.
								26.03
24.28	12.88	30.93	30.70	18.35		7.69	16.99	26.40
24.18	12.55	30.61	30.57	18.35		7.59	16.85	25.45
								2.84
1.90	.27	2.85	4.00	.55		.20	.96	1.67
1.89	.26	2.82	3.98	.55		.19	.95	1.75
			8.13				.74	1.22
		500.00			333.33		31.25	84.94
81.68	42.92	67.01	83.33	105.50	42.55	60.23	62.13	87.32
81.32	41.84	71.43	82.97	105.50	51.55	68.36	61.87	87.15
		5.48			8.22		.94	5.39
5.79	.72	4.87	4.81	3.27	.96	1.76	2.92	4.18
5.77	.70	4.88	4.79	3.27	1.19	1.74	2.90	4.26
								.005
								.004
			8.13	4.24			1.48	2.39

TABLE XXII.—Showing the causes and ratios of rejections among 19,926 recruits examined during the year 1890 (white, 18,437; colored, 1489).

Causes of rejection.	White.				Colored.				White and colored.			
	Rejected on primary examination.	Rejected on secondary examination.	Total.	Ratios per 1,000.	Rejected on primary examination.	Rejected on secondary examination.	Total.	Ratios per 1,000.	Rejected on primary examination.	Rejected on secondary examination.	Total.	Ratios per 1,000.
Malarial diseases	7	3	10	0.5	1	1	2	0.7	7	4	11	0.6
Enthetic diseases	311	15	326	17.7	50	1	51	34.2	361	16	377	18.9
Dietic diseases	629	3	632	34.3	6	6	12	4.0	635	3	638	32.0
Constitutional diseases	24	3	27	1.5	2	1	3	2.0	26	4	30	1.5
Developmental diseases	894	9	903	49.0	107	107	214	71.9	1,001	9	1,010	50.7
Parasitic diseases	18	1	19	1.0	1	1	2	1.3	19	2	21	0.9
Nervous diseases	36	4	40	2.2	15	15	30	10.1	51	5	56	2.8
Diseases of the eye	1,636	6	1,642	89.1	82	82	164	55.1	1,718	6	1,724	86.5
Diseases of the ear	183	5	188	10.2	5	5	10	3.4	188	5	193	9.7
Diseases of the nose	6	6	12	0.7	1	1	2	0.7	6	6	12	0.6
Respiratory diseases	43	4	47	2.5	1	1	2	0.7	44	4	48	2.4
Diseases of the circulatory system	605	14	619	33.6	16	16	32	10.7	621	14	635	31.9
Diseases of the digestive system	927	17	944	51.2	67	67	134	45.0	994	17	1,011	50.7
Diseases of the lymphatic system	25	1	26	1.4	14	14	28	9.4	39	1	40	2.0
Diseases of the genito urinary system	690	21	711	38.6	31	31	62	20.8	721	21	742	37.2
Diseases of the locomotor system	626	5	631	34.2	36	36	72	24.2	662	5	667	33.5
Diseases of the integumentary system	160	6	166	9.0	8	8	16	5.4	168	6	174	8.7
Results of injuries	146	4	150	8.1	14	1	15	10.1	160	5	165	8.3
Over age	193	1	194	10.5	11	11	22	7.4	204	1	205	10.2
Under age	621	1	622	33.7	87	87	174	58.4	708	1	709	35.5
Over height	68	1	69	3.7	13	13	26	8.7	81	1	82	4.1
Under height	328	1	329	17.8	44	44	88	29.6	372	1	373	18.7
Over weight	87	1	88	4.7	10	10	20	6.7	97	1	98	4.9
Under weight	524	1	525	28.4	30	30	60	20.1	554	1	555	27.8
Under size	204	1	205	11.1	8	8	16	5.4	212	1	213	10.6
Obesity	4	1	5	0.2	1	1	2	0.7	4	1	5	0.2
Illiterate	5	1	6	0.3	1	1	2	0.7	6	1	7	0.3
Imperfect knowledge of English	335	1	336	18.2	2	2	4	1.3	337	1	338	16.9
Moral depravity	125	1	126	6.8	22	22	44	14.8	147	1	148	7.4
Character bad and doubtful	116	1	117	6.3	18	18	36	12.1	134	1	135	6.7
Deserters and ex-convicts	23	1	24	1.2	3	3	6	2.0	26	1	27	1.3
Discharged for disability and by order	8	9	17	0.9	1	1	2	0.7	8	10	18	0.9
Married, or having dependent relatives	237	1	238	12.9	47	47	94	31.6	284	1	285	14.3
Declined	165	1	166	8.9	13	13	26	8.7	178	1	179	8.9
General unfitness and unclassified	2,034	2	2,036	110.4	188	188	376	126.3	2,222	2	2,224	111.6
Aggregate	12,043	136	12,179	660.6	951	5	956	642.0	12,994	141	13,135	659.2

REPORT OF THE PAYMASTER-GENERAL.



REPORT

OF

THE PAYMASTER-GENERAL.

WAR DEPARTMENT,
PAYMASTER-GENERAL'S OFFICE,
Washington, D. C., October 10, 1891.

SIR: I have the honor to submit the following as the annual report from this office for the fiscal year 1891:

From the accompanying statements it will be seen that at the commencement of the year, July 1, 1890,

Paymasters were charged with balances aggregating	\$1, 164, 059.97
They received during the fiscal year 1891:	
From the United States Treasury	14, 773, 777.28
From soldiers' deposits	403, 766.89
From paymasters' collections	270, 150.28
They are charged with an aggregate of	16, 611, 754.42

This aggregate is accounted for as follows:

Amount expended during the fiscal year 1891:	
Pay of Army	\$13, 542, 826.27
Pay of Military Academy	201, 221.59
Pay of Signal Corps	4, 864.99
Pay of volunteers (Treasury certificates)	1, 357, 495.56
Total expenditures during the fiscal year 1891	15, 106, 408.41
Surplus funds deposited to the credit United States Treasurer during fiscal year 1891	66, 012.16
Paymaster' collections deposited to credit United States Treasurer during fiscal year 1891	270, 150.28
Amount allowed Maj. Wham, paymaster, by act of January 21, 1891	28, 345.10
Balance charged to paymasters June 30, 1891	1, 140, 838.47
	16, 611, 754.42

Comparing expenditures as above set forth with those of the preceding year it appear the—

Expenditures for pay of Army show a reduction of	\$5, 628.07
Expenditures for pay of Military Academy show a reduction of	5, 096.01
Expenditures for pay of Signal Corps show a reduction of	41, 679.47
Total reductions	52, 403.55
Expenditures for pay of volunteers (Treasury certificates) are increased by	733, 484.81

The decrease in expenditures to the Signal Corps is explained by the fact that, excepting for the month of July of the past fiscal year, the officers of that corps were not paid from Army appropriations.

The increase in expenditures to volunteers (Treasury certificates) is largely due to the fact that fully \$300,000 in claims of this character, which had been allowed late in the fiscal year 1890, remained on hand unpaid at the close of that year. These claims when adjusted consequently appear as disbursements of the fiscal year 1891. The adjustment during the past fiscal year of an unusually large number of claims for longevity pay helped to swell expenditures of this character. The disbursements occasioned by Treasury certificates are, however, not controlled by the War Department. They may result from new legislation, or they may be claims that have been permitted to slumber for many years. The only connection the Pay Department has with them is to make payment after the accounts have been stated and allowed in the auditing offices of the Treasury Department.

The fact that funds for the payment of these claims were available continuously throughout the entire year has proved very satisfactory. It permitted the payment of claims immediately after they had been allowed in the Treasury Department. Many of these claims are based upon service rendered many years ago; in such instances the claimants are necessarily aged and often needy. On June 30 last only those cases of this class of claims remained unpaid in which the post-office address of the claimants was not known.

The appropriations made for pay of the Army and for the Military Academy proved ample for the past year. The payments have been effected promptly and without loss of funds. The transportation and escorts which have been furnished to paymasters when on official tours have proved sufficient, and without exception the funds have safely reached the appropriate points at which they were to be used. No inconsiderable share of the risk felt by the paymaster is that placed upon him while the public funds with which he is charged are "in transit." For these funds he is held responsible from the moment they are drawn from the appropriate depository until they are placed in the hand of the soldier at the remotest post. To illustrate: Fort Apache, Ariz., is, by the route taken by the paymaster, 550 miles distant from the point from which the funds used at that post are drawn; 365 miles of this distance is by rail, the remaining 190 miles is overland travel with an escort. (It was on this route that Major Wham was robbed of the funds which have recently been credited to him as noted in this report.) The time and circumstances of the periodical journeys made by paymasters are well known, and it is to be regretted that the remote and isolated sections of the country are not the only ones in which their movements are regarded with interest. It most certainly becomes the paymaster when on his official trips to be cautious and equipped for emergencies. He is very properly relieved of the personal care of the public funds while traveling on routes upon which express facilities are available, but on overland journeys he must depend for protection upon his own watchful vigilance supported by that of a sufficient escort.

It is important that the escort should be ample and selected for the duty in hand, and these points seem to have received the attention they deserve.

Of the \$15,106,408.41 expended during the year by officers of the Pay Department, all has been properly applied with inconsiderable errors in calculations or in judgment. It is the duty of the Paymaster-General and the accounting officers of the Treasury Department to discover

these mistakes and secure their correction. The officers of the Pay Department have met their responsibilities manfully. And for this I commend them, as I do, generally, for the fidelity, promptness, and cheerfulness with which their service has been rendered.

There is a responsibility of another character placed upon the paymaster to which it may not be inappropriate to allude in this report.

I refer to disbursements based on accounts which have been especially submitted to the Secretary of War, whose approval such accounts receive, and their payment is secured only by his order. Yet expenditures, thus guarded and effected, are disallowed in the final settlements made in the Treasury Department, and are charged to the paymaster, whose only offense has been his loyal obedience to the officer to whom he is compelled to look for instruction and protection. The injustice of such a procedure is glaring and the possibility of its recurrence needs correction. The following is an illustration:

In the trial of Cadet Whittaker, in 1881, a stenographic reporter was employed and expert witnesses were called. There were at the same time at the command of the army paymasters funds for the payment of expenses resulting from trials by courts-martial. The accounts submitted for service in the trial of Cadet Whittaker were based on a contract which had been approved by the Secretary of War. When these accounts reached the paymaster, bearing the approval of the Secretary of War and his order directing their payment, they were paid without hesitation. These accounts thus supported stand to-day disallowed on the books of the Treasury Department, chiefly on the ground that the charges were excessive, and the officer who paid them is charged in consequence with wrongful expenditures amounting to nearly \$3,000. This, too, notwithstanding the fact that these identical accounts having been referred to the Court of Claims, under what is known as the Bowman act, the action of the Secretary of War in the premises was approved, and as a consequence the action of the paymaster who made the payment was sustained.

Another paymaster has a still larger sum disallowed in a settlement of his accounts on precisely the same grounds as those set forth above. In this case, also, a part of the sum disallowed grew out of the trial of Cadet Whittaker; the remainder was for service in the later court-martial. It is at least singular that while these disallowances of the later date are still adhered to in the Treasury Department in the accounts of one paymaster, final action in the same office of the Treasury Department is exactly the reverse in the case of accounts submitted by another paymaster. In these two cases the accounts were paid in the same month; the services were rendered by the same stenographer, at the same price, and in the same court-martial; the accounts could not be more nearly parallel; full credits are given in one case, not so in the other.

A bill looking to relief for these and other kindred matters was submitted to Congress during its recent session. This measure passed the Senate, but unfortunately failed in the House. May I not with confidence ask the Secretary of War to give his countenance and assistance in a new effort to obtain relief from the embarrassments which have sprung wholly from obeying orders issued in his office?

It is not difficult to see that the commission of a paymaster would be imperiled should he, when such accounts are presented, defy the Secretary of War by refusing to obey his orders. Were a parallel case to arise to-day my instructions would be to obey the orders of the Secretary of War, trusting to the courts or to Congress for ultimate protec-

tion. As long as disbursing officers are held to this condition of double responsibility there must necessarily be confusion and uncertainty. The authority, apparently paramount, created for the guidance and protection of the disbursing officer, authorizes and directs an expenditure; another authority lies in wait and finally revises and as far as possible vitiates and nullifies the antecedent action by charging the expenditure to the disbursing officer. Serious embarrassments must result as long as these conditions are continued.

It is due to the proper accounting officer of the Treasury Department (the Second Comptroller now in office) to state that he expresses himself as believing that credits should have been given for the vouchers above referred to, but unfortunately he says this step is now forbidden by a rule of his office precluding the opening of a closed account except upon the presentation of new evidence.

Another example of expenditures which have been approved in the War Department and rejected by the accounting officers of the Treasury Department is found in the matter of what is known as *limited* and *unlimited* railroad passenger fares. The language of the statute fixing allowances for mileage to army officers is: they shall recover "the cost of the transportation actually paid by the officer" over the prescribed route of travel. There is nothing in the law specifying the character of the transportation to be paid for, but the officials of the Treasury Department rigorously hold to the cost of "limited tickets." It follows in many cases that officers who actually paid the cost of unlimited tickets are *not* permitted to recover "the cost of the transportation actually paid," as specified in the statute. If it should happen, as it frequently has happened, that the officer has recovered the cost actually paid for an unlimited ticket, the difference between the limited and unlimited rate is charged to the paymaster, and he, in turn, seeks to collect the alleged overpayment from the officer. Here, again, the officer is aggrieved and feels that his legal rights have been denied, while the paymaster feels that he has been saddled with an overpayment for which he is not properly responsible.

This list of disputed mileage accounts will be far from complete without another illustration which has but recently shown itself.

Until the appropriation act for the fiscal year 1891 went into effect the payment in mileage accounts of charges for sleeping and parlor-car service had for several years been expressly forbidden, as follows: These earlier acts provided that the officer shall be paid "the cost of the transportation actually paid by the officer over said route or routes exclusive of sleeping or parlor car fare and transfers." In the appropriation act for 1891 the payment of *sleeping-car fare* is not forbidden. Based upon this change in the phraseology of the appropriation acts, a communication dated June 29, 1890, was addressed to the Secretary of War from this office, in which the belief was expressed that in mileage accounts during the then coming fiscal year 1891 officers should be permitted to recover amounts expended for sleeping-car service. This communication, having been referred to the Second Comptroller of the Treasury Department for an expression of his views upon the matter presented, was returned, admitting that sleeping-car service was transportation, and that charges for such service on long journeys would be permitted in mileage accounts. As a consequence sleeping-car charges were allowed by paymasters in mileage accounts. This practice continued, without suspicion that it was not precisely what the Comptroller contemplated until near the close of the fiscal year and until nearly all the mileage accounts for that fiscal year had been paid, when the Comptroller announced that he

had never contemplated the payment of charges for sleeping-car service except for *exclusively night service*. I respectfully submit that this distinction between day and night service is not found in the statute nor in the earlier expressions of the Comptroller. The Comptroller bases his rule upon the fact that charges for parlor-car service are excluded in the statute, and that during the day the sleeping car becomes in effect a parlor car. Had the later views of the Comptroller been understood at the beginning of the past fiscal year accounts would have been shaped accordingly.

Paymasters find greater difficulty in adjusting mileage accounts than in all others combined. A Comptroller's settlement of a paymaster's accounts recently passed through this office. Of the fifty-one accounts to which objections are made in this settlement forty-nine are in mileage accounts. It is next to impossible to adjust these accounts satisfactorily to the officer and yet meet the views of the auditing officers of the Treasury Department. I therefore urgently renew the recommendation made in the last annual report from this office, and urge that Congress be asked to base mileage accounts wholly upon the distance traveled, instead of the present arrangement of 4 cents per mile and actual cost of transportation. Whether the present allowance for travel is adequate or not depends upon the character of the journey. The expenses incident to a change of stations, direct and indirect, are nearly always largely in excess of the mileage allowance. Nearly 30 per cent of mileage expenditures arises from change of stations. In a recent communication the Inspector-General of the Army states that officers of his department and those of the line of the Army habitually "lose money" under their travel orders. In journeys of some length, involving short absences and no delays, the present allowance may be adequate. It is undoubtedly the intention to repay officers who travel on public duty the reasonable and necessary outlay occasioned by the journeys required of them.

It is perhaps impossible to fix a rate that would in every case be absolutely just and equitable. But I am satisfied a fixed rate per mile would be more satisfactory than the present system. As in last year's report, it is recommended that 10 cents per mile be made the rate. Under the existing arrangement governing mileage an officer may be innocently, but none the less surely, embarrassed financially by frequent orders requiring a change of station.

The following analysis of expenditures based on travel during the past two fiscal years shows the character of the duty upon which officers are employed while on journeys entitling them to mileage:

The aggregate expenditures for mileage chargeable to the 1891 appropriations will be about \$50,000 in excess of the corresponding expenditures for the preceding year.

The distance traveled under orders carrying mileage during the fiscal year 1891 is about 3,100,000 miles, exceeding the travel of the preceding year by about 540,000 miles.

The items showing the greatest increase are "for change of stations" and "boards of examination." It can be safely asserted that more than one-half this increase in mileage expenditures during the past year has been incurred in giving effect to the act of Congress approved October 1, 1890.

Under the provisions of this act the number of officers placed upon the retired list has been unusually large; promotions and transfers from one regiment to another for many years have not been as frequent. All these changes involve travel and consequently mileage expenditures.

This expenditure has also been swollen by allowing charges for sleeping-car service. The amount expended for sleeping-car service is estimated to be about \$15,000, or one-half a cent per mile for the entire distance traveled.

Statement of mileage disbursements for fiscal years 1890 and 1891.

For—	Appropriation 1890, including de- ficiency.	Appropriation 1891.
Change of stations	\$43,908.52	\$64,733.10
European travel	5,476.54	4,804.93
Recruiting duty	16,640.87	16,946.62
Engineer Corps: Inspection of works; Boards to examine engineer officers	1,530.34	.....
Boards of examination: Boards to examine officers .....	.....	17,037.40
Board of Ordnance and Fortifications	2,096.79	1,663.21
Ordnance Department: Gun construction; foundry, steel, powder, and proving ground inspection	3,056.15	8,001.52
Inspection: Disbursing officers' accounts; colleges; national cemeteries; battle fields; horses; public buildings	15,482.35	17,841.10
Medical boards and inspection by medical officers	3,173.99	2,710.57
Military Prison Commission and inspection of military prisons	862.44	757.26
Instruction and inspection of national guard	1,902.67	1,748.13
Retiring boards: Officers retired and ordered home	3,867.35	5,794.62
Payment of troops	19,564.90	19,977.68
Treasurer and professors Military Academy: Military Academy duty	239.91	193.59
Courts-martial (to and from)	16,020.78	17,369.01
Returning from conducting prisoners and insane men	199.53	76.28
Boards of survey	122.12	1,199.32
Commanding generals and aids	5,814.09	11,037.95
Rifle teams	14,556.63	14,113.07
Summer encampments	1,399.20	210.29
Instructions of Secretary of War duty not defined by orders	3,610.65	4,751.43
On public business—duty not defined by orders	10,234.33	7,389.59
World's Fair Commission .....	.....	1,003.00
Total	173,760.15	219,359.67

During the fiscal year 1891 there were 221 stoppages made against officers, as follows:

By request of the—		
Quartermaster-General		\$2,095.54
Commissary-General		245.08
Chief of Ordnance		153.18
Chief Signal Officer		689.65
Accounting officers of the Treasury (section 1766, Revised Statutes) ..		1,152.93
Ordered by the Secretary of War		636.19
Disallowances in the Paymaster-General's Office		3,993.74
Total		8,966.31
Of this amount there was—		
Collected	\$5,047.33	
Withdrawn	2,429.27	
		7,476.60
Balance to be collected or otherwise removed		1,489.71

During the past fiscal year there was received from 630 enlisted men who purchased their discharge \$25,357.85. By direction of the Secretary of War this sum has been placed to the credit of "Transportation of the Army, 1891."

Under the provisions of the orders of the War Department giving to courts-martial authority to direct that certain portions of the monthly pay of enlisted men should be withheld until their discharge, there was received during the past fiscal year the sum of \$11,023.68. Of this amount \$4,949.05 has been repaid to the men from whom it had been withheld.

On the 30th of June last there were 47 posts at which bimonthly payments were made; at all other points the troops were paid monthly.

Attention is invited to the following statement of work performed by the clerical force of the office during the year:

Paymasters' accounts recorded	424
Paymasters' accounts examined	385
Paymasters' accounts revised and sent to Auditor	584
Paymasters' accounts on hand June 30, 1891	129
Letters received and entered	5,778
Letters and indorsements written	11,412
Letters and indorsements recorded	1,499
Letters briefed and indexed	8,629
Inquiries answered	1,488
Papers examined and disposed of	304,611
Treasury certificates paid	11,995
Checks drawn	18,223
Treasury certificates on hand June 30, awaiting verification of claimants' address	*328

I beg to call attention to the necessity for an increase of the clerical force of the office. Two clerks, at \$1,000 each, are asked for. The services of these clerks are rendered urgently necessary by the great increase of work resulting from the orders of the War Department, and from legislation in reference to detained pay, retained pay, and the purchase of discharges by enlisted men.

The unusual number of paymasters' accounts reported on hand at the close of the year is accounted for by the greatly increased labor in their examination from the foregoing causes and insufficient clerical force, while much clerical work has been done out of office hours. I am confident that the best interests of the Government will be promoted by allowing the small increase asked for, and the business of the office will be more promptly performed. I am glad to be able to add, the office force is composed of competent, willing, and worthy men.

The statutory requirement that paymasters shall renew their official bonds every four years results sometimes in inconvenience and expense to the Government as well as to officers. Upon the expiration of four years from the date of the acceptance of his bond the paymaster is required to transfer all the public funds with which he may be charged, and he is not permitted to receive other funds until notified of the acceptance of a new bond. He is thus disabled for a period, at least, from doing the duties of a disbursing officer. This may happen inopportunately, as was recently the case. It became necessary to send a paymaster from his own station to that of another, because the latter was giving a new bond. Thus the Government was put to the expense of a mileage account, and the paymaster no doubt incurred an expense he would have avoided had he remained undisturbed at his proper station. Further, it is a delicate service to ask of a friend to become surety on an official bond, and as time elapses the number of those who cheerfully and graciously consent to do this service does not increase. In his effort to find sureties the paymaster feels that personal interviews will be more effective and satisfactory than correspondence, hence he is induced to take a leave of absence. He thus incurs an expense, and the period of his absence from his appropriate duty is increased.

I am convinced the security sought by the Government would not be materially impaired if bonds were required at less frequent intervals, such intervals as should be determined by the Secretary of War, as is now the rule in the Quartermaster's and Subsistence departments. As

* This number was reduced on September 1, 1891, to 66.

far as has been learned, no complaints have been made that the interests of the Government are not amply secured by the practice followed in these departments of the Army.

Paymasters ask to be placed in respect to official bonds on the same footing upon which other disbursing officers stand. To accomplish this I respectfully recommend that Congress be asked to repeal section 1192 of the Revised Statutes.

Since the date of the last annual report no change occurred in the list of officers of the Pay Department until July 2, 1891, when Majs. Hall and Thomas were retired. By the death of Maj. John P. Willard, on the 1st of September, the number of paymasters is so reduced that there is now but one major in excess of the organization prescribed by the act of Congress approved July 5, 1884.

Attention is invited to the exhibits which are appended, showing in detail the accounts with the several appropriations, the receipts and expenditures of the individual officers of the Pay Department, and the number of miles traveled to effect the payments, and the amount expended in field and office payments.

Very respectfully,

WM. SMITH,
Paymaster-General, U. S. A.

The SECRETARY OF WAR.

Statement of the account of the Pay Department, U. S. Army, with the appro

Appropriations.	In account with the Treasury.				
	Balance in the Treasury, July 1, 1890.	Amount of appropriations.	Unexpended balances deposited by paymasters.	Collections deposited by paymasters.	Repayment in settlement of accounts.
Pay, etc., of the Army, 1891.....		\$13,044,825.79	\$0.02	\$95,227.17	\$170.30
Pay of Military Academy, 1891.....		229,518.96		24.82	
Signal Service, pay, etc., 1891.....		*3,342.20	*233.65		
Pay, etc., of the Army, 1890.....	\$5,688.40	129,470.30		22,726.58	
Pay of Military Academy, 1890.....	11,909.35	423.62		16.50	
Signal Service, pay, etc., 1890.....	1,752.00		455.75		
Pay, etc., of the Army, 1889.....	374,275.60	15,000.00		169.04	
Pay of Military Academy, 1889.....	18,498.08		445.41		
Signal Service, pay, 1889.....	11,722.03		576.60		
Pay, etc., of the Army, 1888 and prior years.....			17,091.21	395.52	10.00
Pay of 2 and 3 years' volunteers, 1871 and prior years.....					1,178.98
Bounty to volunteers, their widows and legal heirs, 1871 and prior years.....					1,046.19
Bounty under act of July 28, 1866.....					370.00
Bounty to 15th and 16th Missouri Cavalry Volunteers.....					
Extra pay to officers and men who served in Mexican war.....		2,484.10			18.90
Three months' pay proper, act of July 3, 1884.....					
CERTIFIED CLAIMS.					
Pay, etc., of the Army.....	79.07	53,698.68			
Pay of Military Academy.....		3.39			
Signal Service, pay.....		301.09			
Support of four companies of volunteers mustered at Camp Scott, Utah, act of June 12, 1858.....		90.96			
Preventing and suppressing Indian hostilities.....		23.67			
Twenty per cent additional compensation.....		12.30			
Pay of companies of Texas Mounted Rangers.....		37.43			
Payment of mounted riflemen under Col. John C. Fremont in 1846.....		25.00			
Traveling expenses of 1st Michigan Cavalry.....		200.70			
Traveling expenses of California and Nevada volunteers.....		71.15			
Pay of volunteers, Mexican war.....		657.18			
Pay of 2 and 3 years' volunteers.....	115.04	1,904.68			289.83
Pay of 2 and 3 years' volunteers, 1890.....		120,684.96	29,315.04		
Pay of 2 and 3 years' volunteers, 1891.....		636,152.98			518.85
Bounty to volunteers, their widows and legal heirs.....	307.26				250.00
Bounty to volunteers, their widows and legal heirs, 1890.....		102,649.23	17,350.77		100.00
Bounty to volunteers, their widows and legal heirs, 1891.....		396,025.00			200.00
Bounty under act of July 28, 1866.....					50.00
Bounty under act of July 28, 1866, 1890.....		5,891.31			
Bounty under act of July 28, 1866, 1891.....		52,902.13			
TRANSFER ACCOUNTS.					
Pay, etc., of the Army, 1889.....		14.58			
Pay, etc., of the Army, 1888 and prior years.....		972.28			
Pay of 2 and 3 years' volunteers, 1871 and prior years.....		2,093.83			
Bounty to volunteers, their widows and legal heirs, 1871 and prior years.....		272.34			
Total.....	424,346.83	14,799,749.84	65,468.45	118,559.63	4,203.05

* The figures above given under head of "Amount of appropriations" represent the amount subject Signal Corps for the month of July, 1890, being $\frac{1}{100}$ of the total amount appropriated for said items by after the passage of said act, were transferred to the disbursing officer of the Signal Corps. Of this accounts presented in August, 1890, prior to passage of said act; the unexpended balance thereof (\$233.65) Pay Department with said appropriation closed.

† These figures represent amount in Treasury undrawn and redeposited (as above indicated) by the from "Balance in Treasury July 1, 1891," in the preparation of the annual statement for the fiscal year

prations subject to its control during the fiscal year ending June 30, 1891.

In account with the Treasury.						Balance in the hands of paymasters June 30, 1891.	Total balances June 30, 1891.
Total.	Amount drawn by requisition of Pay Department.	Amount drawn by requisition of War Department.	Amount covered into surplus fund, act of June 20, 1874.	Total.	Balance in the Treasury June 30, 1891.		
\$13, 140, 223. 28	\$13, 043, 500. 00	\$13, 457. 88		\$13, 056, 957. 88	\$83, 265. 40	\$914, 176. 22	\$997, 441. 62
229, 543. 78	207, 000. 00			207, 000. 00	22, 543. 78	31, 205. 20	53, 748. 98
*3, 575. 85	*3, 000. 00			*3, 000. 00	1575. 85		1575. 85
157, 885. 28	84, 000. 00	5, 333. 25		89, 333. 25	68, 552. 03	38, 200. 35	106, 752. 38
12, 349. 47					12, 349. 47	6, 720. 34	19, 069. 81
2, 207. 75	2, 207. 75			2, 207. 75		334. 89	334. 89
389, 444. 64	14, 500. 00	4, 437. 80	\$370, 506. 84	389, 444. 64		10, 219. 57	10, 219. 57
18, 943. 49			18, 943. 49	18, 943. 49			
12, 298. 63	4. 25		12, 294. 38	12, 298. 63			
17, 496. 73			17, 496. 73	17, 496. 73			
1, 178. 98			1, 178. 98	1, 178. 98			
1, 046. 19			1, 046. 19	1, 046. 19			
370. 00			370. 00	370. 00			
						399. 87	399. 87
2, 503. 00	2, 500. 00	3. 00		2, 503. 00		479. 69	479. 69
						997. 69	997. 69
53, 777. 75	53, 440. 29	230. 94		53, 671. 23	106. 52	576. 26	682. 78
3. 39	3. 39			3. 39			
301. 09	301. 09			301. 09			
90. 96	90. 96			90. 96			
23. 67	23. 67			23. 67			
12. 30	12. 30			12. 30			
37. 43	37. 43			37. 43			
25. 00	25. 00			25. 00			
200. 70	200. 70			200. 70			
17. 15	71. 15			71. 15			
657. 18	657. 18			657. 18			
2, 309. 55	289. 83	1, 924. 34		2, 214. 17	95. 38	6, 376. 87	6, 972. 05
150, 000. 00	150, 000. 00			150, 000. 00		736. 44	736. 44
636, 671. 83	636, 518. 85	152. 98		636, 671. 83		36, 802. 09	36, 802. 09
557. 26	250. 00			250. 00	307. 26	22, 036. 54	22, 343. 80
120, 100. 00	120, 100. 00			120, 100. 00		2, 751. 98	2, 751. 98
396, 225. 00	396, 200. 00	25. 00		396, 225. 00		54, 236. 08	54, 236. 08
50. 00	50. 00			50. 00		2, 897. 45	2, 897. 45
5, 891. 31	5, 891. 31			5, 891. 31		320. 04	320. 04
52, 902. 13	52, 902. 13			52, 902. 13		10, 871. 10	10, 871. 10
14. 58		14. 58		14. 58			
972. 28		972. 28		972. 28			
2, 093. 83		2, 093. 83		2, 093. 83			
272. 34		272. 34		272. 34			
15, 412, 327. 80	14, 773, 777. 28	28, 918. 22	421, 836. 61	15, 224, 532. 11	187, 795. 69	1, 140, 838. 47	1, 328, 634. 16

to requisition of the Pay Department for pay, commutation of quarters, and mileage to officers of the the act of August 30, 1890, by which all disbursements for said service for the fiscal year 1891, from and amount \$3,000 was drawn on requisition of Pay Department for payments for July, 1890, and mileage was deposited to the credit of the Treasurer of the United States August 29, 1890, and the account of the

Pay Department when its account with said appropriation was closed. This amount will be dropped ending June 30, 1892.

Statement by appropriations of approved and suspended disbursements in paymasters' accounts rendered during the fiscal year ending June 30, 1891, showing also the balance of suspensions remaining June 30, 1890, removed during the fiscal year, and the balance remaining June 30, 1891.

Titles of appropriations.	Disbursements.			Suspensions.			
	Total.	Approved.	Suspended.	Amount of suspensions remaining on books June 30, 1890.	Total suspensions.	Amount of suspensions removed during fiscal year ending June 30, 1891.	Amount of suspensions remaining on books June 30, 1891.
Pay, etc., of the Army, 1891	\$12,531,590.98	\$12,525,275.55	\$6,315.43		\$6,315.43	\$3,530.33	\$2,785.10
Pay of the Military Academy, 1891	176,689.82	176,596.12	93.70		93.70	5.83	87.87
Signal Service pay, 1891	2,766.35	2,766.35					
Pay, etc., of the Army, 1890	932,726.99	931,901.24	825.75	\$2,316.12	\$,141.87	\$,013.04	128.83
Pay of the Military Academy, 1890	25,852.02	25,852.02		245.01	245.01	245.01	
Signal Service pay, 1890	1,793.30	1,793.30					
Pay of the Army, 1889	23,768.75	23,768.75		496.90	496.90	179.80	\$17.10
Signal Service pay, 1889	4.25	4.25		48.52	48.52		48.52
Pay of the Army, 1888	296.95	296.95					
Pay of the Army, 1888 and prior years				6,278.01	6,278.01	114.06	6,163.95
Signal Service pay, 1888 and prior years				21.82	21.82		21.82
Pay, etc., of the Army, certified claims	53,118.96	53,118.96					
Pay of Military Academy, certified claims	3.39	3.39					
Pay of Signal Corps, certified claims	301.09	301.09					
Pay of 2 and 3 years volunteers, certified claims	7,442.14	7,394.88	47.26	115.61	162.87	162.87	
Bounty to volunteers' widows and legal heirs, certified claims	16,970.61	16,953.94	16.67	120.00	136.67	136.67	
Bounty act of July 28, 1866, certified claims	2,668.89	2,668.89					
Pay of 2 and 3 years volunteers, certified claims, 1890	172,195.09	172,195.09					
Bounty to volunteers' widows and legal heirs, certified claims, 1890	152,432.73	152,432.73					
Bounty act of July 28, 1866, certified claims, 1890	16,931.79	16,931.79					
Pay of 2 and 3 years volunteers, certified claims, 1891	599,689.01	599,689.01					
Bounty to volunteers' widows and legal heirs, certified claims, 1891	341,891.67	341,891.67					
Bounty act of July 28, 1866, certified claims, 1891	42,131.03	42,131.03					
Pay to volunteers, Mexican war, certified claims	657.18	657.18					
Travel expenses of California and Nevada volunteers, certified claims	71.15	71.15					
Travel expenses of 1st Michigan Cavalry, certified claims	200.70	200.70					
Payment of Mounted Riflemen under John C. Fremont (colonel) in 1846, certified claims	25.00	25.00					
Pay of companies of Texas Mounted Rangers, certified claims	37.43	37.43					
Twenty per cent additional compensation, certified claims	12.30	12.30					
Preventing and suppressing Indian hostilities, certified claims	23.67	23.67					
For four companies volunteers mustered at Camp Scott, Utah, act June, 12, 1853, certified claims	90.96	90.96					
Bounty to 15th and 16th Missouri Cavalry Volunteers	166.66	166.66					
Extra pay to officers and men who served in the Mexican war	2,181.10	2,181.10					
Three months' pay proper, act of July 3, 1884	1,676.45	1,676.45					
Total	15,106,408.41	15,099,109.60	7,298.81	9,641.99	16,940.80	7,387.61	9,553.19

Statement showing the balance in the hands of each disbursing officer of the Pay Department on the 1st of July, 1890; the amount remitted to each from the Treasury, or turned over by other agents during the fiscal year ending June 30, 1891; the amount accounted for by accounts and vouchers of expenditures, or by transfers or replacements in the Treasury, and the balance remaining in the hands of paymasters to be accounted for in the next fiscal year.

Rank and name.	Balance in hand of each paymaster on June 30, 1890.	Remitted from the Treasury in the year ending June 30, 1891.	Received from other paymasters.	Soldiers' deposits.	Army paymasters' collections.	Total received and to be accounted for.	Surplus funds replaced in Treasury.	Army paymasters' collections deposited.	Expenditures.	Transferred to other paymasters during fiscal year.	Balance in hand of each paymaster June 30, 1891.	Total accounted for.
<i>Colonel and Assistant Paymasters-General.</i>												
Smith, Rodney	\$70,877.33	\$2,697,000.00	\$233,353.24	\$5,049.75	\$6,338.73	\$3,012,419.05	\$445.41	\$6,338.73	\$1,078,441.54	\$1,891,029.85	\$36,163.52	\$3,012,419.05
Rucker, William A.	12,965.15	798,000.00	119,980.41	.....	250.31	931,195.87	.....	250.31	226,131.47	674,557.36	30,256.73	931,195.87
<i>Lieutenant-Colonel and Deputy Paymasters-General.</i>												
Gibson, William R.	12,628.96	430,908.68	484,708.65	4,605.57	630.61	933,482.47	.....	630.61	360,320.21	519,429.67	53,101.98	933,482.47
Terrell, C. M.	43,615.48	703,000.00	23,728.23	5,192.00	8,227.65	783,763.36	.....	8,227.65	465,281.89	264,330.44	45,923.38	783,763.36
Stanton, T. H.	59,355.86	1,193,500.00	43,906.74	26,724.07	13,575.00	1,337,061.67	.....	13,575.00	608,923.60	641,474.49	73,088.58	1,337,061.67
<i>Major and Paymasters.</i>												
Glenn, George E.	87,664.89	1,025,000.00	8,297.58	12,055.80	7,636.91	1,140,655.18	.....	7,636.91	658,856.47	385,613.65	88,548.15	1,140,655.18
Canby, J. P.	22,178.88	176,000.00	24,801.78	2,973.00	960.04	226,913.70	.....	960.04	170,321.51	44,208.90	11,423.25	226,913.70
Candee, George W.	27,590.51	521,000.00	128,239.71	13,909.37	7,343.18	698,082.77	.....	7,343.18	649,672.12	9,987.83	31,079.64	698,082.77
Carey, A. B.	15,985.83	273,000.00	156,500.00	10,026.00	5,570.94	461,082.77	.....	5,570.94	434,533.16	205.21	20,773.46	461,082.77
Willard, J. P.	86,584.29	586,000.00	29,206.97	3,875.00	3,749.43	709,415.69	.....	3,749.43	292,602.45	394,340.69	18,723.12	709,415.69
Coxe, F. M.	21,636.53	616,000.00	15,500.00	6,907.58	6,929.38	666,973.49	.....	6,929.38	433,628.56	200,674.27	25,741.28	666,973.49
Bates, A. E.	74,043.81	.....	680,527.20	9,027.50	6,615.01	770,213.52	.....	6,615.01	615,222.23	140,850.76	7,525.52	770,213.52
Wilson, C. I.	23,588.62	.....	287,971.66	8,286.00	8,476.95	328,323.23	.....	8,476.95	261,524.40	58,321.88	.....	328,323.23
Eckels, W. H.	14,553.01	193,000.00	207,279.83	13,215.12	6,873.83	434,921.79	.....	6,873.83	337,035.55	57,402.42	33,609.99	434,921.79
Roche, J. R.	13,745.17	133,000.00	96,136.48	12,822.50	8,002.89	263,707.04	.....	8,002.89	227,976.67	15,628.81	12,098.67	263,707.04
Towar, A. S.	7,000.00	86,000.00	203,463.35	17,952.94	8,099.36	322,515.65	.....	8,099.36	288,427.13	25,989.16	.....	322,515.65
Maynader, William M.	40,447.30	399,000.00	15,206.23	21,054.97	14,787.35	490,495.85	.....	14,787.35	393,393.91	1,500.00	80,814.50	490,495.85
Arthur, William ....	.....	195,000.00	195,000.00	13,295.48	5,780.54	214,076.02	.....	5,780.54	188,463.81	15,000.00	4,831.67	214,076.02
Keefer, J. B.	13,191.62	70,000.00	274,558.52	6,452.00	6,300.81	370,502.49	.....	6,300.81	312,654.27	36,677.56	14,870.35	370,502.49
Wham, J. W.	*23,345.10	96,000.00	199,784.74	19,163.65	7,450.64	350,744.13	.....	7,450.64	*289,848.89	18,193.90	35,250.70	350,744.13
Sniffen, C. C. ....	.....	.....	138,013.59	6,973.00	5,466.42	150,453.01	.02	5,466.42	137,117.97	6,611.82	7,006.78	150,453.01
Baird, G. W. ....	.....	260,000.00	44,390.13	10,821.50	8,826.97	324,038.60	.....	8,826.97	283,243.72	5,000.00	26,967.91	324,038.60
Larned, D. R.	203,533.87	1,334,368.60	402,956.67	.....	2,239.03	1,943,098.17	64,300.73	2,239.03	1,308,205.62	374,460.54	193,892.25	1,943,098.17
Robinson, G. F.	2,857.50	11,000.00	198,607.95	11,758.25	4,941.88	229,165.08	.....	4,941.88	217,834.82	2,000.00	4,388.88	229,165.08

* Of this amount \$23,345.10 was allowed by act of Congress approved January 21, 1891, for relief of Maj. Wham, being on account of robbery of public funds reported May 11, 1889.

Statement showing the balance in the hands of each disbursing officer of the Pay Department on the 1st of July, 1890, etc.—Continued.

Rank and name.	Balance in hand of each paymaster on June 30, 1890.	Remitted from the Treasury in the year ending June 30, 1891.	Received from other paymasters.	Soldiers' deposits.	Army paymasters' collections.	Total received and to be accounted for.	Surplus funds replaced in Treasury.	Army paymasters' collections deposited.	Expenditures.	Transferred to other paymasters during fiscal year.	Balance in hand of each paymaster June 30, 1891.	Total accounted for.
<i>Major and Paymasters—Cont'd.</i>												
Creary, William E.....	\$25,282.42	\$261,000.00	\$796.00	\$14,663.40	\$10,030.98	\$311,772.80		\$10,030.98	\$300,661.79	\$1,080.03		\$311,772.80
Dodge, F. S.....		200,000.00	24,704.43	3,536.00	7,125.19	235,365.62		7,125.19	194,579.06	1,049.31	\$32,612.06	235,365.62
McClure, Charles.....	40,464.75	95,000.00	164,611.58	18,515.51	9,095.42	327,687.26		9,095.42	264,460.99	39,579.76	14,551.09	327,687.26
Witcher, J. S.....	21,631.54	153,000.00	95,436.29	6,675.00	5,615.42	282,358.25		5,615.42	225,016.54	30,825.79	20,900.50	282,358.25
Whipple, C. H.....	23,190.39		497,000.00	13,742.06	6,115.20	540,047.65		6,115.20	491,833.35	16,012.37	26,086.73	540,047.65
Comegys, William H.....	28,782.76	56,000.00	223,012.37	20,225.61	11,663.14	339,683.88		11,663.14	273,526.43	29,566.98	24,927.33	339,683.88
Bash, D. N.....	34,008.32	232,000.00	91,535.97	15,246.32	11,433.92	384,224.53		11,433.92	303,301.86	46,527.14	22,961.61	384,224.53
Tucker, W. F.....	17,121.52	1,273,000.00	322,419.92	9,650.51	13,086.33	1,635,278.28	\$1,266.00	13,086.33	1,251,403.05	337,445.35	32,077.55	1,635,278.28
Muhlenberg, J. C.....	18,291.13	267,000.00	21,487.81	16,420.61	4,924.00	328,123.55		4,924.00	270,240.53	29,252.47	23,706.55	328,123.55
Poole, D. C.....	11,420.61	15,000.00	118,241.21	7,546.57	4,594.53	156,802.92		4,594.53	123,917.71	8,761.19	19,589.49	156,802.92
Smith, G. R.....	49,432.50	620,000.00	193,163.11	19,909.00	19,497.15	902,001.76		19,497.15	764,744.77	55,637.29	62,122.55	902,001.76
Baker, J. P.....	9,244.32		423,539.68	15,495.25	11,896.10	460,175.35		11,896.10	431,386.49	11,620.11	5,272.65	460,175.35
<i>Captain Ordnance Department.</i>												
Crozler, William.....	3,000.00					3,000.00			18.97	2,981.03		3,000.00
Total.....	1,164,059.97	14,773,777.28	6,388,068.03	403,766.89	270,150.28	22,999,822.45	66,012.16	270,150.28	15,134,753.51	6,388,068.03	1,140,838.47	22,999,822.45

Statement showing the number of pay trips made, number of days consumed in travel, posts paid, and amount of field and office disbursements made by each disbursing officer of the Pay Department, during the fiscal year ending June 30, 1891.

Paymasters.	No. of pay trips.	Days con- sumed.	No. of posts paid.	Miles traveled.						Payments.		
				Ambu- lance.	Stage.	Railroad.	Steamer.	Other convey- ance.	Total.	In field.	In office.	Total.
Assistant Paymasters-General.												
Smith, Rodney.....	12	74	50	86		7,887	46	12	8,031	\$170,530.50	\$907,911.04	\$1,078,441.54
Rucker, W. A.....											226,131.47	226,131.47
Deputy Paymasters-General.												
Gibson, William R.....											360,320.21	360,320.21
Terrell, C. M.....	26	29	32	160		616			776	112,759.05	352,522.84	465,281.89
Stanton, T. A.....	11	93	40	927	515	8,509			9,951	273,282.07	385,641.53	608,923.60
Paymasters.												
Glenn, George E.....	6	52	27	673		10,245	11		10,929	120,897.81	537,958.66	658,856.47
Canby, J. P.....	11	45	11	45		4,630	1,629		6,304	16,400.93	153,920.58	170,321.51
Candee, G. W.....	12	91	59	124		15,484	96		15,704	190,401.38	459,270.74	649,672.12
Carey, A. B.....	44	56	69	150		6,084	639		6,873	117,218.82	317,314.34	434,533.16
Willard, J. P.....	18	47	25			9,467			9,467	76,848.58	215,753.87	292,602.45
Coxe, F. M.....	23	43	37	105	300	1,938	582	80	3,005	94,805.19	338,823.37	433,628.56
Bates, A. E.....	12	118	75	62		7,068	338	24	7,492	282,591.41	332,630.82	615,222.23
Wilson, C. I.....				529		7,224			7,753	150,636.65	110,887.75	261,524.40
Eckels, W. H.....	17	74	44	162		10,488	80		10,720	131,866.11	205,169.44	337,035.55
Roche, James R.....	13	63	55	904		7,697			8,601	155,924.30	72,052.37	227,976.67
Towar, A. S.....	13	80	29	1,360		1,981		132	3,473	210,854.18	77,572.95	288,427.13
Maynadier, W. M.....	12	142	49	1,722	27	10,769			12,518	242,251.92	151,141.99	393,393.91
Arthur, William.....	13	80	37	1,233	4	8,966		28	10,241	141,643.98	46,819.83	188,463.81
Keefer, J. B.....	14	69	38	100		7,895	132		8,127	154,449.08	158,205.19	312,654.27
Wham, J. W.....	11	94	35	1,972		3,065			5,037	216,990.45	44,513.34	261,503.79
Sniffen, C. C.....	11	81	39	647	182	6,518	618		7,965	114,062.04	23,055.93	137,117.97
Baird, G. W.....	9	85	44	888		9,948			10,836	199,844.23	83,399.49	283,243.72
Larned, D. R.....											1,308,205.62	1,308,205.62
Robinson, George R.....	27	59	44	78	300	838	1,866	240	3,322	105,979.55	111,855.27	217,834.82
Creary, W. E.....	31	97	35	1,196	294	9,027			10,517	169,148.57	131,513.22	300,661.79
Dodge, F. S.....	22	77	26	212		9,384			9,596	127,011.09	67,567.97	194,579.06
McClure, Charles.....	14	97	46	1,175	164	12,635	208	12	14,194	203,615.55	60,845.44	264,460.99
Witcher, J. S.....	18	41	38	74		6,292		54	6,420	85,102.88	139,913.66	225,016.54
Whipple, C. H.....	16	71	57	193	147	6,573	226		7,139	206,798.46	285,034.89	491,833.35
Comegys, W. H.....	13	129	40	402	1,282	9,225	16	6	10,931	189,702.28	83,824.15	273,526.43
Bash, D. N.....	11	99	32	530	16	12,984		30	13,500	189,716.08	113,585.78	303,301.86

PAYMASTER-GENERAL.

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Statement showing the number of pay trips made, number of days consumed in travel, posts paid, etc.—Continued.

Paymaster.	No. of pay trips.	Days con- sumed.	No. of posts paid.	Miles traveled.						Payments.		
				Ambu- lance.	Stage.	Railroad.	Steamer.	Other convey- ance.	Total.	In field.	In office.	Total.
Paymasters—Continued.												
Tucker, W. F.....	12	60	49	216	.....	3,596	2,445	.....	6,257	\$180,214.79	\$1,071,188.26	\$1,251,403.05
Muhlenberg, J. C.....	24	27	23	.....	.....	2,696	3,342	.....	6,038	115,076.25	155,164.28	270,240.53
Poole, D. C.....	9	70	32	459	72	5,579	858	.....	6,968	103,024.23	20,893.48	123,917.71
Smith, George R.....	26	65	38	166	.....	6,404	.....	16	6,586	329,070.65	435,674.12	764,744.77
Baker, J. P.....	12	82	36	769	535	8,251	.....	.....	9,555	226,891.07	204,495.42	431,386.49
Captain of Ordnance.												
Crozier, William.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	18.97	18.97
Total	523	2,390	1,291	17,319	3,838	239,963	13,142	634	274,896	5,405,610.13	9,700,798.28	15,106,408.41

**REPORT OF THE WAR RECORDS' BOARD
OF PUBLICATION.**

REPORT OF THE NATIONAL BOARD
ON THE STATE OF THE NATION

REPORT OF PUBLICATION OF WAR RECORDS.

WAR DEPARTMENT, WAR RECORDS OFFICE.

Washington, July 31, 1891.

SIR: The Board to whom, under your direction, the work of continuing the publication of the Official Records of the Union and Confederate Armies has been intrusted, begs leave to submit the following report of its operations during the fiscal year ending June 30, 1891:

On July 1, 1890, twenty-seven volumes of the records had been printed and distributed. The appropriation for publication became a law on August 30, 1890, and became available on the 1st of September following. The increased force authorized by the act was at once employed and the work of publication was resumed, and has been continued without interruption during the year. As a result twenty-one books have been printed and distributed, and four more have been put in type, and are being indexed. These volumes contain the reports of the Mine Run campaign of the Army of the Potomac, the operations on the Atlantic seacoast in 1863, the Chickamauga campaign, the Chattanooga, Ross-ville, and Knoxville campaigns, including the battles of Missionary Ridge, Lookout Mountain, and the siege of Knoxville, together with the operations of all the armies down to and including the Wilderness campaign in Virginia, and the operations in the Shenandoah Valley, Maryland, and Pennsylvania, up to August 3, 1864. The volumes relating to the Transmississippi region have been completed to include June 30, 1864, and those relating to the Atlantic seacoast to November 30 of the same year.

The preparation of matter for publication has been carried on steadily during the year. The records and files of the War Department and the Confederate archives are being carefully and critically examined under the direction of Mr. Leslie J. Perry, and a large amount of interesting and valuable matter relating to the second series has been copied and prepared for compilation. In the preparation of this series (relating to prisoners of war), the Board has found it to be not only desirable but necessary, in justice to all concerned, to go over the whole ground with extreme care and accuracy before sending any volumes to press. The same sources have also been searched with a view to the completion of the volumes of the first series, and the present outlook is such as to warrant the Board in promising that the volumes covering the military operations of the year 1864 will be put in type during the year ending June 30, 1892.

The work on the atlas of maps and plans, which is to accompany the volumes, has been begun, and a contract for the execution of the first five plates, in colors, by the most improved lithographic processes, has been made and nearly completed. It is hoped that this work will be well advanced during the current fiscal year.

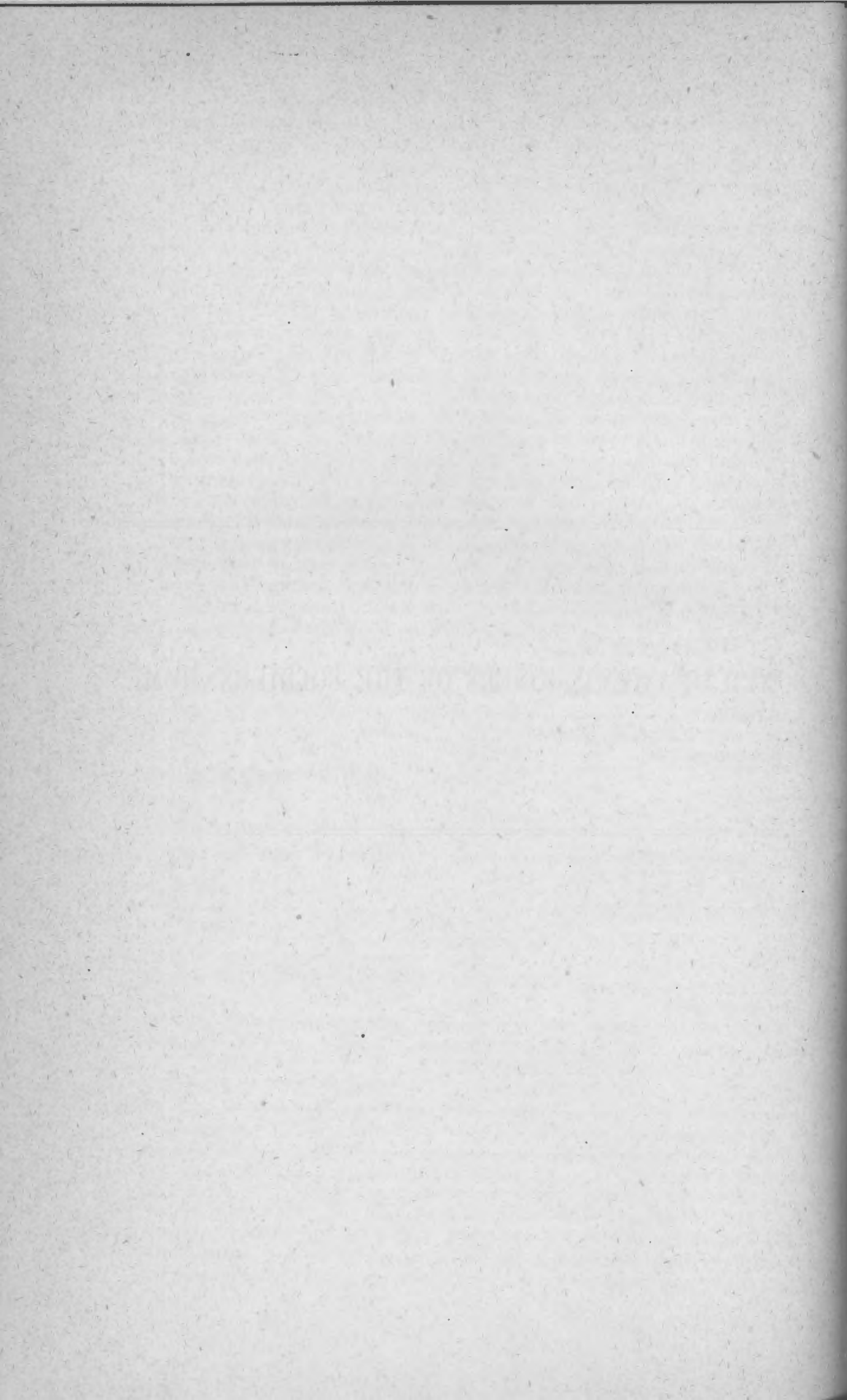
The following notes of work accomplished, in the several departments of publication, will convey an idea of the variety and amount of labor required in connection with the preparation and publication of the several volumes. Two hundred and thirty-one thousand books have been received, and 170,212 have been addressed and distributed; 1,100,000 address labels have been printed; 5,984 books have been sold, and the amount received therefor (\$4,199.25) has been deposited in the Treasury. Fourteen thousand eight hundred and thirteen letters, receipts, and cards have been received, and 7,396 have been written and sent. Sixteen books have been indexed; 240,000 cards have been used in the preparation of the indexes, and 105,200 folios of reports and correspondence have been copied, compared with the originals, and converted into printers' copy. Five thousand six hundred and fifty galleys and 14,119 pages of proofs have been received and revised in connection with the books printed since September 1, 1890.

In closing it gives the Board great pleasure to recognize the efficient assistance they have received from the officers engaged on the work, and from the employés connected with the different departments of the office. Their labors have been zealous and untiring, and the services rendered by them have been entirely satisfactory.

GEO. B. DAVIS,
Major and Judge Advocate, U. S. Army.
LESLIE J. PERRY,
Civilian expert.
J. W. KIRKLEY,
Civilian expert.

The SECRETARY OF WAR.

BOARD OF COMMISSIONERS OF THE SOLDIERS' HOME.



REPORT

OF

BOARD OF COMMISSIONERS OF THE SOLDIERS' HOME.

OFFICE OF THE BOARD OF COMMISSIONERS,
Washington, D. C., October 26, 1891.

SIR: In obedience to the requirements of section 1 of the act of Congress approved March 3, 1883, making regulations for the Soldiers' Home in the District of Columbia, I have the honor to submit the following statement and accompanying papers as the report of the Board of Commissioners of the Home for the year ending September 30, 1891:

The gain and loss in the number of inmates have been as follows:

	Regular.	Temporary.	Total.
Number on the rolls September 30, 1890.....	1,183	60	1,243
Number admitted.....	273	299	572
Number readmitted.....	144		144
	1,600	359	1,959
Discharged, dropped, etc.....	385	138	523
Dismissed for cause.....	7	2	9
Died.....	72	5	77
Transferred to the regular rolls.....		112	112
	464	257	721
Number on the rolls September 30, 1891.....	1,136	102	1,238

The first admission in every case is temporary, and if after examination of the record the applicant is found entitled thereto regular admission is granted.

Of the number of men reported on the rolls September 30, 1891, there were present 635; on outdoor relief, 413; on furlough, 61; under suspension, 13; in the Government Hospital for the Insane, 14. The aggregate is 47 less than was shown in the last report. A considerable reduction in numbers was made by withdrawing the outdoor relief from a number who are receiving pensions. There were 178 dropped from this roll during the year. The withdrawal of this benefit was found necessary because the current revenue is not sufficient to supply it to all who are entitled to admission to the Home but who do not wish or do not need to become resident inmates, and except for veterans of the war with Mexico and men who have served twenty-five years (not including retired soldiers), it was discontinued in the cases of all who

receive pensions at the rate of \$8 or more per month. The allowance to pensioners who are not in the excepted classes above mentioned is not more than enough with their pensions to make \$8 per month, which is the maximum rate of outdoor relief to nonpensioners.

Of the 77 deaths reported 32 were of members absent on outdoor relief, 4 in the hospital for the insane, and 3 absent on furlough.

Temporary relief to destitute discharged soldiers who were not entitled to regular admission was provided during the year to the extent of 1,991 rations and lodgings for a brief period in 162 cases.

The treasurer's statement of funds in his care derived from the pensions of inmates shows on hand at last report \$43,671.54; received during the year \$85,902.70; paid over to pensioners and legal heirs, \$80,774.91, leaving in hand September 30, 1891, a balance of \$48,799.33.

No new building operations have been commenced since the last report. One small brick building for use as hospital steward's quarters was completed in November, 1890, and the improvement of Scott building, under contract made in February, 1890, was completed in February, 1891.

The condition of the funds of the Home and the receipts and expenditures during the year are as follows:

THE PERMANENT FUND.

Balance in United States Treasury October 1, 1890	\$2,348,529.43
Settlements made and passed to the credit of the fund during the year	\$289,186.91
Withdrawn on requisitions for current expenses	209,730.00
	<u>79,456.91</u>
Balance in United States Treasury September 30, 1891	<u>2,427,986.34</u>

ACCOUNT OF THE TREASURER OF THE HOME.

Remaining on hand September 30, 1890	\$987.28	
Received during the year:		
From the permanent fund	209,730.00	
Interest on the permanent fund	70,479.13	
Effects of deceased inmates	825.37	
Miscellaneous receipts	<u>1,698.72</u>	\$283,720.50
Disbursements on account of:		
Current expenses	199,773.11	
New buildings	68,999.81	
Other permanent improvements	<u>5,412.26</u>	274,185.18
Balance remaining September 30, 1891		<u>9,535.32</u>

The following is a comparative statement for the years 1890 and 1891 of items of current expense, with an aggregate each in excess of \$5,000:

	1890.	1891.
Subsistence	\$44,735.60	\$47,211.26
Outdoor relief	34,310.81	42,092.43
Expenses of dairy, farm, garden, and grounds	26,622.40	23,545.51
Extra-duty pay and monthly allowance to inmates	23,970.63	25,956.20
Clothing	16,344.20	13,600.49
Fuel	8,032.76	8,719.15
Laundry work	<u>(4,720.71)</u>	<u>6,422.60</u>

The current expenses, in which is included all expenses except new buildings and other permanent improvements, were \$199,773.11, while the current income, which includes amounts credited to the permanent fund from monthly settlements of Army paymasters' current accounts, interest on the permanent fund, receipts from miscellaneous sources, and effects of deceased inmates (subject to demand of legal heirs), was \$183,211.08. The deficit of \$16,562.03 represents that amount of money taken from the reserve fund which has practically reached its maximum figure because under existing law all settlements of accounts for time prior to March 3, 1881, have been stopped and all settlements for the period since that date up to December 31, 1888, have been about completed. There are but two sources of current income upon which dependence can be placed for a definite amount. The interest on the permanent fund (about \$72,000) and the contributions from the pay of soldiers (about \$36,000) give a fixed revenue of about \$108,000 per annum. The remaining current revenue comes from fines and forfeitures from the pay of the enlisted men—an uncertain quantity which is destined to become materially reduced with every step of the rapid progress now being made by the military authorities in removing the causes of delinquency in the Army.

The first step in the interest of greater economy was made in the withdrawal of outdoor relief from members who receive pensions and are in sufficiently comfortable circumstances to remain out of the Home. By this step a reduction of \$2,500 was made in the expenditures for the last quarter of the year. A revision of the list of employes and extra-duty payments is now in progress, and other measures will be promptly taken to keep the current expenses within the current income. One of the expenses which demands consideration in this connection is the support of men for whom permanent and certain provision is made independent of the Home. There are 449 men receiving the benefits of the Home who also receive pensions of higher rate than \$8 per month, and there are 40 retired soldiers also in the Home whose pay and allowances average more than \$20 per month each. Recommendation was made in March last for legislation to relieve the Home in part from this expense. It will be repeated immediately after the assembling of the next Congress.

The treasurer's statements of accounts with the farm, the dairy, and the garden show that the value of the products of the farm exceeded the expenses by \$2,570.59, with estimated products not yet gathered valued at more than \$3,000. The yield of the dairy was \$2,688.26 more than the expense of maintaining it, while the garden, with which is included the expense of the ornamentation of the grounds, cost \$73.82 more than the value of the products credited thereto.

The act of Congress approved January 16, 1891, requiring the treasurer of the Home to keep current funds on deposit in the United States Treasury has been strictly complied with.

All supplies for the Home that could be purchased under contract obtained in accordance with law have been so purchased. In March last the meat contractor abandoned his contract and a new agreement was made for the remainder of the fiscal year with another dealer, at an increase in cost of \$2,505.62, for the recovery of which steps have been taken to institute legal proceedings against the sureties of the failing contractor.

The need of an increased water supply at the Home is urgent, and in March last authority was given to attempt to obtain it by boring. Definite limits were fixed in the agreement with the contractor with refer-

ence to the cost of the work, and he has made four attempts, without success, owing mainly to accidents, which prevented further progress in one spot and required a new beginning at another.

Good discipline has been maintained, as a rule, without undue restrictions. A library of more than 5,000 volumes, 42 current weekly and 3 daily newspapers, and 16 magazines are provided for those who incline to use them; billiard tables and games of various kinds afford pastime, and light employment with compensation to such extent as the interests of the Home will justify, are the aids which a kind administration, under wholesome regulations, find best adapted to counteract the bad influences of an otherwise idle life.

The act of Congress approved February 28, 1891, which prohibits "the granting of liquor licenses within 1 mile of the Soldiers' Home" has not been in force yet a sufficient length of time to test its influence upon the inmates of the Home. The delinquencies chargeable to the use of intoxicating liquor have so far not been affected.

Brig. Gen. Jedediah H. Baxter, Surgeon-General of the Army, one of the Commissioners of the Home, died in this city December 4, 1890, and was succeeded by Brig. Gen. Charles Sunderland, who was appointed December 23, 1890.

Capt. Robert Catlin, U. S. Army (retired), was relieved at his own request as deputy governor of the Home, after a period of six years service to the entire satisfaction of the Commissioners, and was succeeded by Capt. David A. Irwin, U. S. Army (retired), July 31, 1891. No other changes have occurred during the year upon the Board of Commissioners or among the officers of the Home.

The accompanying papers are reports by the governor, the attending surgeon, and the treasurer of the Home; a statement of receipts and expenditures; statements of the permanent fund and the interest thereon; statements of account with the pension money of inmate pensioners, and their rates of pension; the debit and credit accounts with the farm, the garden, and the dairy, and a list of names, etc., of men who have been admitted to the Home since the last report, all of which require to be published for distribution to the Army, as directed by the section and act mentioned in the first paragraph of this report.

Very respectfully,

J. M. SCHOFIELD,
*Major-General Commanding the Army,
President Board of Commissioners.*

The SECRETARY OF WAR.

GOVERNOR'S OFFICE, U. S. SOLDIERS' HOME,
Washington, D. C., October 13, 1891.

GENERAL: I have the honor to present herewith the annual reports from the Home and to invite attention to their contents.

Several improvements have been made during the year, the Scott building completed, the main sewer enlarged, which has done away with the cesspool near the hospital, and some small water closets and urinals have been opened in the buildings for use in bad weather. The grounds have been considerably improved (see extract from report of the gardener), and much needed painting done.

The great need of more water still presses.

The experiment of boring for water has not yet proved successful, and I fear that we shall have to resort to digging another well.

The farm, gardens, and orchards have proved unusually productive as a whole (see treasurer's report of expenditures and receipts of all kinds).

The dairy supply has been sufficient for cooking purposes and table use notwithstanding the loss of five cows by pleuro-pneumonia during the gripe season last spring.

Considering the prevalency of the gripe this year the general health has been good (most of the hospital deaths being from old age), until the last few months, when the average number of cases has considerably increased, though with slight increase of death rates. (See report of Attending Surgeon Forwood.)

The usual interest has been shown by the inmates in the library. (See librarian's report.)

The trials by the deputy governor for delinquencies and the number of suspensions and discharges for cause have been up to the average. The number of intoxications is exactly the same as last year, and I can not too strongly urge the necessity that exists for an accessible inebriate asylum. Though under the pressure of circumstances, and under the benign influence of the Woman's Temperance Union, which gives weekly entertainments, many pledges have been given, reforms have been but partial. In this connection permit me to mention the injurious effect of readmitting inmates once discharged for drunkenness. Such hopeless cases at once disgrace the Home and interfere materially with the comfort and good name of the inmates generally.

For the interest and entertainment of the inmates I have started a little museum, consisting of old-fashioned arms, military relics, and some Indian curiosities. Should the post commanders on the frontier or soldiers in service looking towards this Home after discharge desire to add to the collection, the inmates would feel grateful to have such things forwarded.

The quarters, food, clothing, and discipline continue to be good. No serious complaints have reached me except of the washing. There is a certain amount of discontent among the low-pensioned inmates, but this is not general. The main trouble lies in the unequal allotments of pocket money, high pensioners, who it is felt have been otherwise amply provided for, besides their support at the Home, receiving more than the low or nonpensioners receive for the purchase of small articles. This matter can only be corrected by a change in the law to the exclusion of high pensioners, or their admissions under conditions.

Another alteration in the law will be required soon, viz; the removal of the limitation on the settlement of soldiers' accounts in the United States Treasury, now restricted so as to go no further back than 1881, leaving a large unsettled amount due the old soldiers and their Home.

The cost of labor, of living, and of many materials seems to be constantly rising in Washington. The Home has so far suffered that several of our contracts are higher, and it has proved hard to get job work done promptly, particularly at certain seasons, without excessive prices and delays. But on the whole our expenses have not increased as much as might be expected, if at all, considering the large number of commuturs.

Very respectfully, your obedient servant,

O. B. WILLCOX,
Brigadier-General, Governor.

THE PRESIDENT OF THE BOARD OF COMMISSIONERS,
Soldiers' Home, D. C.

[Extract from annual report of the gardener.]

SOLDIERS' HOME,
Washington, D. C., September 30, 1891.

GOVERNOR: I have the honor herewith to submit to you my fourth annual report as superintendent of garden and grounds.

Respectfully yours,

JOHN M. MAYNE,
Gardener, Soldiers' Home.

Productions for park and grounds: 19,119 plants, trees, and shrubs.

* * * * *

MISCELLANEOUS.

One hundred and seventy-five square yards stone guttering laid on various parts of the grounds.

Three hundred and forty-five square yards brick pavement laid around Scott, Anderson, and King buildings.

The road on east of annex and ground about the Scott building were graded this spring and summer. The park and terrace south of chapel has been cleared of all scrub trees, and underbrush has been partly grubbed out on slope. This will be completed the coming year.

The upper lake has been dredged and 390 feet stone wall for the same laid, together with dam beneath the bridge, which, it is believed, will protect the banks and prevent the lake from deposits of sand.

Footpath from Whitney avenue to foot of Scott's Hill has been completed, and owing to the low condition of the land has been tunneled and guttered; another path from North Capitol gate to the Home with bridge has been partly laid out, the work being completed by Road Sergeant Gaffney and party.

There was 3,000 square feet sod cut and laid on various parts of the lawns.

There is 75 acres of ground to be mowed and kept up as lawns for 6 months during the year; the grass of those lawns is sent to the dairy for stock feed.

[Report of librarian.]

Annual report of the librarian of Soldiers' Home, Washington, D. C., for the year ending September 30, 1891.

	Fiction.	Miscellaneous.	Magazines.	Travels.	Biography.	Poetry.	History.	Agriculture.	Religious.	Military.	Total.
Books on hand at last report, September 30, 1890.....	1,891	1,467	774	136	157	211	269	36	58	280	5,279
Books received since from various sources.....	121	26	73	17	12	6	11	.....	1	12	279
Total.....	2,012	1,493	847	153	169	217	280	36	59	292	5,558
Condemned, lost, etc.....	13						5				18
Number of books on hand at date (catalogued).....	1,999	1,493	847	153	169	217	275	36	59	292	5,540
Periodicals for use in reading room:											
Daily papers.....											3
Weeklies (2 German, 1 French).....											33
Pictorials, weekly (2 German).....											9
Magazines, monthly.....											16
Number of books issued during the year (13,060 report of 1890).....											16,565
Average daily issue of books (42 report of 1890).....											55
Daily average of inmates visiting reading room (estimated).....											150
Work done by bookbinder during past year:											
Newly bound.....											215
Rebound.....											274
Repaired.....											14

ERNEST POLK,
Librarian.

WASHINGTON, D. C., September 30, 1891.

REPORT OF THE ATTENDING SURGEON.

BARNES HOSPITAL, U. S. SOLDIERS' HOME,
Washington, D. C., September 30, 1891.

SIR: I have the honor to submit the following report of the medical department of the Home for the past year, ending September 30, 1891:

	1891.	1890.	1889.	1888.
Patients remaining in hospital from last report.....	75	65	57	80
Patients admitted to hospital during the year.....	379	352	275	281
Total treated in the hospital.....	454	417	332	361
Returned to the Home, recovered, mostly acute cases.....	194	159	89	116
Returned to the Home, improved, mostly chronic cases.....	120	124	112	119
Returned to the Home, unimproved, incurable.....	6	10	22	19
Sent to the United States Hospital for the Insane.....	5	6	5	11
Deserted from hospital.....	3	4		
Died in hospital.....	37	37	37	37
Dead when brought to hospital.....	1	2	2	2
Remaining in hospital at present date.....	88	75	65	57
Total.....	454	417	332	361

Ages of patients admitted.

	1891.	1890.	1889.	1888.
Between 20 and 30 years.....	37	38	33	26
Between 30 and 40 years.....	53	55	42	38
Between 40 and 50 years.....	84	72	63	72
Between 50 and 60 years.....	110	78	70	62
Between 60 and 70 years.....	69	76	51	58
Between 70 and 80 years.....	21	26	15	20
Between 80 and 90 years.....	4	6	1	4
Between 90 and 100 years.....	1	1	0	1
Of these patients the age of the youngest was.....	19	21	21	23
The age of the oldest was.....	93	93	81	93
Average age of patients admitted.....	50.40	50.65	48.92	49.56
Greatest number of patients at one time.....	90	80	76	80
Least number of patients at one time.....	56	61	57	55
Daily average of patients in hospital.....	73.04	72.30	65.24	69

Diseases for which patients were admitted to hospital.

Disease.	No.	Disease.	No.
Abcess:		Catarrh:	
Brain.....	1	Bronchial, acute.....	2
Breast.....	1	Bronchial, chronic.....	1
Abcess of stump.....	2	Gastric, chronic.....	4
Alcoholism:		Vesicle.....	2
Acute.....	19	Chancre.....	2
Chronic.....	11	Chancre and phimoses.....	1
Aneurism of aorta.....	3	Cholera morbus.....	7
Asthma, chronic.....	2	Cirrhosis of liver.....	2
Atrophy, progressive muscular.....	1	Colic, intestinal.....	2
Blindness.....	1	Conjunctivitis.....	1
Bright's disease, chronic.....	2	Conjunctivitis.....	1
Bronchitis:		Contusion:	
Acute.....	3	Ankle.....	2
Chronic.....	2	Knee.....	1
Brain, concussion of.....	1	Constipation, chronic.....	2
Bubo.....	2	Cystitis, chronic.....	2
Burns.....	1	Contraction of muscles.....	1
Cancer of bowels.....	1	Debility, senile.....	19
Cataract.....	4	Degeneration of spinal chord.....	1

Diseases for which patients were admitted to hospital—Continued.

Disease.	No.	Disease.	No.
Diabetes insipidus.....	4	Necrosis of tibia.....	1
Diarrhea:		Obstruction of bowels.....	1
Acute.....	3	Edema of leg.....	2
Subacute.....	1	Orchitis.....	2
Chronic.....	1	Osteitis, chronic.....	1
Empyema.....	1	Paraplegia.....	1
Enteritis:		Peritonitis, acute.....	1
Acute.....	1	Perityphilitis, acute.....	1
Chronic.....	1	Phthisis pulmonalis.....	34
Follicular.....	1	Pharyngo-laryngitis, acute.....	1
Erysipelas:		Pharyngitis, acute.....	1
Leg.....	1	Pleurisy:	
Face.....	2	Acute.....	3
Eczema.....	1	Subacute.....	1
Epilepsy.....	12	Pneumonia:	
Fever, intermittent.....	7	Acute.....	2
Fracture of rib.....	1	Chronic, interstitial.....	2
Gangrene of lung.....	1	Poisoning by rhus toxicodendron.....	2
Gonorrhœa:		Proctitis, chronic.....	2
Acute.....	5	Rheumatism:	
Chronic.....	2	Subacute.....	6
Goitre.....	1	Chronic.....	15
Hæmatoma of thigh.....	2	Of heart.....	1
Hemorrhoids.....	4	Acute, muscular.....	1
Hæmoptysis.....	1	Sarcoma of leg.....	1
Hemiplegia.....	4	Sciatica, chronic.....	1
Hemicrania.....	2	Sinus of stump.....	1
Hernia, inguinal.....	2	Sprain of:	
Herpes zoster.....	1	Ankle.....	2
Hydrocele.....	1	Back.....	2
Hyperiodrosis.....	1	Foot.....	1
Heart disease.....	12	Hip.....	2
Indigestion:		Stricture:	
Acute.....	4	Esophagus.....	1
Chronic.....	3	Urethra.....	4
Insomnia.....	1	Syphilis:	
Influenza.....	11	Primary.....	2
Influenza complicated by pneumonia.....	15	Secondary.....	5
Insanity.....	11	Synovitis, chronic.....	1
Iritis, acute.....	1	Tonsillitis, acute.....	2
Keratitis, acute.....	1	Tuberculosis, glandular.....	1
Laryngitis, acute.....	1	Tubercular laryngitis.....	2
Lipoma of thigh.....	1	Tumor of neck.....	1
Locomotor ataxy.....	3	Ulcer:	
Lumbago.....	1	Leg.....	7
Malingering.....	3	Lip.....	2
Marasmus.....	2	Stump.....	2
Measles.....	1	Varicose.....	1
Ménière's disease.....	1	Urine, retention of.....	1
Neuralgia:		Wound:	
Face.....	1	Lacerated.....	2
Stump.....	1	Lacerated and contused.....	1
Intercostal.....	1	Gunshot.....	4

This list exhibits only the diseases complained of by the patients at the time of admission to the hospital, and does not include the numerous complications nor secondary affections arising during the course of treatment. The principal troubles are chronic rheumatism, heart disease, consumption, hernia, catarrh, epilepsy, dyspepsia, and constipation. Many of the men are affected with two or more of these diseases at the same time, and yet may be admitted to hospital for some minor complaint not connected with either.

The 3,122 cases treated at sick call are not included in the above list of diseases.

Necrology.

Name.	Age.	Nativity.	Last served in—		Died.	Cause of death.
			Co.	Regiment.		
Fallen, Peter.	67	Ireland	D	1st Art	1890. Oct. 6	Aneurism of aorta.
Kenzie, W. J.	24	United States	B	4th Cav.	Oct. 8	Tuberculosis.
Markell, Isaac	63	do	H	7th Cav.	Oct. 10	Suicide.
Hunt, Oliver P.	71	do	I	13th Inf.	Nov. 9	Heart disease.
Oldfield, Richard	89	England		Ordnance	Nov. 10	Old age.
Sullivan, Timothy	52	Ireland	A	12th Inf.	Nov. 11	Consumption.
Cannon, John	66	do	E	7th Inf.	Nov. 18	Paralysis.
Cross, John	30	United States	E	9th Inf.	Nov. 27	Consumption.
Schroder, Frederick	68	Germany	F	5th Inf.	Nov. 28	Pneumonia.
Cassidy, Philip	52	Ireland	I	2d Art	Dec. 4	Cancer of the face.
Kelly, John	50	United States	B	5th Cav.	Dec. 15	Consumption.
Carpenter, Patrick	83	Ireland		Ordnance	Dec. 17	Pneumonia.
Henry, Horace T.	73	United States		5th La. Inf.	Dec. 28	Cancer of the stomach.
Chaperoux, Charles	83	Germany	D	2nd Art.	1891. Feb. 4	Old age.
Whalen, James	78	Ireland	I	4th Art.	Feb. 4	Heart disease.
Stewart, William	54	do	B	1st Art.	Feb. 5	Consumption.
Webster, Daniel	55	United States	D	11th Inf.	Feb. 5	Do.
Mondezenski, Felix	83	Poland	D	2nd Cav.	Mar. 3	Old age.
Kestler, John	60	Switzerland	B	2nd Art.	Mar. 3	Consumption.
Keegan, Peter	51	Ireland		Q. M. Serg't	Mar. 10	Do.
Bardy, Louis	68	Hungary	E	14th Inf.	Mar. 19	Abscess of liver.
Walter, George	35	Germany	L	5th Cav.	Mar. 25	Cancer of bowels.
McAuley, Robert	68	Ireland	C	8th Cav.	Apr. 5	Pneumonia from grippe.
Riley, George	56	United States	D	8th Inf.	Apr. 5	Do.
Stagg, George H.	71	do	F	3rd Inf.	Apr. 6	Aneurism of aorta.
Porter, Henry S.	48	do		Engineers.	Apr. 13	Consumption.
Boyd, Andrew	94	Ireland	F	5th Inf.	May 10	Old age.
Morrissey, William	58	do	K	4th Cav.	May 12	Aneurism of aorta.
O'Malley, Michael C.	33	do	E	1st Art.	June 6	Abscess of brain.
Bauer, Christian	64	Germany	I	7th Inf.	July 5	Cirrhosis of liver.
Young, John	58	West Indies	K	2nd Cav.	July 13	Chronic inf. of bowels.
Smith, John	52	United States	H	23rd Inf.	July 31	Softening of brain.
Dillon, Michael	54	Ireland	I	5th Cav.	Aug. 8	Rheumatism of heart.
Hayward, Oliver C.	71	England	A	2nd Art.	Aug. 22	Bright's disease.
Engelright, John M.	58	United States	K	3rd Inf.	Sept. 16	Gangrene of lung.
Johnson, Charles	48	Germany	L	1st Art.	Sept. 18	Consumption.
Reynolds, Thomas	39	England	A	15th Inf.	Sept. 24	Do.
Cartman, Moses	30	Russia	K	1st Art.	Sept. 24	Obstruction of bowels.

The daily average of inmates present at the Home was: For 1887, 651; for 1888, 676; for 1889, 688; for 1890, 698; for 1891, 718.

Proportion of deaths to 100 inmates per annum.

Year.	Per cent.	Year.	Per cent.	Year.	Per cent.
1891	5.15	1889	5.66	1887	4.76
1890	5.30	1888	5.76	1886	5.43

Number of prescriptions compounded during the year..... 10,848
 Number of applications for treatment at sick call..... 3,122
 Number of out patients, connected with the Home, treated..... 198

Annual statement of expenses from treasurer's records.

	1891.	1890.	1889.	1888.
Average number of men, including attendants	102.54	100.55	90.24	96.33
Subsistence	\$9,711.03	\$8,324.84	\$7,707.48	\$8,674.24
Subsistence, inmates Government Insane Asylum	3,676.43	2,206.43	3,168.58	3,111.43
Cost of medicines	824.16	1,441.17	841.86	779.03
Attendants	6,182.87	4,634.00	4,043.97	3,772.26
Ice	378.19	345.97	342.22	231.80
Fuel	1,126.43	1,567.77	54.00	2,777.53
Gas	1,039.50	791.25	787.01	712.25
Laundry	377.14	180.13	178.85	796.97
Stationery	76.13	76.02	40.35	73.33
Spectacles	89.19	72.16	136.75	109.50
Coffins	229.75	409.91	421.08	227.76
Bedding		132.00	399.60	789.55
Repairs	525.75	444.11	12.32	708.00
Forage for ambulance horses	196.19	190.77	198.51	206.24
Instruments and appliances	208.40	93.69	2.63	17.00
Books	49.30	44.80	4.00	15.00
Furniture	394.43	306.72	326.40	
Miscellaneous	47.85	102.88	90.01	415.10
Total	25,132.70	21,364.62	18,755.02	22,496.49
Cost per man per day	cents.. 67.15	58.21	56.94	63.52

Monthly statement of expenses, Barnes Hospital, from October 1, 1890, to September 30, 1891, furnished by the treasurer.

	Amount.		Amount.
<i>October, 1890.</i>		<i>December, 1890.</i>	
Subsistence	\$714.32	Subsistence	\$894.56
Gas, September and October	129.00	Gas	115.25
Ice, September and October	62.10	Ice	12.98
Extra washing, September and October	63.86	Extra washing	33.54
Forage, ambulance horses	7.90	Forage, ambulance horses	7.90
Hay	6.73	Hay	6.73
Pay, clinical assistant	100.00	Pay, clinical assistant	100.00
Pay, ambulance driver	18.00	Pay, ambulance driver	18.00
Horseshoeing	3.00	Horseshoeing	3.00
Lyé, matches, etc., September and October	11.80	Stationery and printing	19.80
Spectacles	19.71	Medical books	6.80
Truss, J. Urquhart	3.50	Paints, oils, etc.	38.38
Instruments	16.50	Trimmings for coffins	48.31
Kitchen utensils, etc.	66.63	Gilt rod, molding, etc.	17.20
Repairs to invalid chair	4.15	Medical and hospital supplies	26.88
Repairs to elevator	1.05	Ball cock and ball	1.25
Medical and hospital supplies	15.00	Matches, sapollo, etc.	8.12
Pay roll, extra duty	800.39	Freight and drayage	5.04
Government hospital for Insane	910.00	Pay roll, extra duty	774.41
Total	2,953.64	Total	2,138.15
<i>November, 1890.</i>		<i>January, 1891.</i>	
Subsistence	775.33	Subsistence	795.19
Gas	91.00	Gas	132.75
Ice	21.83	Ice	20.21
Extra washing	28.77	Extra washing	23.12
Forage, ambulance horses	7.66	Forage, ambulance horses	7.90
Hay	6.73	Hay	6.73
Pay, clinical assistant	100.00	Pay, clinical assistant	100.00
Pay, ambulance driver	18.00	Pay, ambulance driver	18.00
Horseshoeing	3.00	Horseshoeing	3.00
Medical and hospital supplies	51.05	Spectacles	16.70
Spectacles	5.08	6 boards and labor	.86
Lyé, matches, sapollo, etc.	5.18	Medical and hospital supplies	23.25
4 hose bibbs	6.00	Trusses	9.00
4 basin cocks	.50	Kitchen utensils, etc.	31.73
Harness dressing	1,126.43	1 stop cock	1.95
Fuel		Repair of harness	2.25
Total	2,250.16	Table and instrument case	73.00
		Matches, sapollo, blacking, etc.	7.75
		1 gas cooking stove	22.00
		Government Hospital for Insane	962.86
		Extra-duty pay, nurse	3.00
		Total	2,261.25

Monthly statement of expenses, Barnes Hospital, from October 1, 1890, to September 30, 1891—Continued.

	Amount.		Amount.
<i>February, 1891.</i>		<i>May, 1891.</i>	
Subsistence.....	\$749.11	Subsistence.....	\$943.43
Gas.....	114.25	Ice.....	28.03
Ice.....	17.11	Gas.....	60.00
Extra washing.....	27.76	Pay of clinical assistant.....	100.00
Forage, ambulance horses.....	7.14	Pay of ambulance driver.....	20.00
Hay.....	6.73	Extra washing.....	30.20
Pay, clinical assistant.....	100.00	Drayage on boxes, etc.....	.95
Pay, ambulance driver.....	18.00	Forage, ambulance horses.....	7.90
Horseshoeing.....	3.00	Hay.....	6.70
Painting, material and labor.....	55.81	Horseshoeing.....	3.00
Medical and hospital supplies.....	19.01	Kitchen utensils, etc.....	38.48
Instruments.....	22.65	3 barrels cement and drayage.....	11.50
Plate glass for case.....	27.00	Refrigerator, glass dishes, etc.....	19.10
Lumber for coffins.....	5.50	1 slate slab.....	7.80
Stationery and printing.....	10.10	Medical books.....	8.20
6 tablecloths.....	9.75	Medical and hospital supplies.....	8.70
Spectacles.....	13.73	Arch brick.....	8.49
5 door springs and checks.....	12.00	3½ yards windsor cloth.....	3.94
Lye, matches, soap, etc.....	7.23	Oak table.....	12.00
Repair of clocks.....	3.00	Elevator cistern.....	46.43
Pay roll, extra duty.....	757.50	Lumber, tacks, etc.....	28.22
Total.....	1,986.38	Paints, oil, tile pipe, etc.....	7.95
<i>March, 1891.</i>		<i>Total.....</i>	
Subsistence.....	726.68		1,401.05
Gas.....	107.50		
Ice.....	17.85	<i>June, 1891.</i>	
Extra washing.....	26.22	Subsistence.....	820.97
Forage, ambulance horses.....	7.90	Ice.....	47.05
Hay.....	6.73	Gas.....	53.75
Pay, clinical assistant.....	100.00	Extra washing.....	27.90
Pay, ambulance driver.....	18.00	Forage, ambulance horses.....	7.90
Horseshoeing.....	3.00	Hay.....	6.73
Medical and hospital supplies.....	47.36	Pay of clinical assistant.....	100.00
Freight and drayage.....	12.12	Pay of ambulance driver.....	18.00
Trusses.....	11.50	Horseshoeing.....	3.00
1 light, cut glass.....	8.50	Lumber.....	9.40
Lumber for coffins.....	27.50	1,000 spit cups.....	8.00
Repairing cocks, etc.....	3.43	Stationery and printing.....	14.80
Gas fixtures for dead house.....	23.21	Gold and copper bronze.....	6.25
Artificial teeth.....	20.00	Medical and hospital supplies.....	16.33
Medical books.....	24.85	Slate hearth, grate, gas stove, etc.....	31.85
Stationery and printing.....	6.83	Plumbers' materials.....	5.70
Matches, sapollo, soap, etc.....	5.55	Materials for coffins, etc.....	53.20
6 plated knives.....	1.75	25 feet wire rope.....	.50
Extra-duty pay, nurse, etc.....	19.73	Truss.....	2.50
Total.....	1,226.21	Government Hospital for Insane.....	886.43
		Pay roll, extra duty.....	800.31
<i>April, 1891.</i>		<i>Total.....</i>	
Subsistence.....	806.22		2,920.57
Gas.....	91.75		
Ice.....	26.55	<i>July, 1891.</i>	
Extra washing.....	39.75	Subsistence.....	788.21
Forage for ambulance horses.....	7.90	Ice.....	38.78
Hay.....	6.73	Gas.....	45.50
Pay, clinical assistant.....	100.00	Pay of clinical assistant.....	100.00
Pay, ambulance driver.....	20.00	Pay of ambulance driver.....	20.00
Horseshoeing.....	3.00	Extra washing.....	27.42
Spectacles.....	6.84	Forage, ambulance horses.....	15.11
Government Hospital for Insane.....	917.14	Hay.....	6.73
Medical and hospital supplies.....	12.10	Horseshoeing.....	3.00
Instruments.....	48.45	Medical and hospital supplies.....	32.94
Trusses.....	5.00	Crockery, kitchen utensils, etc.....	56.47
Matches, sapollo, soap, etc.....	6.71	Plumbing materials.....	7.06
Repairs to elevator.....	148.64	Spectacles.....	13.89
Lumber for coffins, slab, etc.....	38.59	Stationery and printing.....	2.75
Stationery and printing.....	5.00	Hinges, bolts, rope, lock, etc.....	14.37
Wire cloth.....	7.45	Lumber for coffins.....	28.71
Rubber tubing.....	1.56	5 gallons cylinder oil.....	3.00
Pay roll, extra duty.....	779.11	Freight on medical supplies.....	6.75
Total.....	3,078.49	Rubber tubing.....	.90
		<i>Total.....</i>	
			1,211.59

Monthly statement of expenses, Barnes Hospital, from October 1, 1890, to September 30, 1891—Continued.

	Amount.		Amount.
<i>August, 1891.</i>		<i>September, 1891.</i>	
Subsistence.....	\$792.09	Subsistence.....	\$838.95
Ice.....	39.86	Ice.....	45.84
Gas.....	45.00	Gas.....	53.75
Pay of clinical assistant.....	100.00	Pay of clinical assistant.....	100.00
Pay of ambulance driver.....	20.00	Pay of ambulance driver.....	20.00
Extra washing.....	21.30	Extra washing.....	27.30
Forage, ambulance horses.....	15.11	Forage and hay.....	21.84
Hay.....	6.73	Horseshoeing.....	3.00
Horseshoeing.....	3.00	Walnut bookcase.....	42.00
Medical and hospital supplies.....	521.86	Instruments.....	30.60
Stationery.....	6.35	Sapolio, soap, blacking, etc.....	13.63
Hinges, bolt, and lock.....	2.35	Medical books.....	8.50
Spectacles.....	6.83	Medical and hospital supplies.....	17.41
Plumbing materials.....	15.28	Copying press, complete.....	10.00
Copper bronze and four lights.....	3.70	25 yards cord.....	.75
Artificial teeth.....	30.00	Trusses.....	6.50
Splicing elevator rope.....	4.00	Spectacles.....	6.41
Leather strips.....	.25	Freight and drayage.....	2.10
Pay roll, extra duty.....	816.99	Extra-duty pay.....	5.43
		Letter basket.....	.50
Total.....	2,450.70	Total.....	1,254.51

The sanitary condition of the home and grounds has remained good during the past year. Some improvements have been made in the water supply and the drainage system. The recommendations made last year to extend the 8-inch drain pipe from the hospital to connect with the sewage system of the city and to do away with the three great catch basins in front of the building has been carried out with entire success. The tank in the top of the hospital which holds water to run the elevator has been connected with a cistern built at the pump house so as to pump the water back and make the elevator available at all times without waste. Quarters for the hospital steward have been completed and occupied since November, 1890.

A serious outbreak of epidemic influenza occurred among the inmates between March 16 and April 30, 1891, during which there were thirty-one severe cases, fifteen of which were complicated with pneumonia, and two of the latter proved fatal. With this exception there has been no prevailing disease, the large number of patients treated being mostly those who suffered from the chronic complaints for which they were discharged the service. The number and gravity of these have been quite marked for some months past, trying the capacity of the hospital to its utmost to accommodate them. It is probable, however, that the present building will be sufficient in the future as it has been in the past, and that no addition or extension will be required with the present capacity of the home buildings.

The water closets and bath tubs with all their connections in the east end of the hospital should be removed and replaced by new ones of approved modern designs. The old Demarest closets and the old style bath tubs have served 15 years and are now not only obsolete but worn out in service. A bath room should be fitted up on the third floor at both ends of the building and hot and cold water extended to all the three floors. These repairs are urgently needed at once; others of less importance, such as kalsomining the rooms on the fourth floor, concreting the basement, and putting a new and better refrigerator in the commissary storeroom, might well be done at the same time.

Many permanent and much needed improvements in the internal economy of the hospital have been made, and the whole establishment is now well organized and, with the exceptions above named, in good running order. The heating, lighting, and ventilating arrangements have given entire satisfaction and are probably the best that could be devised for the purpose. There has been a great improvement in the character and permanency of the employes about the building, especially among those directly in attendance upon the patients. The wardmasters and nurses have shown a laudable ambition to fit themselves for their work and to become interested in it as a regular occupation.

The expenses of the hospital are only to a very limited extent under the control of the attending surgeon. The slight increase over last year is more than covered by the following four items taken from the treasurer's accounts. Increased pay of attendants, including ambulance driver, \$1,548; increased expense for subsistence for inmates at the Government asylum, \$1,470; increased number of men treated in hospital, \$489; increased cost of beef on account of higher contract price, \$474.

I have again to commend the zeal, energy, and ability of the clinical assistant, Dr. George H. Penrose, and the faithful and efficient services of Hospital Steward William Grant, Druggist T. B. Lehane, and Commissary Sergeant Henry Shafer.

Very respectfully, your obedient servant,

W. H. FORWOOD,
Surgeon, U. S. Army, Attending Surgeon.

The GOVERNOR OF THE HOME.

TREASURER'S OFFICE,
UNITED STATES SOLDIERS' HOME,
Washington, D. C., October 10, 1891.

GENERAL: I have the honor to transmit herewith the following reports for the year ending September 30, 1891, viz:

Statement of receipts and expenditures with comparative statement for previous year.

Statement of permanent fund and interest account as shown by the warrant division, Treasury Department.

Statement of treasurer's account with the inmate pensioners.

Statement of pensioners in the Home, rates of pensions, etc.

Statement of the number of inmates receiving outdoor relief, rates of relief, pensions, etc.

Receipts and expenditures on account of the farm, garden, and dairy.

The improvements of the Scott building under the contract with D. J. Macarty and the new quarters for the hospital steward have been completed, and final payments made thereon during the year.

The 6-inch sewer pipe connecting the city sewerage with Barnes Hospital was taken up and relaid with 8-inch terra cotta pipe for about 3,000 feet.

Very respectfully,

RICH. C. PARKER,
Brevet Major, U. S. Army, Secretary and Treasurer.

Gen. O. B. WILLCOX, U. S. ARMY,
Governor of the Home.

Annual report of receipts and expenditures on account of the United States Soldiers' Home, District of Columbia, from October 1, 1890, to September 30, 1891, by Bvt. Maj. R. C. Parker, U. S. Army, secretary and treasurer.

	1890.			1891.									Totals.
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	
RECEIPTS.													
From the United States Treasurer upon a resolution of the Board of Commissioners, approved by the Secretary of War.....	\$33,490.00	\$20,850.00	\$34,190.00	\$8,000.00	\$16,000.00	\$23,100.00	\$4,600.00	\$20,000.00	\$27,600.00	.....	\$2,000.00	\$19,900.00	\$209,730.00
From interest on the permanent fund....	17,412.84	.....	.....	17,705.27	.....	.....	17,600.38	.....	.....	\$17,760.64	.....	.....	70,479.13
From effects of deceased inmates, subject to the demand of legal heirs.....	3.79	2.70	8.26	.....	9.21	182.46	.....	.48	.....	11.15	210.75	396.57	825.37
From miscellaneous sources.....	116.38	76.95	127.50	144.29	65.76	103.47	40.10	101.13	329.73	164.00	90.73	338.68	1,698.72
Total receipts.....	51,023.01	20,929.65	34,325.76	25,849.56	16,074.97	23,385.93	22,240.48	20,101.61	27,929.73	17,035.79	2,301.48	20,635.25	282,733.22
EXPENDITURES.													
Furniture for officers' quarters and expenses thereof.....	4.95	70.00	28.46	179.25	2.00	.....	19.39	.....	28.60	.....	83.00	15.60	431.25
Compensation of the treasurer of the Home fund and of the clerk of the Board of Commissioners.....	175.00	175.00	175.00	175.00	175.00	175.00	175.00	175.00	175.00	175.00	175.00	175.00	2,100.00
Transportation furnished inmates en route to the Home.....	38.05	24.03	29.65	30.95	108.48	.....	15.78	85.69	.....	107.30	186.10	128.10	754.13
Fuel.....	.....	4,880.00	1,884.15	.....	485.00	1,212.50	.....	.....	.....	257.50	.....	.....	8,719.15
Expenses of the hospital for medicines, medical stores, spectacles, false teeth, materials for coffins, etc.....	54.71	56.13	81.99	48.95	60.89	138.28	92.41	16.90	85.43	74.39	551.86	60.92	1,332.97
Expenses of the hospital for mess and kitchen utensils, and all running expenses and pay of clinical assistant....	183.63	114.78	184.75	236.43	169.08	119.18	465.75	784.50	571.13	655.40	360.39	585.81	4,430.33
Refunded to claimants as heirs of deceased soldiers.....	.....	3.00	97.41	31.83	37.43	.....	.....	.....	34.71	295.04	.....	.....	499.42
Refunded to claimants as heirs of deceased inmates.....	235.33	10.46	.....	2.36	.....	90.91	267.21	.....	.....	.....	.25	.....	606.52
Subsistence stores, including special diet and stimulants for the sick, and ice....	4,326.39	3,671.34	4,445.22	4,210.44	3,750.66	4,262.76	4,359.16	4,187.56	3,840.79	3,858.44	2,690.34	3,806.16	47,211.26
Clothing for inmates.....	2,905.90	2,475.30	1,945.39	.....	.....	.....	6,273.90	.....	.....	.....	.....	.....	13,600.49
Articles for the Home bakery, except flour, salt, hops, and potatoes.....	.....	1.40	10.00	.....	.....	.....	4.16	.....	6.00	.....	1.00	.....	22.56
Bedding for inmates, bedsteads, blankets, upholstering materials, etc.....	19.22	828.00	456.02	23.00	435.00	204.46	18.90	.....	.....	27.86	.....	195.17	2,207.63

Farm, garden, and dairy utensils, seeds, guano, manure, etc., cultivation of garden, ornamentation of grounds, and pay of farm, garden, and dairy and other employes.....	2,321.09	1,849.24	1,633.87	1,648.16	1,699.48	2,361.24	2,082.82	1,860.71	2,536.47	-1,882.21	1,807.59	1,862.63	23,545.51
Mess and kitchen utensils and other articles, except bedding, for the Home.....	241.07	13.75	10.20	155.39	190.33	183.60	6.80	5.85	29.50	.45	35.97	153.95	1,026.86
Material and labor for general repairs to buildings, repair of roads and fences, purchase and repair of harness, vehicles, etc., and purchase of mechanical tools.....	211.87	187.97	131.07	114.78	169.49	18.02	697.43	555.95	168.90	605.92	195.20	283.97	3,340.57
Forage and medicines for Home animals, articles used in the stables, straw used as bedding for inmates.....	127.69	159.56	177.75	184.48	128.93	171.96	103.76	126.42	104.23	293.38	215.22	206.05	1,999.43
Expenses of the library, governor's and treasurer's offices, postage and post-office box rent, stationery, etc., for Commissioner's office, freight, telegrams, amusements.....	56.53	221.86	410.99	218.20	119.76	360.46	180.16	108.61	101.88	82.18	117.57	121.76	2,099.91
Incidental expenses: Removal of night soil, rent of telephone, hack hire, advertising, traveling expenses, professional services, expenses of the Home chapel.....	229.00	54.50	92.30	50.60	50.00	124.33	50.00	58.28	104.92	196.28	65.00	88.00	1,163.21
Religious services.....	155.00	155.00	155.00	155.00	155.00	155.00	155.00	155.00	155.00	155.00	155.00	155.00	1,860.00
Laundry work.....	881.07	474.56	469.87	469.25	496.82	494.87	450.38	435.31	426.37	403.88	814.17	606.05	6,422.60
Extra duty pay and monthly allowances to inmates.....	4,112.93	231.58	4,061.54	154.00	4,023.67	178.68	3,988.24	375.50	4,262.63	164.77	4,244.74	157.93	25,956.20
Commutation to members of the Home residing outside.....	813.00	711.67	9,194.07	791.67	677.00	9,574.00	905.33	773.80	10,021.96	573.33	538.00	7,518.60	42,092.43
Gas.....	508.50	363.25	432.25	480.00	411.00	364.50	301.25	223.00	185.38	150.87	170.00	223.00	3,829.00
Board and medical treatment of members of the Home in the Government Hospital for the Insane.....	910.00	-----	-----	962.86	-----	-----	917.14	-----	886.48	-----	-----	-----	3,676.43
Funeral expenses of members of the Home residing outside.....	25.00	100.00	25.00	25.00	50.00	40.75	72.75	66.75	25.00	25.00	-----	50.00	505.25
New buildings.....	2,420.00	26,102.50	1,133.11	22,718.62	105.37	6,346.51	-----	-----	-----	-----	8,688.70	1,465.00	68,999.81
Permanent improvements: New fences, wells, repair of bridges, lamp-posts, etc., paving, sewerage, etc.....	157.68	12.57	30.00	6.24	70.00	-----	50.00	275.00	50.00	1,961.40	2,749.37	50.00	5,412.26
Purchase of animals.....	150.00	-----	200.00	-----	-----	-----	-----	-----	-----	-----	-----	-----	350.00
Total expenditures.....	21,263.61	42,947.45	27,495.06	33,072.46	18,570.39	26,577.12	21,652.72	10,269.83	23,810.27	11,945.60	23,850.47	17,730.20	274,185.18

RECAPITULATION.

RECEIPTS.	
Balance on hand September 30, 1890.....	\$987.28
From the United States Treasurer, upon resolutions of the Board of Commissioners, approved by the Secretary of War.....	209,730.00
From interest on the permanent fund.....	70,479.13
From effects of deceased inmates, subject to the demand of legal heirs.....	825.37
From miscellaneous sources.....	1,698.72

Total..... 283,720.50

EXPENDITURES.	
Furniture for officers' quarters, etc.....	\$431.25
Compensation of the secretary and treasurer and clerk to Board of Commissioners.....	2,100.00
Transportation furnished inmates en route to the Home.....	754.13
Fuel.....	8,719.15
Expenses of the hospital for medicines, medical stores, spectacles, false teeth, and materials for coffins.....	1,322.97
Expenses of the hospital, mess and kitchen utensils, pay of clinical assistant, and all contingent expenses.....	4,430.33
Refunded to claimants as heirs of deceased soldiers.....	499.42
Refunded to claimants as heirs of deceased inmates.....	606.52
Subsistence stores, including special diet and stimulants for the sick, and ice.....	47,211.26
Clothing for inmates.....	13,600.49
Articles for Home bakery, except flour, salt, hops, and potatoes.....	22.56
Bedding for inmates, beadsteads, blankets, upholstering materials.....	2,207.63
Farm, garden, and dairy utensils, seeds, guano, manure, etc.; cultivation of garden, ornamentation of grounds; pay of farm, garden, and dairy, and all other employes.....	23,545.51
Mess and kitchen utensils and other articles except bedding for the Home.....	1,026.86
Materials and labor for general repairs to buildings, repair of roads and fences, purchase and repair of harness, vehicles, and purchase of mechanical tools.....	3,340.57
Forage and medicines for Home animals, articles used in the stables, straw used as bedding for inmates.....	1,999.43
Expenses of the library, governor's and treasurer's offices, postage, post-office box rent, stationery, etc., for Commissioners, office freight, telegrams, etc.....	2,099.91
Incidental expenses, removal of night soil, rent of telephone, hack hire, traveling expenses, professional services, expenses of the "Home chapel," etc.....	1,163.21
Religious services.....	1,860.00
Laundry work.....	6,422.60
Extra-duty pay and monthly allowances to inmates.....	25,956.20
Commutation to members of the Home residing outside.....	42,092.43
Gas.....	3,829.00
Board and medical treatment of members of the Home in the Government Hospital for the Insane.....	3,676.43
Funeral expenses of members of the Home residing outside.....	505.25
New buildings.....	68,999.81
Permanent improvements, new fences, wells, repair of bridges, lamp posts, gas lamps, etc.; paving, sewerage, etc.....	5,412.26
Purchase of animals.....	350.00
Balance on hand September 30, 1891.....	9,535.32
Total.....	283,720.50

I certify that the foregoing account is correct.

RICH. C. PARKER,
Brevet Major, U. S. Army, Secretary and Treasurer.

Comparative statement of money received and disbursed on account of the United States Soldiers' Home, District of Columbia, for two years, October 1, 1889, to September 30, 1891.

Received from October 1, 1889, to September 30, 1890.....	\$264,310.08
Of this amount \$3,015 are the proceeds of a note of Ascension Church, Washington, D. C., taken in part payment for Young Men's Christian Association stock.....	
Received from October 1, 1890, to September 30, 1891.....	282,733.22
Expended from October 1, 1889, to September 30, 1890.....	263,322.80
Of this amount \$3,015 are the proceeds of a note of Ascension Church, Washington, D. C., taken in part payment for Young Men's Christian Association stock and redeposited to the credit of the permanent fund, the actual expenditures of the Home for the year ending September 30, 1890, being \$260,307.80.....	
Expended from October 1, 1890, to September 30, 1891.....	274,185.18
The expenditures during the year ending September 30, 1890, for new buildings and permanent improvements were.....	74,304.58
The running expenses of the Home for the year were.....	189,003.22
	260,307.80
The expenditures during the year ending September 30, 1891, for new buildings and permanent improvements were.....	74,412.07
The running expenses of the Home for the year were.....	199,773.11
	274,185.18
Average number of inmates for the year.....	717
Average cost of ration per month, including milk, vegetables, and fruit raised on the Home grounds.....	\$6.71
Average cost of ration per day.....	22.14 (cents)

I certify the foregoing statement is correct.

RICH. C. PARKER,
Brevet Major, U. S. Army, Secretary and Treasurer.

Statement of the Soldiers' Home permanent fund account from October 1, 1890, to September 30, 1891.

Date.		Partial amounts.	Dr.	Cr.
1890.				
Oct. 1	Balance.....			\$2, 348, 525.43
Oct. 24	Amount of deposits.....	\$31, 439.21		
Nov. 26	do.....	44, 995.32		
Dec. 27	do.....	43, 813.86		
1891.				
Jan. 28	do.....	15, 194.36		
Feb. 26	do.....	4, 953.37		
Mar. 19	do.....	17, 724.12		
Mar. 27	do.....	7, 205.50		
May 6	do.....	12, 869.47		
May 27	do.....	7, 192.03		
June 24	do.....	26, 222.62		
July 28	do.....	56, 547.55		
Aug. 27	do.....	11, 690.36		
Sept. 25	do.....	9, 339.14		
				289, 186.91
1890.	<i>Less amounts paid from permit fund:</i>			
Oct. 1		33, 490.00		
Nov. 24		20, 850.00		
Dec. 15		34, 190.00		
1891.				
Jan. 23		8, 000.00		
Feb. 26		16, 000.00		
Mar. 18		23, 100.00		
Apr. 20		4, 600.00		
May 21		20, 000.00		
June 19		27, 600.00		
Aug. 21		2, 000.00		
Sept. 22		19, 900.00		
			\$209, 730.00	
Sept. 30	Balance.....		2, 427, 986.34	
	Total.....		2, 637, 716.34	2, 637, 716.34

Statement of the Soldiers' Home interest account from October 1, 1890, to September 30, 1891.

	Partial amounts.	Dr.	Cr.
Balance Oct. 1, 1890.....			\$17, 412.84
Interest on balance, \$2,348,525.43, Oct. 1 to Dec. 31, 1890.....	\$17, 754.88		
Interest on deposits:			
Oct. 23 to Dec. 31, 1890.....	165.37		
Nov. 23 to Dec. 31, 1890.....	133.19		
Dec. 27 to Dec. 31, 1890.....	17.96		
			18, 071.40
Interest on balance, \$2,380,247.82, Jan. 1 to Mar. 31, 1891.....	17, 601.93		
Interest on deposits:			
Jan. 23 to Mar. 31, 1891.....	78.70		
Feb. 26 to Mar. 31, 1891.....	13.84		
Mar. 19 to Mar. 31, 1891.....	18.96		
Mar. 27 to Mar. 31, 1891.....	2.95		
			17, 716.38
Interest on balance, \$2,378,225.17, Apr. 1 to June 30, 1891.....	17, 789.12		
Interest on deposits:			
May 6 to June 30, 1891.....	58.17		
May 27 to June 30, 1891.....	20.10		
June 24 to June 30, 1891.....	15.08		
			17, 882.47
Interest on balance, \$2,372,309.29, July 1 to Sept. 30, 1891.....	17, 934.66		
Interest on deposits:			
July 23 to Sept. 30, 1891.....	301.96		
Aug. 27 to Sept. 30, 1891.....	33.60		
Sept. 25 to Sept. 30, 1891.....	4.62		
			18, 274.84
Less interest on principal paid:			
Fourth quarter, 1890.....	366.13		
First quarter, 1891.....	116.00		
Second quarter, 1891.....	121.83		
Third quarter, 1891.....	21.46		
		\$625.42	
Less interest paid:			
Fourth quarter, 1890.....	17, 412.84		
First quarter, 1891.....	17, 705.27		
Second quarter, 1891.....	17, 600.38		
Third quarter, 1891.....	17, 760.64		
		70, 479.13	
Balance.....		18, 253.38	
Total.....		89, 357.93	89, 357.93

The treasurer of the U. S. Soldiers' Home, District of Columbia, in account with the inmate pensioners for moneys received under section 4, act approved March 3, 1883, and deposited with the Treasurer of the United States.

Date.	Moneys received.	Amount.	Date.	Moneys disbursed.	Amount.
1890.			1890.		
Oct. 1	To balance on hand.....	\$43,671.54	Oct. 3	By amount paid Daniel Ahern, pensioner.	\$68.97
			Oct. 6	By amount paid the estate of D. Donovan.	47.00
Oct. 31	To S. L. Willson's checks....	1,049.10	Oct. 6	By amount paid the estate of Denis Kerr.	618.00
			Oct. 10	By amount paid John S. Furling, pensioner.	12.00
Nov. 30	do.....	1,391.28	Oct. 31	By pension pay roll for October, 1890.	2,093.21
			Nov. 20	By amount paid the estate of Philip McCusker.	25.00
Dec. 31	do.....	17,597.99	Nov. 20	By amount paid the estate of John Pickin.	22.00
			Nov. 20	By amount paid the estate of Charles De Forest.	46.00
1891.			Nov. 20	By amount paid the estate of Charles De Forest.	10.00
Jan. 31	do.....	692.10	Nov. 30	By pension pay roll for November, 1890.	561.27
			Dec. 27	By amount paid William Watson, pensioner.	87.00
Feb. 28	do.....	1,292.20	Dec. 29	By amount paid Patrick Corcoran, pensioner.	48.00
			Dec. 31	By pension pay roll for December, 1890.	13,394.77
Mar. 31	do.....	19,669.66	1891.		
			Jan. 6	By amount paid to John W. Boone, pensioner.	24.00
Apr. 30	do.....	1,179.54	Jan. 31	By pension pay roll for January, 1891.	2,571.77
			Feb. 28	By pension pay roll for February, 1891.	1,078.80
May 31	do.....	1,181.82	Mar. 31	By pension pay roll for March, 1891.	17,083.82
			Apr. 10	By amount paid to Frank J. Wiese, pensioner.	113.00
June 30	do.....	19,202.90	Apr. 30	By amount paid to administrator of George H. Stagg, deceased.	200.00
			Apr. 30	By pension pay roll for April, 1891.	2,913.64
July 31	do.....	1,570.60	May 16	By amount paid to John Williams, pensioner.	36.00
			May 20	By amount paid to Julius Fuerst, pensioner.	2.00
Aug. 31	do.....	1,720.37	May 31	By pension pay roll for May, 1891.	1,906.40
			June 30	By pension pay roll for June 1891.	16,791.49
Sept. 30	do.....	19,355.14	July 28	By amount paid to Joseph Art, pensioner.	4.00
			July 31	By pension pay roll for July, 1891.	1,607.26
			Aug. 14	By amount paid to Mathias Fallesen, pensioner.	40.00
			Aug. 31	By amount paid to James Hoey, pensioner.	314.00
			Aug. 31	By amount paid to John Ward, pensioner.	25.00
			Aug. 31	By pension pay roll for August, 1891.	3,107.07
			Sept. 18	By amount paid to Thomas A. Williams, pensioner.	16.00
			Sept. 25	By amount transferred to the Home fund, under section 4, act of March 3, 1883.	372.00
			Sept. 26	By amount paid the estate of Daniel Webster, deceased.	8.00
			Sept. 30	By pension pay roll for September, 1891.	15,521.24
			Sept. 30	By balance on hand deposited in U. S. Treasury.	48,799.33
	Total.....	129,574.24		Total.....	129,574.24

I certify that the foregoing account is correct.

RICHD C. PARKER,
Brevet Major, U. S. Army, Secretary and Treasurer.

Annual report of the number of pensioners in the U. S. Soldiers' Home, District of Columbia, rates of pensions, etc.

	Number.		Number.
Pensioners drawing:		Pensioners drawing:	
\$2 per month	16	\$18 per month	6
\$3 per month	2	\$20 per month	6
\$4 per month	69	\$22 per month	4
\$6 per month	82	\$24 per month	38
\$8 per month	222	\$25 per month	5
\$10 per month	64	\$27 per month	2
\$12 per month	155	\$30 per month	20
\$12.50 per month	1	\$35 per month	1
\$14 per month	37	\$36 per month	2
\$15 per month	2	\$72 per month	2
\$16 per month	41		
\$17 per month	63	Total number of pensioners	840
Pensioners present in the Home:			
Pensioners whose money is drawn by the treasurer			547
Pensioners who have assigned their certificates			30
			577
Pensioners absent:			
On outdoor relief			213
On furlough			26
On suspension			16
In Government Hospital for the Insane			8
			263
Total number of pensioners September 30, 1891			840
Total number of pensioners September 30, 1890			804
Alterations since last report, September, 30, 1890:			
New certificates received for inmates			126
Admitted and readmitted			182
			308
Loss by discharge			216
Loss by death			56
			272
Net gain during the year			36
Description of certificates:			
Army invalid			638
Army, act June 27, 1890			68
Mexican war			135
Navy, "original"			2
Navy, act June 27, 1890			2
			840

Annual report of members of the U. S. Soldiers' Home receiving outdoor relief September 30, 1891, rates of relief, pensions, etc.

	Number.		Number.
Number receiving outdoor relief—		Receiving pensions, continued—	
\$8 per month	330	\$12 per month	11
\$6 per month	11	\$14 per month	3
\$5 per month	1	\$16 per month	5
\$4 per month	41	\$17 per month	7
\$2 per month	30	\$20 per month	1
Total number receiving outdoor relief	413	\$22 per month	2
Number on outdoor relief September 30, 1890	492	\$24 per month	5
		\$25 per month	1
		\$30 per month	2
		\$35 per month	1
Net loss during the year	79	Total nonpensioners	200
Of the whole number receiving outdoor relief there are nonpensioners	200	Pensioners	213
Receiving pensions—			413
\$2 per month	12	Of this number there are Mexican war survivors	102
\$3 per month	1	Men who have served 25 years or more	61
\$4 per month	35	Of this last number there are nonpensioners	18
\$6 per month	33		
\$8 per month	88		
\$10 per month	6		

NOTE.—Thirty-two members of the Home on outdoor relief have died since date of last report, September 30, 1890. One hundred and sixty-five members of the Home on outdoor relief were dropped from the rolls after June 30, 1891, in compliance with a resolution of the Board of Commissioners, dated June 19, 1891.

Farm account, United States Soldiers' Home, District of Columbia, October 1, 1890, to September 30, 1891, consolidated.

DR.		CR.—Continued.	
To labor, forage, fuel, fertilizers, implements, seeds, and repair.....	\$7,515.86	By 4,020 heads lettuce.....	\$87.01
To balance to credit of farm.....	2,570.59	1½ bushels okra.....	1.38
	10,086.45	28½ bushels onions.....	49.39
		10,968 bunches onions.....	164.53
		927 bunches parsley.....	37.97
		11½ bushels pease.....	11.88
		537½ bushels parsnips.....	279.47
CR.		1,620½ bushels white potatoes.....	1,382.49
By 507 bunches asparagus.....	40.56	160½ bushels sweet potatoes.....	120.66
228½ bushels beets.....	144.30	13 bushels green peppers.....	1.11
177 bunches beets.....	5.31	6½ bushels radishes.....	4.00
1,555 bushels cow beets.....	635.20	578 bushels radishes.....	11.56
15½ bushels Lima beans.....	10.19	1,406 bunches rosemary.....	23.12
13 bushels snap beans.....	13.00	1,546 bunches rhubarb.....	46.38
21,024 heads cabbage.....	1,082.90	58½ bushels salsify.....	58.31
417 cantaloupes.....	30.58	98½ bushels spinach.....	50.32
36 bunches carrots.....	80	8 bushels summer squash.....	2.30
75½ bushels carrots.....	57.72	74,690 pounds winter squash.....	998.01
1,237 stalks celery.....	38.65	463½ bushels tomatoes.....	224.84
4½ bushels cucumbers.....	3.10	392½ bushels turnips.....	114.22
584½ dozen ears green corn.....	61.11	781 watermelons.....	117.15
398 egg plant.....	13.45	250 tons hay.....	4,000.00
1,335 pounds horse-radish.....	53.49		10,086.45
347½ bushels kale.....	104.48		

Estimate of vegetables in the ground on the Soldiers' Home farm, September 30, 1891.

2,000 bushels potatoes, white, at 60 cts.....	\$1,200.00	40 bushels tomatoes, at 40 cts.....	16.00
25,000 heads cabbage, at 4 cts.....	1,000.00	10 bushels Lima beans, at 60 cts.....	6.00
2,000 ears green corn, at 10 cts. dozen.....	16.67	1,000 heads lettuce, at 2 cts.....	20.00
200 bushels beets, at 50 cts.....	100.00	5,000 pounds pumpkins, at 1½ cts.....	75.00
75 bushels carrots, at 75 cts.....	56.25	15 bushels peppers, at 50 cts.....	7.50
4,000 stalks celery, at 3 cts.....	120.00	1,000 bunches sage, at 3 cts.....	30.00
3,500 pounds horse-radish, at 4 cts.....	140.00	1,000 bunches parsley, at 3 cts.....	30.00
20 bushels winter radishes, at 75 cts.....	15.00	40 bushels salsify, at \$1.....	40.00
400 bushels turnips, at 40 cts.....	160.00		
200 bushels sweet potatoes, at 75 cts.....	150.00	Total.....	3,182.42

Garden account United States Soldiers' Home, District of Columbia, October 1, 1890, to September 30, 1891, consolidated.

DR.		CR.	
To labor, fertilizers, seeds, tools, fuel, and implements.....	\$3,715.97	By 4,189 quarts strawberries.....	\$293.23
		627 quarts cherries.....	37.62
		108 quarts blackberries.....	8.64
		150½ bushels of pears.....	97.56
		61 bushels apples.....	22.10
		140 pounds grapes.....	4.20
		19,119 plants, trees, and shrubs raised in garden and greenhouse.....	2,931.30
		45 cords of wood, cut and stored.....	247.50
		By balance to debit of garden expended in improvements of the grounds.....	73.82
	3,715.97		3,715.97

NOTE.—This department has the care of the ornamentation of the grounds, lawns, flowers, shrubs, trees, and fruit.

Dairy account United States Soldiers' Home, District of Columbia, October 1, 1890, to September 30, 1891, consolidated.

Dr.		Cr.	
To labor, forage, tools, fuel, and repairs.....	\$5,213.57	By 24,783½ gallons milk	\$7,101.91
To loss of five cows by disease.....	175.00	Sale of 35 calves.....	191.42
To balance to credit of the dairy.....	2,688.26	Services of bulls.....	27.50
		Increase in value of 5 heifers.....	125.00
		Increase in value of 8 calves.....	120.00
		1,460 loads manure to the Home farm.....	511.00
	8,076.83		8,076.83

Daily average yield of milk per cow, 1.61 gallons. Cost of production of milk per gallon, 17.81 cents. The dairy herd on September 30, 1891, consisted of 44 milch cows, 16 heifers, 11 calves, 2 bulls.

List of names, etc., of men admitted to the benefits of the Soldiers' Home during the year ending September 30, 1891.

[Those who have served twenty or more years are entitled by length of service; all others by disability.]

No.	Name.	Last served in—		Service.		Age when admitted.	Date of admission.
		Company.	Regiment.	Years.	Months.		
1	Michael Murphy.....	E.....	Fourteenth Infantry.....	6	4	48	1890.
2	Ottomar Hengstler.....	A.....	Ninth Infantry.....	24	1	53	Oct. 1
3	Peter J. Nolan.....	E.....	Twenty-third Infantry.....	19	11	50	Oct. 7
4	Stephen Lawless.....	G.....	Fourth Artillery.....	24	4	50	Oct. 9
5	Robert Dickson.....		Ordnance detachment.....	20	3	47	Oct. 14
6	Frank J. Wiese.....	C.....	Tenth Infantry.....	1	9	20	Oct. 15
7	Henry Baines.....		Hospital Corps.....	22	7	46	Oct. 18
8	Gustave Gunderson.....		General service.....	5	4	26	Oct. 18
9	Karl Bayor.....	D.....	Ninth Infantry.....	1	10	30	Oct. 20
10	Charles Bentz.....	G.....	First Infantry.....	1	6	66	Oct. 20
11	Thomas Burns†.....	H.....	Third Artillery.....	17	3	44	Oct. 20
12	Patrick Coyne.....	D.....	Third Cavalry.....	1	9	30	Oct. 20
13	George W. Davis*.....	B.....	Mounted Rifles.....	14	10	61	Oct. 20
14	William Lafferty*.....	F.....	Ordnance detachment.....	5	11	37	Oct. 20
15	Joseph Marsellus†.....	B.....	Eighteenth Infantry.....	21	9	44	Oct. 20
16	Christian Maier.....		do.....	5	.....	71	Oct. 20
17	George Reynolds*.....	H.....	Third Artillery.....	21	2	44	Oct. 20
18	Brian B. Tully.....	C.....	Fourteenth Infantry.....	3	10	29	Oct. 20
19	John Cross†.....	G.....	Fifth Cavalry.....	20	2	43	Oct. 21
20	Victor Geyer.....	E.....	Second Artillery.....	8	10	33	Nov. 3
21	James F. Berrill.....	H.....	Eleventh Infantry.....	22	7	48	Nov. 3
22	Michael Curtin.....	B.....	First Artillery.....	23	1	59	Nov. 4
23	John H. Johnson.....	E.....	Seventeenth Infantry.....	20	9	43	Nov. 14
24	August Hesse†.....	A.....	Eighteenth Infantry.....	2	1	24	Nov. 15
25	Thomas P. Gildea.....	K.....	Fifth Cavalry.....	1	4	36	Nov. 14
26	Gustave Harrison.....	F.....	Twelfth Infantry.....	22	10	45	Nov. 15
27	Thomas W. E. Bedford.....	E.....	Second Infantry.....	30	1	54	Nov. 15
28	Michael Cunningham.....	I.....	Tenth Infantry.....	22	10	50	Nov. 15
29	Timothy Keane†.....	A.....	Quartermaster-sergeant.....	30	1	54	Nov. 15
30	Peter Keegan†.....	I.....	Sixth Infantry.....	20	4	54	Nov. 15
31	Bernard Lavery.....	I.....	Eighth Cavalry.....	5	9	29	Nov. 15
32	Peter McHugh.....	F.....	Twenty-third Infantry.....	20	3	46	Nov. 15
33	Jeremiah O'Connor.....	C.....	Thirteenth Infantry.....	6	7	39	Nov. 15
34	Albert Bernasco.....	A.....	Engineers.....	15	.....	38	Nov. 15
35	Samuel P. Harvey.....	K.....	Twenty-fifth Infantry.....	7	11	40	Nov. 15
36	Richard Hatcher.....	B.....	Ninth Infantry.....	21	10	44	Nov. 15
37	Taylor E. Demaree.....	E.....	First Infantry.....	5	5	64	Nov. 15
38	John Hall.....	G.....	Fifth Infantry.....	22	4	58	Nov. 15
39	Jeremiah Hennephin*.....	Band.....	Second Cavalry.....	22	9	44	Nov. 15
40	Joseph Maas.....	C.....	Twenty-third Infantry.....	5	.....	68	Nov. 15
41	Maximilian Miller.....	B.....	Second Artillery.....	7	3	48	Nov. 15
42	Peter McGill*.....	I.....	Third Artillery.....	24	2	45	Nov. 15
43	Franz Ostermeyer.....	F.....	Thirteenth Infantry.....	3	4	65	Nov. 15
44	William H. Ray.....	B.....	Mounted Rifles.....	5	7	38	Nov. 15
45	Elon A. Sample*.....	K.....	Fourth Artillery.....	5	.....	73	Nov. 15
46	Philip J. Vogel†.....	H.....	do.....	13	8	37	Nov. 15
47	Landon Wright*.....	A.....	Fifth Infantry.....	20	7	50	Nov. 19
48	Lewis H. Stokes†.....	K.....	First Infantry.....	14	5	37	Dec. 1
49	Robert J. Cunningham.....	K.....	First Artillery.....	6	5	28	Dec. 1
50	Frank Forster.....		do.....				
51	Moses Cartman†.....		do.....				

* In war with Mexico.

† Died since admission.

‡ Retired.

List of names, etc., of men admitted to the benefits of the Soldiers' Home, etc.—Continued.

No.	Name.	Last served in—		Service.		Age when admitted.	Date of admission.
		Company.	Regiment.	Years.	Months.		
							1890.
52	William J. Young		Hospital Corps	4	1	30	Dec. 1
53	Charles Barlow		General service	18	4	53	Dec. 2
54	Edgar S. Hancock	E	Ninth Infantry	7	2	36	Dec. 5
55	John Gallagher		Hospital Corps	15	5	38	Dec. 6
56	George O'Brien	B	Seventh Infantry	2	5	34	Dec. 11
57	Joshua S. Rathfon	B	Seventh Cavalry	1	11	51	Dec. 15
58	John Norton	H	Ninth Infantry	15	7	41	Dec. 15
59	John Yeager		Ordnance detachment	23	4	43	Dec. 16
60	James Byrnes	L	Third Artillery	23	11	46	Dec. 20
61	John Coady	H	First Artillery	13	11	41	Dec. 20
62	Laurence Conly	G	Seventeenth Infantry	1	6	51	Dec. 20
63	John Connor	B	Second Artillery	20	10	45	Dec. 20
64	John Donohue	A	Seventeenth Infantry	20	46	Dec. 20	
65	John P. Eagan	A	Fifteenth Infantry	20	10	45	Dec. 20
66	Thomas Grover		Hospital Corps	20	4	42	Dec. 20
67	John Nauf	G	Third Artillery	22	11	44	Dec. 20
68	John Swartz	G	Fourth Infantry	27	1	50	Dec. 20
69	George Welgemoed	B	Nineteenth Infantry	18	11	52	Dec. 22
70	James Ward	F	Second Cavalry	24	1	50	Dec. 20
71	Theodore J. Case		Hospital Corps	3	4	26	Dec. 20
72	Samuel S. Dewitt	H	Sixth Cavalry	3	5	44	Dec. 20
73	Joseph S. Moody*	B	Fourth Infantry	5	5	67	Dec. 20
74	James Moore	F	Fifth Infantry	21	7	49	Dec. 20
75	William Phillips*	E	Sixth Infantry	5	5	67	Dec. 20
76	Roman Rutten	B	Seventh Cavalry	22	10	44	Dec. 20
77	Richard M. Whelan	G	Fourth Infantry	23	9	46	Dec. 20
78	George W. Cornelius	K	Twenty-fifth Infantry	3	9	32	Dec. 20
							1891.
79	Joseph R. Samshell†	E	Nineteenth Infantry	23		43	Jan. 6
80	Glen D. Manning	K	First Artillery	1	9	26	Jan. 7
81	Frederick Schult	E	Twenty-third Infantry	20	1	49	Jan. 9
82	Fritz Schnitt	H	Ninth Infantry	11	11	44	Jan. 19
83	Charles Anderson	I	do	8	11	46	Jan. 17
84	Joseph C. Ball*	C	Third Artillery	1	7	73	Jan. 17
85	Thomas Murray*	C	Eighth Infantry	18	2	62	Jan. 17
86	Thomas B. Joliff	I	First Cavalry	5	6	32	Jan. 17
87	Joseph Michals		Hospital Corps	24	7	57	Jan. 17
88	Michael W. Nolan	D	Seventh Cavalry	3	6	32	Jan. 17
89	Thomas Smith	C	First Infantry	15		43	Jan. 17
90	Wesley R. Sparks	A	Ninth Infantry		11	43	Jan. 17
91	Alexander Stuart	I	Second Artillery	13	2	48	Jan. 17
92	Patrick Tierman		Ordnance detachment	26	4	60	Jan. 17
93	James Connors*	I	Third Artillery	10		61	Jan. 17
94	John R. Fowler		Hospital steward	26		58	Jan. 17
95	Thomas M. Gehan	B	Fifth Infantry	24	7	55	Jan. 17
96	Patrick McGuire*		Ordnance detachment	18	11	70	Jan. 17
97	Daniel M. Ross†	G	Fifteenth Infantry		10	63	Jan. 17
98	Johan Hansen	I	Third Artillery	22	8	51	Jan. 29
99	John Bell	C	Engineers		11	29	Jan. 30
100	Thomas Daniels	D	Second Artillery	5		59	Jan. 30
101	Charles H. Fairfax	G	Nineteenth Infantry	16	4	44	Feb. 3
102	Frederick Hill		General service	20		52	Feb. 3
103	James Burk	G	Seventh Infantry	2	11	39	Feb. 3
104	James Armstrong	K	Fifteenth Infantry	16	8	47	Feb. 4
105	Michael C. O'Malley†	E	First Artillery	8	4	32	Feb. 3
106	William Robin	B	First Infantry	22	6	52	Feb. 11
107	James W. Jones	G	Twenty-fourth Infantry	5	1	54	Feb. 14
108	Martin Casey	D	Fourth Artillery	25	5	43	Feb. 20
109	Charles H. Meyers*	H	Sixth Infantry	9	1	67	Feb. 25
110	Frederick Arnold	Band	do	26	3	43	Feb. 25
111	Thomas J. Crooks	E	Fifteenth Infantry	19	5	48	Feb. 25
112	John Fegan	H	Fourteenth Infantry	12	1	44	Feb. 25
113	Daniel Gallagher		General service	22	6	57	Feb. 25
114	John McGrath	G	Eleventh Infantry	3		49	Feb. 25
115	Frederick Schweizer	B	Seventh Infantry	1	2	32	Feb. 25
116	Daniel Scully	E	Sixth Cavalry	20	1	45	Feb. 25
117	William Skillman	G	Sixth Infantry	14	2	45	Feb. 25
118	Simon B. Teen*	C	Third Artillery	7	1	68	Feb. 25
119	Leonard Thomas	F	Ninth Cavalry	3		44	Feb. 25
120	William D. Wallace	C	Eighth Infantry	26	4	47	Feb. 25
121	August Anderson	I	Twenty-first Infantry	3	10	27	Feb. 25
122	Alonzo Adams*	K	Third Infantry	5	4	61	Feb. 25
123	Frederick Brinkman	E	Second Infantry		4	56	Feb. 25
124	August A. Boerensen	E	Ninth Infantry	2	3	24	Feb. 25
125	Frank Phelps	H	Fifth Infantry	2		30	Feb. 25

* In war with Mexico.

† Died since admission.

List of names, etc., of men admitted to the benefits of the Soldier's Home, etc.—Continued.

No.	Name.	Last served in—		Service.		Age when admitted.	Date of admission.
		Com-pany.	Regiment.	Yrs.	Months.		
126	Albert Richardson*	G	Third Infantry		5	64	1891.
127	Isaac Smith*	K	Sixth Infantry	1	4	64	Feb. 25
128	Henry Keister	I	Seventh Cavalry	22	5	44	Feb. 25
129	William Connor	M	Second Artillery	20	11	46	Feb. 25
130	John Curran	D	Third Artillery	20		44	Feb. 25
131	Patrick Day*	A	Sixth Infantry	10		05	Feb. 25
132	Henry Demuth		General service	20		42	Feb. 25
133	Edward Farrell	I	Second Artillery	23		45	Feb. 25
134	Philip Gaten	I	Sixth Cavalry	1		39	Feb. 25
135	Dennis Johnson	H	Fourth Artillery	19	7	62	Feb. 25
136	Patrick Kehoe	B	Fifth Infantry	16		41	Feb. 25
137	William G. Lee*	M	Third Artillery	12	8	62	Feb. 25
138	Francis McCourt*	L	First Artillery	2	4	64	Feb. 25
139	Angus McVigor	G	Fifteenth Infantry		8	49	Feb. 25
140	Joseph W. Williams	H	Tenth Cavalry	1		45	Mar. 13
141	James H. Holman	F	do	2	2	31	Mar. 14
142	Charles Davis	L	Fourth Artillery	3		22	Mar. 17
143	Peter Nailer		Ordnance detachment	25	11	44	Mar. 18
144	James Daily*	G	Fourth Infantry	15	11	57	Mar. 21
145	Thomas Williams	C	Third Artillery	3	9	25	Mar. 21
146	Frederick W. Fumald	A	do	19	2	40	Mar. 21
147	Thomas Fleming	D	Sixth Infantry	9		52	Mar. 21
148	John Morris	D	Twenty-fourth Infantry	2	4	30	Mar. 21
149	Henry Williams		Ordnance detachment	5	4	33	Mar. 21
150	James McConnelt	K	Third Artillery	21		42	Mar. 21
151	Henry St. John	E	Nineteenth Infantry	3	9	32	Mar. 21
152	John H. Blake	M	Third Cavalry		9	34	Mar. 21
153	Sidney J. Loop*	G	First Artillery	1	7	62	Mar. 21
154	Jefferson Weeden	G	Twenty-fourth Infantry	2	11	30	Mar. 21
155	John O'Keeffe	A	Eighteenth Infantry	20		50	Mar. 21
156	Edgar L. Reid	G	Nineteenth Infantry	2	5	23	Mar. 28
157	John Lawrence	D	Eighth Infantry		11	44	Apr. 1
158	Charles Hoefler	I	Sixth Cavalry	26	9	45	Apr. 1
159	Richard J. Jackson	H	Twenty-third Infantry	5		46	Apr. 1
160	Michael Doherty	A	Twenty-first Infantry	5	4	55	Apr. 6
161	Michael Melia	H	Fourth Artillery	10		37	Apr. 9
162	William Keeley	K	Tenth Infantry	1	9	63	Apr. 10
163	Joseph B. Collins	G	Twenty-third Infantry	4	2	34	Apr. 13
164	Paul Netsch	F	Fourth Artillery	2	4	25	Apr. 14
165	Frank Hawks	K	Eighth Cavalry	1	2	30	Apr. 18
166	George L. Hicks	F	First Cavalry	1	5	24	Apr. 18
167	William L. Sperry*	K	Eleventh Infantry	1	4	65	Apr. 18
168	Anton von Ufalussy	H	Fifteenth Infantry	23	10	51	Apr. 18
169	Joseph Walton*	A	Second Artillery	6	9	70	Apr. 18
170	George Howard	H	Twelfth Infantry	10	10	40	Apr. 18
171	George F. Kane	H	Seventh Infantry	20	5	42	Apr. 18
172	Charles Mullen*	B	Sixth Infantry	1	5	64	Apr. 18
173	Paul Schmidt	Band	Seventeenth Infantry	20		43	Apr. 18
174	Michael Vesey	B	Twelfth Infantry	20		49	Apr. 18
175	William Clark	K	Fourth Cavalry	3			Apr. 18
176	John F. Harvey	E	Eighth Cavalry	14	4	41	May 4
177	Henry Scheut	A	Mounted service	30	11	59	May 6
178	Charles Schultz	H	First Cavalry	15	11	46	May 8
179	James Sankey		Ordnance detachment	20	4	59	May 11
180	John McHugh	F	Seventeenth Infantry	16		53	May 11
181	John Sparks	C	First Artillery	5	9	33	May 16
182	Albert G. Engle	C	First Cavalry		7	30	May 16
183	James Cramer	E	Twentieth Infantry	17	8	49	May 16
184	James Cairns	C	Nineteenth Infantry	15	7	45	May 16
185	Nathaniel Davenport	D	Third Artillery	22	3	57	May 16
186	Felix Kelly	K	do	20	11	48	May 16
187	Gilbert Lyman*	H	First Infantry	5		63	May 16
188	Michael Curtin	C	Fifth Cavalry	2	2	52	May 16
189	Edward Miller	A	Second Cavalry	5		29	May 16
190	James Lawton	H	Second Infantry	16		52	May 16
191	Michael McGrane	H	Ninth Infantry	17	11	48	May 21
192	Henry Canty	A	Tenth Cavalry	14	1	38	May 26
193	Thomas Hayes	Band	Eighteenth Infantry	20	10	47	June 3
194	Joseph Kuhn	L	Fifth Cavalry	5	3	43	June 9
195	Frank Smith	B	Fifth Artillery	13	5	34	June 10
196	George Edmonds	D	First Cavalry	6	3	54	June 13
197	Jens Olsen	G	Twenty-third Infantry	13	3	56	June 13
198	Michael Carroll	B	Third Artillery	3	9	28	June 15
199	Henry J. Bowker	I	Third Cavalry	13	7	42	June 22
200	George Fogarty	G	Thirteenth Infantry	19	10	44	June 19

* In war with Mexico.

† Died since admission.

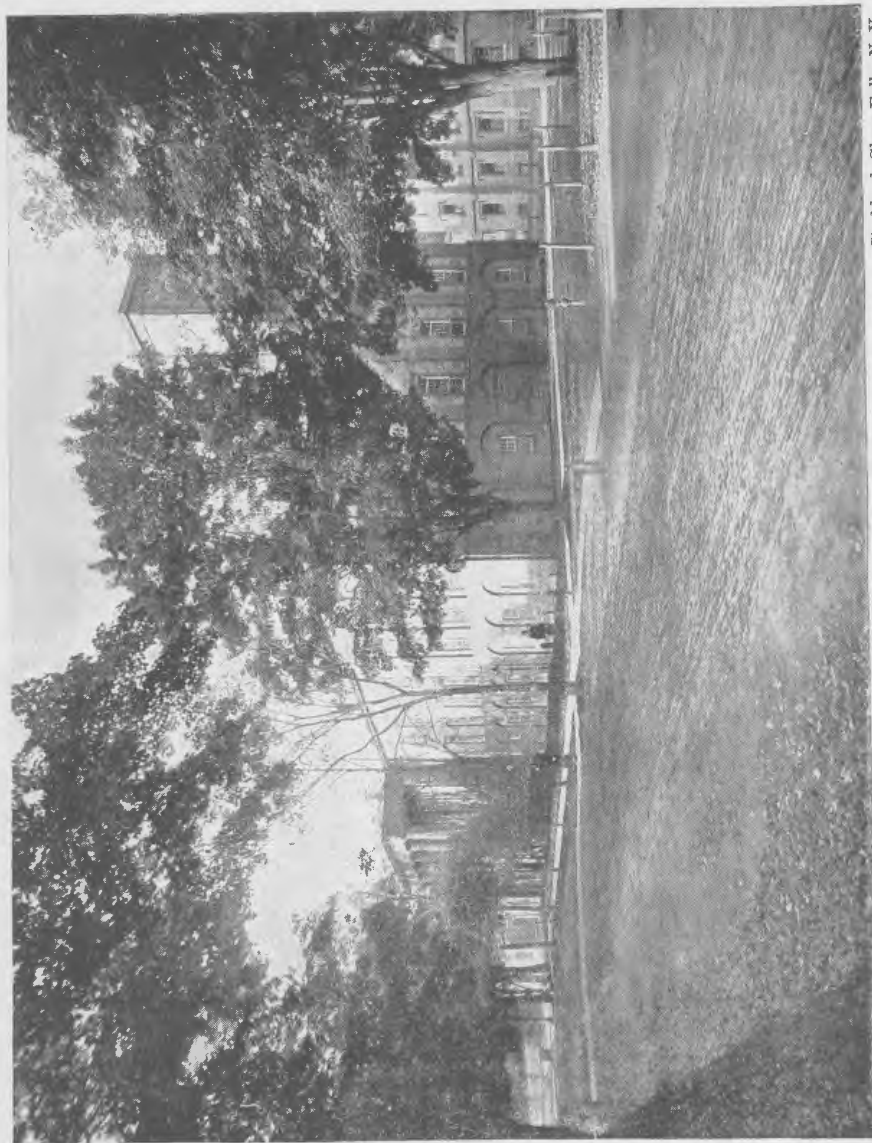
‡ Retired.

List of names, etc., of men admitted to the benefits of the Soldiers' Home, etc.—Continued.

No.	Name.	Last served in—		Service.		Age when admitted.	Date of admission.
		Company.	Regiment.	Years.	Months.		
							1891.
201	James E. Hipple.....	A	Ninth Cavalry	26	1	47	June 19
202	William O'Connor.....		Marine Corps	30	7	54	June 19
203	Thomas Hogan.....	G	Seventh Infantry	17	6	47	June 19
204	Robert Gessler.....	G	Eleventh Infantry	20		42	June 19
205	Edwin Sharon.....	E	Ninth Infantry	5		32	June 19
206	Edward Halderson.....	I	Second Artillery	1	1	26	June 19
207	Thomas Talbot.....	H	Fifth Artillery	20	2	61	June 19
208	Franklin Zimmerman.....	B	Third Cavalry	7	7	33	June 19
209	Frederick Kratz.....	E	Ninth Infantry	2	4	28	June 19
210	Julius Hineman.....	I	Third Cavalry	7	8	29	June 19
211	John Broderick*.....	E	Second Artillery	5		65	June 19
212	John Cornwell*.....	M	First Artillery		10	66	June 19
213	James Butler*.....	C	Second Infantry	13	8	66	June 19
214	Frederick H. Brown*.....	H	First Infantry	5		61	June 19
215	John Fitzpatrick.....	E	Thirteenth Infantry	23	1	55	June 25
216	Felix O'Rourke.....	I	Mounted Rifles	2	7	55	June 19
217	Thompson R. East.....	D	Forty-fourth Infantry	10	4	58	July 3
218	Frederick Leason.....	H	Fourth Artillery	22		54	July 7
219	Henry Wald.....	A	Fifth Infantry	20	9	48	July 10
220	William J. Davis.....	K	Seventh Cavalry	3		29	July 10
221	John Donaghue.....	A	Fifth Artillery	1	10	28	July 13
222	John Miller.....	I	First Artillery	9	6	40	July 18
223	Richard V. Bruck.....	L	do.	12	6	48	July 18
224	Anton Pfeiffer.....	I	do.	7	10	37	July 18
225	Timothy O'Shea.....	I	do.	14	5	40	July 18
226	Thomas Murphy.....	C	Twenty-third Infantry	14	1	47	July 18
227	Albert D. Alexander.....	D	Fifteenth Infantry	14		40	July 18
228	Louis Glass.....	L	First Artillery	21		65	July 18
229	Horatio Williamson*.....	K	Fourteenth Infantry	1		72	July 18
230	Theodore Cranz*.....	E	Fourth Infantry	2	7	69	July 18
231	John C. Martin.....	E	Fourteenth Infantry	21	4	54	July 28
232	Frank J. Hinsen.....	E	do.	21	1	46	July 28
233	James C. Fulton.....	H	Eighteenth Infantry	18	2	52	Aug. 7
234	Harvey H. Thomas.....	I	Seventh Cavalry		9	26	Aug. 10
235	David Driscoll.....	E	Sixth Cavalry	17	3	40	Aug. 12
236	Julian Brown*.....	F	Second Artillery		9	64	Aug. 15
237	Patrick Gaffney.....	F	Fifteenth Infantry	8	5	30	Aug. 15
238	John Harvey.....	H	Fourth Cavalry	6	2	28	Aug. 15
239	Oscar James.....	A	Twenty-fourth Infantry	11	6	37	Aug. 15
240	Ludwig Kreiman.....	G	Eighteenth Infantry	1	9	28	Aug. 15
241	Theodore Ragnar.....	K	Seventh Cavalry	8	8	35	Aug. 15
242	Henry Reed.....	A	Fourth Cavalry	21	11	47	Aug. 15
243	Edward A. Sullivan.....	K	Seventh Cavalry	3		24	Aug. 15
244	Daniel Wall.....		Mounted service.	5	11	28	Aug. 15
245	Joseph Whitson.....	M	Second Artillery	1	1	49	Aug. 15
246	Robert A. England.....	E	First Infantry	2	11	32	Aug. 15
247	James Howard.....	M	Second Artillery	4	6	29	Aug. 15
248	William Rush.....	H	Second Cavalry	7	5	36	Aug. 15
249	Joseph Stafford.....	A	Fifth Infantry	16	1	45	Aug. 15
250	James Condon.....	F	Tenth Infantry	20	7	48	Aug. 15
251	Henry D. Gipprich.....	E	Eighteenth Infantry	22	5	40	Aug. 20
252	Frank Conner.....	B	Thirteenth Infantry	2	7	26	Aug. 22
253	Daniel W. Fahlbusch.....	D	Third Cavalry	1	1	35	Sept. 5
254	George York.....	D	Seventh Cavalry	2	6	24	Sept. 10
255	Henry Martin.....	A	Engineers	25	1	51	Sept. 18
256	Richard J. Nolan.....	I	Seventh Cavalry	14	11	43	Sept. 14
257	Frank Carter.....	K	Fourth Artillery	7	6	40	Sept. 19
258	Frederick A. Clarke.....	E	Fifth Cavalry	20		47	Sept. 19
259	Joseph B. Hayes.....	E	First Artillery	13	6	38	Sept. 19
260	Robert P. Leach.....		Ordnance detachment	5	4	28	Sept. 19
261	George W. Mancill.....	F	Fifteenth Infantry	15	10	47	Sept. 19
262	James L. Miles.....	B	Second Cavalry	7	7	32	Sept. 19
263	Wilfred L. Mitchell.....	A	do.	7	9	29	Sept. 19
264	John M. Oxley.....	I	Fifth Artillery	5	11	49	Sept. 19
265	Frederick Peltzer.....	B	Twenty-second Infantry	4	5	33	Sept. 19
266	Theodore F. Wilson.....	M	Eighth Cavalry	8		44	Sept. 19
267	Michael Corcoran*.....	M	First Artillery		11	64	Sept. 19
268	James Hanly*.....		Marine Corps	1	4	65	Sept. 19
269	Patrick Jones.....	K	Twenty-fourth Infantry	14	7	39	Sept. 19
270	John McKeone.....	B	Second Artillery	23	11	45	Sept. 19
271	Michael Kennedy.....	L	Second Cavalry		7	24	Sept. 19
272	Hiram Lamphere.....	G	Seventeenth Infantry	2	6	47	Sept. 19
273	Christian Weinberger.....	E	Fourth Cavalry	10	2	45	Sept. 25

* In war with Mexico.

† Original admission September 22, 1890; one enlistment since.



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ACADEMIC BUILDING—DEMOLISHED, JULY, 1891.

Stoddard, Glens Falls, N. Y.

UNITED STATES MILITARY ACADEMY.

BOARD OF VISITORS.

JUNE, 1891.

APPOINTED BY THE PRESIDENT OF THE UNITED STATES.

1. Rev. FRANK A. O'BRIEN.....KALAMAZOO, MICHIGAN.
2. Colonel JAMES T. MURFEE.....MARION, ALABAMA.
3. Hon. JAMES A. WAYMIRE.....SAN FRANCISCO, CALIFORNIA.
4. Major JOHN M. CARSON, (*Secretary*).....WASHINGTON, DIST. OF COL.
5. Mr. DAVID W. PAYNE.....ELMIRA, NEW YORK.
6. General THEODORE S. PECK.....BURLINGTON, VERMONT.
7. Hon. ROBERT O. FULLER.....CAMBRIDGE, MASSACHUSETTS.

APPOINTED BY THE PRESIDENT OF THE SENATE.

8. Hon. CHAS. F. MANDERSON, (*President*).....OMAHA, NEBRASKA.
9. Hon. JAMES L. PUGH.....EUFULA, ALABAMA.

APPOINTED BY THE SPEAKER OF THE HOUSE OF REPRESENTATIVES.

10. Hon. JULIUS C. BURROWS.....KALAMAZOO, MICHIGAN.
11. Hon. JOSEPH A. SCRANTON.....SCRANTON, PENNSYLVANIA.
12. Hon. SAMUEL W. T. LANHAM, (*Vice-President*) WEATHERFORD, TEXAS.

REPORT

OF THE

BOARD OF VISITORS

TO THE

UNITED STATES MILITARY ACADEMY,

FOR THE YEAR 1891.

To the Secretary of War, the President of the Senate, and the Speaker of the House of Representatives :

The Board of Visitors appointed to attend the annual examination of the United States Military Academy for the year 1891 assembled at West Point, in the rooms provided for that purpose, on the 1st of June. The authority for appointing this Board, the purpose for which it is appointed, and the duties devolved upon it, are found in the two following sections of the Revised Statutes of the United States :

SEC. 1327. There shall be appointed every year, in the following manner, a Board of Visitors to attend the annual examination of the Academy. Seven persons shall be appointed by the President, and two Senators and three members of the House of Representatives shall be designated as visitors by the Vice-President or the President *pro tempore* of the Senate and the Speaker of the House of Representatives, respectively, at the session of Congress next preceding such examination.

SEC. 1328. It shall be the duty of the Board of Visitors to inquire into the actual state of the discipline, instruction, police administration, fiscal affairs, and other concerns of the Academy. The visitors appointed by the President shall report thereon to the Secretary of War, for the information of Congress, at the commencement of the session next succeeding such examination, and the Senators and Representatives designated as visitors shall report to Congress, within twenty days after the meeting of the session next succeeding the time of their appointment, their action as such visitors, with their views and recommendations concerning the Academy.

In accordance with these provisions of law the following named gentlemen were appointed to constitute the Board of Visitors for the year 1891, and requested to assemble at the Military Academy on the 1st day of June :

APPOINTED BY THE PRESIDENT OF THE UNITED STATES.

Rev. FRANK A. O'BRIEN	Kalamazoo, Mich.
Col. J. T. MURFEE	Marion, Ala.
Hon. JAMES A. WAYMIRE	San Francisco, Cal.

Maj. JOHN M. CARSON	Washington, D. C.
Mr. DAVID W. PAYNE	Elmira, N. Y.
Gen. THEODORE S. PECK	Burlington, Vt.
Hon. ROBERT O. FULLER	Cambridge, Mass.

APPOINTED BY THE PRESIDENT OF THE SENATE.

Hon. CHAS. F. MANDERSON	Omaha, Nebr.
Hon. JAMES L. PUGH	Eufaula, Ala.

APPOINTED BY THE SPEAKER OF THE HOUSE OF REPRESENTATIVES.

Hon. JULIUS C. BURROWS	Kalamazoo, Mich.
Hon. JOSEPH A. SCRANTON	Scranton, Pa.
Hon. SAMUEL W. T. LANHAM	Weatherford, Tex.

ORGANIZATION OF THE BOARD.

An organization was perfected by the unanimous selection of Hon. Charles F. Manderson as president; Hon. Samuel W. T. Lanham as vice-president; and Maj. John M. Carson as secretary.

Upon a call of the roll it was ascertained that all the members of the Board were present except Mr. Waymire, from whom a telegram was read explaining that he had been unavoidably detained on the road and would reach West Point the following day.

It was ordered that the regular meetings of the Board should be held daily at 3 o'clock p. m.

The president of the Board was authorized to appoint the usual committees for the examination of the various departments of the Academy.

The secretary was directed to notify Col. John M. Wilson, Superintendent of the Military Academy, that a quorum of the Board of Visitors was present, that the Board had been duly organized, and was prepared to proceed with the business for which it had been appointed. In accordance with this direction the secretary addressed the following letter to Colonel Wilson:

ROOMS OF THE BOARD OF VISITORS,
West Point, N. Y., June 1, 1891.

SIR: I have the honor to inform you that the Board of Visitors to the U. S. Military Academy for the year 1891, assembled this day at the place appointed for that purpose, and organized by the selection of Hon. Charles F. Manderson as president, Hon. Samuel W. T. Lanham as vice-president, and Maj. John M. Carson as secretary.

I have also the honor to inform you, by direction of the Board, that any communication you may desire to make in reference to the affairs connected with the Military Academy will be cheerfully received and be given careful consideration.

Very respectfully, your obedient servant,

JOHN M. CARSON,
Secretary.

Col. JOHN M. WILSON,
Superintendent U. S. Military Academy.

After a short recess the Board reassembled, when the president laid before the Board the following communication from Colonel Wilson, Superintendent of the Academy:

HEADQUARTERS U. S. MILITARY ACADEMY,
West Point, N. Y., June 1, 1891.

SIR: I have the honor to acknowledge the receipt of your communication of this date notifying me of the organization of the Board of Visitors.

I shall be happy to afford the Board every facility for a thorough inspection of the workings of all the departments of the Academy, administrative as well as those of instruction, and in general to do everything possible to assist the Board in its labors.

A programme of the examination has already been furnished each member. Notice will be given from day to day of such military exercises as are ordered for the Board of Visitors during their stay at the Academy.

First Lieuts. Frank L. Dodds, Ninth Infantry; Joseph E. Kuhn, Corps of Engineers; and Daniel L. Tate, Third Cavalry, have been detailed to attend upon the Board of Visitors during their stay at the Academy.

I also take occasion to say that I hope the Board will communicate with me freely, both personally and officially, upon any subject connected with the Military Academy which may be of interest to its members in connection with their official visit to West Point.

In conclusion permit me to say that I desire to call officially upon the Board of Visitors at the hotel at 4:20 o'clock p. m. to-day, with the members of the Academic Board and my military staff, for the purpose of paying our respects to the Board of Visitors and to conduct them to a review of the corps of cadets given in their honor.

At the close of the review it will give me pleasure to receive the members of the Board, their families, and friends at my quarters to meet the officers and ladies of the post.

Very respectfully, your obedient servant,

JOHN M. WILSON,
Colonel of Engineers, Superintendent.

HON. CHAS. F. MANDERSON,
President Board of Visitors, West Point, N. Y.

A copy of Orders No. 74, dated West Point, N. Y., May 14, 1891, was also laid before the Board and copies furnished each member. These orders announced the programme for the examinations of the various sections and classes and concluded with the following order of military exercises for the period between the 1st and 12th of June:

VI. The following military exercises will take place during the examination:

Infantry	{ Review	June 1
	{ School of the battalion	June 4
	{ School of the battalion (skirmish drill)	June 9
Artillery	{ Heavy artillery drill (sea-coast guns)	June 2
	{ School of the battery (field artillery)	June 6
	{ Heavy artillery drill (siege mortars)	June 9
Cavalry	{ School of the soldier, mounted	June 3
	{ School of the company, mounted	June 5
Practical military engineering	{ Military bridge construction (pontoon bridge)	June 8
	{ Military signaling	June 10
Small arms	{ Use of the sword and bayonet, military gymnastics	June 11

This order of exercises may be changed on account of the weather or for other causes.

VII. The members of the First Class will be graduated June 12, 1891.

By order of Colonel Wilson.

J. M. CARSON, JR.,
Second Lieutenant Fifth Cavalry, Adjutant.

The Superintendent, accompanied by his military staff and the members of the Academic Board, called upon the Board of Visitors at their rooms, and after an interchange of courtesies escorted them to the parade ground to witness the review arranged in their honor. Hon. Levi P. Morton, Vice President of the United States, having arrived at West Point a few hours prior to the time fixed for the review, upon invitation of the Board of Visitors participated in the ceremonies.

At the second session Hon. James A. Waymire appeared and assumed his duties as a member of the Board.

The President announced the following as the committees:

Appointments and Examinations.—Messrs. Pugh, O'Brien, and Scranton.

Discipline and Instruction.—Messrs. Murfee, O'Brien, and Peck.

Armament and Equipment.—Messrs. Peck, Manderson, and Waymire.

Buildings and Grounds.—Messrs. Payne, Lanham, and Fuller.

Supplies and Expenditures for Cadets.—Messrs. Burrows, Lanham, and Carson.

Fiscal Affairs.—Messrs. Scranton, Fuller, and Payne.

The committees proceeded at once to inquire into the matters assigned them respectively, and pursued their inquiries with commendable diligence. The results of these several inquests will be found in the reports made to and approved by the Board after full discussion.

PLAN OF PROCEDURE BY THE BOARD.

The plan upon which the Board proceeded to gain information about the various departments of the Academy was adopted for the purpose of ascertaining facts free from any influence of those connected with the administration of its affairs. It is proper to state in this connection that neither the Superintendent nor his assistants, at any time, except when so requested, offered suggestions or performed any act intended to influence the judgment of the Board or its members individually. Every opportunity was offered and every facility extended for full investigation of each department of the Academy, and every officer when called upon for information promptly responded. The committees daily prosecuted inquiries into the various departments, and at the regular meetings of the Board questions deemed important were presented for general discussion. By this course of procedure every member of the Board was made acquainted with the methods of each department of the Academy through the investigations of the committees, the necessity for changes when changes were recommended, and was thus prepared to act intelligently upon all matters presented by the committees. These regular meetings were found to be so interesting and instructive that during the fifteen days the Board was at the Academy not one meeting was dispensed with, and, with two or three exceptions, each meeting was attended by all the members. Several of them were at-

tended by the Superintendent and other officers of the Academy, from whom the Board desired information upon questions under consideration and whose attendance had been requested.

The reports of all the committees were presented during the days the Board was at West Point, their contents fully considered, and their recommendations discussed and acted upon. The final adjournment of the Board occurred on the morning of June 12. During the sessions a number of subjects were discussed and resolutions adopted which have no place in the reports of the committees. These matters are presented in the general report.

The Superintendent requested the Board to designate one of the members to deliver an address to the graduating class on the day of graduation, and in accordance with this request Hon. Julius C. Burrows was chosen. Rev. Frank A. O'Brien was also designated by the Board to deliver a short address upon that occasion.

The secretary was selected to write the general report and authorized, in the name of the Board, to call upon the War Department, the Superintendent of the Academy, and other parties from whom information deemed necessary in the preparation of the general report might be obtained.

APPOINTMENTS AND EXAMINATIONS.

Committee on Appointments and Examinations.—Messrs. JAMES L. PUGH, FRANK A. O'BRIEN, and JOSEPH A. SCRANTON.

SHOULD THE CORPS OF CADETS BE INCREASED?

The Board devoted considerable time to the question whether the strength of the corps of cadets as now established by law should be increased. This is not a new question. It has been discussed in Congress, in the public press, and in the reports of former Boards of Visitors. Opinion has been divided touching the general proposition, and varied as to the extent to which an increase should be made and the methods for its accomplishment. On the one hand many persons, influenced by the pride and enthusiasm incidental to a visit to West Point during the annual examinations and exhibitions, coincide with the opinion expressed by Gen. U. S. Grant upon the occasion of one of his visits to the Academy, and after he had visited many foreign countries, that there should be one thousand cadets at West Point. On the other hand, less sentimental but more practical persons believe that the measure of increase should not exceed the capacity of the present establishment. General Grant's expression that one thousand cadets should be receiving instruction at West Point was doubtless intended to express his estimate of the value of the Academy, and the excellence of the institution as a school for military instruction and training, and not a deliberate recommendation to increase the strength of the corps of cadets to the large number stated in the expression so often quoted.

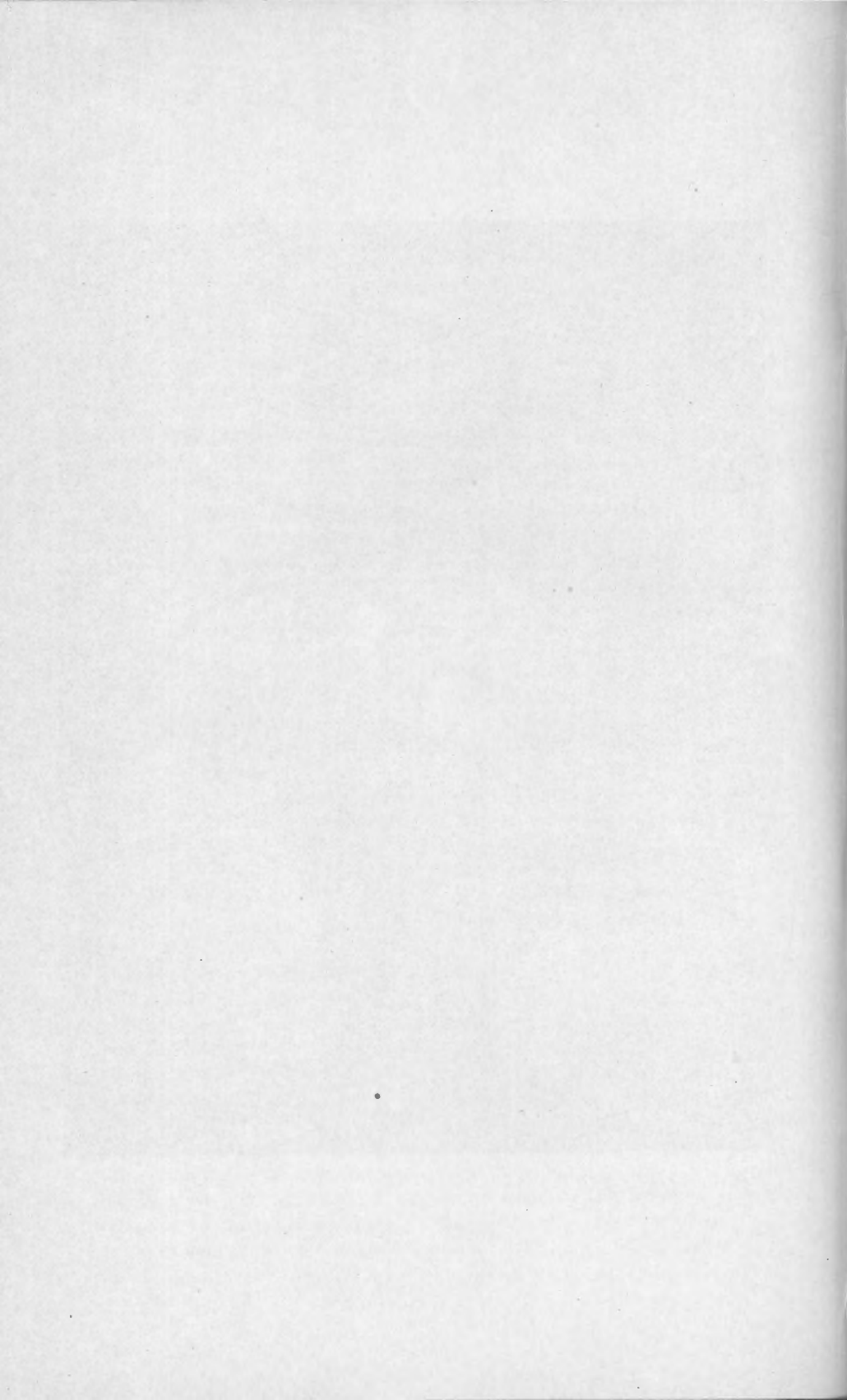
To maintain one thousand cadets at West Point may not be impracticable but would be impolitic for several reasons, not the least of which is that of expense. The work performed at the Military Academy is admittedly of the highest importance and value to the nation. It teaches young men the art of war, and gives its graduates training which qualifies them to serve the country in a state of war to the greatest advantage. The present capacity of West Point is equal to supplying the annual casualties of the United States Army, but even should the number of graduates exceed this requirement the country would be largely benefited by having in civil life, in every State of the Union, men who have passed successfully through the Military Academy. These men would naturally become identified with the National Guard, and, should the emergency arise, would become efficient instructors and competent

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CADET BARRACKS, FROM THE NORTH.

Stoddard, Glens Falls, N. Y.





commanders of newly formed regiments and brigades. The importance and value of having among the body of the people men of military education and training is illustrated by the fact that during our civil war many of the most successful and distinguished officers in both armies were men who graduated at West Point, but who were engaged in civil life upon the breaking out of hostilities.

If we are to consider the Academy merely as the means of furnishing the necessary material for supplying the annual casualties of the present Army in time of peace, no change in existing laws governing this question is required. But the Military Academy has been established and brought to its present high standard of excellence and efficiency by years of labor and experience and large expenditures of money. It has capacity for training and educating at one time at least 400 students without material increase in the annual cost of its maintenance, and the Board believes it would be good policy to obtain for the Army and the country the full fruition of the institution by increasing the strength of the Corps of Cadets so that it may be at all times, after providing for casualties, nearly equal to the membership of the House of Representatives.

STRENGTH OF THE CADET CORPS.

The strength of the Corps of Cadets is fixed by law at "one from each Congressional District, one from each Territory, one from the District of Columbia, and ten from the United States at large." Under the existing Congressional apportionment the maximum strength of the corps is 347. Under the apportionment act passed at the last session of Congress, and under the operations of which the Fifty-third Congress will be chosen, this number will be increased to 371. The intent and purpose of the law creating the Academy and of all laws amendatory thereof was clearly to educate at the institution a number of young men equal to the membership of the House of Representatives plus the number which the President is authorized to appoint. If this purpose could be carried out and the corps maintained at the legal maximum, the number of young men who should annually graduate would be 87, of whom 40 or 50 would be needed to supply vacancies in the Army. It is perhaps impossible that this number could be actually graduated, because it is unreasonable to expect that there will not be cases of deficiency; but that the number of graduates should be greater than it now is will not be denied by fair-minded men who will give the subject even slight investigation.

The strength of the corps at this time, exclusive of the two young men from Switzerland and Nicaragua who are receiving instruction under special act of Congress, is 284, or nearly 23 per cent. below the strength fixed by law. This large percentage of deficiency is mainly due to the selection of poor material by members of Congress, aided, in many cases, by an entire failure to select. Upon the graduation of the class

of this year there were 155 vacancies to be filled. For these, 138 principals were appointed, leaving 17 districts from which no appointments were made. Of the principals appointed 9 failed to report at the Academy, thus reducing the number to 129, of whom only 90 succeeded in passing the preliminary examinations. At the same time 64 alternates were appointed, of whom only 30 reported, and of these but 7 were admitted, so that, instead of a class of 155, we have only a class of 97 to start upon the 4-years' course of study and training. This delinquency is equivalent to a waste of 37 per cent. of the power and energy of the institution, because the same forces used in the training of 97 cadets would train 155.

AN INCREASE RECOMMENDED.

Much attention was given this subject by the Board. The committee having the matter in charge made careful inquiry into it, discussing it with members of the Academic Board and the more experienced military officers on duty at the Academy, and it was also discussed with the Board at two meetings, set apart for that purpose, by Colonel Wilson and Professor Michie. As the result of this inquiry the Board unanimously adopted the report of the Committee on Appointments and Examinations, and agreed to recommend the passage of an act fixing the strength of the Corps of Cadets at a maximum of 469. In the selection of candidates for admission to the Academy, the Board recommends that in addition to the present allotment of 1 cadet to each Representative and Delegate in Congress, 2 cadets be allotted to each State at large, to be nominated by the Senators respectively, and that the President be authorized to nominate from the country at large 20. The practice prior to the passage of the act of June 11, 1878, was for the President to nominate 10 cadets for each year. The act referred to limited the appointments by the President to 10 for the academic term of four years. Should this increase be authorized, and in the manner proposed, there would be set apart for the House of Representatives 361 cadets, the number authorized under the new apportionment act, the Senate 88, and the President 20, thus making the total number 469. It is believed by the Board, based upon an examination of failures among candidates and casualties among cadets, that the proposed increase from 371 to 469 would be the means of maintaining the strength of the Corps of Cadets at about the number originally intended, namely, "one from each Congressional District, one from each Territory, one from the District of Columbia, and ten from the United States at large." Under the apportionment act of 1891 the House will consist of 356 Representatives and 4 Delegates from the Territories, which gives, with one from the District of Columbia, 361 as the number of cadets at the Academy exclusive of the 10 which the President is authorized to appoint.

SELECTION AND EXAMINATION OF CANDIDATES.

The present method of selecting candidates, and the time and manner of conducting their preliminary examination, were also made the occasion of special inquiry and discussion by the Board. We believe, that an immediate change in both these particulars should be made. In the matter of selecting candidates the fact that so many of those nominated by members of the House of Representatives fail to pass the preliminary examinations, and the additional fact that many Representatives fail to nominate at all, or hold vacancies open for a year or more in order to nominate a particular person, show that some action should be taken to correct this abuse. The report of the committee on Appointments and Examinations discusses this question, and the special attention of the proper authority is earnestly directed to it. Previous Boards of Visitors have discussed this general question and all have recommended such action as would compel Representatives to make nominations of cadets at the proper time, and that such regulations should be made as will insure a larger number of admissions to the Academy. The Board of Visitors for 1887, of which Mr. George W. Childs, of Philadelphia, was president, in discussing the method of selecting candidates, directed the attention of the military authorities and the country to the prevailing abuse with a force and directness that should have commanded prompt action on the part of the President and the War Department. This is a matter within the province of the President and Secretary of War to regulate and correct. Members of Congress should be required, at the proper time, to nominate candidates to fill vacancies at the Academy, and failing to do this, appointments should be promptly made by the President from the list of eligible candidates filed at the War Department. The belief is general that members of the House of Representatives possess the right to appoint candidates for admission to the Military Academy. That such right does not exist under authority of the statutes is shown by the report of the Board of Visitors for 1887, which says on this subject:

The opinion has obtained that members of the House of Representatives have the right to appoint candidates for admission to the U. S. Military Academy. This is an error. The courtesy has been extended by the President to Representatives of permitting them to nominate candidates, but they have no more right to make an appointment than they have to appoint a postmaster or a collector of customs. The law authorizing and regulating appointments to the Military Academy is found in chapter 4 of the Revised Statutes, and the attention of members of the House of Representatives is specially invited to it. It provides:

"SEC. 1315. The corps of cadets shall consist of one from each Congressional district, one from each Territory, one from the District of Columbia, and ten from the United States at large. *They shall be appointed by the President*, and shall, with the exception of the ten cadets appointed at large, be actual residents of the Congressional or Territorial districts, or of the District of Columbia, respectively, from which they purport to be appointed.

"SEC. 1317. Cadets shall be appointed one year in advance of the time of their admission to the Academy, except in cases when, by means of death or other cause, a vacancy occurs which can not be provided for by such an appointment in advance." * * *

There can be no difference of opinion as to the construction of the law above quoted. The right to appoint is not only lodged in the President alone, but the obligation to appoint is imposed. The recommendation of the Representative is in no sense binding on the President, and gives the candidate so recommended by him no legal right to priority in the consideration of the President. The practice of appointing the person recommended by the Representative of the district in which a vacancy exists has been found, as a rule, to work satisfactorily; but the matter of appointment to the Military Academy has been so completely assumed as a right by the Representatives that it has come to be considered as a personal prerogative, to be given and withheld at pleasure. The result of this abuse—for it is an abuse—of the privilege extended by the President has been, and continues to be, detrimental to the public interests and expensive to the public Treasury. The Board would not be understood as recommending a withdrawal of the privilege of nominating candidates so long enjoyed by Representatives, and direct public attention to the matter simply to correct a popular error and in the hope that it will result in the adoption of a regulation by the President that will *require* Representatives to promptly recommend candidates for appointment to the Academy with the alternative of a selection being made directly by the President. The importance and necessity for the immediate adoption of such a regulation is shown by the fact that a large number of districts are constantly unrepresented at the Academy, by reason of the indifference and neglect of members of the House of Representatives, and sometimes of the deliberate design of a Representative to keep the place vacant for a year or two in order to accomplish the appointment of a particular candidate in furtherance of his own political preferment.

DERELICTION IN NAMING CANDIDATES.

In this connection it may be urged that the custom of permitting Representatives to absolutely determine the disposition of appointments of cadets to the Military Academy has been of such long standing as to have all the binding force of law. If this power was exercised by the Representatives in the direction of the public interest and in accordance with the spirit of the law, the plea of long continued custom might be treated with respect. But when exercised at the whim of the Representative, or to advance his individual interests, the authority which is alone vested in the President should be resumed by him and exercised to promote and maintain those interests which have been persistently neglected by the Representative. The Board earnestly directs the attention of the President and Secretary of War to this matter. We suggest that notification be given members of Congress that hereafter nominations for appointment to the Military Academy must be made for vacancies that are to occur the year next following on or before January 1, and that in all cases when nominations are not so made the President will exercise his authority to appoint.

The annual examinations take place in June. The law requires that "cadets shall be appointed one year in advance of the time of their admission to the Academy," except in cases where the vacancy is the result of casualty other than graduation. Public notice could be given through the newspapers of the prospective vacancies, and young men residing in the districts in which vacancies are to occur possessing the

prescribed qualifications invited to forward to the War Department applications and recommendations. In this way the President would be enabled to select a young man for appointment in every district in which the Representative was derelict. The fact that the President proposed to exercise his authority in the premises would in itself be sufficient to correct the abuse complained of.

PRESENT METHOD OF EXAMINATION DEFECTIVE.

Judged by its results the present method of examination of candidates for admission to the Academy is defective, and this opinion is sustained by members of the Academic Board and others who have inquired into it. The large percentage of failures may primarily be chargeable to a lack of proper training of candidates, but whatever the cause it should be remedied in order that the largest possible amount of raw material might be secured for the successful manipulation of the institution. That only 50 per cent. of all those admitted to the Academy has been graduated for many years may be regarded as a reflection upon the preparatory schools and academies of the country, but can not truthfully be said to be a correct estimate of the real character of their worth and efficiency. The Board believes that this great deficiency is attributable to the lack of proper care in selecting candidates and not to an absence of efficiency in the public and private schools of the country. Candidates are frequently sent to West Point whose lack of qualification would have been apparent before leaving their homes had they been subjected to examination. In many cases the failure of candidates is due to the absence of any training rather than to the insufficiency or inefficiency of any particular school or system. This would be remedied by holding the examinations at stated times in the several States, in the manner recommended by Colonel Wilson when conferring with the Board and outlined in the paper prepared by him and made part of this report.

NEW METHOD OF APPOINTMENT RECOMMENDED.

The Board approves in the main the plan of examination recommended by Colonel Wilson and commends it to the attention of the honorable Secretary of War. If adopted, with some change in details, it would undoubtedly be attended with good results. We recommend:

(1) That hereafter Representatives be required to nominate candidates not later than January 1, and in all cases of failure to nominate that the President designate young men for all districts that may be delinquent on that date.

(2) That examinations, physical and mental, be held at certain convenient points, to be designated by the Secretary of War not later than March 10, and that these examinations be conducted in the same manner as examinations are now conducted at the Military Academy, and under the direction and supervision of the Academic Board, the examinations to be held throughout the country upon the same days.

(3) That the examination questions be prepared by the Academic Board, each set of questions to be inclosed and sealed and sent to the Adjutant-General of the Army for transmission to the several officers appointed to conduct the examinations.

(4) That officers of the Army, not to exceed two at each point, be detailed to be present at the examinations, to whom the examination questions shall be sent by the Adjutant-General in the exact condition in which they were received by him from the Military Academy, and by whom alone the seals on the respective packages shall be broken on the day and in the place appointed for the examinations, and in the presence of the candidates there assembled, to whom the questions shall be delivered, one set of questions to each candidate in the order in which the subjects shall be taken up.

(5) That these officers be restricted to the conduct of the examination; that their duty be simply to be present at all times during the progress of the examinations, to see that each candidate performs his work without assistance, and to receive and forward the papers when completed to the Superintendent of the Military Academy under such regulations as may be prescribed by the Secretary of War.

(6) That when the papers are received at the Military Academy the Academic Board be required to proceed at once to examine and pass upon them, the results of this examination to be reported by the Superintendent as soon as practicable to the Adjutant-General of the Army.

(7) That Representatives be notified immediately by the Adjutant-General in case of failure of their candidates and requested to name other candidates not later than May 1, such candidates to be examined in the manner heretofore described, provided that can be done prior to June 20, otherwise the candidates to report to the Adjutant of the Military Academy not later than July 1 for examination at the Academy.

(8) That candidates who successfully pass the examinations held in their respective localities shall be admitted to the Academy without further examination.

(9) That no person who has failed to pass shall be again nominated for examination during the year for which such person failed.

In order to preclude favoritism in the examination of candidates and in passing upon their papers, the system now practiced at the Academy of assigning a number to each candidate, by which alone his papers are known to the Academic Board, should be followed. The numbers are assigned by the Adjutant of the Academy, and he is the only person who knows the names of candidates corresponding with the numbers. This information is held inviolate by the Adjutant until the final action of the Academic Board, when it becomes necessary to associate the names with the examination papers.

The plan of examinations recommended does not involve any change in their scope or character as now conducted at the Military Academy, nor does it in any degree lessen the authority of the Academic Board

over them. It simply brings the place of examination nearer the home of candidates and saves them the expense of traveling to and from West Point in case of failure to pass. Many young men who might be designated for appointment as cadets are not able to assume the expense of a journey to West Point with the contingency of similar expense for the return trip in case of failure, and nominations have been frequently declined on this account. This is particularly true of boys living at points remote from West Point whose parents are unable to assume the expense of traveling. Under the proposed plan of conducting the preliminary examinations those who pass would know upon leaving their homes that they are to enter the Corps of Cadets and remain at the Academy at least for the period of six months, or until the regular semi-annual examination of the classes is made.

REPORT OF THE COMMITTEE.

Following is the report of the Committee on Appointments and Examinations, which was presented by Mr. Pugh and after considerable discussion adopted :

ROOMS OF THE BOARD OF VISITORS,
West Point, N. Y., June 8, 1891.

To the Board of Visitors:

The committee on Appointments and Examinations have had these subjects under consideration, and find that the ability of the Academy to carry out its objects and insure its usefulness is far greater than the number of cadets now allowed by law to enter the Academy. It is a great waste of the power and capacity now employed in the institution to allow it to be expended upon the present number of cadets. It is the opinion of the able and efficient Superintendent and faculty of the Academy that the present number of cadets can be increased to 500 without any considerable outlay in the expenditure of money, and without any considerable enlargement of the machinery and means of accommodation now belonging to the Academy. The committee are therefore unanimous in recommending that the number of cadets be at once increased to 500.

The most difficult problem for solution is where the power of selection and appointment shall reside and how it shall be exercised. The original and primary object of the creation of the institution was to qualify officers to command a standing army of the United States. History has demonstrated the eminent success and usefulness of the Academy, and the wisdom and patriotism that prompted its establishment and continued and enlarged its existence, have been fully vindicated by experience.

On account of the exclusive military character and objects of the Academy the power of appointment was vested in the beginning in the President; but that official soon learned by trial that it was impracticable and inexpedient for him to exercise the power efficiently, and for this reason he delegated the power of selection and nomination to the members of the lower house of Congress. It is manifest that the intention and policy of the Government have been and are now that the beneficiaries of the institution shall come from the people in each State and Territory without discrimination or partiality. And no doubt the purpose of the President in conferring upon members of the House the power of selection and nomination was to popularize the institution by extending and distributing its benefits generally and equally among the people of the States and Territories.

It is a fact that the candidates selected by the members of the House have not in very many cases been successful in standing the examinations and passing the tests

of qualification for admission into the Academy. As a rule it has been found that the maximum number of cadets allowed by law has not been kept up by at least one-third, thereby depriving the country of the benefits of its expenditure for one-third more cadets, and the cadets themselves of the invaluable instruction and training provided for them and wasted on account of their absence.

For reasons satisfactory to the members of the House it has been decided by them to improve the mode of selection and secure, if practicable, a better class of their constituents for nomination to the President, and the change made by the members is to delegate their delegated authority to a board of examiners, to call before them the several applicants and ascertain their fitness to stand the examination of the Academic Board at West Point and pass into the Academy. The competitive system thus established has proven to be a great improvement upon the old mode of direct appointment. It, however, continues to be a fact that the number of cadets is never up to the maximum by a large proportion, and this deficiency is an evil that should be corrected. Whether the trouble is in the power of selection or in the character of the examination there is much difference of opinion. The power of selection ought to be kept as near to the people of the several States as practicable, and so exercised as to secure an equal and fair distribution of the inestimable benefits of the institution among all the people.

In relation to the examination of the candidates for cadetships, the committee find that the practice of requiring the candidates to attend an examination at West Point to determine their physical and educational qualifications for admission into the Academy works great hardship to those who are found deficient. The plain remedy for this evil is the formulation of some plan for the examination in each State on the same day of all the candidates who may be designated by members of the House in their several districts as now authorized, and should the number of cadets be increased as suggested, then the selection of those to be examined to be made by the Members of the House and by the Senators from each State and the President of the United States, or otherwise, as Congress may determine. It would be an easy matter to discover the physical defects that disqualify, and an Army surgeon might be detailed to make the examination in each State for that purpose at the same time and place appointed for the educational examination.

It has been suggested by Colonel Wilson, the Superintendent, that the questions now required to be answered by the Academic Board at West Point could be printed and sent by an army officer to each State some two months before the time for entering the Academy, who would call each candidate from the several districts on the same day at the capital of the State, or other convenient point, where the written questions would be delivered to each candidate, and without conference with each other or other person each candidate, without separating from the army officer, would be required to write out his answers to each question, and the answers delivered to the army officer, who would seal them up and forward them to the Academic Board at West Point. These answers would be examined and the right of the candidates passed upon by the Board, and if found qualified the candidate to be notified and his appointment made at once without any further examination on his arrival at West Point. If no one is found qualified in any district from the list of those who have answered, another examination shall be ordered, and so on until the maximum number is appointed.

Respectfully submitted.

JAMES L. PUGH.
FRANK A. O'BRIEN.
JOSEPH A. SCRANTON.

VIEWS OF THE ACADEMIC BOARD.

In order to obtain the views of the Academic Board on the question of increasing the efficiency of the Academy, the secretary of the Board

of Visitors was instructed to request that body to prepare a paper on this subject. Accordingly the following letter was sent to Colonel Wilson:

ROOMS OF THE BOARD OF VISITORS,

West Point, N. Y., June 6, 1891.

SIR: The Board of Visitors have instructed me to inform you that they would be pleased to have from the Academic Board a paper expressing the views of that board, either individually or collectively, in relation to the methods of appointment and examination of cadets; whether any changes can be made in these methods which, in their judgment, would tend to increase the number of candidates and thereby tend to increase the number of graduates; and, also, as to the advisability, at this time, of increasing the maximum strength of the corps to an aggregate equal to the number of Senators, Representatives and Delegates in Congress, and ten appointments by the President of the United States. In connection with the question of increasing the present number of cadets, the Board would be pleased to have the opinion of the academic authorities as to whether the proposed increase would involve any additions to present facilities of the Academy for the imparting of instruction, and if so, what the character and extent of such additions would be.

Very respectfully, your obedient servant,

JOHN M. CARSON,
Secretary.

Col. JOHN M. WILSON,
Superintendent U. S. Military Academy.

To the foregoing letter the following reply was received by the secretary of the Board from Colonel Wilson:

HEADQUARTERS U. S. MILITARY ACADEMY,

West Point, N. Y., June 24, 1891.

MY DEAR SIR: I have the honor to acknowledge receipt of the letter of the 6th instant from the Board of Visitors requesting the views of the Academic Board of the U. S. Military Academy relative to the existing methods of appointments and examinations of candidates, and asking whether any changes could be suggested which, in the judgment of the Board, would tend to increase the number of graduates.

This letter was laid by me before the Academic Board at its meeting on the 9th instant, and it received most careful and thoughtful consideration.

Taking up the various subjects mentioned, in their regular order, the Board requests me to state its views as follows:

(1) The Academic Board feels satisfied that with the Academy as now constituted the number of cadets can be increased, but such increase should be very gradual. For the present the Board can only recommend that the privilege of nominating ten cadets each year, instead of ten during four years, shall be restored to the President of the United States. This power was held by the President until its revocation by the act of Congress approved June 11, 1878.

(2) The Board is in favor of some method of examining candidates at various places throughout the United States, as outlined in general terms by the Superintendent of the U. S. Military Academy, but believes that it will require time and consideration to develop the best scheme in detail.

(3) The Board respectfully states that at present it has no suggestions to make as to the method of appointment of candidates for admission.

In submitting the foregoing views, in reply to the communication from the Board of Visitors, I have been requested to state that a minority of the Academic Board is not in favor of any increase of the corps of cadets at this time.

Having expressed in the foregoing the views of the Board, I shall take advantage of your request for individual opinions and present my own, as follows :

(1) I feel assured that the entrance examinations can be conducted without difficulty previous to the arrival of the young gentlemen at West Point, and I would suggest that candidates should be required to report for physical examination to the nearest medical officer of the Army immediately after receiving their letters of appointment, and should they be pronounced physically disqualified for military duty, their appointments can at once be revoked, and they would be spared further expense and mortification; should they be pronounced *qualified they should be admitted without further physical examination.*

(2) Early in April of each year, upon some stated day, I would require all candidates throughout the United States who have letters of appointment and who have been pronounced physically qualified, to appear for mental examination at certain geographical centers throughout the United States, such as Portland, Boston, New York, Philadelphia, Pittsburg, Washington, Richmond, Charleston, Atlanta, Mobile, New Orleans, San Antonio, Memphis, Louisville, St. Louis, St. Paul, Chicago, Omaha, Denver, Cheyenne, Helena, Salt Lake City, San Francisco, Portland, Seattle, and such other prominent places as the Secretary of War shall indicate.

These examinations should be held under the direction of the Academic Board of the U. S. Military Academy, and if necessary members of the Board could be detailed to be present at the more important points.

The questions should be prepared here by the Academic Board, and the examination conducted under the immediate supervision of army officers, acting simply as monitors. Each candidate should write his name upon a slip of paper, and should receive a number corresponding thereto; upon his examination papers his number only should appear. The names with numbers would at once be sent under seal to the War Department, while the examination papers, with numbers only, should be sent direct to the Superintendent of the Military Academy, for the action of the Academic Board.

The Board, after carefully considering all the papers, can at once determine which are satisfactory, and the Adjutant-General can be immediately informed of the numbers of the successful candidates.

The young gentlemen can then be notified, their original signatures sent to the Military Academy for comparison when they take the oaths of allegiance, and the candidates will be prepared to go on duty upon their arrival at West Point.

Appointments in place of those who may have failed at this examination can be made without delay, and these additional candidates, who will be few in number, can be promptly examined by the Academic Board as soon as they report in June.

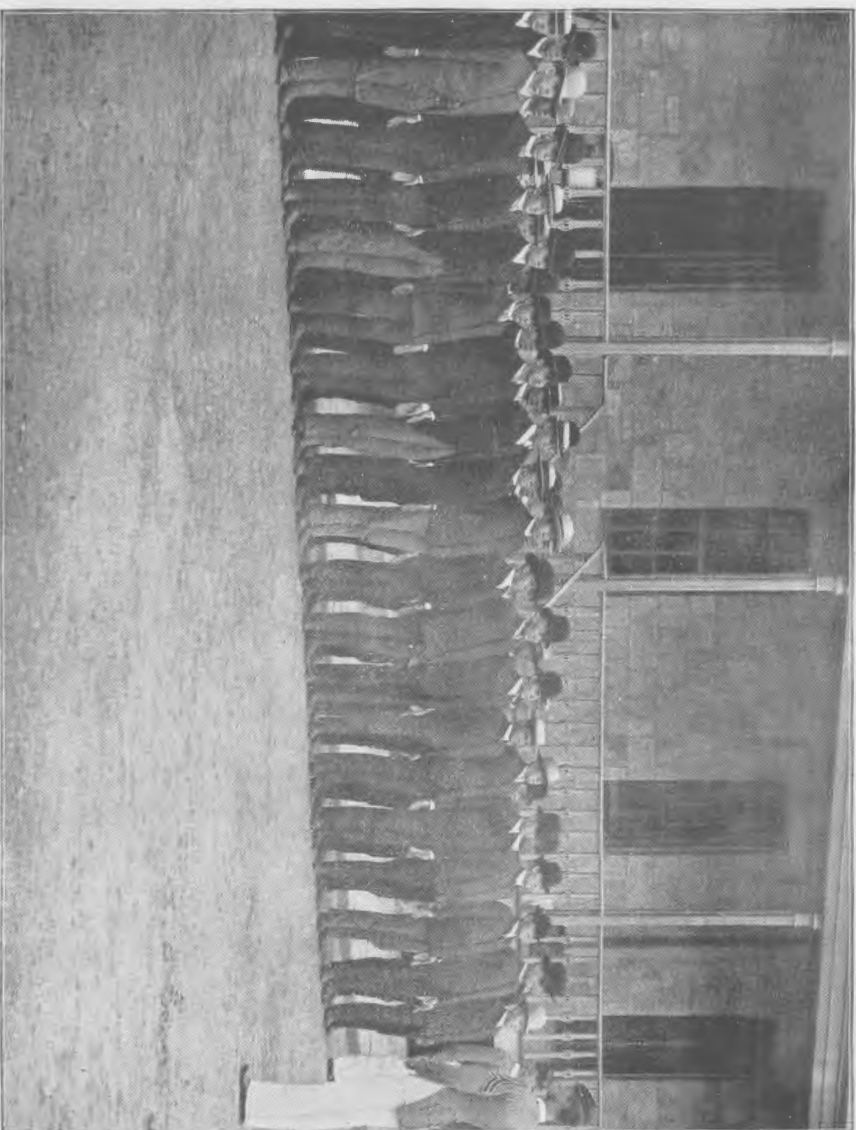
(3) I am in favor of a moderate increase of the number of cadets at the Academy, believing that our plant is sufficient to turn out a larger number of graduates each year.

Such increase should be gradual, and I would suggest, at first, simply restoring to the President the privilege of appointing ten cadets each year, of which privilege he was deprived by the terms of the act of June 11, 1878.

At present the maximum number of cadets authorized is 347; under the new appointment it will be 372; with the privilege accorded the President which existed prior to 1878, the maximum number will be 402.

The present plant is amply sufficient to care for 402 cadets, and all that will be required will be the detail of a few more officers as instructors and the erection of additional quarters for their accommodation.

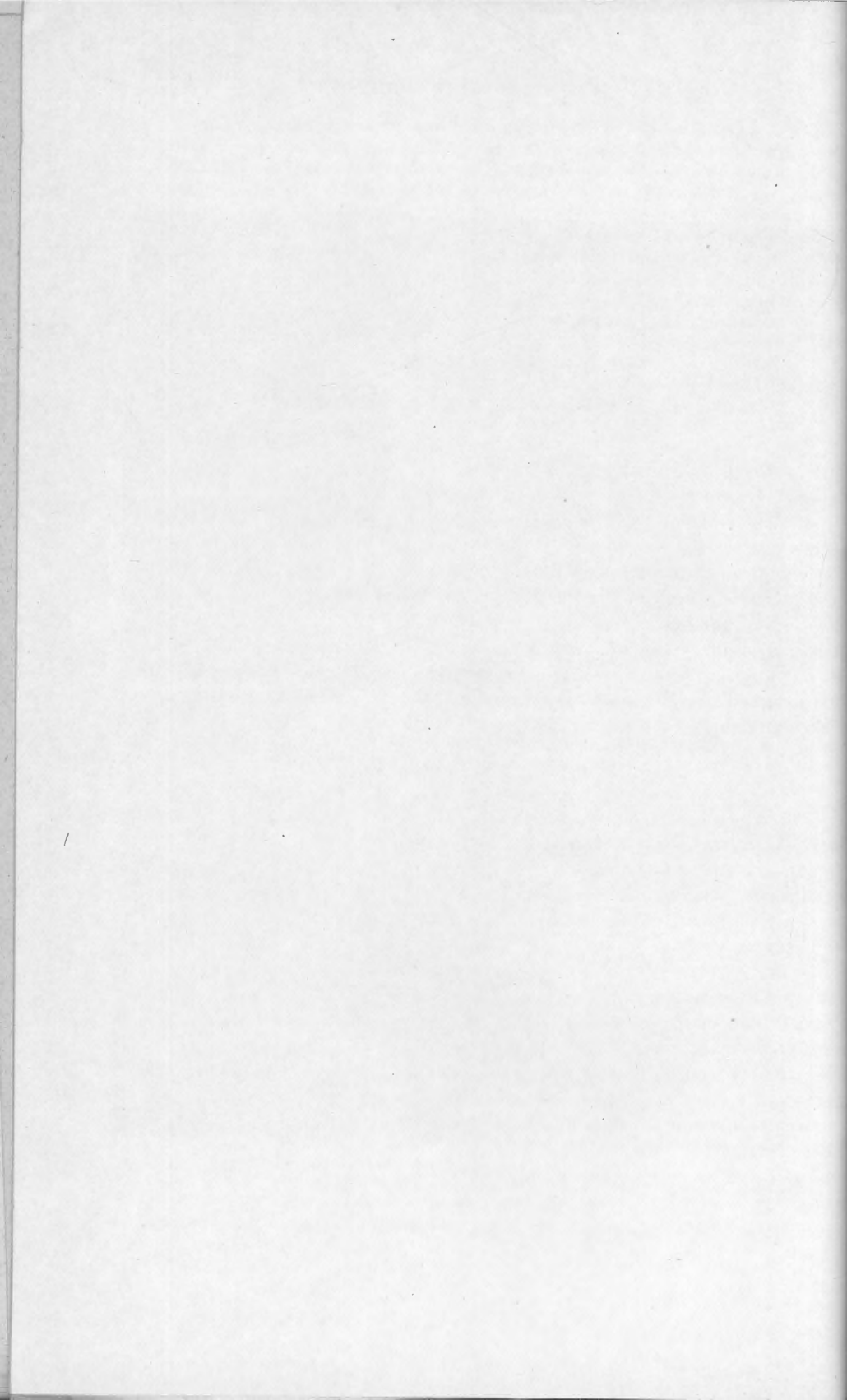
Should the demands of the country still render a further increase necessary, I would suggest in the future, after the first increase has been thoroughly tested, that the privilege now accorded members of the House of Representatives, of nominating candidates from Congressional districts, be extended to the U. S. Senate, by giving



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CANDIDATES.

Stoddard, Glens Falls, N. Y.



each State two cadets at large, to be nominated by the Senators to the Secretary of War.

This increase would necessitate a possible enlargement of the cadet barracks and chapel, an increase in the number of officers as instructors and quarters for their accommodation, an enlargement of the stables and more horses, and an increase in the lighting facilities of the post.

The new academic building, the cadet mess hall, with some minor changes, and the cadet hospital, would, in my opinion, need no enlargement so long as the maximum number of cadets allowed by law does not exceed 500.

Very respectfully, your obedient servant,

JOHN M. WILSON,
Colonel of Engineers, Superintendent.

Major JOHN M. CARSON,
*Secretary Board of Visitors to the U. S. Military Academy,
West Point, N. Y.*

The Board does not agree with Colonel Wilson that an increase in the corps of cadets, fixing the number at 469, would require enlargement of the cadet barracks. The actual presence of 469 cadets would perhaps necessitate an extension, but it is not probable that, even with the adoption of the plan recommended for appointment and examination, the actual strength of the corps would exceed 400 at any one time. The total number of rooms in the cadet barracks is 208, which will furnish ample accommodation for 416 cadets. For the brief period that the strength of the corps might exceed that number three cadets could be assigned to some of the rooms without sacrifice of personal convenience or risk to health.

VIEWS OF COL. SYLVANUS THAYER.

That the present methods of appointing and examining candidates for admission to the Academy has for many years been regarded as inefficient and faulty is shown by a paper prepared by Col. Sylvanus Thayer 26 years ago. Colonel Thayer was for many years Superintendent of the Military Academy. His administration was so marked by conspicuous ability as to gain for him the title of "Father of the Military Academy," and to secure a monument on the parade ground in the form of a life-size statue erected by the graduates of the institution. The last visit made to the Military Academy by Gen. U. S. Grant was to attend the unveiling of the statue of Colonel Thayer. The Board is indebted to Adjutant-General John C. Kelton for a copy of this paper of Colonel Thayer. General Kelton has given this general question much observation and study. No officer in the Army has had better opportunities for intelligent examination of the question, and no military officer has exhibited greater zeal in all that relates to the intellectual progress of the Army, the advancement of its morale, and promotion of its personal comfort than General Kelton. In a letter to

the secretary of the Board of Visitors, directing attention to the paper of Colonel Thayer, Adjutant-General Kelton says:

WAR DEPARTMENT, ADJUTANT GENERAL'S OFFICE,
Washington, June 9, 1891.

DEAR MAJOR CARSON: My observation and study of West Point has long ago convinced me that the method of appointing cadets is a failure.

The plan of Colonel Thayer, the father of the Military Academy, proposed in 1865, modified to suit present conditions, would probably be a success in securing the best representation for each Congressional district, and be the means of greatly increasing the number who could be graduated.

If, in addition to this method of securing the best candidates, the course of study at West Point should be divided at the end of the second year, giving all those members of a class who show marked proficiency in mathematical studies, and who have expectation for the Engineers, Ordnance, and Artillery, the present four years' course of instruction, and those who in the first two develop no special aptitude for mathematics a different course of study, but one more helpful in preparing them for commissions in the infantry and cavalry, I believe many more candidates could be graduated.

I am induced to send Colonel Thayer's project and to make the foregoing remarks upon seeing newspaper reference to the efforts the Board of Visitors are making this year to improve the quality of the candidates and increase the number to be graduated.

After making such use of Colonel Thayer's "Propositions and suggestions for the improvement of the U. S. Military Academy" as you may deem proper, please restore the paper to the files of the Department.

Very truly yours,

J. C. KELTON,
Adjutant-General.

Maj. JOHN M. CARSON.

Colonel Thayer's paper is entitled "Propositions and Suggestions for the Improvement of the U. S. Military Academy." Some of the recommendations had more force and application 25 years ago than at the present time. While the Board does not approve all the recommendations of Colonel Thayer, it contains so much that is of value at this time and in this connection that his paper is given entire. In this paper Colonel Thayer discusses the curriculum of the Academy, and advocates certain changes which will doubtless startle many of the older graduates. This portion of the paper properly belongs to the chapter of this report devoted to discipline and instruction. It is deemed best not to divide Colonel Thayer's paper, and it is therefore inserted entire in this place. The paper has laid in the files of the War Department for 25 years, its existence known to comparatively few persons. It is now printed for the first time. The paper is as follows:

PROPOSITIONS AND SUGGESTIONS FOR THE IMPROVEMENT OF THE U. S. MILITARY ACADEMY.

First. The Corps of Cadets to be increased so that it shall consist of 400 members for the present, to be further increased whenever accommodations for a greater number shall be provided.

Second. The present mode of appointing cadets, viz., on nomination by members of Congress, be done away with.

Third. The admission of cadets to be made dependent on the results of an open competitive examination, conducted with perfect fairness to all concerned.

Fourth. No candidate to compete who, at the time of joining the Academy, shall be under 17 or over 20 years of age, excepting candidates who shall have served not less than 6 months in the Army, who may be examined if not over 24; and no candidate shall be permitted to compete who does not produce satisfactory testimonials in regard to his moral habits and character, nor shall the name of any candidate be placed on the roll of those found qualified for admission unless, besides the requisite physical qualifications, he shall have passed a satisfactory examination in each and all of the subjects specified in the next following (fifth) proposition.

Fifth. The subjects of the competitive examination shall be:

- (1) Reading distinctly and understandingly.
- (2) Writing legibly and fairly.
- (3) Spelling correctly.
- (4) English grammar, so as to analyze and construe any ordinary English sentence.
- (5) Descriptive geography.
- (6) Arithmetic—ground rules, fractions (vulgar and decimal), ratios and proportions.
- (7) Algebra—ground rules, fractions, simple equations, discussion and solution of quadratic equations.
- (8) Geometry—theorems and problems of plane geometry.

Sixth. The board for the examination of the candidates to consist of three members, two of whom to be selected from military officers, graduates of the Academy; the third member to be a civilian, a professor in some college, or any other person of well known competency, who is a resident of the State in which the examination is held.

It shall be the duty of the board to examine the candidates belonging to each State, separately, at the time or times and at the place or places fixed therefor, in each and all the branches required for admission, and thereupon to make out a special merit roll, for each branch, and from the special merit rolls a general merit roll, from the head of which will be taken in numerical order the number of cadet appointments to which the State may be entitled.

Seventh. Paragraph 18 of the Academy Regulations, edition of 1857, to be stricken out, and Article II to be modified, so as to conform to the foregoing propositions.

Eighth. Paragraph 23 to be modified so as to read as follows: "French grammar, reading French with a correct pronunciation, translating French into English readily and correctly."

Ninth. The Spanish language to be stricken from the regular course of studies and taught only as a voluntary study to such cadets as, in the opinion of the Academic Board, are capable from previous acquirements of pursuing the study without detriment to their progress in the obligatory studies.

Tenth. The subjects enumerated in paragraph 25 to be greatly abridged, and only so much of chemistry and its applications taught as are necessary or essentially useful to the military engineer or artillery officer.

Eleventh. Some of the branches named in paragraph 32 to be eliminated.

Twelfth. The present mode of examining cadets for advancement from class to class and for commissions in the Army, and also the present mode of forming the merit rolls to be submitted to the Board of Improvement for revision.

Thirteenth. A military officer, selected from the graduates of the Academy, and known to possess a thorough knowledge of all the sciences and subjects taught at the Academy, to be appointed inspector of studies, whose duty it shall be, under the direction of the Superintendent, to exercise a general supervision and control over the studies and instruction. He will give daily attendance at the recitations and lectures, notice the manner in which the professors and instructors discharge their

duties, respectively, and see that programmes and methods of instruction prescribed by authority are strictly and uniformly conformed to. In consultation with the professors and instructors, severally, he will arrange the studies and instruction, with a view to the best adaptation to the capacity of the different sections, and will decide in cases of transfer from section to section. He will receive from the professors and instructors the weekly class reports, enter the merit marks in the register kept for that purpose, and make a monthly report to the Superintendent on the progress of the studies, accompanied by a consolidation of the weekly class reports. He will also make an annual report, to be submitted to the Board of Improvement.

Fourteenth. A Board of Improvement to be appointed, composed of the Superintendent, inspector of studies, and of not less than three or more than five other members, a majority of whom to be military officers, graduates of the Academy, but not connected therewith. The principal duty of the board shall be to revise the programmes and methods of instruction, to point out defects therein, and to propose the proper remedies and ameliorations. The board will be present at all general examinations, and immediately after each annual examination will make a report to the Secretary of War on the progress of the studies and on the condition and management of the institution, so far as relates to the studies and instruction, and recommending such changes therein as observation and experience may have shown to be expedient.

Fifteenth. The term of residence at the Academy during war to be two years.

Sixteenth. The term of residence at the Academy during peace to be four years.

Seventeenth. The board of improvement to be assembled in special session at West Point as soon as practicable, with instruction to take under consideration the entire system of studies and instruction at the Academy; and in consultation with the professors and instructors to prepare programmes and tables for the distribution of the studies and employment of time adapted to the four years' term, and also for the proposed two years' term, the subjects of study and instruction in the programmes to be so detailed and defined that nothing shall be left to the discretion of the professors and instructors as to the matter to be taught or the amount of instruction to be given.

Eighteenth. The Superintendent, the inspector of studies, the commandant of cadets, with three of the senior professors, all of whom to be graduates of the Academy, shall constitute a board which shall be called the board of administration. It shall be the duty of the board to examine all text-books proposed by the head of each department of instruction before submitting them to the board of improvement for adoption by the Secretary of War; to recommend to the Secretary of War for purchase all such books, maps, models, and apparatus as may be required for the purposes of instruction, also such works as may be deemed most suitable for the yearly increase of the library; to recommend to the Secretary of War such changes in the regulations as experience may suggest, and to perform all other functions hitherto assigned to the Academic Board, except those pertaining to the examination and graduation of the cadets.

Nineteenth. A board of discipline to be appointed, composed of the inspector of studies, the commandant of cadets, and of three other members selected by the Secretary of War from military officers on duty at the Academy.

It shall be the duty of the board to inquire into and investigate the facts in all cases referred to it, touching breaches of the regulations, and other offenses reported to have been committed by a cadet or cadets, or by a person or persons unknown, and to report its proceedings in each case to the Superintendent, with its opinion, when required, as to the guilt or innocence of the party accused or implicated, and also as to the nature and degree of the punishment, if any, proper to be inflicted.

Twentieth. Paragraph 110 to be modified so that courts-martial for the trial of cadets may be dispensed with in all ordinary cases, and that punishment may be inflicted in the following manner, viz: Those of the second class, specified in paragraph 109, by the Superintendent, on recommendation of the board of discipline; those of the

third class by the Secretary of War, on recommendation either of the board of discipline or Academic Board, approved by the Superintendent.

Twenty-first. The second and third paragraphs of the Academy Regulations, edition 1857, to be replaced by the corresponding paragraphs of the regulations in force from 1817 to 1839.

Remarks referring to corresponding numbers of the foregoing propositions.

First. In order that all the vacancies in the Regular Army on the peace establishment, not filled by promotion from the ranks, may be filled by graduates from the Military Academy, the strength of the Corps of Cadets must be largely increased. Five hundred, or 600, would, probably be necessary to that end, but, as the existing buildings at West Point are not calculated to accommodate more than 400, that number is proposed as the proper limit *for the present*. But as the object of the Academy, in the minds of its founders, was not only "to supply vacancies in the Regular Army but also to diffuse military instruction throughout the Union," the number of cadets should, as soon as practicable, be so increased that the Academy could turn out, annually, a large surplus of graduates over and above the number necessary to fill the vacancies in the Army. These supernumeraries should be regarded as retired officers *without pay*, waiting to be called into active service in time of war; meanwhile, as civil engineers, professors in colleges, teachers of scientific branches, and also, at least, many of them, as militia officers, "diffusing military instruction throughout the Union," they would be rendering service to the country more than equivalent to the cost of their education at the Academy.

Assuming 400 to be the number of cadets at the Academy, and that the President may think proper to reserve a certain number of places, say twenty, to be given to the sons of soldiers and officers of the Army and Navy, who, having no settled habit, can not be classed as residents of any particular State or Territory, the remainder, say 380, would be so distributed among the States and Territories that each would always have at the Academy a pro rata representation, based upon population or congressional representation.

Second. The present mode of appointment was adopted at a time when the existence of the Academy was believed to be in jeopardy and to be saved only by conferring on Members of Congress a coveted patronage; but now, when the Academy seems firmly established in public favor, it may, it is hoped, be safely left to stand on its own merits, independently of all questionable helps. Whether the appointment of cadets by Members of Congress is not contrary to the spirit, if not to the letter, of the Constitution; and, also, whether it is not liable to abuse by unscrupulous members, are questions that may be worthy of serious consideration in proper time and place, but here I need only call attention to the undeniable fact that it fails to procure for the Academy proper subjects to be educated at the public expense.

The records of the Academy show that the number of cadets *admitted*, compared with the number *graduated*, stand as five to two; that is so say, three-fifths of the cadets admitted are found incapable of going through, being removed, some during the first six months, others only after a residence varying from 1 year to 4 or 5 years. Of the two-fifths who are graduated, many succeed only by dint of intense application and the great pains bestowed upon them by their teachers. Men of this stamp, although they make meritorious officers in subordinate positions, are rarely successful in independent and responsible commands. The remedy for the evil is, evidently, only to be found in some means by which the mental capacity of the candidate may be fairly tested and measured, and his ability to master the course of studies at the Academy may be judged of with some degree of accuracy; and the only means to that end yet tried and found successful in other countries is a high standard of attainment, joined to open competitive examinations for admission, means that could not fail to procure for the Academy youths who are the *elite* of the nation. Objections, if any, to admission through competitive examinations can come only from the very few who profit by the patronage derived from the pres-

ent mode of appointment; but the people, minus these few, can only desire that their armies may be supplied with the best officers the nation can furnish; officers who will know how to win victories.

Third. Open competition for entrance into her military schools was adopted by the French Republic 70 years ago, and has been maintained to the present day, and all the other European governments, including that of Great Britain, have been compelled, one after another, to follow her example. It is remarkable, and seems little creditable, that the great model republic, of which we are justly so proud, should be the last to give up patronage, the policy of aristocratical and monarchical governments, and, also, the last to adopt the republican principle of open competition, which seeks out and rewards the most worthy, wherever to be found, without distinction of class or condition, race or color.

Fourth and Fifth. The standard of attainment proposed is not, by any means, as high as is desirable, or, indeed, as is necessary as a test of the candidate's capacity, and of his ability to master the course of studies at the Academy. It is lower than at Woolwich, far lower than at St. Cyr, Wiener-Neustadt, or any similar institution in other countries, but it is hoped that it may be raised gradually, *pari passu*, with the improvement of the common schools.

In view of the importance of French and drawing to progress after admission, and of Latin to the acquisition of French, I would recommend that the candidate, at his option, be admitted to an examination in all or either of those branches, and that some weight be given to them in forming the general merit roll of those who are found qualified for admission.

Sixth. It may be expedient, perhaps, to constitute a separate board for the examination of candidates belonging to States on the Pacific.

The place or places designated for the examinations should be central in regard to population, or as nearly so as practicable; one place only in the smaller States, two or more in the larger; for instance, in New Jersey, Princeton or Brunswick; in the State of New York, New York City, Albany or Schenectady, Geneva or Rochester; in Massachusetts, Boston and Springfield, or Amherst.

The regulations requiring the candidate to repair to West Point to be examined for admission, he paying his own expenses to that place, and if rejected back to his home again, is not only unequal and often oppressive in its operation, but also in effect excludes many of the poorer class from the benefits of an institution that should be equally open to all.

Seventh. An open competitive examination and a high standard of attainment for admission would accomplish the object in view better than the probation exacted by paragraph 18; besides, the cadet should consider himself on probation during the whole period of his residence at the Academy, and liable to be removed at any time for want of capacity, or for want of application, as well as for deficiency in moral or military conduct.

Eighth. All books not in English, the reading or study of which can be useful to an officer of the U. S. Army, are either by French authors or are translated into French; hence French is justly regarded as the "key of military science;" but no more time should be bestowed upon it at West Point than would enable the pupil to read French with facility without the help of a dictionary. The additional time that would be necessary to speak French or to translate English into French (which no officer of our Army would probably ever be called upon to do in the line of his profession) would be more usefully applied to other subjects, a knowledge of which is indispensable to the military officer.

Ninth. The reasons above given for teaching French as an obligatory study do not apply in the least to Spanish. The only pretext there can be for teaching it at West Point is to enable the pupil to carry on a conversation in Spanish, in the very doubtful case of his ever having occasion to speak it in the line of his profession before he forgets it from want of practice. But here it is pertinent to inquire whether any

class, or even any individual not previously grounded in the language, ever made at West Point such proficiency as would enable them, or him, to carry on a conversation in Spanish. But whether that degree of proficiency has been attained or not, I am clearly of opinion that Spanish should be eliminated, giving place to more important subjects which its introduction crowded out or unduly contracted.

Tenth. "Bleaching," "dyeing," "tanning," "gilding," "distilling," and much other extraneous matter may well be excluded from the programme. The subjects of this course should be taught mostly by lectures, and, limited as proposed, need occupy less time than is now allotted to them.

Eleventh. The numerous subjects comprised in paragraph 32 occupy more time than is due to their relative importance, and yet not enough for teaching them as they should be taught to be useful. "English grammar and descriptive geography" are among the proposed requisites for admission. "Physical geography," if retained, might be transferred to the department of natural philosophy, or taught in connection with geology. "Political geography" and the "history of literature" may well be excluded, and also civil history, except a few lectures to teach how history should be studied; the time thereby saved to be applied partly, if deemed necessary, to the more important subjects of the course, viz, moral philosophy and law, constitutional and national, and the remainder distributed in due proportions between military engineering and French, both of which have been encroached upon by the undue expansion of the department of ethics. The branches proposed to be eliminated or restricted crept in at a time when the notion seemed widely prevalent that the object of the Academy was, or should be, to educate young men for the bar and the pulpit, rather than for the Army.

Twelfth. The manner of conducting the annual examination, and also that of forming the merit roll, as prescribed in paragraphs 62, 65, and 67 of the regulations, edition of 1857, are believed to be susceptible of material improvement. The examining committee should be so composed that *every* member of each committee shall be capable, by a thorough and familiar knowledge of the subjects, of forming an intelligent judgment of the performance of the examinee, and the number of committees should be such that, by their simultaneous action, the annual examination may be confined within the narrowest limits of time compatible with a thorough and searching examination of the pupils. These desiderata may, it is believed, be secured by means of seven committees, composed as follows: (1) For mathematics, the professor, the principal assistant professor, the instructor of the section under examination, together with not less than two other members not connected with the Academy, selected from experienced and successful teachers of mathematics; (2) for natural philosophy and for chemistry, mineralogy and geology, a single committee, consisting of the two professors and their principal assistants and the instructor of the section under examination, together with not less than two members of known competency not connected with the Academy; (3) for engineering, the professor, the principal assistant professor, the instructor of the section under examination, together with not less than two officers of the Corps of Engineers, not under the grade of captain and not connected with the Academy; (4) for artillery, cavalry, and infantry tactics, and for ordnance and gunnery, a single committee, consisting of the instructors of those branches, together with at least three officers, graduates of the Academy, not under the grade of a field officer, selected from the artillery, cavalry, and infantry, to represent those arms respectively; (5, 6, and 7) for ethics, French, and drawing, the committee for each to consist of the professor, the principal assistant professor, the instructor of the section under examination, together with two or three members appointed by the Superintendent from members of the Academic Board not on other committees, or from the Board of Visitors, or from acting assistant professors, or other officers on duty at the Academy.

The inspector of studies and the Superintendent to be *ex officio* members of any of the committees, and when present to preside therein.

The duration of the annual examination will necessarily be determined by the time it takes to examine the pupils in mathematics, that time being more than is required by any other committee to finish its task. If, owing to the increase of the Corps of Cadets or any other cause, the examination in mathematics can not be brought within the limits of 18 working days, it may be expedient to constitute two committees for that subject.

The numbers representing the value or weight given to the different subjects are not apportioned according to their relative importance or to the time allotted to them, respectively, nor apparently according to any just principle. In forming the general merit rolls of the three lower classes (second, third, and fourth) too much weight is allowed to conduct. If allowed any weight at all, it should be merely enough to turn the scale when merit in scholarship is equally balanced. To give it more weight is simply to weaken the incentives to study, which was the sole object of the merit-roll system. The arm of discipline, if skillfully wielded, is strong enough of itself, needing not to be aided in a way that is injurious to progress.

Thirteenth. The office of inspector of studies in the Royal Military Academy at Woolwich was created in 1772, and still exists. It is filled by a lieutenant-colonel of engineers or artillery, whose salary is \$1,500, in addition to his regimental pay and allowances, amounting in the whole to \$3,500. The officer performing the same functions in the military schools on the continent is styled (more appropriately) director of studies.

From the year 1817, when the present system of studies and instructions at the Academy was established, to 1834 or later, the Superintendent was charged with the duty of directing the studies, a duty he discharged to the best of his ability, as far as it was consistent with his other indispensable duties, but the duty is such as to require for its proper performance the entire and continuous attention of an officer. By a change in the regulations first promulgated in 1839, it ceased to be the duty of the Superintendent to direct the studies, and ever since each professor has been the supreme director of studies in his own department. The evils experienced from there being no officer at the Academy charged with the general control of the studies are such as to demand a speedy remedy.

The inspector of studies should be second in command, and supply the place of the Superintendent when absent.

The importance and utility of a properly constituted body to point out defects and suggest ameliorations in the system of studies and instruction at the Academy seem too obvious to need demonstration or argument. Such a body, styled (Conseil de Perfectionnement) board of improvement, has been found necessary to the proper working of the machinery of instruction in all the best European military schools. Some of the evils experienced at West Point for the want of such a board will be noticed in connection with proposition 17.

The board should be of a permanent character in order that the Academy may have the benefit of its accumulated experience and be the more secure against rash experiments and innovations made to cure imaginary evils, or to effect chimerical improvements. A system found to have worked well for many years should not be *tampered with*, or be subject to other changes than such as enlightened experience indicates to be safe and expedient.

Fifteenth and sixteenth. The duration of residence at military schools is determined mainly, *ceteris paribus*, by the standard of attainment for admission; the higher the standard the shorter the time, and *vice versa*, the limits being 2 and 4 years. The term at Addiscombe, Sandhurst, and St. Cyr is 2 years; at Woolwich, 2 years for the theoretical course, and 6 months more for the practical course. The term at Wiener-Neustadt, Austria, is 4 years, although the standard is higher than at either of the other above-mentioned schools, excepting St. Cyr. With the standard raised as herein proposed, 4 years is ample for the course at West Point; *provided, however*, that Spanish is eliminated and the other subjects not intimately

connected with the knowledge absolutely necessary to the military officer shall be properly restricted. With the same standard, a course of studies and instruction comprising all that is absolutely necessary for practical purposes may, in my opinion, be completed in *two* years. The outlines of such a course will, if requested, be submitted for a rigid scrutiny to the board of improvement.

Assuming the term in time of war to be 2 years and the number of cadets at the Academy to be 400, constituting a battalion of eight companies, it would seem to me best to divide the cadets into four semiannual classes, a class to be admitted and a class to be graduated every half year. With the standard of capacity raised, as it would be by the means proposed, it may be safely calculated that nine-tenths of the cadets admitted would go through, and that the cost of each graduate would be reduced to about one-third of the present cost.

Seventeenth. That there is something wrong, either in the arrangement of the studies or in the methods of instruction, is acknowledged by the professors themselves, although every one may not see that all is not right in his own department. The following statement, incidentally made by one of the professors, gives a glimpse of the nature of the evil in question: "Few, except the highest members of the class, seem to have retained anything of the higher analysis, and the grossest blunders are frequently made, even in the elements of algebra and geometry, either through forgetfulness or negligence. Many who graduate would seem to have been very little benefited by their past studies, so far as the retention of what they had once learned is concerned."

The evil is by no means confined to a single class or department, nor can it fairly be imputed to the professors and instructors, who are unsurpassed in the art of teaching. Traced to its sources, it is found, mainly, in the third article of the Regulations, which, by prescribing merely a syllabus or outline of the studies in each department, leaves the filling in to the professor, and thereby makes him, in fact, the constructor of his own programme. The natural consequence is that the pupil is overtasked, "crammed;" more mental food is given him than the mind is capable of digesting. There is too much abstract theory; not enough of the practicable application to impress the theory on the memory, so as to make it durable and practically useful.

The nature of the evils being known, and its cause also, the remedy is plain. First, there must be well devised programmes prescribed by authority, describing in the most minute detail the instruction, both in kind and amount, to be given in each department for ethics, French, drawing, and for chemistry, mineralogy and geology, one programme each; for mathematics, natural philosophy, and engineering, two programmes each, a maximum and minimum, the former adapted to the capacity of the first or highest section, the latter comprising only those subjects in which every pupil must pass a satisfactory examination before he can be advanced to a higher section, or be recommended for a commission; the maximum programme to be modified for the intermediate section or sections between the highest and lowest, by excluding therefrom more or less of the more difficult subjects and investigations (in the discretion of the inspector of studies), so that the studies and instructions shall be duly proportioned to the capacity of the said section or sections. Second, it must be made the duty of the inspector of studies to see that the programmes are strictly adhered to, and that the lessons given out by the instructors are duly proportional to the time set apart for their study or preparation.

The preliminary steps necessary to be taken for obtaining these programmes are, first, to require each professor to prepare a detailed programme of the instruction given in his department (in the last academical year), divided into lessons, with an estimate of the time, in hours, a pupil of fair abilities with proper diligence will require to master each subject and lesson, stating, separately, the time necessary for preparation and that for attendance at recitations and lectures. Second, the programmes so prepared to be referred for revision to the board of improvement at the earliest period practicable. And it is recommended that the board, in drawing up

the general programme of studies and instruction proper to be included in the 4 years' course, be instructed to consider the expediency of the following distribution of the subjects: (1), the studies and instruction of the first class (fourth year) to be confined to military subjects exclusively, viz: fortification, field and permanent, with attack and defense, and all other subjects proper to be included in the course of military engineering, theoretical and practical; ordnance and the science of gunnery, the organization and movement of armies, field service, principles of strategy, military administration, military law and Army Regulations, and all other subjects comprised in the terms "Military science and art." (2), the instruction given by the professor of drawing to be confined to the first and second years (third and fourth classes) and the studies and instruction of the third and fourth classes to be confined to mathematics, French and drawing, exclusively. (3), natural philosophy and chemistry, mineralogy and geology, and all other subjects proper to be included in the 4 years' course of studies and instruction (exclusive of those specified under Nos. 1 and 2), to be confined to the third year (second class.) (4), 10 hours daily (average time) from September 1 to the annual examination in June to be given to the above-mentioned subjects. (5), so much of the theory of tactics (artillery, cavalry, and infantry) as shall not be included in the fourth years' course, to be taught during encampment only.

The reasons for the distribution of studies above proposed will, if requested, be submitted to the board of improvement when the subject is taken up for consideration.

Eighteenth. The proposition to be submitted for paragraph 10 of the Academy Regulations, edition 1857. The change is suggested by my own experience while superintending the Academy.

Nineteenth and twentieth. At Woolwich Academy, in an early period of its existence, cadets were brought before a court-martial in order to their dismissal, but the practice having been found to work badly was soon discontinued. At no other foreign military school, if I am correctly informed, has a pupil at any time been brought before a court-martial. At West Point, from 1803, when the Academy was founded, up to about 1820, no cadet was brought before a court-martial. The power of dismissal rested in the Superintendent, and his action in every case was *final*, and at no time since has there been a sounder state of discipline and morals at the Academy than during that period generally.

The principal objections to trial of cadets by court-martial are: (1) Its demoralizing tendency, the cadet witnesses being under a strong temptation to conceal or withhold their knowledge of facts when the punishment of a beloved comrade is in question. (2) The impunity it affords to the most criminal of the offenders, those who plan, instigate, and pull the wires, but in such manner that no legal evidence can be produced against them when arraigned. Nevertheless, these invisible contrivers and leaders of mischief are well known to the authorities, and unless they may be removed without the formality of a trial a sound and satisfactory state of morals and discipline at the Academy is out of the question. If indeed there be any law which by a fair construction prohibits the dismissal of a cadet unless by sentence of court-martial, the law should be repealed and the President empowered to establish such rules and regulations for the government of the Academy as shall seem to him necessary and proper. The idea of governing boys at school, albeit a military school, by the laws and rules made for the government of an army is manifestly absurd.

Twenty-first. The paragraphs proposed to be restored (see Academy Regulations, editions of 1832, or any previous editions published after 1817) are as follows:

"Paragraph 2. A *permanent* superintendent of the Academy, *appointed from the Corps of Engineers*, will have the immediate government of the institution, and be held responsible for its correct management. He will direct the studies, field exercises, and all other academic duties, and all professors, teachers, academic officers and cadets shall be under his command. He will render all returns, estimates, and communications concerning the institution to the inspector.

"Paragraph 3. No officer of the Army of any rank whatever shall exercise command in the Academy unless subordinate to the Superintendent."

By comparing the foregoing with the corresponding paragraphs now in force, which were first published in the 1839 edition of the regulations, it will be seen that the words *underscored* in the second paragraph were stricken out, without other change, and that in the place of the words *underscored* in the third paragraph, the following words were inserted: "Except the commandant of the Corps of Engineers." These changes, which could not have been made without design, changed completely the office and position of the Superintendent. He was no longer a *permanent* superintendent, but filled the office, as it were, by *routine*: It ceased to be his duty to "direct the studies." He was no longer held responsible for "the correct management of the institution," nor indeed could be, as power and responsibility are correlative terms. In proportion as the former is restricted the latter is diminished, and there remained only a common or a divided responsibility, subsisting between the Chief Engineer and the Superintendent, which, as it seems to me, is little better than no responsibility at all. Whether these changes have inured to the benefit of the Academy may be best answered by the three senior professors, who have been members of the institution from 40 to 44 years.

The office of permanent superintendent was created by President Madison in 1816, on full consideration, after consulting with Mr. Monroe, president-elect, and with the Secretary of War, and from a conviction of its necessity, in view of the previous history of the institution. The person whom he designated for the office continued to fill it for the full period of 16 years, terminating in 1833. Since then there have been eight changes in the office, each change bringing with it naturally some changes either for the better or for the worse in the management of the institution. There are few persons, probably, in the military service of our own or of any other country, who possess the peculiar qualifications fitting them, in all respects, to govern a grand military school like that at West Point, and when the person selected for the position is found on trial to be the "right man in the right place," an over-ruling necessity only would justify his removal.

Respectfully submitted.

S. THAYER,
Colonel of Engineers.

COMPETITIVE AND DIRECT APPOINTMENTS.

The relative merits of appointing candidates direct and by competition has been discussed in previous reports, by the newspaper press, and in Congress. This Board was divided in sentiment as to the merits of the two systems and concluded to merely present figures covering a number of years and showing the results obtained under each system. The table given below covers all the classes which have left the academy from 1873 to 1891, inclusive. It shows the total number of candidates appointed for each year during that period, the number appointed by competition, and the number graduating who were appointed under each system. It will be noticed that under the competitive system 60 per cent. graduated and 40 per cent. failed to graduate, while of those appointed direct only 42 per cent. graduated and 58 per cent. failed. It will be also noticed that for the 15 years covered by the table the number admitted was 1,588, of whom only 789, or one-half, graduated.

Number of cadets admitted to the U. S. Military Academy from 1873 to 1891, inclusive, showing number appointed by competitive examination and directly, with number graduated and casualties under each mode of appointment.

Year of entering.	Total number admitted.	Appointed by competition.						Appointed directly.					
		Graduated.	Resigned.	Discharged.	Dismissed.	Died.	Total.	Graduated.	Resigned.	Discharged.	Dismissed.	Died.	Total.
1873	118	34	3	10			47	42	10	19			71
1874	89	13	4	10	1		28	27	10	22	2		61
1875	121	30	8	6	2		46	34	18	22	1		75
1876	98	23	4	16		2	45	24	11	16	1	1	53
1877	96	36	4	11			51	20	8	13	4		45
1878	102	22	7	13	1		43	17	23	19			59
1879	88	29	4	14			47	13	14	14			41
1880	73	23	3	5	1		32	14	12	15			41
1881	85	19	6	8			33	24	10	13			52
1882	129	40	7	12		1	60	35	11	23			69
1883	141	*37	10	20	2	1	70	*30	16	23	1	1	71
1884	98	24	2	14		2	42	18	7	30			56
1885	95	21	9	9	1		40	24	8	23			55
1886	128	44	8	22			74	18	6	29		1	54
1887	127	39	5	19		2	65	15	12	24			51
Total	1,588	434	84	189	8	8	723	355	176	310	9	4	854

* Including eight cadets turned back into the class of 1888.

Competitive:	Per cent.
Graduated	60
Failed to graduate	40
Direct:	
Graduated	42
Failed to graduate	58

The annexed table shows the number of candidates admitted and the number found deficient under the direct and competitive systems, respectively, for the 19 years ending with August, 1891. As in the preceding table, the result is decidedly favorable to the competitive system.

Number of candidates admitted and found not duly qualified at preliminary examinations for admission to the Military Academy from 1873 to 1891, inclusive, by appointment under the competitive and direct methods.

Years.	Competitive.		Direct.		Years.	Competitive.		Direct.	
	Admitted.	Not duly qualified.	Admitted.	Not duly qualified.		Admitted.	Not duly qualified.	Admitted.	Not duly qualified.
1873	57	16	61	58	1884	40	12	58	30
1874	26	10	63	56	1885	41	7	54	26
1875	46	20	75	47	1886	74	25	54	20
1876	38	11	60	42	1887	70	20	57	36
1877	46	27	50	60	1888	42	18	59	38
1878	40	6	62	39	1889	34	14	62	54
1879	46	13	42	21	1890	39	12	43	41
1880	32	10	41	24	1891	43	14	54	26
1881	33	18	52	42	Total	878	277	1,086	743
1882	62	12	67	39	Per cent.	76+	24+	59+	41+
1883	69	12	72	44					

REPRESENTATIVE CHARACTER OF THE CADET CORPS.

It is sometimes contended in discussing the merits and usefulness of the Military Academy that its students are selected from special classes and frequently through favoritism. This allegation was effectually refuted by the Board of Visitors for 1887 in a table showing the occupation of the parents of cadets admitted for the period embraced from 1842 to 1887. In presenting the table the Board very justly said that "the Corps of Cadets is a typical representative body of the American people. The lower House of Congress is not more representative in this respect than the Corps of Cadets." An examination of the table shows that cadets are drawn from all ranks and classes of the people. We have supplemented the table in the report for 1887 by another which covers the intervening years, including the present year, thus preserving the statistics on this subject from 1842 to 1891, a period of 50 years.

The following table shows the occupations of the parents of candidates for admission to the Academy for 1887, 1888, 1889, 1890, and 1891:

Occupations.	Number.	Occupations.	Number.
Agents	15	Musician (band leader)	1
Architects	1	Marble dealer	1
Artists	2	No occupation	7
Bankers	2	Officers of the Army	43
Bank officers (6 of them bankers)	12	Officers of the Navy	4
Barber	1	Oil producer	1
Brewer	1	Physicians	50
Brokers	6	Pilot	1
Builders	3	Policemen	2
Clergymen	11	Politician	1
Clerks	17	Presidents of Insurance Company	3
Collectors	2	Printers	6
Commercial travelers	4	Professors	2
Contractors	8	Publisher	1
County officers	5	Ranchmen	2
Dentist	1	Real estate	7
Editors	9	Railroad officers	8
Engineers, civil	6	Salesman	1
Engineers, mechanical	6	School teachers	6
Farmers and planters	145	State officers	4
General business	5	Stock dealers (cattle)	4
Hotel keepers	8	Superintendent of gas works	2
Insurance business	5	Steamboating	1
Laborers	5	Unknown	2
Lawyers and judges	80	U. S. civil officers	6
Liveryman	1	Druggists	3
Lumbermen	3	Dairyman	1
Manufacturers	19	Bookkeepers	5
Mechanics	38	Librarian	1
Members of Congress	5	Postmasters	3
Merchants	92	President of Steam Heating Company	1
Millers	2	Fishing master	1
Mining	4		

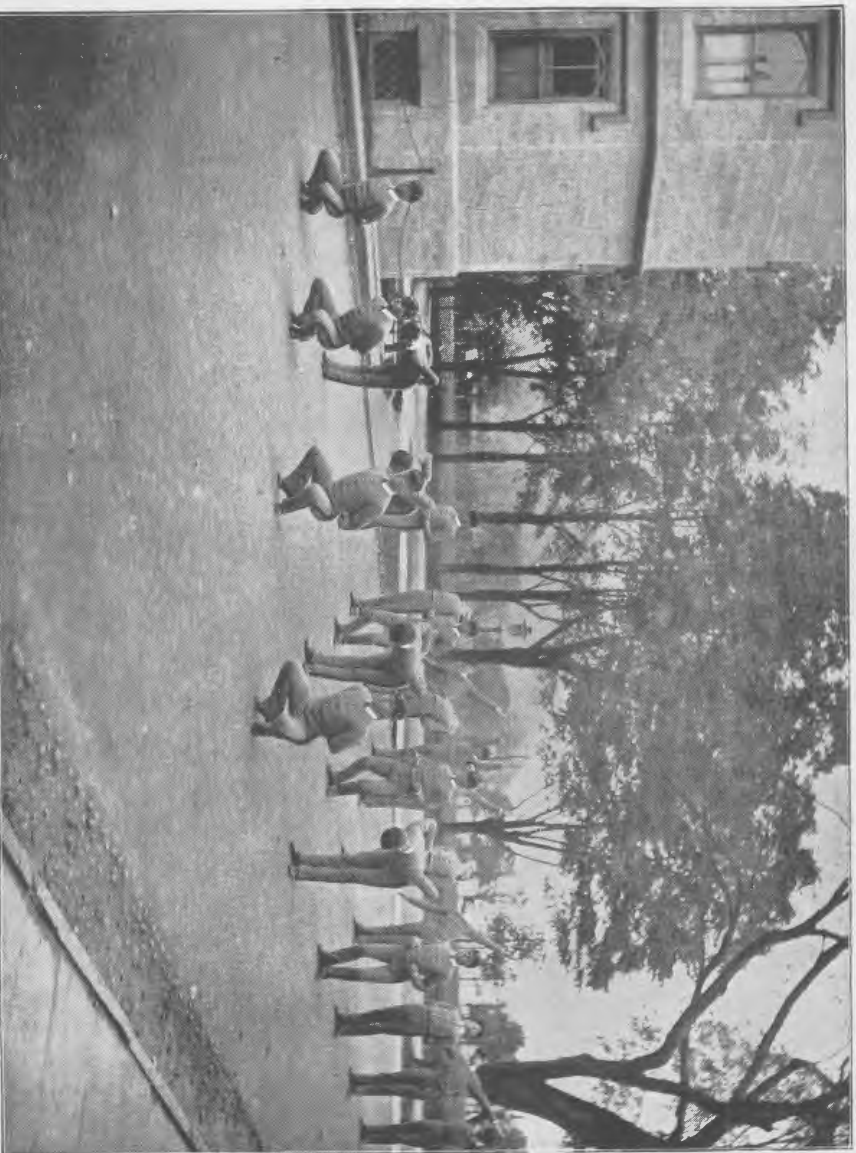
DISCIPLINE AND INSTRUCTION.

Committee on Discipline and Instruction.—Messrs. JAMES T. MURFEE, FRANK A. O'BRIEN, and THEODORE S. PECK.

THE DEPARTMENT OF MODERN LANGUAGES.

In the choice of professors for the Military Academy the practice has obtained of limiting the selection to officers of the Army. When the chair to be filled bears an intimate relation to the science of war, this is a highly proper and prudent course to follow, but it is the reverse when the vacancy to be filled is the head of one of the departments which do not necessarily sustain such relationship. It can not be successfully contended that a man should be selected as a professor of modern languages, of ethics, or of drawing, primarily because he has been a successful soldier and an accomplished master of strategy. The construction of roads and bridges, the erection of fortifications, the fabrication of guns, or the movement of large armies, have no relation to the construction of syntax nor the conjugation of verbs. To take a man from the Army because of his rank and abilities as a soldier, and make him professor of modern languages at the Military Academy, is a proposition so absurd that many persons will doubtless express surprise that it should be even stated in this Report. Yet such has been the practice of the War Department in this connection, and unless the honorable Secretary of War directs the attention of the President to this important matter, and urges a change in the custom that has obtained, there is reason to apprehend that it will be used to convert a good soldier into an incompetent professor within a very short period of time.

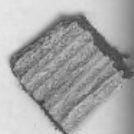
On the 31st of August, 1892, the present professor of modern languages, Col. George L. Andrews, will be retired on account of age. Already a large number of officers of the Army are putting forth efforts to have themselves named for the prospective vacancy. It is perhaps safe to say that few, if any, of these military applicants, however able, accomplished, and distinguished as soldiers, possess the qualifications attainments, and training to properly discharge the duties of so important and responsible a position. It does not follow that the qualifications and attainments of the high order required to make a competent professor of modern languages are not to be found in the U. S. Army, but there is very slight probability of such a discovery being made, and it is absolutely certain that, if any one of the leading colleges or academies of the country were in need of a professor of lan-



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"SETTING-UP" DRILL.

Stoddard, Glens Falls, N. Y.



guages or a professor of drawing, it would never occur to those having the responsibility of selection to search the ranks of the Army for the required talent and experience.

A scholar and not a scientist, a rhetorician rather than a mathematician, is demanded at the Military Academy at the head of the Department of Modern Languages. Such a man would be the active agent of not only adding efficiency to the instruction in French and Spanish, but would naturally strengthen the instruction in English, which is now so indifferently regarded by the authorities as to be limited to the first year and ranked with Spanish at the minimum value. We agree with Professor Andrews that more time should be given to the study of English, and we believe if a properly qualified teacher be selected to succeed to the head of the Department of Modern Languages he would so manage that more time would be devoted to the study of English without adding to the present mental burden of the cadet. The deficiency in English at the Academy is made painfully apparent to all who attend the annual examinations, and has been a theme for annual comment and deprecation by the Board of Visitors. Young men are admitted to the Military Academy at the age of 17 years, in a majority of cases with no education other than that afforded by the public schools; and yet these young men, after brief study and occasional recitations from such elementary books as Whitney's *Essentials of English Grammar*, Hart's *Manual of Rhetoric and Composition*, Abbott and Seeley's *English Lessons for English People*, and Abbott's *How to Write Clearly*, are finished in English and graduated in that study at the expiration of 10 months. The value placed upon the study of English by the Academic Board may be inferred from the brief time devoted to its study, and this estimate is emphasized by the fact that in the mathematical measurement of the entire four years' course of studies, which is placed at the maximum of 2300, English is rated at 75. These facts in themselves furnish the most urgent reasons for abandoning the policy of selecting soldiers for professors of such departments at the Military Academy as have no relation to the science of war, and appeal for the introduction to the Academic Board of men from the leading colleges of the country who are known to be fully qualified for the successful performance of the duties involved.

We would not exclude the Army from the field of selection, but unless a man can be discovered there who is equipped with a thorough knowledge of the branches to be taught, who has had experience in teaching, and who is known to possess those qualities of mind necessary to the successful instruction of youth, we recommend that the President look beyond the Army for a man to succeed Professor Andrews when that officer retires from active service. There may have been reasons in former years for selecting all the professors for the Military Academy from the Army. There surely can be no reason now for continuing that policy. In addition to the manifest propriety

of such a selection as herein advocated, we believe that the best interests of the Academy and of the Army would be promoted by adding to the Academic Board learned men from civil life, who would bring to that body the ideas and methods prevalent in the leading colleges of the country, whenever this can be done without trenching upon those departments that have strict relation to the science of war.

The Board of Visitors, after careful investigation and reflection, agrees with the opinion expressed by nearly every preceding Board, that the present course of studies should not be increased by the addition of a single page, but we can not resist the conviction that more time should be devoted to the study of the English language. "The officer ought to know at least something of French and Spanish" says the report of the Board of Visitors for 1889, "but if either or both of these tongues are to compete with English we unhesitatingly give our preference to the last. We do not think they need to conflict. In speech the Frenchman and the Spaniard are coming to us far more rapidly than we can go to them. It is argued that the Spaniard is our neighbor, but it would seem that we are also his neighbors. It has been argued also that an officer once owed his life to the fact that he understood the language of his Spanish captors. The same might be true with respect to any of the once formidable Indian dialects. We are inclined to suggest as to the Latin that it is the mother of the Spanish, the French, the Italian, and the Portuguese, as well as the resistless key to the technical terms, and to the specific nomenclatures which are the shorthand of science and are as obscure to the non-Latin scholar as they are clear to him who unlocks their simple secrets. In addition to all this the Latin is one of the keys to English, and the general many-sided arguments thus hinted with respect to the Latin language need not turn its back to the foes of the study of that and other dead languages. Though dead, it yet speaketh, and is mighty to open dumb mouths, whether in French, Spanish, or English. Retain the French and the Spanish, but not at the expense of the English."

THE STUDY OF SPANISH.

In the discussion of the curriculum of the Academy the attention of the Board was specially directed to the study of the Spanish language by reason of the fact that a member of the first class was pronounced deficient in that study. The Spanish language is taught only during the fourth or last year of the course, and is embraced in sixty lessons. It seemed to the Board that a young man who had been successful in all other studies should not be deprived of a diploma because he failed to reach a prescribed mark in a branch which is regarded as of so little consequence by the Academic Board that its study is limited to a few months at the end of the term, and its value in the course expressed by 75 in a total of 2,300, which is the maximum value of the four years course at the Academy. The deficient in this case was given a second

examination in August, which he passed with credit, and was sent out with the diploma of the institution and the usual recommendation for appointment to the grade of second lieutenant in the Army.

We are not prepared to say that the study of Spanish at the Academy should be eliminated from the course, but unless more attention be given that study it would seem that the time thus consumed might be advantageously devoted to either English or French. Whether the study of Spanish as prescribed at the Academy is profitable is a debatable question and one upon which opinion among army officers is divided. Colonel Thayer, in the paper quoted in this report, recommended that "the Spanish language be stricken from the regular course of studies and taught only as a voluntary study to such cadets as, in the opinion of the Academic Board, are capable from previous acquisitions of pursuing the study without detriment in their progress in the obligatory studies." This would be better than the present plan, for the reason that under it some cadets would learn Spanish while now none do. It is not contended that the amount of Spanish acquired in the six months it is taught at the Academy has no real value, but it is believed that the limited elementary knowledge thus acquired does not wholly compensate for the time consumed in a course of studies that is already overcrowded.

It is doubtful whether any graduate ever left the Academy who could carry on a colloquy in Spanish as the result of the teaching at the institution. Officers of the Army have acquired a speaking knowledge of Spanish by contact with it while serving on the Mexican frontier, and among those Indians in the southwestern Territories by whom the language is spoken. But this is true of officers who were not educated at the Military Academy. We believe that a speaking knowledge of the Spanish language, or such knowledge as would enable the graduate to readily become proficient in that language after leaving the Academy, would be important and valuable, and particularly at the present time, when we are about to assume more intimate relations with our Spanish-speaking neighbors, and therefore recommend that greater time and attention be given it; but if this can not be done, that it be stricken from the course of studies and taught only as a voluntary study, as recommended by Colonel Thayer.

In this connection the Board specially directs attention to the fact that none of the instructors in the Department of Modern Languages have a speaking knowledge of either French or Spanish, the two modern languages taught at the Academy. The ability to speak these languages does not seem to be regarded as essential in an instructor at West Point. The French language is studied during the second half of the first and all of the second year at the Academy, the purpose being to enable its graduates to read and translate French into English. "No more time should be bestowed upon it (the French language) at West Point," said Colonel Thayer, "than would enable

the pupil to read French with facility and without the help of a dictionary." Hence it is perhaps that little, if any, inquiry is made as to the extent of linguistic knowledge possessed when an officer is detailed as assistant professor or assistant instructor of modern languages at West Point.

The present head of this department, Prof. George L. Andrews, is efficient, painstaking, and enthusiastic in the administration of his department, and has labored faithfully for its advancement. Upon invitation of the Board, Professor Andrews attended one of its sessions and discussed the affairs of his department. He believes, and several of us agree with him, that too much time has been absorbed by the mathematical branches at the expense and to the detriment of the others, and that steps should be taken to revise the course of studies by a competent commission with a view of allotting to each department of study a more equitable portion of time than is now allotted. The Board believes that there is urgent need for a revision of the course of studies and for the establishment of a permanent supervisory authority, independent of the Academic Board, to regulate the studies from time to time in some manner similar to that proposed in the report of Colonel Thayer. We agree with Professor Andrews that no Board of Visitors, in their very limited time, can give proper consideration to the important questions involved in a change of studies, and therefore recommend that a commission be appointed for that purpose to be composed of experienced educators of acknowledged learning and ability, of whom not more than two should be graduates of the Military Academy on the active list of the Army, other than professors of that institution.

VIEWS OF PROF. GEORGE L. ANDREWS.

At the request of the secretary, Prof. George L. Andrews prepared the following letter as the substance of the views presented by him verbally before the Board of Visitors:

U. S. MILITARY ACADEMY,
West Point, N. Y., July 27, 1891.

Maj. JOHN M. CARSON,
Secretary of the Board of Visitors, Washington, D. C.:

DEAR SIR: In compliance with the request in your letter of July 20, I make in brief the following statement of my views respecting the propriety of making changes in the present course of studies at the Academy, a statement embodying the substance of what I said, on the occasion to which you refer, in reply to questions from members of the Board of Visitors.

It should seem that a fair amount of liberal culture is a necessary preliminary to the proper study of the military profession. And it is to be considered that most candidates for admission to the Academy are not well qualified to enter even an ordinary high school. What the law requires for admission is wholly insufficient to secure satisfactory attainments on their part. There are admitted some who have not been at school for years. The year between appointment and admission is too short a time in which to make up considerable deficiencies, and is mostly employed in cramming for examination. Under the present system of selection and appointment, with

the prevalent opinion respecting poor districts and poor boys, it is not probable that there will be at present much improvement in the qualifications of average candidates. Hence the course of studies at the Academy cannot be wholly or even mainly professional, and the Academy must have much the same function as the college; professional studies being pursued mostly in post-graduate schools and in the profession itself. In this respect the post-graduate schools of the Army now furnish facilities not formerly offered, though much needed. Moreover, the course at the Academy must be shaped with due regard to the attainments of persons admitted.

Most candidates have little knowledge of English, and no knowledge of any other language. In view of this fact, and of the amount of linguistic study usually regarded as necessary in even a fairly liberal education, it seems to me that the present proportion of that study at the Academy is by no means too large, and should be increased rather than diminished. As a disciplinary study, and as a most valuable aid to the proper study of English, Latin, when commenced at a sufficiently early age and pursued sufficiently far, is in my opinion preferable to any other foreign language. But at the age at which candidates are admitted, with their very inferior attainments, with no previous study of Latin, their linguistic training will best be through the study of modern languages, which are less difficult and require less time, while they are of greater direct utility. In respect of disciplinary and literary value, I think the best two foreign modern languages are French and German. Of these two, for the course at the Academy, I prefer French, as less difficult, requiring less time for satisfactory attainment, of about equal literary and professional value, and of more general utility. The proper study of both these languages would, in my opinion, require more time than could reasonably be allotted to the study of foreign languages at the Academy. Spanish is probably the least difficult of modern languages, yet differs in construction from English so much as to be valuable as a disciplinary study, especially to average cadets. Considering our long Mexican frontier and the increasing intercourse with Spanish-American countries, a knowledge of Spanish is of direct practical utility to the officer of the Army. In the military schools of France the study of German, and in the military schools of Germany the study of French, form an important part of the course. It is probable that two foreign languages will continue to form part of the course at the Academy, and under all the circumstances the two should in my opinion be French and Spanish. The time allotted to Spanish should be increased, so as to restore the former number of lessons, 112, instead of the present 60.

I think that the time given to English might be increased by the time now given to French the first year, about 60 lessons; leaving French to be studied only the second year. This would give to English 185 lessons instead of 125; and to French, 222 lessons instead of 232. And in teaching any foreign language at the Academy, a prominent object should be to enable the cadet to understand English more perfectly, and to use it with greater freedom. Battling with the difficulties and peculiarities of other languages, and especially with the difficulties of correct idiomatic translation, is one of the best aids to a mastery of our own language.

I would also suggest that the consideration that can be given to changes in the course of studies at the Academy by a Board of Visitors in their very limited time, and especially a consideration of changes in only one department of instruction, is quite insufficient. And, in my judgment, before any such changes are made, the whole subject of the course of studies at the Academy should be referred to a well selected, competent commission, for full consideration and for recommendation of such changes as may be found expedient. The commission should be specially appointed for the purpose, should be composed of persons well qualified to judge of the relative value and due proportion of studies, and should include two or more graduates of the Academy, selected so as to represent the different views in respect to the present course. For obvious reasons, the Academic Board is not adapted to the impartial, dispassionate consideration of the subject; but its members should be fully

heard by the commission. It is to be hoped that the commission would not, like the commission of 1860, be content with eliciting mere assertions or expressions of opinion on the part of persons called before it, but would inquire into the grounds on which such assertions or opinions were based. There has never been such a full consideration and discussion of this important matter as is here contemplated, and it should seem that the time for it had fully come. Whether the studies of the present course are in due proportion, and whether part of the time now given to mathematical and professional studies might not better be given to other, perhaps to new branches, are questions well worth considering and deciding.

Very respectfully, yours,

GEO. L. ANDREWS,
Professor of Modern Languages.

HEADQUARTERS U. S. MILITARY ACADEMY,
West Point, N. Y., July 28, 1891.

Respectfully forwarded to Maj. John M. Carson, secretary of Board of Visitors of U. S. Military Academy, Washington, D. C.

WM. F. SPURGIN,
Captain 21st Infantry, Acting Superintendent.

OPINIONS OF EMINENT EDUCATORS.

For the purpose of ascertaining the views of men competent to give testimony on this subject, and whose opinions, based upon actual experience in teaching, as well as their deservedly high reputation as men of learning, would have weight with the Federal authorities and influence with the people, the secretary addressed to a number of gentlemen actively connected with the leading colleges of the country, and with other educational institutions, the following letter:

WASHINGTON, D. C., *September 15, 1891.*

DEAR SIR: At the United States Military Academy, West Point, N. Y., in addition to departments that have close relations to the science of war, there are three—modern languages, drawing and history, geography and ethics—which are not intimately related to that science. The practice has obtained to select officers from the line and staff of the Army to the professorship of modern languages and of drawing. The Board of Visitors for this year believes that these two professorships should be filled by men thoroughly equipped for the discharge of the important duties involved; that such men are not likely to be found in the Army, and that, therefore, the President of the United States should select from civil life well-trained men of known ability for the two places named, when vacancies occur. The Board, therefore, instructed me, as secretary, to present its views on this subject in the report to be made to the Secretary of War and the two Houses of Congress.

The professor of modern languages will be placed on the retired list of the Army in August, 1892, as he will reach the age of 64 at that time. This department consists of one professor, two assistant professors, and three instructors, the assistant professors and instructors being officers of the Army detailed for and continued in this duty for a period of four years. English is taught the first year only, French the last half of the first and all of the second year, Spanish the last half of the fourth year, Spanish being limited to sixty lessons. The professor and assistants have not that acquaintance with French and Spanish required for conversation in those languages. The Military Academy does not pretend to give its students a speaking knowledge of these two languages, but limits its efforts to preparing them to translate without the aid of dictionaries.

The Board of Visitors believes that the best interests of the Academy demand that the department of modern languages should be reorganized and strengthened, and that at least the professor of that department should have a thorough knowledge of the languages taught. With the view of properly presenting this matter to the President, it is desired to obtain the opinions of gentlemen representing the educational interests of the country. You are respectfully requested, therefore, to furnish a letter for this purpose, briefly giving your opinion as to what steps should be taken on the points stated in this communication, and generally as to what, in your judgment, is required to improve and strengthen the department of modern languages. The report being in course of preparation, an early reply is solicited.

Very respectfully, yours,

JOHN M. CARSON,

Secretary Board Visitors, U. S. Military Academy.

All to whom this letter was sent did not respond; but the number and character of those who did, and the unanimity of sentiment which pervades their letters, will enable the President and the public to see that the recommendation of the Board in relation to the selection of professors at the Military Academy for departments not intimately associated with the teaching of the science of war should no longer be confined to the United States Army. Following are the replies received:

FROM PRESIDENT PEPPER, UNIVERSITY OF PENNSYLVANIA.

UNIVERSITY OF PENNSYLVANIA,
Philadelphia, September 28, 1891.

DEAR SIR: I feel that I can not do better, in replying to your letter of September 15, than to inclose you a note, prepared at my request by W. A. Lamberton, esq., Professor of Greek in the University of Pennsylvania, after an interview in regard to the subject of your query.

Yours, very truly,

WILLIAM PEPPER,
President.

JOHN M. CARSON, Esq.

PROFESSOR LAMBERTON, UNIVERSITY OF PENNSYLVANIA.

UNIVERSITY OF PENNSYLVANIA,
Philadelphia, September 22, 1891.

DEAR DR. PEPPER: Your note inclosing letter of inquiry as to modern languages in West Point only came into my hands this morning, as I had not been at the university for some days. I don't think there can be any doubt the Board of Visitors are right in their feeling that the department of modern languages at West Point should be in perfectly competent hands, *i. e.*, in the hands of men thoroughly equipped for their work. Whether such men are or are not likely to be found in the Army is a matter on which I have no information and so can not speak; but I do think that with a view to getting the right and fittest men there should be no restriction to the Army or any other list in the selection.

The idea of the instruction at the Military Academy seems to me very properly limited to the practical requisition of the two tongues mentioned, their acquisition for use in quite other directions than the linguistic. But I can see no object in limiting the degree of practical utility that is aimed at. It may not be, indeed I hardly think it is, possible to give what would be correctly called a speaking knowledge of

these tongues by class instruction in the time and under the circumstances contemplated. But as near an approach to that as possible should be aimed at. You will meet men, of course, who have no facility in French conversation, who yet can read French works with ease and never feel the need (or rarely) of having recourse to a dictionary; but I believe also that in the great majority of cases there will be found to be men who have at one time pushed their knowledge at least up to, if not over, the speaking limit. Lack of opportunity to use their knowledge in the way of conversation will have damaged its availability at a pinch, but a permanent result will have been attained in the clearness and accuracy with which a French sentence presented to them is by them apprehended in its full significance; this will be permanent for two reasons: First, because they will have reached a point in the study at which it is possible to call a halt without running a risk of falling back, they are not likely to lose the knowledge of words and idioms, though the readiness with which they seem to be turned to account in independent utterances may diminish because their "hands are out;" and secondly the possibility of constant reading is within every one's reach at all times.

The unfortunate side of saying we only want to train the boys so far that they may be able to read without dictionaries is this: It fosters in their minds a low aim, and the lower because they will interpret the words naturally in a lower sense than the authorities intend; they will inevitably, mentally if not outspokenly, insert the word "just" (barely) and translate into "just (barely) so far," etc. That is, their minds will be tempted to aim at the lowest limit of allowable attainment. This I think is to be deprecated for more reasons than one, chiefly, however, because, to put the lower reason first, the "barely sufficient" will in innumerable cases prove to be the *insufficient*; one gets a clear appreciation of the sense of a given passage just in proportion as one possesses a surplus of knowledge beyond what that passage calls for; and, worse than this, it in so far habituates the youth to low aims in all and every work. In my view, then, the effort of the Academy should be to bring the students as far forward in the road to speaking the languages as possible; the lower aim will be secured and can only be secured properly by aiming above it.

As to Spanish in particular I have had the impression, gained through conversation with a graduate of the Academy, that one main reason for instruction being given in it there lay in the existence of Spanish-America. If that is correct, it surprises me to hear that the aim in the study of that language is set so low and that so little time is given it. And in any case it is one of the languages of our own continent, and it looks more and more every day as if our Government would be the better for, if not have absolute need for, trained servants who possessed it thoroughly. However, I only throw this in as a hint; it goes perhaps beyond the scope of the inquiry.

The head of the Department, of course, should have a thorough knowledge of the languages, and, I would add, of the literature of them; but the subordinates should also have a thorough practical knowledge of them, a speaking knowledge and a grammatical knowledge. It is no paradox, but a mere truism, to say that in teaching the force that does the work comes from the surplus of knowledge that is not conveyed and not at the time to be conveyed to the learner. Here, as in everything else, it is the reserve force that tells and gives effectiveness to the work actually attempted. There will be plenty of room left for the professor's superiority and for the exercise of his guiding hand. Nor do I think that there will be any difficulty in finding applicants for the places in abundance who will possess all these requirements in ample measure.

It is difficult for one who does not know the details of the course at the Academy, and who knows, if possible, less of the way in which that course works and is worked, to speak on the question as to how the department should be reorganized and strengthened, beyond what concerns the personnel. One runs the risk of "beating the air" and suggesting plausible impossibilities. Still I must say that the time assigned to the languages seems to me lamentably inadequate, as far as I can estimate it.

Some means should be devised, perhaps by courses of reading in connection with the more technical department, by which French could be "kept up" or at least kept before the students' minds to the end of the course. And sixty lessons in Spanish reads very much like time thrown away when one recollects the proneness of students to imagine that a whole subject ends and is absolutely determined just where the threads of it are dropped in his course, and, more than this, the readiness with which a subject that must necessarily be left with the loose ends fades out of their minds; one can not but lament such letting drop of French after but a year and a half's study, and of Spanish after such a mere beginning can have been made. Such a limitation of French might be defended were the aims of the study educational and not practical; for the careful work that might have been done would, viewed as a work, not be lost; but, as the aim is a good reading knowledge, it is more than to be feared that, except in one or two extraordinary cases, reading knowledge will have to be acquired again or will be forever lost. For the limitation of Spanish to half a year and sixty lessons I can see no defense on any ground.

At the risk of suggesting what may prove but a complication to the adjustment desired, I would like to ask, what about German? Its importance as a language possessing a valuable scientific literature is now universally acknowledged, and I should imagine its value to the military student could hardly be denied, if for nothing else, for the reason that the remarkable staff reports of such a master of the art of war as Von Moltke are in that language.

As a practical suggestion, covering the whole, it occurs to me that the first step should be the selection of a man thoroughly qualified in the matter of the languages concerned, and endowed with that necessary common sense and adjustability to surrounding circumstances that will enable him to base his course, not merely upon a theoretical view of its aims and needs independently considered, but upon a comprehensive survey of the whole system of which it is to form a part. Such a man of competent knowledge and good judgment could alone and only too after appointment, when he should have had the possibility of studying the situation thoroughly and reporting upon it, offer a plan at once theoretically correct and practically "workable."

In consequence of the delay of the letter in reaching me, I have sat down at once to answer it, and it may be have not either in form or arrangement been able to avoid evidence of haste. My opinions, however, have not been formed hastily.

Very sincerely yours,

W. A. LAMBERTON.

PRESIDENT WARFIELD, LAFAYETTE COLLEGE.

LAFAYETTE COLLEGE,
Easton, Pa., September 16, 1891.

DEAR SIR: Your circular letter of inquiry has just reached me. I am glad to respond to your request, and, having some very close ties with the Army, I have long taken a warm interest in West Point. I shall try to answer your inquiries, though they are difficult to reply to succinctly, as they open up many mooted points.

(1) I prefer to have a department of modern languages directed by an American, especially if English is to be included.

(2) I prefer to have the foreign languages taught by natives of the country where the language is spoken.

(3) I regard German as most important, and have long wondered why it was not added to the curriculum at West Point.

If more than one language is to be taught by a single professor, it should be a cognate, or the instructor should be an American. The once common practice of a German or Frenchman teaching both German and French has much to condemn it. The American mind is usually more facile and freer from linguistic prejudices than is to be found in any foreigner, and the practical purpose of the Military Academy appeals to an American temperament more strongly than to the slower German and more

imaginative Frenchman. I have studied German, French, and Italian abroad, and the first two in this country, and I am confident that a teacher of foreign languages should at least have had several years' foreign residence. Were I organizing such a department, I should want a graduate of a good American college, with foreign post-graduate training, at the head, a French and a German assistant, and instructors of ordinary linguistic training. Of course, no man should try to teach French who is not a good Latin scholar. A wide acquaintance among young army officers leads me to think that English is taught little, if at all, at the Point.

Very truly,

E. D. WARFIELD.

JOHN M. CARSON, Esq.,

Secretary Board of Visitors, U. S. Military Academy, Washington, D. C.

PROFESSOR COPPÉE, LEHIGH UNIVERSITY.

THE LEHIGH UNIVERSITY,

South Bethlehem, Pa., September 18, 1891.

DEAR SIR: I have received your circular concerning the department of modern languages at West Point. The knowledge upon which my answer is based is three-fold: First. I am a graduate of West Point of the class of '45, and had practical knowledge of the department, as then organized, from the point of view of a cadet. Second. I was stationed at West Point as a teacher of French in 1849-'50, during the time of Professor Agnel, who was an admirable teacher. Third. I was a member of the Board of Visitors of 1868, and we examined that carefully among other subjects of instruction.

The department, originally that of French alone, was changed by title into that of modern languages, when, upon the retirement of the professor of Spanish, both languages were placed under one professor. The title is misleading and unjust. A department of modern languages in our older institutions of learning is intended to include many of the modern languages and to give some instruction as to the literature of these languages; whereas in the department at West Point, French and Spanish only are taught, and that grammatically, and no knowledge of their literatures is imparted. I have always believed that in the time allotted to French more progress could be made than has been, and that by forming conversation classes half the students might be taught to speak it reasonably well. There is besides such a wealth of military knowledge contained in French that too much care cannot be taken for the cultivation of that language. The introduction of Spanish was mainly designed to teach officers to speak it, as its military history is nil. It is so simple a language and so easily acquired by a young officer that I regard it of little importance in the course at West Point. The same time devoted to German, which is so rich in military lore, would be really useful and valuable. I think it of the utmost importance that the professor of French should be either a Frenchman or so thoroughly and practically acquainted with the language as to speak it on all topics with the utmost fluency. To say nothing farther, it is humiliating to the country and the Army when distinguished Frenchmen, especially military, visit West Point, that the professor and his assistants should not be able to converse fluently with them on all subjects. Your circular is a very timely one, and I hope will elicit numerous replies.

In conclusion, my judgment is: First, the professor should be a thoroughly educated Frenchman or an American to whom French is a second vernacular. Second, that German should take the place of Spanish and that more time should be given to it. Third, that there should be a brief course of lectures, at least on French and German literatures. And, fourth, that the title of the department should be the Department of French and German.

Very faithfully yours,

HENRY COPPÉE, LL. D.,

Professor in the Lehigh University

JOHN M. CARSON, Esq.

PRESIDENT JESSE, UNIVERSITY OF MISSOURI.

UNIVERSITY OF THE STATE OF MISSOURI,

PRESIDENT'S OFFICE,

Columbia, Mo., September 21, 1891.

DEAR SIR: As my opinion has been asked in regard to the teaching of modern languages in the U. S. Military Academy, I take this opportunity of addressing to you my views on the question. Detailed specification is dangerous when offered by those that do not view the ground daily; but I will say freely and emphatically that more English should be taught at the Military Academy than has ever been provided for hitherto. This much I will say unconditionally; and, furthermore, it would take weighty objection to convince me that, in some form, it should not continue through the four years' course. With Latin and Greek wholly omitted, French, German, and Spanish should, in my opinion, be taught; and the instruction should end not in reading alone, but in some aptitude in conversation. I have had much experience, during a residence of thirteen years in New Orleans, in this matter of teaching pupils to speak and understand speech in foreign languages. The result is a firm conviction that all that is necessary is a reasonable amount of time and thorough qualification in the teacher. The chief troubles are (1) the quackery of men who insist that these results can be reached in incredibly short periods of time and without the aid of sharp grammatical study; (2) the utter lack of qualification in the teachers of modern (foreign) languages, in most cases. Great caution is necessary in speaking of these matters by reason of (1) the old fogysm of the (so-called) grammatical method men, and (2) the quackery of many among the (so-called) natural method men. For women—fashionable young women—and children, the natural method is unquestionably best; but for people whose brains have received fair development and fair training a combination of both the grammatical method and also the natural method is the only true way.

I have looked with some care into this matter both in American and also in European schools. As I do not teach modern languages myself, but the classic only, I speak without personal interest in any form. It is necessary to add that serious teaching in English, French, German, and Spanish, superadded to what is already required in the Military Academy, would overcrowd the curriculum, starting where it now does. A raise would be indispensable perhaps in the standard of admission—say a year at least. I believe that professors could be found in many of our American colleges and universities amply qualified to teach modern (foreign) languages seriously. Either some of these civilians should be employed to raise the teaching to the proper plane, or Army officers should have scholarships for study in Europe that they may prepare themselves thoroughly for this work. We schoolmen should never forget that the Military Academy is not designed to be a school of languages or of science, but aims to turn out good officers and military engineers. History proves that it has reached these aims nobly. None of us should also forget how thorough the instruction is within the appointed range. None of us should try to extend the range so far as to destroy the design of the school. But nevertheless, in full view of all of these considerations, I still hold that more time and pains should be given to English, French, German, and Spanish, even though that should necessitate a raising of the standard of admission by a year or a year and a half.

It would be impertinent for me to speak thus candidly, except under direct invitation. I have accepted the invitation and spoken frankly but respectfully. Surely I have had no disrespectful intent towards anything, or any person, or any class of persons; moreover, I have no personal or official interest whatsoever in the matter.

I am, very respectfully, yours,

R. H. JESSE,
President.

JOHN M. CARSON, Esq.,
Secretary Board of Visitors, U. S. Military Academy.

PRESIDENT HYDE, BOWDOIN COLLEGE.

BOWDOIN COLLEGE,
Brunswick, Me., September 26, 1891.

DEAR SIR: In reply to your inquiry of the 24th instant, permit me to express the opinion that the only sound educational policy in the matter of appointments is to secure the best available men in the department which is to be filled, and that proficiency in that department is the main thing, and all other considerations should be secondary and subordinate.

The introduction of two or three men who are alive to the human as distinct from the professional aspects of literature, language, and ethics, would do much to broaden and deepen the training imparted at the Military Academy, and make the cadets at the same time better soldiers and better men.

Very truly, yours,

WM. DEW. HYDE.

MR. JOHN M. CARSON,
Secretary Board of Visitors, U. S. Military Academy.

PRESIDENT ELIOT, HARVARD UNIVERSITY.

HARVARD UNIVERSITY,
Cambridge, Mass., September 18, 1891.

DEAR SIR: The problem to which your circular of September 15 relates is a difficult one. A civilian professor of modern languages at West Point, with none but Army assistants would, in my opinion, be in an untenable position. On the other hand, if the department were wholly made up of civilians, it might not command the cordial support of the rest of the academic staff.

I should think that the Board of Visitors might wisely confine itself to exhibiting clearly the weakness of the present organization of the department of modern languages, and to calling on the teaching staff of the Academy and the Secretary of War to devise a thorough remedy.

Very truly, yours,

CHARLES W. ELLIOT.

MR. JOHN M. CARSON,
Secretary.

PRESIDENT WARREN, BOSTON UNIVERSITY.

BOSTON UNIVERSITY, PRESIDENT'S OFFICE,
Boston, September 19, 1891.

MY DEAR SIR: I have the honor to acknowledge your kind communication of September 15. It reaches me, however, at a time when I am so preoccupied with the duties connected with the opening of our different schools and colleges that I feel unable to acquaint myself with all the facts which I should need to investigate in order to make an intelligent and useful recommendation upon the point submitted. I should the more regret it were I not assured that the Board of Visitors and those selected by them include so many able and experienced men that the right decision seems quite sure to be reached.

Yours, very respectfully,

W. F. WARREN.

MR. JOHN M. CARSON,
517 Fourteenth Street, Washington, D. C.

PRESIDENT HALL, CLARK UNIVERSITY.

CLARK UNIVERSITY,
Worcester, Mass., September 19, 1891.

MY DEAR SIR: In response to your circular letter of September 15, I have no hesitation in saying, upon your presentation of the facts, that the chief instructors

in the two departments named should be selected wherever the best knowledge of the subject and teaching ability combined can be found, with no reference to whether such instructors are men trained for military or civil life.

Sincerely yours,

G. STANLY HALL.

Hon. JOHN M. CARSON.

PRESIDENT ANDREWS, BROWN UNIVERSITY.

PRESIDENT'S ROOM, BROWN UNIVERSITY,
Providence, R. I., September 16, 1891.

MY DEAR SIR: It seems to me very clearly desirable that the professor of modern languages at West Point should have a perfect knowledge of German, French, and Italian, at least, and that the course in Spanish should be greatly extended. It is every way proper, and will sometimes be indispensable, for army officers to understand Spanish quite thoroughly. It might be possible to secure a military officer sufficiently well educated to be a suitable professor of modern languages, but it would probably be much easier to secure a civilian for that post.

Very truly, yours,

E. BENJ. ANDREWS,
President.

JOHN M. CARSON.

PRESIDENT ADAMS, CORNELL UNIVERSITY.

PRESIDENT'S ROOM, CORNELL UNIVERSITY,
Ithaca, N. Y., September 24, 1891.

DEAR SIR: In answer to your circular of September 15, I beg to say that, in my opinion, the chair of modern languages at West Point should be occupied by a man who has been specially trained for that purpose. I know not what particular reason there may be for any other course. To a man accustomed to education, the question seems capable of but one answer.

I am very truly, yours,

C. K. ADAMS.

Mr. JOHN M. CARSON,
Secretary Board of Visitors, U. S. Military Academy.

CHANCELLOR SNOW, UNIVERSITY OF KANSAS.

CHANCELLOR'S OFFICE, THE UNIVERSITY OF KANSAS,
Lawrence, September 23, 1891.

DEAR SIR: Your circular letter of the 15th instant is at hand. It goes without saying that the professor of modern languages in the U. S. Military Academy should have a thorough knowledge of the languages taught. Instruction in any branch can not be properly given without thorough preparation on the part of the instructors. I therefore sincerely hope that future appointments to the faculty of this Academy may be made upon the basis of the qualifications of the person appointed.

Yours, sincerely,

F. H. SNOW,
Chancellor.

Mr. JOHN M. CARSON,
Secretary Board of Visitors, U. S. Military Academy, Washington, D. C.

PRESIDENT NORTHRUP, UNIVERSITY OF MINNESOTA.

UNIVERSITY OF MINNESOTA, PRESIDENT'S OFFICE,
Minneapolis, Minn., September 19, 1891.

DEAR SIR: It is extremely desirable that students who study French and Spanish should learn to converse in those languages. In no institution does it appear to me

more important for the students to learn to converse in those tongues than in West Point. That they may so learn, they should have instructors who are masters of these languages and able to converse in them. If such instructors can be found in the Army, well; but, if they can not, proper persons outside of the Army should be selected as professors and assistants. I do not see that it makes much difference whether the professor of French is a warrior or not.

Very truly, yours,

JOHN M. CARSON, Esq.

CYRUS NORTHRUP,
President of University of Minnesota.

PRESIDENT CHAMBERLIN, UNIVERSITY OF WISCONSIN.

OFFICE OF THE PRESIDENT, UNIVERSITY OF WISCONSIN,
Madison, September 18, 1891.

DEAR SIR: In replying to your inquiry of the 15th instant, I beg leave to express the opinion that the first consideration in filling the professorships you name should be competency, and that, as they are nonmilitary, the filling of the positions should not be constrained by military lines. It would be my judgment, however, that preference should be given to officers of the Army, because I think it wise that they should be employed in such positions, and the reactionary effect of such employment upon the education and intellectual efforts of the officers of the Army would be beneficial.

Very respectfully, yours,

T. C. CHAMBERLIN.

JOHN M. CARSON, Esq.,

Secretary Board of Visitors, U. S. Military Academy, Washington, D. C.

PRESIDENT ANGELL, UNIVERSITY OF MICHIGAN.

UNIVERSITY OF MICHIGAN, PRESIDENT'S OFFICE,
Ann Harbor, October 7, 1891.

DEAR SIR: On my return from Europe I found your letter of September 5. In answer to it I desire to say it seems to me very important that modern languages should be thoroughly taught in the Military Academy at West Point, and especially that Spanish should receive much more attention. Inasmuch as the time and attention of the graduates are largely given to military pursuits, it would seem to me judicious that men accomplished in the modern languages should be taken from civil life to fill the chairs to which you refer.

Yours, truly,

JAMES B. ANGELL,
President.

MR. JOHN M. CARSON,

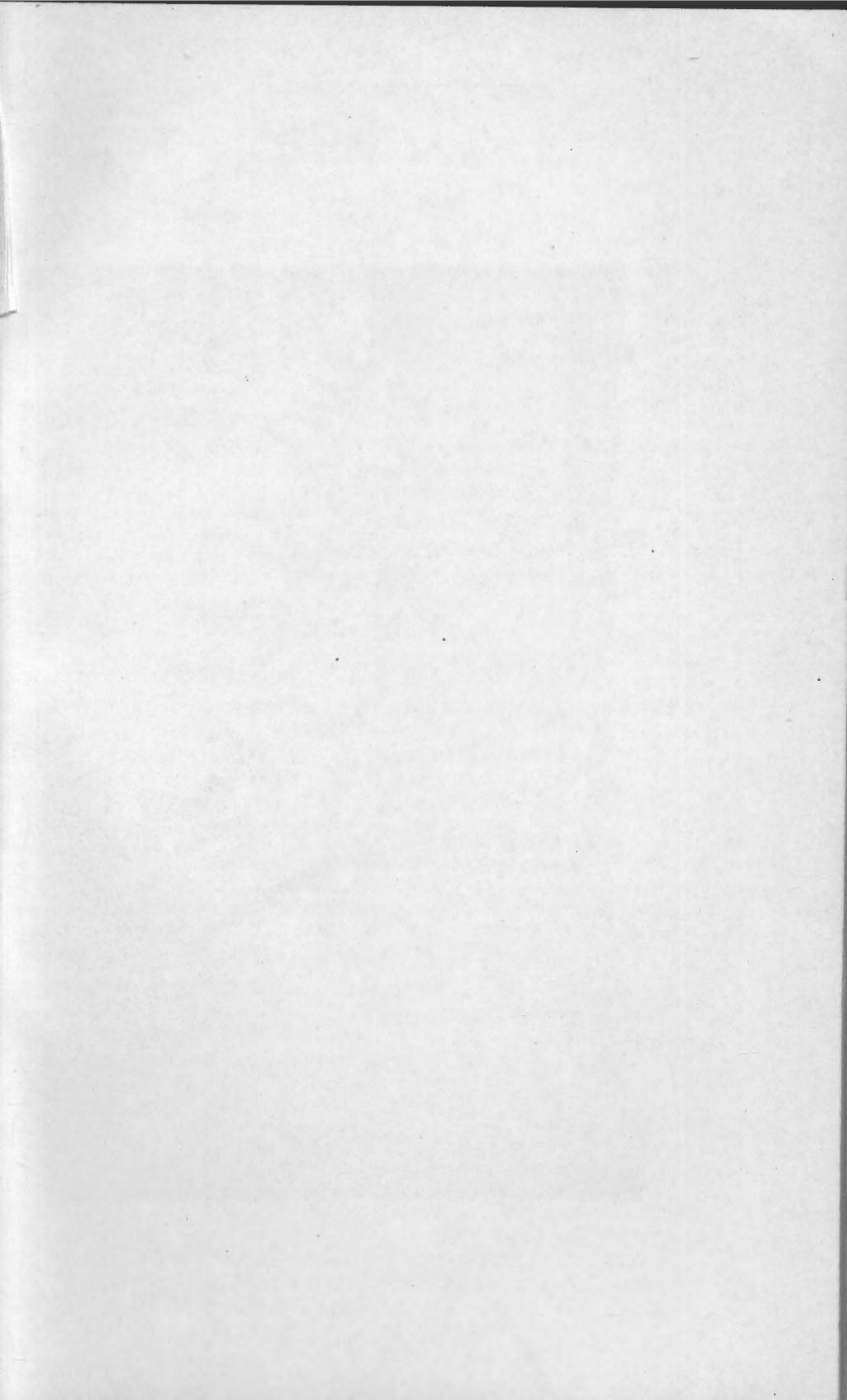
Washington, D. C.

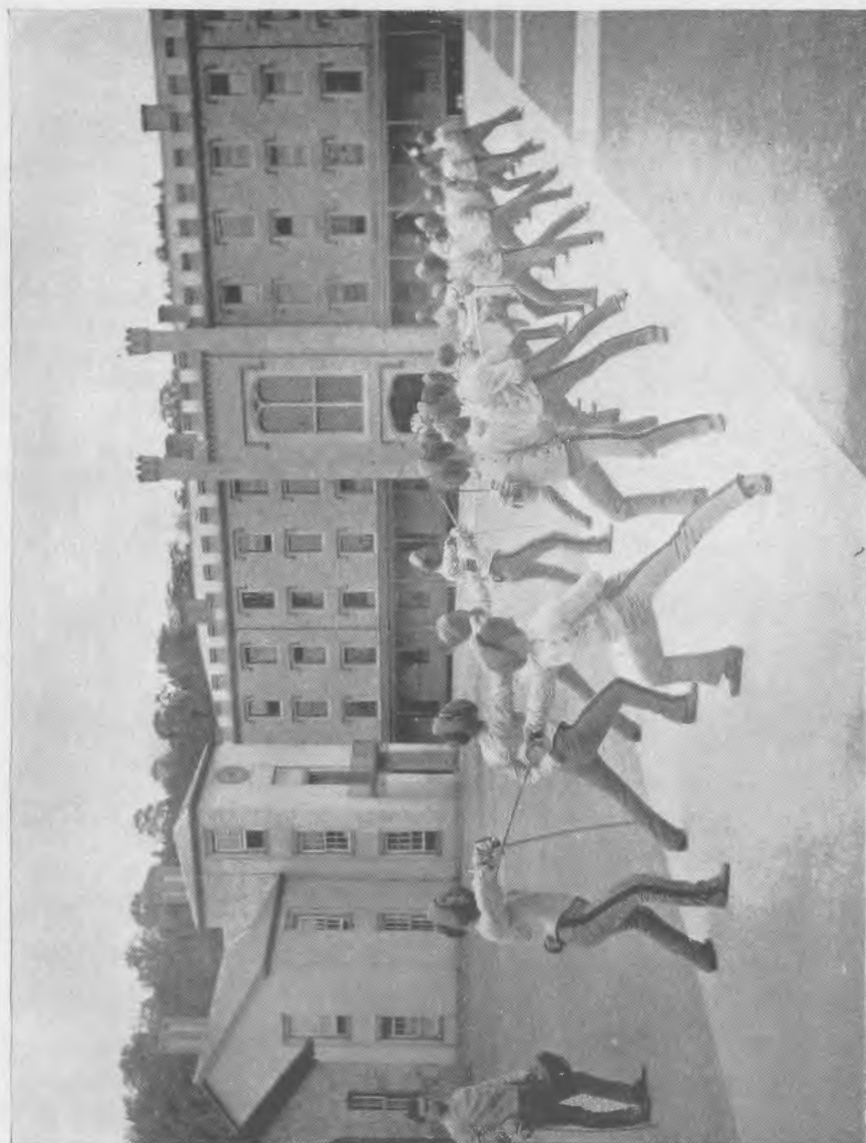
PRESIDENT JOHNSTON, TULANE UNIVERSITY OF LOUISIANA.

NEW ORLEANS, October 9, 1891.

DEAR SIR: Your letter of September 15 was received by me on my return to this city only a few days ago, hence the delay in my reply.

You request my opinion as to the proper instruction in modern languages at West Point. I attach great importance to these branches, as will be seen by reference to the courses of study required in Tulane University. A competent knowledge of English, French, and German is required of every graduate of our college. French and German have each a professor, teaching his mother tongue, and fully qualified, and the instruction in English is divided between two highly accomplished professors. All of these professors are of full grade and salary. The languages are





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Stoddard, Glens Falls, N. Y.

taught in their philological, literary, and historical aspects, and the students use them in the classroom. We give much attention to elocution and essays, and teach literature in literature by encouragement of reading the best models. Our catalogue will give you the details.

From your statement of the amount of instruction given at West Point, I must regard it as altogether superficial and inadequate. Language is the vehicle of thought at least, and is necessary for its expression, if not for its proper formulation. A man can not be called educated, in any sense, who has not been taught to read, write, and speak his own mother tongue with force and facility. This is especially the case with officers of the Army and Navy, who are constantly required to act and speak for the governments of the country. It seems to me that a knowledge of French and Spanish is very desirable for our officers; and for our engineers I should regard German as of the utmost importance. A speaking knowledge of French and Spanish are as important to the army officer as a reading knowledge of these languages.

I am, very respectfully, yours,

WILLIAM PRESTON JOHNSTON

JOHN M. CARSON, ESQ.,

Secretary Board of Visitors of U. S. Military Academy.

MILITARY DISCIPLINE AND INSTRUCTION.

The value and efficiency of the discipline that prevails at West Point is illustrated and emphasized by the every-day conduct of the individual cadet, and the thoroughness of the military instruction is attested by the perfection of movement in the corps, whether drilling on the "plain," or going through the ceremonies of parade on the ground set apart for infantry maneuvers. The results obtained by the West Point system of government is highly creditable to the authorities of the Academy. It is inflexible in nature, impartial in administration, and just in execution. The Board freely awards the highest commendation to the Superintendent and his assistants for maintaining the perfect state of discipline found at the Academy. Notwithstanding its severity it is tempered with kindness, and every cadet feels that should there be any mistake made in his "reports" for violation of orders or regulations he can appeal to the Commandant or Superintendent with the certainty of receiving patient hearing and fair treatment. Inquiry among cadets elicited no complaints as to the mode of administering discipline, and the cheerfulness exhibited at all times by them is evidence that they are not suffering from oppression.

OMISSIONS IN THE CAVALRY EXERCISES.

While the corps of cadets is thoroughly instructed in all field movements, certain details are omitted from the scheme of military instruction to which we respectfully direct the attention of the proper authorities. In the school of the soldier, mounted, the cadet receives no instruction in the care of horses. He never sees a horse groomed, and knows nothing about saddling and bridling, unless he obtained such information before entering the Academy. It seems to the Board that instruction on these points is essential. One of the first duties the

young mounted officer is called upon to perform after joining a troop or battery is the supervision of the feeding, grooming, and watering of the horses, and the bugle sounds "stables" as regularly as it sounds the "assembly." Yet a man may graduate at West Point and never see a horse groomed or fed, and join his troop with no practical knowledge of how to saddle and bridle a horse. The man charged with the supervision of this work can not intelligently perform his duty if ignorant of the methods and manner of performing it. It is true the young officer will learn by actual contact when assigned to a troop or battery how "stables" should be attended to, and will in like manner, from observation, learn how a horse should be saddled and bridled; but this may be said of a number of things taught at West Point, some of which are doubtless of less consequence to the military service and to the Government than those specifically referred to and not found in the scheme of military instruction. The Board believes that cadets should be given practical instruction in the care of horses; that they should be required to feed and groom horses for a period sufficiently long to enable them to acquire the needed knowledge, and that each cadet should be made to saddle and bridle his own horse when summoned for mounted drill. All this service is now performed by enlisted men of the cavalry detachment stationed at West Point, who also attend to the horses and harness for the light battery drill.

SHORT MARCHES IN SUMMER RECOMMENDED.

During the three summer months the corps is in camp all studies are suspended and the entire time devoted to practical military instruction. We suggest that during this period of encampment the corps be given occasional short marches into the adjacent country, in order that each individual cadet may know from experience what it is to march *en route*. In this connection the Board directs attention to the fact that the corps is not supplied with the equipage needed on the march or in the bivouac by a column of infantry, and that when a cadet leaves the Academy and joins a foot company in the Army he has no knowledge whatever of a knapsack, haversack, or canteen, and no idea of the number, character, or use of the several cooking utensils required by a marching column. In short, the cadet receives no practical instruction in this direction, that being left for acquirement after joining his command. It would not only relieve the monotony of camp life and duty as practiced at West Point, if the corps of cadets, with knapsacks packed and slung, haversacks and canteens suspended in the regulation fashion, should be made to perform a number of short marches into the adjacent country during the summer months, but these future officers would in this manner gain knowledge which would be invaluable, and the possession of which would enable them to appreciate the amount of labor performed and discomfort endured by enlisted men when on the march. Further than this, having this kind of knowledge, the more valuable

because acquired by experience, these future officers would know how to lighten the burdens of the soldier on the march, and how to make him comparatively comfortable in camp.

PRACTICAL INSTRUCTION VALUABLE TO CADETS.

While as a general rule it is true that much of the experience of life is acquired by the young officer after he receives his commission and enters upon active duty with troops, it is nevertheless a matter of importance that, pending his course of instruction at the Military Academy, he should acquire some practical knowledge of men and things, since all that comes to him of this nature during his military minority must prove of great value and utility. Discipline requires that the enlisted man shall be largely dependent in thought and action upon his immediate commanding officer, no matter what may be the disparity between them in age and experience. Therefore whatever instruction may be had at the Military Academy calculated to give the cadet an insight into the methods of advising and encouraging the enlisted man, tends to elevate the service by enhancing the confidence of troops in the wisdom, good intent, and personal and military merit of the officers under whom they serve.

In the discussion of this idea, General Philip H. Sheridan remarked to the writer of this report: "Show me a good captain and I will show you a good company. Good companies make good regiments; good regiments make good brigades." General Sheridan looked to the proper government and care of the enlisted man as the paramount essential in bringing troops to the highest order of perfection, and if the captain or commanding officer of the company were lacking in soldierly qualities, caring little or nothing for the comfort and discipline of the men, he knew that the company would fall below the proper standard of merit and usefulness.

REPORT OF THE COMMITTEE.

Following is the report of the committee on Discipline and Instruction, which was unanimously approved by the Board:

ROOMS OF THE BOARD OF VISITORS,
West Point, N. Y., June 6, 1891.

To the Board of Visitors:

The committee on Discipline and Instruction respectfully submit the following report:

(1) *Discipline.*—Discipline has the first place in the report of your committee, because upon its perfection depends all other excellence. If such is its importance, a clear definition is essential; and we must ask, What is discipline? It is such a treatment of the cadet as is suitable to make him a disciple or follower of the great military commanders who have preceded him and won glory and renown for themselves and for our country.

It accomplishes its purposes by training to act in accordance with rules. Hence our inquiry involves three questions: (1) What are the regulations of this Academy? (2) What is the character of the officers who administer these rules? (3) What are the results of their administration?

Of the regulations we can say that they deserve our profound respect, for they are the results of nearly a century's experience. They have constituted the rules of conduct that formed the characters of the great men who have graduated here. They have been adopted by military schools in all our States, and have influenced to a great or less extent the administration of many civil colleges. They are now more nearly perfect than ever before, because they provide for their own improvement. Judicious changes have been made all along their history, whenever experience clearly demonstrated the advantages of modifications.

The aim of these regulations is to train and develop the cadet's physical, moral, and intellectual nature. They treat his body so as to preserve its health, to develop its strength, to increase its power and activity, and to make it capable of such endurance as to undergo the great hardships the military service of the country demands. And his moral nature receives no less attention. The cadet is required to consider "duty the noblest word in the language." He is trained to eradicate selfishness from his character.

Such is the theory of discipline as seen in the laws of the Academy; but as laws are not practically valuable unless wisely and efficiently administered, we have inquired into the character and fidelity of the Superintendent, of the professors, and of the instructors. Personal intercourse with them, attendance upon their examinations, and inquiry into their methods of instruction satisfy your committee that they are thoroughly competent, painstaking, accurate, and faithful, and are fair in all their dealings. While they are firm in the discharge of duty and demand that every cadet shall reach the standard required, they are also exceedingly kind in spirit and in manner. They are soldiers and gentlemen, worthy of the imitation of the cadets under their charge. It is a wise provision of the regulations that the professors are to remain permanently at the Academy; and much will be gained by the school if the present Superintendent be kept here many years, for he undoubtedly possesses elements of administrative ability—kindness, firmness, tact, and magnetism—that are not easily duplicated; and the Academy should have the benefit of his character and his work for as long a time as practicable.

The vitality and virtue of any organism may be accurately judged by its power to perpetuate and reproduce itself. Judging by this standard of self-perpetuation and reproductive power, we see here the best evidence of the efficiency of the regulations, in the fact that under their method of filling vacancies the Academy is kept supplied with such a corps of officers as these we now find here.

We may further test the discipline and the officers by inquiring as to the product of their work. What is the outcome of all this expenditure of time and money? In answer to this question many schools might single out a few of their graduates who have attained eminence; and cite these as evidence of virtue in their methods. But this is an unsound argument; for a few such men can be made by self-application of their own native powers. An answer better than this can be given by the United States Military Academy—can be given here where the impress of the regulations and the skill and fidelity of the professors are indelibly marked on every cadet—has been here six months or four years.

These officers seem to have in their minds the true conception of a great soldier—unselfish, courageous, truthful, accurate, bright, and manly—and out of the rough material given them they fashion the man into whose keeping the welfare, happiness, and safety of the nation may be intrusted. And like Michael Angelo, out of a stone they make an angel.

Hence on the matter of discipline we conclude: That the rules of the school, considered in the abstract—their aims and methods; that the professors and officers now on duty here—their character, scholarship, skill, and fidelity; that the results of the

regulations as administered—shown in physical, moral, and mental development of the cadet—all deserve the commendation of the Board of Visitors. Our Government and our people are to be congratulated, and they should be encouraged to maintain these laws and to support the administration of the Academy.

2. *Instruction.*—On the subject of instruction we may say that education is the impartation of knowledge in such a way as to give power to hold it, power to use it, power to communicate it, power to get other knowledge more easily and more rapidly. Hence two important elements are involved: (1) Knowledge getting; (2) power getting.

Therefore, to judge of the instruction given here, we must consider the curriculum and the methods of teaching. To judge of the curriculum we must be guided, not by standards of civil education, which prepare men for the pursuits of peace, but by military standards, which have reference to the arts of war. The adverse criticisms which have sometimes been made on this course of studies are, we think, due to looking at it from the civil standpoint, which is a wrong one, and if followed would militate against the usefulness of the Academy in its preparation of men for the Army.

We find the course of studies dual in nature—academic and professional—one part intended for mental discipline, and the other part for the practical duties of camp and field. Thus there is combined in one school and in one course of 4 years an amount of work such as does not obtain in any other institution. Those who criticize the Academy adversely, fail to consider the herculean task undertaken here and the short time allowed for its performance. The day may come in the history of the country when two separate institutions shall be given to this work and more time be allowed; or when the academic or fundamental training shall be thrown back upon the colleges of the country and this school occupy itself only with such studies as pertain to the profession of arms. But that day has not yet come; and until it does we must appreciate the amount of work that is done at the Academy and the results obtained in the short time allowed.

In the academic department we find:

1. An extensive course of pure mathematics.
2. An extensive course of natural and experimental philosophy.
3. A full course of chemistry, mineralogy, and geology.
4. A course of drawing of unusual excellence.
5. A course of three modern languages, one being English.
6. A department of history, geography, and ethics.

In the department of professional education we find:

1. Extensive courses of civil and military engineering.
2. Practical and theoretical courses in tactics—infantry, artillery, and cavalry.
3. Full course of ordnance and gunnery.
4. Full course of practical military engineering.
5. A department of law.

The standard for admission shows that the candidate is taken in and begins his course, knowing only arithmetic, English grammar, geography, and United States history. How one with such limited preparation can, in four short years, master such courses of general and professional education, is explained only when we consider the nature of the discipline and the fidelity of the professors.

But to comprehend fully all the results the characteristic method of military training must also be taken into account. Much is said in these modern times as to methods of education. Normal schools and colleges are established in all the States to teach methods; institutes are held throughout the country for the purpose of diffusing a knowledge of methods. But it may be apprehended that the true and logical meaning of the word "method" has been lost sight of, and the idea involved in the word "plan" has been substituted; for these so-called methods seem in many cases to be only plans, and are as if one teacher has his plan of piling sticks of wood and other teachers have theirs.

As we all know, there are but two logical methods of thought—the inductive and the deductive. When combined in the order named, they make the complete method. The skillful teacher uses these separately or combined, and in such order as best suits the subject to be taught and the pupils to be instructed. The soldier's method of teaching tactics is more nearly perfect than any other; for the wealth, power, and existence of nations depend upon tactical skill; and this skill depends on the methods and results of tactical education. By analyzing this tactical method, the professors in the Military Academy comprehend the model upon which all their departments are best formed. What are these elements of tactical instruction? The answer is exhibited daily on the drill ground. First, while the recruit is paying strict attention, the officer in his own person takes the position of the soldier or performs a movement with as much accuracy as possible, and then describes orally that position or movement. Second, the recruit is made to imitate the position or perform the movement as it has been represented in the person of the officer. Thus far the thought and the work are by the inductive method. The pupil observes carefully, comprehends the facts, and draws in his mind the rule of action. Finally, he is made to execute, with many repetitions and under varying circumstances, similar positions and movements. This is deductive, and serves to broaden and make permanent in his mind the law and the application of the exercise.

Taken all together the method is complete and perfect, proceeding from the fact to the law, and from the law to its application. Every position of the soldier and all evolutions of the company and battalion are taught in this thorough manner. The result is, that besides learning tactics the cadet has established in his mind the best possible habit of thought; and this habit of thought makes him practical and rational in all departments; and when he comes to be a professor here in any branch of education, having been trained in this complete method, it is natural for him to use it in the class room; hence we find the spirit of this method throughout the Academy.

If we consider this method of teaching in its connection with the peculiar discipline of the school as administered by these faithful and efficient officers, we have a full explanation of the fact that at this Academy so much is learned in so short a time, and all is done in such a masterly way.

Recommendations.—Before concluding this report we make the following recommendations:

(1) That the Academic Board shall at the proper time readjust the departments of study in such a manner as to give more time to the English language and greater attention to its literature.

(2) That appropriations be made to increase the apparatus so as to equip every department fully and enable the professors to reach the minds of their pupils by object lessons.

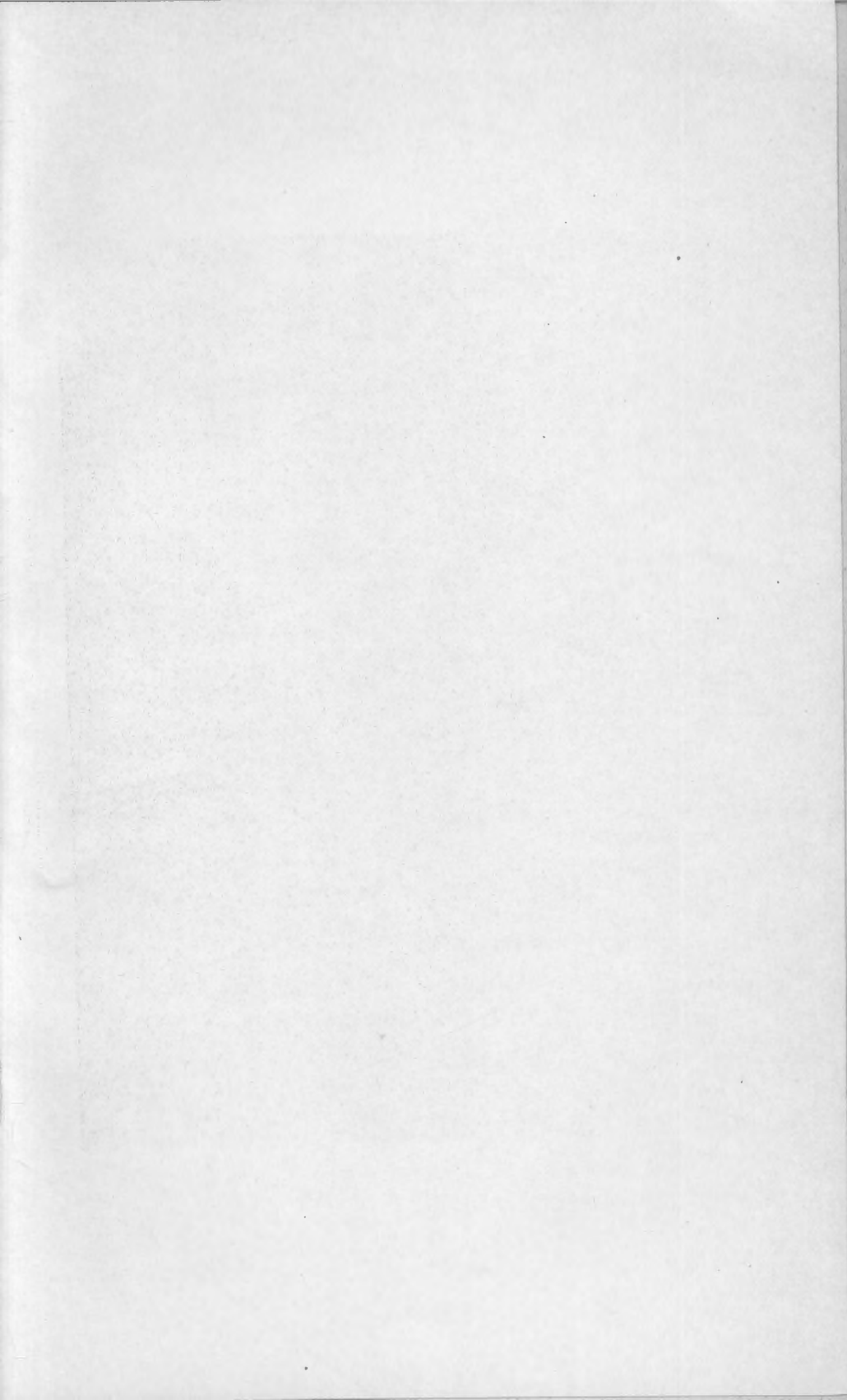
(3) We recommend that the instructor of the band be given the rank and pay of second lieutenant of infantry.

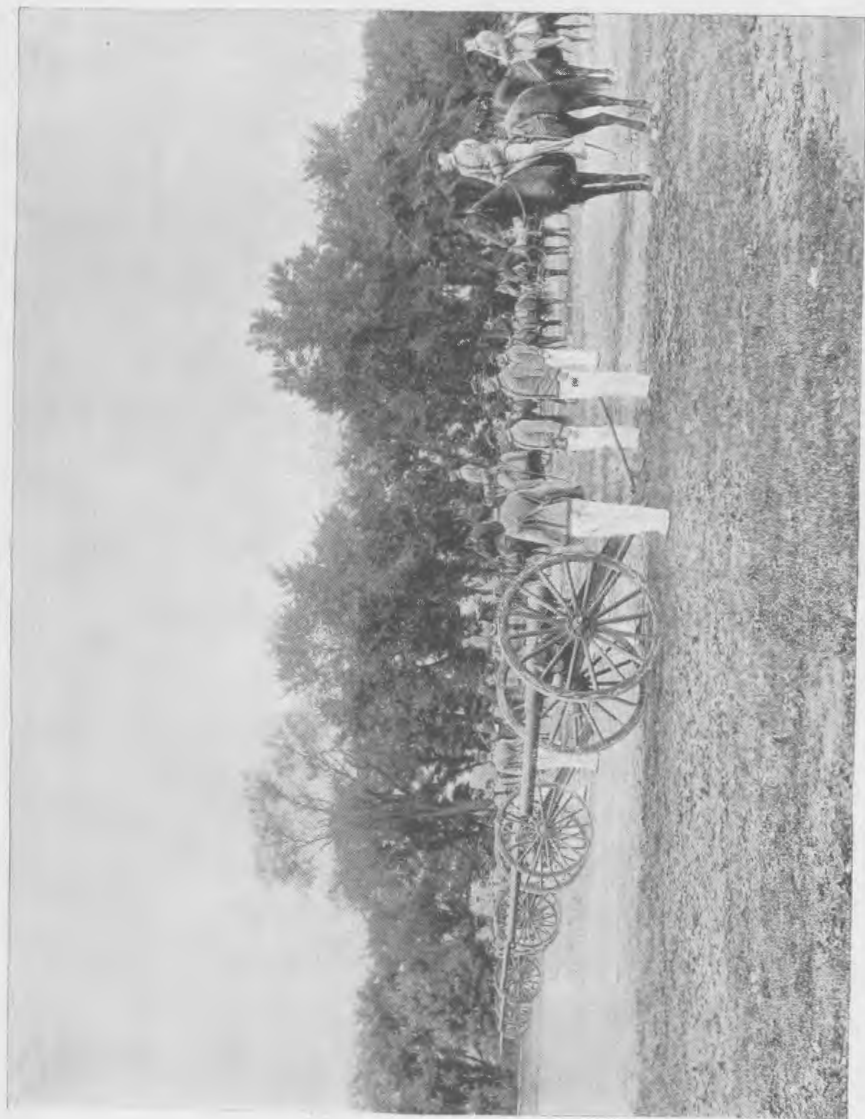
(4) That the membership of the band be raised to forty, 16 of whom to be in the first class and 24 to be in the second class.

(5) That enlisted men intended for field musicians be placed under the tuition of this professor of music for at least one year, so as to secure uniformity in field music throughout the Army.

In conclusion, we would suggest that no better service can be rendered our people than to make them acquainted with the superior character of the discipline of the United States Military Academy, with the excellence of its officers, with the thoroughness of their work, and with the high moral tone that pervades the entire school.

J. T. MURFEE,
FRANK A. O'BRIEN,
THEODORE S. PECK,
Committee.





ARTILLERY—IN BATTERY, PREPARED FOR ACTION.

ARMAMENT AND EQUIPMENT.

Committee on Armament and Equipment.—Messrs. THEODORE S. PECK, CHARLES F. MANDERSON, and JAMES A. WAYMIRE.

THE ARTILLERY BRANCH.

Every report made by the Board of Visitors for several years past has directed the attention of the authorities to the utter lack of proper arms and equipment at the Academy for instruction in field exercises, and earnest appeals have been made in these reports for improvement in this direction. This constant iteration has at last attracted attention and has resulted in securing within the last year a battery of six 3.2-inch steel breech-loading guns. With this exception the armament of the Academy consists of a lot of antiquated guns that should be sent to a museum of ordnance antiquities or utilized by being planted perpendicularly in the earth to the trunnions, to protect the grounds against trespass. Many of the guns are so weak that they can not be used for purposes of instruction, investigation having demonstrated that to fire them would be to endanger the lives of the cadets engaged as well as those of the bystanders who might be watching the drill. Their use, therefore, has been prudently discontinued, and this fact, known to the authorities at Washington through the last two reports of the Superintendent and the report of the last Board of Visitors, does not seem to have disturbed the serenity that prevails at the War Department, nor to have attracted sufficient attention to gain even a passing notice. Colonel Wilson, the Superintendent, in his annual report for 1889, directed attention to the bursting of one of the 30-pounder Parrott guns in April of that year, "whereby the lives of a number of cadets were endangered. Orders have been given," sentimentously added the Superintendent, "that the guns of this battery shall not be again fired."

The artillery equipment of the Academy is thus catalogued:

A battery of seacoast guns, of which the cadets use two 15-inch smooth-bore guns, three 8-inch rifles (muzzle-loading), and one 13-inch (muzzle-loading) smooth-bore mortar.

A battery of six 30-pounder muzzle-loading rifles (Parrotts).

A battery of six siege mortars, three 8-inch and three 10-inch.

One battery of six 3-inch muzzle-loading rifles, used and partially equipped as a mounted battery.

One field battery of six 3-inch muzzle-loading rifles.

One battery of six 12-pounder (Napoleon) guns.

One battery of six 3.2-inch breech-loading steel rifles.

This is a formidable array of guns—on paper. To the educated soldier, however, this armanent appears ridiculous in repose and would present no terrors in action. The mortality from the use of such guns would be greater in their rear than in their front. Except the battery of 3.2-inch breech-loading steel rifles mounted on steel carriages, which was lately supplied, the guns above described are obsolete and many of them worthless for purposes of instruction. The old muzzle-loading field batteries should be retired from active service, used only for firing salutes, and replaced by guns similar to those in the field battery recently supplied.

In the seacoast battery no two guns are mounted on the same kind of carriage, each carriage doubtless representing a different epoch in the manufacture of gun-carriages. This might be called a "polyglot battery." With such an outfit there can not be any uniformity, efficiency, or satisfaction in the instruction. Lieutenant Hoskins, the senior instructor of artillery tactics, an enthusiastic and accomplished officer, said of these carriages that they "would be appropriately placed if under a case in the Ordnance Museum." The Ordnance Department may properly urge that modern guns can not be furnished the Academy until money and time can be secured to fabricate them; but this plea will not hold good in the case of this collection of diversified and antiquated carriages. The "cranes" are as variegated as the carriages and in strict keeping with them.

In his report for 1890 Superintendent Wilson complains that "the condition of the siege battery is much worse than that of the seacoast battery." Following the bursting of one of the guns of this battery the Ordnance Department, in October, 1889, condemned the battery and replaced it with a battery of 4½-inch rifled guns. In making this exchange the Government, having no modern guns of the required caliber, the Ordnance Department discovered another miscellaneous lot of antiquated and worn-out guns, and these are now in position at the Academy. Having a proper regard for the lives of the young men who would be required to work these guns, as well as consideration for the safety of the innocent people who are usually attracted by the firing, Colonel Wilson called for a history of these engines of double-ended destruction, and was informed by the Ordnance Department that it was "unknown." They had been "selected as the best of a lot on hand at the New York Arsenal, sent there from Washington some years before." These guns were used during the war of the rebellion, to what extent can not be ascertained, but it was known that "some guns of this pattern had recently burst."

There is a limit fixed by science and experience to the life of a gun, and it is dangerous to use it beyond that limit. These guns have evidently been used to that limit, perhaps beyond it. With a full appre-

ciation of his responsibility for the lives of those committed to his charge and having no faith in the old West Point tradition that "You can't kill a cadet," Colonel Wilson directed that the guns should not be fired at drill.

Until the Government can supply the Academy with modern guns to take the place of the antiquities now in position in the seacoast and siege batteries, we recommend that these two worse than useless batteries be dismantled, and that wooden guns, fashioned after the latest approved models and furnished with modern carriages and cranes, be mounted in their stead. Such a course would not avert the ridicule to which the United States is now justly subjected by maintaining obsolete armament in these two batteries for the instruction of future officers of its Army, but it would furnish evidence that our military men are cognizant of the fact that progress has been made in the fabrication of great guns and that they fully appreciate the importance and value of the improvements. In addition to this, wooden models of modern fashion would at least give the cadets an idea of the kind of guns likely to be used in warfare and of the methods employed in serving them.

MAXIM AND HOTCHKISS GUNS.

We recommend that a Maxim machine gun and a Hotchkiss rapid-fire gun be provided. Both these guns are now generally used in the armies of Europe. It is estimated that the sum of \$5,000 would procure one each of these guns complete with a supply of ammunition for target practice. The Government should certainly furnish the Military Academy with at least one each of these modern guns. Capt. Henry Metcalf, of the Ordnance Department, instructor of ordnance and gunnery, thus describes these two guns:

The Maxim is a gun of American invention, made in England for want of a market here and capable of firing automatically at the rate of eleven shots a second. It uses musket ammunition. Once discharged by the trigger it continues as long as the ammunition chest is filled, so that the gunner can play it like a hose. It has many great ballistic and tactical advantages and promises to supplant entirely the famous Gatling gun. I consider it the most important invention in firearms within the last 20 years. This at the present rate of progress means a good deal.

The other gun, the Hotchkiss rapid-fire gun, is a cannon varying from 1 to 33 pounder caliber, which uses ammunition like that employed in small arms, but of enormous size. The largest cartridge shells are about 4 feet long. It can be fired by hand at the rate of from twenty-five to ten rounds per minute, the rapidity in this case depending mainly upon the use of the peculiar ammunition. This gun, also an American invention, made, for the same reasons as the Maxim, in a foreign country, has almost revolutionized the construction of a large class of foreign fleets. It is eminently adapted to the transformation of a mercantile marine, and in the event of a foreign war would have an important part to play both on shore and afloat.

NEED OF AN ARTILLERY DETACHMENT.

We recommend that a body of artillery soldiers sufficient in number to serve the light battery, detailed from the Army or enlisted for the purpose, preferably the latter, be assigned to the Academy. There are

detachments of engineers and cavalry for the performance of the duty special to each of those branches, and a similar force should be furnished for artillery duty and given the same status as that occupied by the two detachments of engineers and cavalry. This is urgently needed, and the necessity for it has been frequently set forth in official reports from the Academy. The cavalry detachment, in addition to duty as cavalry, is required to perform duty with the light battery as artillerymen. In order to improve the cadet artillery department it has been urged that a light battery, detailed from one of the artillery regiments of the Army, should be stationed at West Point, in order that the cadets might witness the evolutions of a well-drilled field battery and at all times have at hand a well-equipped battery which could be used by them. We do not believe it would be advantageous to the Academy to station a regular light battery at West Point. On the one hand, such a battery would be accompanied by a full complement of officers, for whom suitable quarters would have to be provided, and, as the number of habitable dwellings is now inadequate to the necessities of the post, houses would have to be erected for the officers of the light battery. Being an independent command, barracks for the men and stables for the horses would have to be provided. In addition to this, many difficulties and annoyances would be constantly arising growing out of the anomalous situation of having a battery of guns divided in practical ownership and subject to the call of the commandant of cadets and the commanding officer of the battery. And it should not be overlooked, in this connection, that the officers serving with our light batteries are themselves under instruction and assigned to light batteries specially for this purpose.

On the other hand, to supply the artillery branch with the necessary horses and men preserves the autonomy of the artillery of the Academy, promotes its efficiency as one of the educational branches, makes it what it should be as a cadet battery, and saves the expense which would be involved in providing accommodations for a light battery from the Army.

THE CAVALRY BRANCH.

The deficiency in the cavalry branch of the tactical department is not so serious nor so discreditable as in the artillery, but is sufficiently obvious as to demand early correction. As in the case of the artillery, the Superintendent of the Academy and former Boards of Visitors have for several years regularly directed attention to this matter. Nothing can be added to what has been urged by our predecessors calculated to give greater weight to the importance and urgent necessity of supplying the Academy with a sufficient number of horses to meet the requirements of both cavalry and artillery instruction. The stud of the Academy consists of about eighty horses. These are purchased primarily for cavalry exercises, but are used as draft animals also.

This double service destroys the horses for efficiency in either branch, and seriously interferes with instruction in both. Horses should be purchased and kept for the exclusive use of the artillery teams, so that those for the cavalry could be brought to and maintained at a high state of training for riding and for all mounted exercises and drills. About fifty additional horses would be sufficient to do this. The original expenditure necessary would be comparatively small. The resulting advantages to the Academy and the Army would be beyond all proportion to the outlay. Two years ago Capt. J. H. Dorst, of the Fourth United States Cavalry, then senior instructor in cavalry tactics, in directing attention to this matter, said:

The cavalry branch of the Army has been making rapid improvements recently in the methods of instruction, and more improvements are certain to come. In one respect they will be based on much higher training of the horse. Instead of using him merely as a means of transportation, he will be taught to be far more docile and obedient to the rider, when ridden either alone or in ranks. The higher the training of the horse as a saddle animal, the more and more does he become unfit for draft purposes, and the more are his usefulness and docility as a saddle horse impaired by using him for draft. The instruction here should at least be kept abreast of that in the service, but if no change is made the instruction in the service will soon surpass that at West Point. Orders have already been issued from the War Department, reducing the maximum limit of age for cavalry recruits to thirty years, and there is hardly a doubt that in time it will be reduced still more, so as to enlist only men young enough to learn riding readily. In the school of the trooper and riding-hall exercises, the cadets surpass any soldiers in the Army, but with the concentration of troops at large and permanent posts, gymnasiums, and riding schools will be established, and, with limited time for instruction allowed here, it may be more difficult for the cadets to maintain their superiority. The average troop of cavalry can now drill much better in the school of the company than the cadets, for the latter have only three days in the week, during the month of April in each year, for such drill, and that drill is practiced under difficulties, for on the same days the horses are used for artillery drill in the afternoon.

In April, 1888, writing upon the same subject, Captain Dorst said:

Forty-eight horses are required for the artillery teams, and among eighty horses here there is always more or less difficulty in finding forty-eight that will work together, while some nervous and spirited ones are unsafe to work in harness at all. By using the horses alternately for draft and saddle purposes they become unfit for the latter. As an example, upon commencing cavalry drill with the first class last September I was astonished to see how restive, nervous and disobedient the horses were, and could not account for it. They had been used at light-battery drill in August. By the end of September they became tolerably quiet, but in October the battery drill was resumed. I saw the horses made to throw themselves into the collars; charge at speed across the plains; then made to hold back suddenly, while their mouths were sawed to bring them to a halt. As a consequence the mouth that had been made sensitive by delicate handling and quiet treatment was spoiled; an even, quiet gait was replaced by a dancing, unsteady one; nervousness and fretfulness returned, and some horses would seize every opportunity to try to run away. The result of the drilling was not at all satisfactory. It was impossible to obtain the precision and accuracy I have often observed in troops of cavalry with poorer riders and less intelligent men, and it was unsafe to attempt charging by platoon. If cavalry drill on the plain is intended to instruct the cadets to perform drill maneuvers properly, its object can never be fully accomplished while the horses are used for artillery drill.

If it is intended merely as a riding exercise, the cadets might nearly as well be taken to ride along the road. The result of the drill is injurious in some respects, as it gives the cadets a false notion of what a cavalry drill ought to be. Regularly year after year, at the graduating ride, the cadets are ordered to charge across the plain, and regularly do they go to pieces before they have charged twenty yards. They and others look upon it as perfectly natural and proper. It was not till I had been in the service several years that I knew that a cavalry troop could charge in line for a hundred yards or more and then be brought back to a slow gait without a single horse bolting and with comparatively little disorder. And I have even known officers of longer service than mine to express surprise that a battalion of four troops of cavalry should move at a trot with no horse galloping nor cantering. Their ideas of cavalry movements were formed at West Point.

This testimony of Captain Dorst, whose experience at the Academy as instructor in cavalry tactics, and whose extended and varied service in the field with mounted troops make him a thoroughly competent and highly intelligent authority, should be sufficient to convince Congress and the War Department that the public interests require an immediate compliance with the needs which he sets forth. Testimony as strong and as positive as that of Captain Dorst might be added, but this would be merely cumulative. We deem it pertinent, however, in this connection to refer to the views of Lieutenant Hoskins, of the Third United States Artillery, the present senior instructor of artillery tactics at the Academy. In answering certain interrogatories from the Superintendent as to the artillery equipment of the Academy and what was deemed necessary to add to its efficiency, Lieutenant Hoskins, under date of June 6, 1889, wrote as follows on the point now under discussion:

The horses are purchased exclusively with a view to their suitability for cavalry purposes and for the greater part of each year serve as such. For such service they are subjected to a system of training which unfits them for work in harness, and their use in artillery drills undoes all efforts expended to render them efficient as cavalry horses. The variety of uses to which they are put and the number of inexperienced persons to whose handling they are subjected disables many of them, and it frequently happens that the quartermaster has to be applied to for horses sufficient to properly horse the battery. A battery so constituted (a mere makeshift) can never be an efficient means of instruction. For this the personnel, horses, and material must be distinct, and entirely under the administration of the instructor. Men and horses must be thoroughly trained and educated before the point at which the instruction of cadets can begin is reached. For this reason much time is lost, and the season for drill passes without any satisfactory progress having been made in the instruction of the cadet.

BITS, BRIDLES, AND SADDLE CLOTHS.

Attention is directed to what is said by Captain Craig, the present senior instructor in cavalry tactics, touching the supply of bits and saddle blankets. The Ordnance Department limits its supply of bits to two sizes. The effect of this limitation is that instead of adjusting a bit to the mouth of the horse, the horse must adjust his mouth to the size of the bit. This policy saves the Ordnance Department the trouble of adding a few more sizes of bits to its list of articles furnished mounted

troops, but it entails suffering upon the horses and consequent demoralization to their riders and drivers. The committee by whom this subject was inquired into very correctly say, in their report, that, "as the sizes of horses' mouths vary as much as the sizes of men's feet, there should be more variation in the bit so as better to accommodate the horse." This seems to be one of those things so plainly necessary and so easily accomplished, that we trust the proper authority at the War Department will at once take steps to supply hereafter, not alone the Military Academy, but the mounted service of the entire Army with bits so varied in size as to save the public horses from the torture of a misfit. We also direct attention to what Captain Craig says about furnishing saddle cloths for the cadet troop.

APPEAL FOR THE TROOP AND THE BATTERY.

The Corps of Cadets as a battalion of infantry represents the highest condition of perfection to which that branch of the military service is capable of being carried. The Board believes that the same condition of perfection should be found in the cadet troop and the cadet light battery. Each should be a type and model for the imitation and emulation of the forces of the regular Army and the National Guard. That they are not so is largely chargeable to the neglect of Congress and the indifference of the War Department. Failure to supply modern guns, a sufficient number of horses for cavalry and artillery exercises, proper bits and bridles, suitable saddle cloths and other paraphernalia so essential to the promotion of the efficiency and the *esprit* of a military organization, and especially such a corps as we have at West Point, are the only obstacles to making the United States Corps of Cadets the finest and best trained body of soldiers in the world, and the United States Military Academy the model institution of its class. "We have but one cadet school," said the Board of Visitors for 1889, "and that ought to be as perfect in equipment as is the best in the world. Foreign visitors from every land see our school at West Point, and since we have scarcely a visible army our visitors shape their estimate from what they see at the Military Academy. We know that some officers at the Point maneuver at times to avoid showing the riding gallery and the horses, lest visitors go home to pronounce it all an American cavalry joke. Teachers and cadet riders like those we have seen deserve better surroundings and worthier belongings."

We are confident that this expresses the sentiment of the American people in reference to the Military Academy. No extravagance should be tolerated at this institution, but nothing should be withheld which is needed to make it creditable to the Government and the people. Until the cavalry and artillery departments are supplied with equipments so much needed by them, foreign visitors, of whom we will have an unusually large number the coming two years, are very likely to regard these departments as "an American cavalry joke."

"There is no reason," said Captain Dorst, in one of the papers from which we have made quotations in connection with this particular subject, "why a company of mounted cadets ought not to approximate as closely to a model troop of cavalry in drill, appearance, and neatness as a company of dismounted cadets does to a model company of infantry. Every horse should be so well groomed that when he is brought into the hall his coat would fairly shine; bits and metal work should be kept bright; saddles and straps should be highly polished, and all the appointments of the stable and riding-hall should be consistent with the habits of order and neatness that are imposed upon the cadets as members of the infantry battalion organization of the corps." What is here so well said by Captain Dorst about the cavalry applies with equal force to the artillery.

REPORT OF THE COMMITTEE.

Following is the report of the Committee on Armament and Equipment and the letter of the Senior Instructor of Cavalry Tactics:

ROOMS OF THE BOARD OF VISITORS,
West Point, N. Y., June 9, 1891.

To the Board of Visitors:

The Committee on Armament and Equipment respectfully reports that it has carefully investigated the subjects properly coming within the classification assigned to it, its labors in that direction having been greatly facilitated by Colonel Wilson, Superintendent of the Academy; Captain Metcalfe, Instructor of Ordnance and Gunnery; Captain Craig, of the cavalry, and other officers whose duties bring them into relations with the armament and equipment of the post.

It has been the observation of several previous Boards of Visitors that the horses used by the cadets in cavalry drill and at the riding hall should not be used in the artillery drill. We agree with this suggestion. The reason is obvious to any one at all familiar with horses. It is impossible to make a good saddle horse of an animal that is worked in harness much. The cavalry horses must learn to yield readily to the rein and the bit; to understand the bugle calls; to respond to the spur; to dress in the ranks, and in many ways he becomes a very intelligent machine, requiring delicacy and sensitiveness to sound and touch. The artillery horse, on the other hand, is so fettered by his harness and the burden he draws, is so hardened in the mouth by the rough drill in the battery, and the surroundings are so entirely different from those under the saddle, that he becomes a different machine. In fact, the absurdity of making a horse serve in both capacities is so transparent that it seems a waste of time to offer an argument against it.

In a public institution devoted to the training of military officers there should certainly be no sacrifice of efficiency for the sake of a small economy of this kind. The field battery will require about fifty horses. These could be taken from those now on hand, and in future purchases the best material for cavalry horses could be obtained.

We think the cadets should drill on horseback with the carbine, and also in the skirmish drill on horseback.

There is in use an excellent battery of 3.2-inch field-guns (steel), recently obtained. They are in good condition and afford good material for the instruction of the cadets. But they are the only modern guns, and the only guns at all fit for such purpose. Another similar battery is needed at once. In this connection we call attention to

the last annual report of the Superintendent of the Academy, in which he says (at page 7) :

"During the short period allowed each year for field-artillery drill, instruction as cannoners must be given at the same time to both the third and fourth classes, aggregating usually about 150 men. One battery is used for light artillery, the other for foot artillery. At present, in order to keep up the drills, one class must use the old 3-inch muzzle-loading guns, while the other is being instructed with the new 3.2-inch breech-loader. I earnestly recommend that another battery of the 3.2-inch guns be furnished for this post at the earliest practicable day."

In addition to this new battery there should be also a detachment of artillerymen, consisting of two sergeants, two corporals, one blacksmith, and farrier, one trumpeter, and twenty-four privates. Quarters for these men can be arranged for in the new cavalry barracks now under construction, and room can be found for the horses in the present stables, with some minor improvements, which will involve but little expense.

We have already stated that except the new battery mentioned above there are no serviceable guns. In this we are fully sustained by the Superintendent and Lieutenant Hoskins, the instructor in artillery tactics. The former, in his annual report, quotes the latter with approval as follows :

"Lieutenant Hoskins very properly complains of the carriages used in the seacoast battery and the guns of the siege battery. The former he describes as follows :

"At the seacoast battery the cadets use three 8-inch muzzle-loading rifles (converted 10-inch smoothbore Rodman guns), two 15-inch smoothbore Rodman guns, and one 13-inch mortar.

"No two pieces of this battery are mounted on carriages of the same pattern, which fact renders a uniform system of instruction impossible.

"For effective work here guns of the same class should be mounted upon modern carriages, uniform in construction."

"I cordially concur in the views of Lieutenant Hoskins. It is high time that this important military institution, which annually turns out from 50 to 65 young officers, should be equipped with everything incident to a modern armament."

And then the Superintendent adds :

"The condition of the siege battery is much worse than that of the seacoast battery. During the past few years three guns have burst at this battery, as follows : April 25, 1876, a 44-inch rifled gun burst at the one hundred and sixty-second round ; July 16, 1881, a 30-pounder Parrott gun burst at the two hundred and twenty-second round ; April 11, 1889, a 30-pounder Parrott gun burst at the three hundred and twenty-second round.

"Fortunately no cadets were struck by the fragments, although there were some narrow escapes, and in some instances the drums of the ears were more or less injured. After the last explosion the battery of 30-pounder Parrott guns was condemned, and the Ordnance Department, in October, 1889, supplied another battery of old 44-inch rifled guns.

"Upon calling for the history of these guns I was informed that it was unknown, but that they had been selected as the best of a lot on hand at the New York Arsenal, sent there from the Washington Arsenal some years before. I was further informed that some guns of this pattern had recently burst. An examination of the guns showed that one of them was made in 1861 and the others in 1863, and they evidently had been used during the war of the rebellion.

"By authority of the Secretary of War I directed that the guns should not be fired at drill, as I believed it would be absolutely criminal on my part to endanger unnecessarily the lives of cadets by practicing with these old and obsolete pieces. I earnestly recommend that new 5-inch breech-loading steel guns be furnished for this battery at the earliest practicable moment."

We concur in the foregoing recommendations. We also recommend the purchase of a Maxim gun.

We are aware that heretofore the Government has not been in a position to furnish modern guns, but now that such are being manufactured we feel confident the first issues will be supplied to this post, thereby allowing the cadets the first opportunity to become thoroughly familiar with the most improved ordnance and equipments.

Our attention has been directed to the fact that but two sizes of the bridle bit used by the cadets for the cavalry horses have been furnished. As the sizes of the horses mouths vary as much as the sizes of the men's feet, there should be more variation in the bit so as to better accommodate the horses. In this connection we approve the recommendations of Captain Craig, as shown by the accompanying letter, and also as to the gray saddlecloths.

The senior assistant instructor of ordnance and gannery is the only officer of corresponding rank at the Academy who is not allowed extra pay. As the detail of a lieutenant for this service increases the cost of living, we recommend that such officer receive captain's pay (the same as others on similar duty) as a means of inviting the best talent to this work.

Respectfully submitted.

THEODORE S. PECK.
CHAS. F. MANDERSON.
JAMES A. WAYMIRE.

LETTER OF CAPT. L. A. CRAIG.

WEST POINT, N. Y., June 5, 1891.

SIR: In reply to the verbal inquiries of members of the committee, I have the honor to state that horses, horse equipments, and small arms used for the instruction of cadets in riding and cavalry exercise are satisfactory. It is desirable to gradually obtain if possible a higher grade of horses to be used exclusively for cavalry purposes, as mounts for the first class, as the alternate employment in the troop and light battery makes it difficult to keep the horses in training for either service.

Thirty-five young horses have been received here recently and will give an unusual opportunity for instruction in the very important subject of proper biting. With this idea in view I have asked the appropriation of a small sum (\$120) for the purchase of a few assorted bits to replace the regulation bit during the period of instructions, the latter being heavy and severe for a young horse and the sizes not sufficiently varied.

The appearance of the horse equipments has always been the subject of much unfavorable comment by visitors to the Academy. The Chief of Ordnance of the Army very kindly furnished gray canvas saddlecloth last winter, and, by careful attention to polishing the leather of the saddles and bridles and the brass parts, a decided improvement has been made. The saddlecloths are not of a suitable material to be durable, however, and I have recommended an appropriation of \$500 for the purchase of 100 saddlecloths of strong material similar in color to the cadet uniforms, which with ordinary care will last for years and add greatly to the neatness and uniformity of the cadet troop.

Very respectfully, your obedient servant,

L. A. CRAIG,
Captain Sixth Cavalry, U. S. Army,
Senior Assistant Instructor Cavalry Tactics.

Gen. T. S. PECK,
Chairman of Committee on Armament and Equipment of the Board of Visitors.

HEADQUARTERS U. S. CORPS CADETS,

West Point, N. Y., June 8, 1891.

Respectfully forwarded through headquarters U. S. Military Academy. Approved.

H. S. HAWKINS,

Lieutenant-Colonel, Commandant Cadets.

HEADQUARTERS U. S. MILITARY ACADEMY,

West Point, N. Y., June 8, 1891.

Respectfully transmitted to Gen. T. S. Peck, member Board of Visitors.

By order of Colonel Wilson.

J. M. CARSON, JR.,

Second Lieutenant Fifth Cavalry, Adjutant.

BUILDINGS AND GROUNDS.

Committee on Buildings and Grounds.—Messrs. DAVID W. PAYNE, SAM'L. W. LANHANN, and ROBERT O. FULLER.

BUILDINGS IN COURSE OF ERECTION.

During the past few years Congress has been fairly liberal in its appropriations for the buildings and grounds of the Academy. For a number of years, however, prior and subsequent to the war of the rebellion, very little was done in this direction, and this failure to supply the buildings demanded from time to time by the natural increase of the institution, and to take the place of old buildings made inconvenient, uncomfortable, and almost useless by time and the growth of the Academy, resulted in a general running down in these essential requirements. When the buildings now in course of erection are completed the Academy will be housed with comfort; yet much remains to be done in this direction to place it abreast of the leading colleges in the way of buildings.

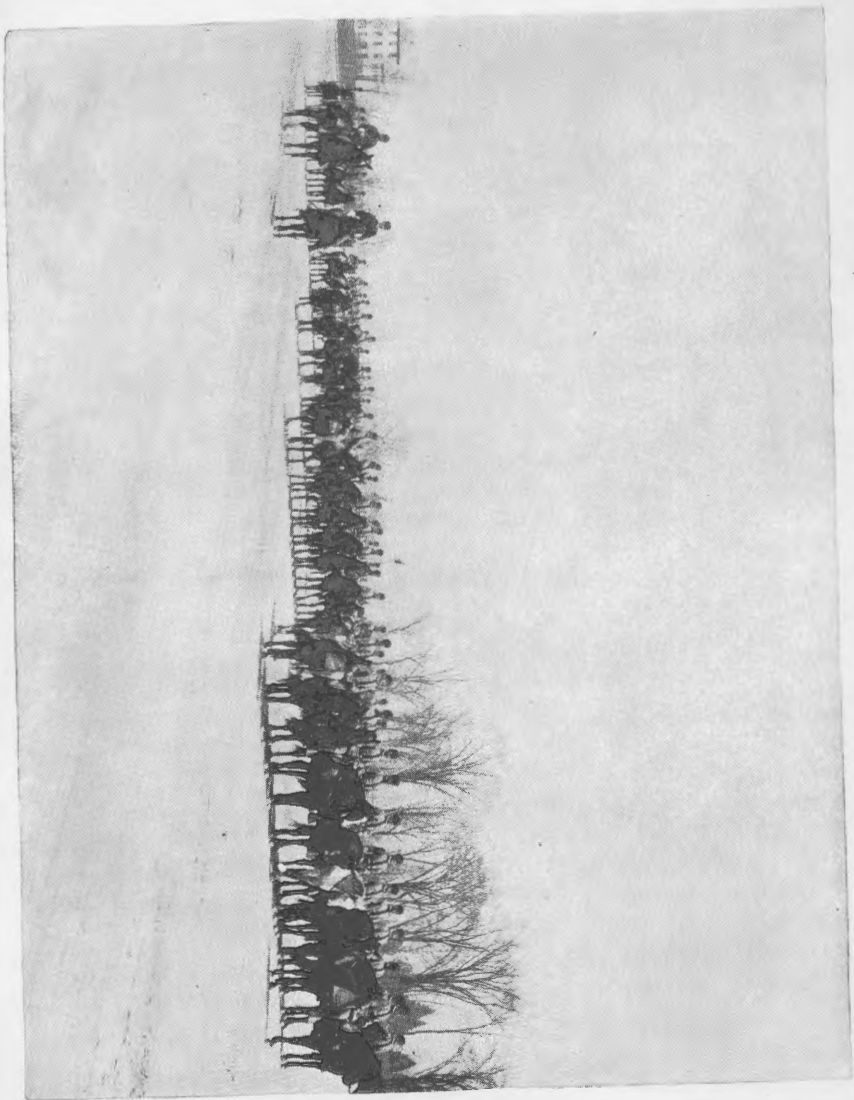
The new gymnasium is nearly completed and will be prepared for occupation during the current or early in the coming year. The gymnasium of the past was a discredit to the Government. Now that a handsome and commodious building has been erected it is hoped that Congress will provide for a thoroughly equipped gymnasium, and make this department at West Point worthy of this national school.

Upon the close of the academic year operations were at once begun on the academic building, and that old edifice was removed to make room for the new building to be erected on its site. The erection of this building should be pushed to completion at the earliest day practicable.

The cavalry barracks and the hospital for enlisted men, authorized at the first session of the last Congress, are in course of construction. The two sets of quarters for enlisted men, authorized at the same session, will be completed this year. The house erected for the use of the band will also be completed and ready for occupation this year.

QUARTERS FOR ENLISTED MEN.

At the last session of Congress an appropriation of \$24,000 was made "for twenty sets of quarters for enlisted men and their families." These twenty sets are in addition to the ten sets authorized in 1889 and referred to in the preceding paragraph. With these additions the post will still be deficient in proper quarters for the enlisted men.



CAVALRY—COLUMN OF PLATOONS.

There are at the north end of the post a lot of shanties which have been occupied for years by the enlisted men. These are a discredit to the Government and a constant menace to the laundry and quartermaster's storehouse, with all the valuable machinery contained in the former and the various valuable stores contained in the latter. No time should be lost in replacing these shanties with brick buildings. This should be done as a measure of economy, even if no consideration be given the enlisted men and their families. Previous Boards of Visitors have directed attention to these so-called "houses" of American soldiers at the only military school supported by the Government. One Board designated them "tumble-down fever-pens." Such houses as these would be discreditable to the Government if found on the frontier. They are a positive disgrace at West Point.

In this connection the Board suggests that regulations should be established to limit the number of married men in the several detachments of enlisted men and those known as "Army service men in the quartermaster's department." It has been stated that the number of women and children constituting the families of the enlisted men largely outnumber the Corps of Cadets, the officers of the Academy and their families, and the entire strength of what may be termed the garrison of West Point. It seems to the Board that the proportion of married enlisted men now at West Point is too large.

QUARTERS FOR JUNIOR OFFICERS.

Additional houses for the use of junior officers on duty at the academy are urgently needed. There seems to be a sufficient number of large houses for the occupation of the professors and officers of higher rank, but many of those occupied by the lieutenants are old, patched-up structures, badly arranged and destitute of proper conveniences. In many of these houses two or more married officers are located. At the last session of Congress \$20,000 was appropriated "for two or more sets of officers' quarters." This appropriation should be sufficient to erect four houses in sets of two. When completed a certain measure of relief will be afforded by the additional accommodations thus provided, but there will still be a lack of small houses for the accommodation of the junior officers. The old frame houses at the lower end of the post used for officers' quarters should be removed and plain brick buildings erected in their place.

QUARTERS FOR BACHELOR OFFICERS.

We believe that the comfort of the officers on duty at West Point would be promoted by the erection of a large building for the exclusive use of bachelor officers, the rooms of which should be arranged in sets on the plan of the large "flats" found in the principal cities, and in a manner to supply single men with ample space and proper conveniences. The present domiciliary accommodations are so far below what

is absolutely demanded for personal comfort that, in addition to being crowded into small and incommodious houses, rooms in the cadet barracks are used for quartering officers, the number of rooms now occupied for this purpose, including those occupied by the dentist, being about 30.

Grant Hall, erected as a mess hall for cadets in 1850, is also partially occupied by officers, the north end being used as a domicile and the south end by the officers' mess. The erection of such a building as is here suggested for the use of bachelor officers would furnish all needed accommodations for this class and supply them with apartments which would be commodious, comfortable, and agreeable. The erection of such a building would also enable the married officers to obtain sufficient room in which to make their families comfortable during the four years residence at West Point. A "flat" large enough to accommodate twelve or fifteen bachelors, with a suite of rooms for each, could be erected for a sum about equal to that appropriated by the last Congress for quarters which will not furnish the regulation accommodations for more than six officers.

REPAIRS FOR GRANT HALL.

The floor of the cadet dining room in Grant Hall should be replaced with marble tiles. The tramping of nearly 300 men three times every day on a wooden floor requires that a great deal of scrubbing shall be done. This frequent cleansing results in exhalations that are unpleasant to the highest degree in a dining room. Substitution of stone for wood would not only remove this unpleasant and objectionable odor, but would be the means of saving money. The wooden floor has to be renewed at certain intervals of time, whereas a tile floor would stand for many years. We recommend an appropriation for this purpose.

CADET SINKS AND PUBLIC LATRINES.

A movement should be made at an early day looking to the removal of the building in which are located the cadet sinks and the erection of a building for this purpose at a less prominent point than is now occupied. These sinks are in a stone building south of the barracks, distant about 200 feet, and on the edge of the area used for most of the cadet formations. In stormy weather great discomfort is experienced in going to and returning from this building, and much time is lost by the great distance traveled. The present location will be still more objectionable when the new academic building is completed as the end of that building will be within a few feet of the sinks. It has been suggested that the basement of the cadet barracks could be used for this purpose without detriment to health, as the improvements made in plumbing and drainage are such as to render this change advisable.

Attention is directed to the absence of any latrines and closets for the use of temporary visitors to West Point. This has been a subject

of comment by many preceding Boards, and recommendations have been made for supplying such accommodations. Public decency and the preservation of the grounds from defilement, as well as consideration for the numerous visitors attracted to West Point during the summer months, appeal for the immediate erection of such buildings as would secure the purposes referred to. We recommend a specific appropriation for this purpose.

NECESSITY FOR ELECTRIC LIGHT.

We earnestly renew the recommendation made by former Boards of Visitors for the introduction of the electric light. It has been clearly demonstrated that the use of gas as furnished at the Academy is injurious to the eyesight of the cadets. The gas works are not large enough for present requirements, and their capacity will be materially reduced when the new buildings now in course of construction are completed. Lieut. George L. Anderson, of the First Artillery, who investigated this subject in 1889 and submitted plans for lighting the cadet barracks with electricity, in speaking of the inadequacy of the gas works to meet the demand made upon them said :

Although run to their full capacity, the single gasometer is nearly exhausted at 11 p. m. during a great part of the year. In winter a certain number of lights on the streets are often turned off to preserve the supply. The stoppage of a main at any time, or other accident sufficiently serious to interrupt the manufacture for a few hours, would cut short the amount nightly consumed and leave the whole or a portion of the place in darkness. That no inconvenience, due to some slight cause, has occurred within the past three or four years has been owing to good fortune rather than to the excellent management of the works.

The Board sincerely hopes that this matter of furnishing good light for the use of cadets while pursuing their studies will receive prompt and favorable consideration from Congress. The reports of the medical officers for the past few years show a steady increase in the number of cases of treatment for the eyes. Quite a large number of this year's graduating class, more than one-fourth, were found not to have the full requirements as to vision, and in every instance this deficiency was attributed to the insufficiency of the light furnished. In directing attention to this matter the Board of Visitors for 1889 very pertinently said :

The eyes of whole generations of officers of the Army are concerned in this vital issue. A student's eyes are not replaceable like his boots or interchangeable like an officer's weapons. The long periods of darkness in winter in our latitude compel prolonged study, and the priceless sight, which is tested so carefully when the cadet enters the Academy, is apt to be injured through want of better illumination purchasable by a few dollars from the Government, which so recently ordered the ocular tests.

Lieutenant Anderson in the report above referred to made an estimate of the cost for introducing the electric light in the cadet barracks and submitted plans and drawings for this purpose. The cost for light-

ing the barracks was placed by Lieutenant Anderson at \$9,540. His report will be found in the report of the Board of Visitors for 1889, page 23. It is unnecessary to insert it in this report, but we reproduce the following paragraphs:

Cadet barracks use one-third of all the gas consumed at the post. The barracks and mess hall together take four-tenths. An electric-light installation would, of course, relieve the present gas plant to this extent. Other considerations relating to the subject are:

(1) The incandescent lamp consumes no air, it does not heat, and it is steadier, safer, and cleaner than gas. The 8-foot gas-burner in each cadet room, 22 by 15 by 10 feet, vitiates about 640 cubic feet of air per hour. It consumes as much good air as eight persons and produces twenty times more heat than the electric lamp. The heat of gas-burners is alleged to be the cause of much headache in the corps.

(2) Complaints of soreness of eyes are made by about a dozen cadets every three months. Out of an average of 285 cadets, 28 with eye affections consulted the post surgeon with regard to them during the three months ending January 31, 1887. They are using the argand burner and the best quality of gas, so that improvement may be sought in the direction of another kind of lamp. Owing to the position which may be given it, a 16-candle incandescent light will throw a stronger and steadier light upon a table than an upright gas jet of the same power.

(3) A small electric lamp will probably always be maintained, as at the present time, for lighting the riding hall, and for furnishing electricity to the departments for experimenting purposes. The proposed system can also be readily extended to the library, which is now heated by steam, if it is sought to diminish in this way the chances of loss by fire of a building which is not fire-proof and which contains the most valuable collection of military books and papers in the country.

Considering that the gas works will have to be enlarged in order to meet present requirements, we believe it would be better, from every point of view, to allow the gas works to remain as they are and to put in an electric plant adapted to supplying light to all the departments of the Academy, and which may be so extended as to meet future requirements. An estimate for such a plant, together with plans and details, was submitted to the Superintendent last year by Lieut. John Millis of the Engineer Corps, a well known expert in electricity. This report is herewith appended:

UNITED STATES GENERAL LIGHT-HOUSE DEPOT,
OFFICE OF U. S. LIGHT-HOUSE ENGINEER, THIRD DISTRICT,
Tompkinsville, N. Y., May 31, 1890.

SIR: In compliance with your request, I have the honor to submit the following outline plan, estimates, and specifications for an electric light and power-plant for the U. S. Military Academy at West Point, N. Y.

The plan proposed contemplates a system of electric lighting which, while being adapted to the peculiar conditions now existing, will readily admit of extension as future needs may require; which will eventually, if not at first established, replace all other methods of illumination in the Academy buildings and grounds, and which will also, as a secondary consideration, be adapted to such requirements for the distribution of power as now exist or may arise in the future.

With the above objects in view, the estimates comprise, first, a complete system of electric lamps for cadet barracks and other buildings of the Academy where artificial lights are used, including the academic building, the cadet mess-hall, the library, the chapel, the cadet hospital, the riding hall, the gymnasium, the observatory, and the bath room, sinks, etc.

There are also included electric lamps for the soldiers' barracks, quarters reading and amusement rooms, and soldiers' hospital; for the officers' mess-hall and quarters, for the quarters of civil employés, for the hotel and headquarters building, for the various shops, storehouses, guard houses, laundries, stables, etc., and for lighting the the Academy grounds and the cadet camp.

The electric plant necessary to operate such a system of lights would, in addition, furnish a very advantageous and economical method of distributing mechanical power by means of electric motors to the various workshops, laboratories, etc., where steam engines or other motors are now employed or where power may be eventually required.

The first considerations are of course the advantages and the adaptability of the proposed system to the requirements of the cadets and to what may be termed the Academy proper. Of the importance to the Corps of Cadets—a selected class of students undergoing training and instruction for the military profession—of the most perfect known method of artificial illumination little need be said, particularly when it is remembered that a greater portion of the study which the exacting course of the Academy requires must be done by artificial light, and that, notwithstanding the rigid examinations regarding eye-sight to which candidates for admission are subjected, failures in the course which are directly attributable to impaired vision are not infrequent. It is now generally conceded that the incandescent lamp is the most perfect known device for interior illumination and particularly for purposes of reading and study. Its great superiority over gas, oil, or other lamps as regards safety from fire, the favorable color of the light, and particularly its freedom from heat and unhealthy products of combustion, are now too well known to require detailed explanation here.

Since the majority of the lamps to be established are for interior illumination, the proposed plant will of course consist mainly of the incandescent system, and the conditions are such as to render the "central-station" plan best adapted to the requirements, as the buildings to be lighted are considerably scattered and there are not sufficient number of large separate buildings to justify establishing several separate or "isolated" plants.

A single station for all the generators and the steam power being decided upon, its location is determined by the following considerations: It should be easy of access from the river and from the railroad, in order to facilitate the delivery of machinery, coal, and other materials and supplies, and it should also be placed where there is a supply of water, where ashes may be readily disposed of, and where the unavoidable dirt, smoke, and noise of the machinery will not be objectionable. A central location with respect to the buildings to be lighted is of course desirable.

An examination shows that there is no existing building on the reservation fulfilling these conditions which is also of sufficient size and adapted to the other requirements of a central station, and it is therefore proposed to erect a new building on a site west of the railroad track and near the northern end of the tunnel. It is believed that this location offers a better combination of favorable conditions and fewer unfavorable ones than any other site available.

With the central station at this point, the cadet barracks and Academy proper will be at a distance of about half a mile. The hotel and the "center of distribution" for the officers' quarters north of cadet barracks will be about a quarter of a mile distant. The center of distribution for the officers' quarters south of cadet barracks will be at a distance of about three-quarters of a mile, while that for the soldiers' barracks and quarters, the soldiers' hospital, etc., will be only an eighth of a mile from the station.

The most distant lamps will be those at the south guard-house and in the officers' quarters near by, which are about 1 mile from the site proposed for the central station.

For a large incandescent plant, where the lamps are so widely scattered and where conductors of such varying lengths are required, the "direct" or continuous current

system is not well adapted, since for the long circuits very heavy conductors would be necessary in order to insure uniformity in the brightness of the lamps and economical working, a number of generators would have to be employed, each adapted to a group of lamps requiring about the same length of circuit. It has therefore been decided to adopt the "secondary" or alternating current system throughout, in which the above objections are mainly obviated. The secondary system will afford sufficient flexibility to meet the requirements of the service, while for long circuits it is more economical in first cost of line construction and in expense of operation.

The estimate of the total number of lamps required is based upon the number of gas-burners now in use, which is 2,745. Besides the gas-burners there are also employed in the soldiers' barracks and other buildings a considerable number of oil lamps, which it is proposed to replace by electric lamps, and in the cadet barracks it is proposed to put two lamps in each room where only one gas-burner has been furnished heretofore. The new academy and gymnasium buildings will also require additional lights, and a number of the existing gas-lamps, particularly those used for lighting the grounds, will be replaced by electric lamps of greater power than the standard 16 candles. It is also probable that in establishing the new system more efficient lighting will be called for in other localities where gas or oil is now used, requiring more burners than are now employed, so that the estimate is made for a total of 3,500 16-candle lamps, of which it is calculated that the greatest number that will be in operation at any one time will not exceed 2,000.

The central station building is to be a plain brick structure with brick chimney and metal or slate roof, and while not intended to be fire-proof it will not be easily combustible. It is to have a room for the engines and electric apparatus, a separate boiler-room, rooms for oils, stores, etc., and a coal-shed. Owing to the great irregularity of the service required, both the steam-power and the electric generators will have to be designed for unusual "flexibility." During the summer encampment the lamps in cadet barracks and in many other of the academy buildings, as well as a large portion of those in the officers' quarters, will not be used, while the demand for lights at the hotel and in the cadet camp will of course be greater than at other times of the year. In the winter season, when the total number of lamps in use will be greatest, the number in operation at different times of the night will be exceedingly variable.

The maximum "load" will begin soon after the return of the cadets from supper and will continue till "taps," when a large number of lamps are extinguished and the load will be greatly diminished. A considerable number will be required in officers' quarters, etc., until midnight, but comparatively few, including those used for lighting the grounds and in certain hallways in hospitals, etc., will be operated all night. For a service of such a variable nature a number of generators with engines and boilers to correspond are evidently preferable to one or two generators of large capacity with large power units, and for this reason the high-speed, noncondensing type of engine with direct belting to the dynamos is recommended; though, for a plant of this size where the service is more regular, compound condensing engines or engines of the Corliss type would be the more economical, as the greater first cost would be overbalanced by the saving in cost of fuel and other operating expenses.

For cadet barracks the importance of an uninterrupted service is such that this circuit should have its special generating apparatus, which should be in duplicate, but it will not be necessary to provide special duplicate engines, since there will always be a reserve of power and interruptions due to accidents to the steam apparatus are not so liable to occur. Three boilers are provided for, one of which is ordinarily to be held in reserve. Should it be necessary other less important circuits could be shut off in order to keep the lamps at cadet barracks in operation.

For the generators to operate the other circuits, duplicate armatures only are contemplated.

For the outside circuits in general overhead wires supported on poles will be used, since it is not believed that the requirements are such as to justify the increased

expense of underground conduits, except perhaps in a few special localities. Conductors are to be covered throughout with best gum insulation, and poles, cross-beams, brackets, etc., are to be smoothly finished and painted. The very best methods and machinery known for overhead-line construction will be required in order to insure safety and reliability in the circuits.

All interior wiring is to be "concealed work" wherever practicable, and, where not, molding strips are to be used to cover the wires. No "cleat work" or exposed wires is to be permitted, except in basements and other special localities where the conditions may render this method of wiring preferable. For each cadet room it is proposed to supply two portable adjustable table lamps with flexible conducting cords and shades. This will give each cadet a light for his individual use and under his individual control, and in case one lamp becomes extinguished no great inconvenience will result.

In other cases where practicable the lamps are to be placed on existing gas-fixtures without interfering with the use of the gas. In the new buildings to be erected and in certain other cases, new fixtures adapted to the electric lamps alone will be required.

A small arc-light plant for lighting the riding hall and for other uses where arc lamps may be required is included and a number of motors are provided for.

A complete outfit of measuring and test instruments will also be furnished with the apparatus.

Assuming that the work is to be done by contract, it is recommended that separate advertisements be issued for the station building, for the steam-power apparatus, and for the electric plant complete, respectively. The specifications conform to this recommendation, and they prescribe the methods of inspection and test of all material and apparatus during construction, and the final test of the completed plant in operation before acceptance.

The estimates of cost are based upon the best information obtainable, from the experience of this office in similar work, and from consultation with reliable companies engaged in the business. These estimates are necessarily somewhat general in their nature, but they are believed to be at least approximately correct, and it is probable that the actual cost will fall within the amounts given if competition is secured by the usual advertisements inviting proposals.

I desire to acknowledge the many courtesies extended to me by Capt. C. W. Williams, quartermaster of the Academy, who has supplied complete information concerning the present gas plant, and in many other ways facilitated the preparation of this report.

Very respectfully, your obedient servant,

JOHN MILLIS,

First Lieutenant of Engineers, U. S. Army.

Col. JOHN M. WILSON,

Corps of Engineers, U. S. Army,

Superintendent U. S. Military Academy, West Point, N. Y.

Estimate for electric-light plant for the U. S. Military Academy, West Point, N. Y.

Total number of lamps of 16 candle-power to be established	3,500
Total number of arc lamps of 2,000 candle-power to be established	10
Greatest number of incandescent lamps to be operated at any one time	2,000

For brick central station building complete, to contain engine-room, boiler-room, coal shed, storerooms, etc., to have brick chimney and noncombustible roof covering, and including grading and filling, construction of necessary road, piping for water supply, etc	\$7,500
For three 100 horse-power boilers and setting, with pump, heaters, chimney connections, piping, and all fixtures complete	6,000

For two 100 horse-power and one 60 horse-power engines, with foundations complete, steam and exhaust connections and piping, belting, and all fixtures and accessories.....	\$7,500
For two 750 light and two 500-light alternating-current dynamos, with exciters, regulators, switch-board and switches, cut-outs, safety apparatus, test instruments, and all wiring, connections, and electrical apparatus of all kinds connected with the incandescent plant at the central station.....	8,500
For 10-lamp arc-light plant complete.....	1,100
For outside conductors and pole lines complete.....	6,500
For all incandescent lamps, shades, and fixtures, and all interior wiring, converters, and connections for 3,500 lamps.....	28,000
For motors and contingencies.....	4,000
Total.....	69,100
Estimated operating expenses, total per year, \$11,000.	
A true copy.	

J. M. CARSON, JR.,
Second Lieutenant, Fifth Cavalry, Adjutant U. S. Military Academy.

THE HOTEL ACCOMMODATIONS.

The West Point Hotel has been for many years an object for the anathema of visitors, a source of irritation to the academic authorities, and doubtless a profitless enterprise to the lessee. The cause of the trouble will be removed only when a new departure is made in the method of leasing this hotel. The present lessee pays an annual rental of \$3,500 and by the terms of his lease is required to expend for repairs \$500 each year, thus making the actual rental \$4,000. The building was constructed more than 60 years ago from funds received from the sale of timber cut on the reservation. Some additions have been made to the original building, but none have been made within late years. It contains about 60 rooms, the greater number of which are small, in almost every respect undesirable, and in many respects uncomfortable. There is but one bathroom in the house, and during the last days of the annual examinations this solitary bathroom has not infrequently been assigned to a guest for a sleeping apartment. The desirable rooms are so few as to be insufficient for the accommodation of the Board of Visitors, which consists of twelve members, most of whom are always accompanied by ladies of their families.

During the month of June the hotel is always crowded to its utmost capacity, the people being compelled to submit to discomfort for the reason that they can not be accommodated elsewhere on the post, the nearest hotel being about 2 miles from the academic buildings. In addition to this reason for submission to physical torture, the majority of the visitors go to West Point to see their sons and brothers, who are in the corps of cadets, and these relatives naturally desire to be where every opportunity can be improved to enjoy the society of their relatives. Those who are familiar with the rigid regulations of the Academy, and know how little time the cadet is allowed for visiting, will appreciate the value placed by parents and relatives on the privilege of being located at the West Point Hotel, particularly when it is known that cadets are not permitted to leave the reservation, that even the West

Point Hotel, which is located on the edge of the cavalry plain, is "off limits" for cadets, and can be visited by them only with special permission, and even then only at certain hours.

The hotel was originally intended for a boarding house, to accommodate those who are required to officially visit the Academy, the parents and relatives of cadets, and officers of the Army. Like many other antiquated things at West Point, the Military Academy has grown very far beyond the hotel. Having to pay a rental of \$4,000 per annum, the lessee is obliged to fix his prices at figures which will insure at least an income to that amount, and these prices are very generally regarded as in excess of the value of the accommodations provided. It should be stated in this connection that the lessee has not more than four months of the year upon which to rely to secure from the public the money necessary to pay the United States for the privilege of managing this ancient hostelry. During the winter months very few guests are entertained, and for days in succession the house is without guests. The lessee, however, is obliged to keep the hotel open and be prepared for the stranger at all times. So long as the Government continues to exact an exorbitant rental for this hotel the public will be compelled to suffer the inconvenience and submit to the high prices described. The landlord must take from the people in order to pay over to the Government annually the sum of \$4,000, which amount is credited to the post fund and expended for public purposes. We submit that it is unworthy this great Government to be thus engaged in a copartnership with hotel men, livery-stable men, and others to make profits by imposing a tax upon the people who are attracted to West Point, and we trust that this discreditable practice will be discontinued. The Government is abundantly able to maintain the Military Academy without descending through its military officers to the petty business of assessing visitors to make up a portion of the outlay necessary to maintain this national institution.

What is needed in this direction for the public accommodation is the removal of the present hotel and the erection on its site of a hotel capable of accommodating 400 or 500 persons, and so constructed that a section could be kept open in the winter season without entailing unnecessary expense upon the proprietor. It is not probable that Congress can be induced to make an appropriation for this purpose, and the Board does not believe that it would be advisable to do so. But we do believe that Congress should pass an act by which the people may visit West Point and find comfortable accommodations at fair and reasonable prices. This may be accomplished if, instead of putting up to the highest bidder the privilege of leasing the hotel, authority be given the Secretary of War to make a lease for a long period of time with a responsible and experienced hotel keeper, conditioned that the lessee shall expend a certain sum in the erection of a hotel on the site of the present building, and that he shall maintain and conduct the hotel under regulations to be approved by the Secretary of War.

In the extension of this privilege there should be no pecuniary consideration exacted by the United States. We believe that should an act be passed authorizing the action above outlined it would speedily result in providing at West Point a modern built and well equipped hotel at which parents of cadets and other visitors to the Academy would be comfortably entertained at such prices as would bring it within the reach of persons of moderate means. As at present conducted persons of moderate means can not stand the hotel charges, and those persons who can feel that they are the victims of a system which, whatever the necessity for its establishment, is maintained without reason or justification and apparently for the sole purpose of filching from the public, through the agency of the lessee of the hotel, the sum of \$4,000 per year to assist the Government of the United States in maintaining the Military Academy. The money already received by the United States from the rent of this hotel aggregates a sum largely in excess of the cost of its erection and all improvements made thereon.

The present lease on the hotel will expire in August, 1892, and we earnestly recommend that it be not renewed. If authority can not be obtained to arrange for the erection of a new building without expense to the United States we recommend that the old hotel, with all its inconveniences, discomforts, and harassments, be leased to the present lessee, or some other responsible and experienced man, at a nominal sum, say \$1,000 per annum, all of which should be used in the making of such repairs as may be required on the hotel property.

THE KINSLEY PURCHASE.

In this connection attention is directed to the Kinsley property, which was recently acquired by the Government and added to the West Point reservation. There is on the Kinsley purchase an old and somewhat dilapidated frame dwelling house, upon which the Government last year expended in repairs \$1,500. This was an expenditure of doubtful propriety. The building has passed the period when repairs can be made with profit. It is proposed by the Superintendent to lease this Kinsley "mansion" and convert it into a boarding house, the lease to include a number of acres surrounding the house. With a boarding house established on the Kinsley purchase the West Point Hotel would be relieved during the summer months of the overcrowding that is usual, additional accommodations would be provided for visitors, and those who are unable to withstand the exactions at the hotel, made necessary by the demands of the Government to participate in the profits, would be able to find a place to lodge. We recommend that the Kinsley dwelling and a certain number of acres surrounding it be leased to a responsible party for conversion into a boarding house. If this should be done we trust the Secretary of War will exercise his authority to prevent an extension to the Kinsley purchase of the system which makes the Government a direct beneficiary of the profits

resulting from conducting the West Point Hotel. Grant for a term of years a lease of the Kinsley house and surrounding acres to any reputable and responsible parties for a merely nominal sum, conditioned that the house shall be made comfortable for the accommodation of guests and that it will be conducted in accordance with regulations to be approved by the Secretary of War, but keep the Government out of the partnership.

What is here said in deprecation of the lease of the hotel applies to the leasing of the privilege of maintaining horses and vehicles on the post, a privilege which should go with the lease of the hotel.

THE ENGINEER BARRACKS.

The condition of the barracks occupied by the engineer company is discreditable and should be given immediate attention. Considerable repairs are needed to make the barracks comfortable. Several large stoves are used on each of the floors for heating purposes. These should be removed and a plant substituted for steam-heating. Due regard for the lives of the men and safety of the public property demand that steam should be substituted for the stoves in use, leaving out of consideration the saving in money that would be effected in the consumption of coal.

A new range is also urgently needed for the kitchen. The sinks, which are in close proximity to the barracks, are in a dilapidated and leaky condition. The bowls in use were condemned and removed from dwellings on the post, and were unserviceable when utilized for the closets of the engineer barracks. If these sinks were within the corporate limits of any town those responsible for the nuisance created would be liable to prosecution. The men of the engineer company are mostly young Americans of fine appearance and martial spirit, who have joined this corps for the educational advantages presented, and should be given proper consideration by the military authorities as to the ordinary comforts usual in garrisons in the East. At least \$1,000 should be specifically appropriated for the repair and renovation of the engineer barracks and the immediate surroundings.

REPORT OF THE COMMITTEE.

Following is the report of the committee on Buildings and Grounds:

ROOMS OF THE BOARD OF VISITORS,
West Point, N. Y., June 8, 1891.

To the Board of Visitors:

Your committee on Buildings and Grounds have the honor to report as follows:

Immediately after appointment the committee waited upon the Superintendent for such information as was necessary to the conduct of their inquiries, and were furnished with memoranda hereto attached directing their attention to certain immediate requirements of the Academy and post.

These matters were thoroughly examined and inquiries extended in other directions as far as deemed advisable.

The committee desire to express their unqualified admiration of the attention given by the superintendent and his subordinates to the preservation and care of the buildings and grounds.

The liberal appropriations recently made by Congress cover with few exceptions all the important new constructions required. There are, however, some additional buildings needed for the comfort and convenience of the officers, cadets, and members of the garrison.

These, in connection with repairs and improvements as outlined by the superintendent, and which will be recommended in his report to the Secretary of War, are in the main earnestly approved by the committee, many of them being sanitary requirements.

The old wooden buildings at the north side of the post are unfit for occupation and should be removed as rapidly as possible.

The noxious gases arising from the drain under cadet barracks, which is connected with the bath rooms and urinals, indicate the necessity for their removal to a separate building.

The improvement of the sewers and plumbing of officers' quarters and administrative buildings is proceeding under an old appropriation, which is not sufficient to carry the work to completion.

The attention of the committee was especially called to the fact that the space in the library is entirely inadequate to accommodate the books. There are now 34,000 volumes on hand and the number is rapidly increasing. Books are now piled about in every nook and corner.

It is proposed by the superintendent to make the necessary enlargement by throwing open those portions of the building at present occupied by the department of philosophy, which will be vacated upon the completion of the new academic building, and also the rooms formerly occupied by the administrative officers and now vacant. This change will afford about double the present space.

To effect this change and to construct the ceiling in keeping with the building the assistance of an architect is required. An appropriation of \$2,560 is recommended for the employment of a skilled architect for this purpose.

The committee can not close without remark upon the inadequacy of the hotel to accommodate the visitors at this season of the year. The fittings are antiquated and uncomfortable and not in keeping with the times. It should be renovated throughout. We are informed that the present leaseholder pays a rental of \$3,500 per annum and that his lease expires in 1892. The patronage is such as should enable the proprietor to afford his guests comfortable accommodations. When a new lease is made the buildings should be newly furnished throughout by the lessee.

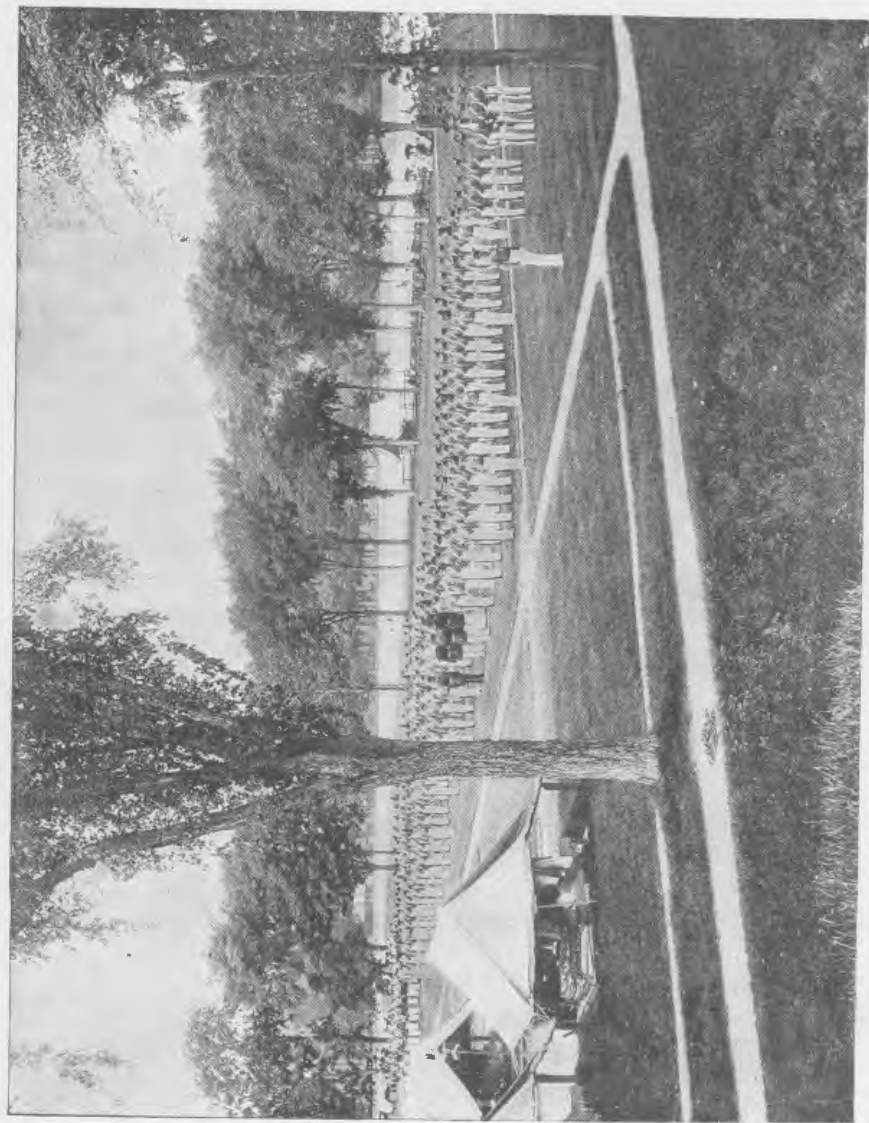
In this connection the committee would call attention to the suggestion of the superintendent that he be empowered to lease the Kensley Mansion and 10 acres of ground surrounding it for a term of years and upon such terms as the Secretary of War may deem most desirable for hotel purposes. This would relieve the present establishment, take care of the overflow during the summer months, and by competition secure comfortable accommodations to the parents and friends of cadets.

Aside from the points mentioned we find nothing coming within the scope of our inquiries to criticise.

Respectfully submitted.

D. W. PAYNE.
S. W. T. LANHAM.
ROBERT O. FULLER.





INFANTRY—BATTALION, PREPARED FOR INSPECTION.

SUPPLIES AND EXPENDITURES FOR CADETS.

Committee on Supplies and Expenditures for Cadets.—Messrs. JULIUS C. BURROWS, SAMUEL W. T. LANHAM, and JOHN M. CARSON.

The Department of Cadet Supplies is in charge of Capt. W. F. Spurgin, Twenty-first Infantry, whose remarkable ability in this particular line of duty has been so conspicuous as to induce the authorities to retain him beyond the usual period set apart for a term of service at the Academy. The Board made a thorough inspection of this department, and, although its administration embraces several distinct lines of duty and a variety of detail, it was found in perfect order, with machinery working harmoniously, every division of labor and responsibility being under the constant supervision of one head and the results being satisfactory to the cadets, for whose benefit this organization was created.

Captain Spurgin sustains a variety of relations to the cadets. First, he is treasurer, and as such receives all moneys allowed for pay and disburses it; second, he is quartermaster for the Cadet Corps, purchasing all supplies in the form of clothing and having all articles of uniform, including shoes, made up, each cadet being measured for his clothing; third, he is commissary for the Corps of Cadets, purchasing all subsistence supplies needed and having these prepared, cooked, and served. In short Captain Spurgin has charge of everything connected with the feeding, clothing, washing, mending, and furnishing of bed rooms for the cadets. To discharge these multifarious duties with a degree of efficiency to give satisfaction requires, in the first place, taste, aptitude and industry and, in the second, careful training and extended experience. These are combined in Captain Spurgin.

We concur in the recommendations made by previous Boards of Visitors that Captain Spurgin should be permanently attached to the Academy and continued in the discharge of his present duties. We believe the interests of the Academy and the military service would be promoted by appointing this officer to the pay corps of the Army, to the end that, in addition to his present duties, he could perform the duty now performed by a regular paymaster in paying the officers of the Military Academy and the troops constituting the post of West Point.

This department is closely related to the well-being of the individual cadet and the discipline of the corps. If the food furnished be not sufficient in quantity, wholesome in quality, well-cooked, and properly served there will be discontent, resulting in demoralization and the un-

determining of discipline. The testimony of the cadets to the character of administration of Captain Spurgin is supplemented by the universal commendation of the officers at the Academy, and both these are given emphasis by the splendid discipline of the Corps of Cadets.

The Board visited the several divisions of this department in a body and found each in the highest state of efficiency. The laundry is well supplied with all necessary machinery and appliances for the performance of the best class of work, and is managed with skill and economy; the quartermaster's division is well supplied with everything needed for the comfort and convenience of the cadets, and when the building to be used as a storehouse is constructed, which was authorized by the last Congress, the capacity of the tailor and shoe shops will be materially extended; the kitchen and pantries of the cadet mess are in good order and well supplied with all necessary machinery and utensils.

Members of the Board visited the kitchen at different times during the preparation for meals, and upon one occasion, without previous notice to Captain Spurgin or any of his assistants, we proceeded in a body to the dining hall after the corps was seated for dinner, and each member selecting a table, so that we were scattered over the hall, had the pleasure of dining with the cadets, and in this way were enabled to test the quality of the food served. From this experience, as well as from close scrutiny into all the methods employed in preparing, cooking, and serving the food, we have no hesitation in saying that the meals furnished the cadets are as good as can be supplied with the means at hand, and that, as regards quantity, variety, preparation, wholesomeness, and service, they are all that can be desired. The cost for board to each cadet is between \$16 and \$17 per month.

The character and variety of the duties performed by Captain Spurgin and the method of disbursing the pay of cadets is best explained in the words of that officer:

I perform the duties of treasurer of the Military Academy, and have the management of all affairs appertaining to the cadet quartermaster's department, cadet subsistence department, and cadet laundry. The treasurer handles all moneys appertaining exclusively to cadets personally and to the above-named departments. The receipt and disbursement of such moneys requires twenty-eight separate and distinct accounts.

The cadet quartermaster's department supplies everything required by a cadet for his personal service (excepting his subsistence), and which is paid for out of his pay.

The cadet subsistence department supplies the cadet his food, which is well cooked, wholesome, and in variety according to season.

All supplies are purchased in open market, wherever the best article at least cost may be obtained.

The pay of each cadet is \$45 per month, or a total of \$540 a year. In addition he receives medical attendance and medicines, quarters, fuel for heating same, and coal for gas, free; he also derives benefit from all general appropriations for the Academy.

The income of a cadet is expended for his subsistence, clothing, text-books, for services of all persons connected with the domestic branch of the Academy, such as the barber, shoemakers, those engaged in policing the barracks, for laundrying and in defraying all of his necessary expenses at the Academy.

Four dollars of his monthly pay is set aside each settlement, and constitutes what is known as his equipment fund, amounting during the four years to \$192; which sum he receives on graduation, or in case his connection with the Academy is severed prior to graduation, the accrued amount, whatever it may be.

Cadets found deficient receive whatever may be due to date of discharge, and in addition a sum equivalent to one day's pay as a cadet for every 20 miles of the distance from West Point to their homes, as determined by the official table of distances published by the Paymaster-General U. S. Army; he also receives through the disbursing officer of the Academy, from Congressional appropriation, the actual cost of his traveling expenses, including sleeping-berth, to his home.

I consider the income of a cadet, taken in connection with the sum which he deposits on entering the Academy—viz, \$100, and which defrays the cost of his first outfit—sufficient, but no more than sufficient, for all of his actual necessities under economical management.

STATEMENT OF CAPT. W. F. SPURGIN.

HEADQUARTERS U. S. MILITARY ACADEMY,
OFFICE TREASURER, QUARTERMASTER, AND COMMISSARY OF CADETS,
West Point, N. Y., October 6, 1891.

SIR: Referring to exhibits F-A and F-B, pages 100 to 104 inclusive, Report of the Board of Visitors to the U. S. Military Academy for 1887, I have the honor to transmit herewith the following:

Abstract of cost of provisions, property, etc., used, issued, and consumed at the cadet mess U. S. Military Academy, West Point, N. Y., from May 1, 1889, to May 30, 1891, four years, which taken in connection with exhibit F-A above referred to, completes the table for seventeen years previous to date last above given.

The notes relative to the cadet mess following exhibit F-A, Report of 1887, are respectfully referred to, exhibiting correctly the workings of the mess to-day.

Statement exhibiting the work performed at the cadet laundry, West Point, N. Y., during the year ending April 30, 1891, with schedule of prices charged for laundry work.

The extension of the laundry asked for in 1887 was granted and now the cadet laundry is well equipped with necessary machinery and is of sufficient capacity.

Memorandum of clothing manufactured and repaired in the tailor shops, cadet quartermaster's department, for the year ending April 30, 1891.

Many members of the graduating class took advantage of their privilege to obtain their uniform dress coats, trousers, blouses, and capes at the Cadet Quartermaster's Department, and the articles of officers' uniform mentioned above were principally for members of the graduating class.

The addition to the cadet quartermaster's storehouse, authorized by Congress, is approaching completion and will when finished supply the necessary room for storage of supplies, workshops, etc.

Respectfully submitted.

W. F. SPURGIN,
Captain of Twenty-first Infantry,

Treasurer U. S. Military Academy, Quartermaster and Commissary of Cadets.

Maj. JOHN M. CARSON,
Secretary Board of Visitors

U. S. Military Academy, Washington City, D. C.

(Through the adjutant's office, U. S. Military Academy.)

Abstract of cost of provisions, property, etc., used, issued, and consumed at the cadet's mess, U. S. Military Academy, West Point, N. Y., from May 1, 1887, to April 30, 1891.

From—	To—	Provi- sions.	Conting- ent property.	Furni- ture.	Incident- als.	Total.	Average number of cadets.	Cost of board.	Asses- sed for board.
May 1, 1887.	Apr. 30, 1888	\$41,997.93	\$1,303.95	\$683.51	\$6,549.12	\$50,514.51	263	\$192.97	\$192.00
May 1, 1888	Apr. 30, 1889	41,083.63	1,513.21	865.00	5,803.05	49,264.89	256	193.43	194.00
May 1, 1889	Apr. 30, 1890	40,616.56	1,435.38	623.63	7,035.47	49,710.04	260	191.87	192.06
May 1, 1890.	Apr. 30, 1891	38,867.57	829.15	1,160.61	6,891.95	47,749.28	259	184.88	185.40

Tabulated statement of number of articles laundered from July 1, 1890, to June 30, 1891.

Month.	Clothesbags.	Sheets.	Pillowcases.	White shirts.	Nightshirts.	Under shirts.	Drawers.	White trousers.	White jackets.	Towels.	Socks, pairs.	Gloves, pairs.	Handkerchiefs.
1890.													
July	371	724	500	1,555	366	2,720	2,598	8,610	380	3,862	3,201½	3,752½	4,844
August	403	752	553	1,377	383	2,529	2,387	8,559	637	3,683	3,885	4,017½	4,097
September		1,879	1,289	1,973	934	3,110	2,944	6,353	328	5,381	5,677½	4,888½	6,077
October		1,670	982	1,583	793	3,311	2,247	45	6	4,024	660	2,509½	4,316
November		1,706	962	1,585	793	3,358	2,268	16		3,946	638½	2,352½	4,754
December	526	2,106	1,230	1,932	951	3,008	2,860			5,029	3,312½	2,531	6,006
1891.													
January		1,720	957	1,340	763	2,242	2,082	1		3,854	2,484½	2,203½	4,807
February		1,677	946	1,276	736	2,294	2,133	43	11	3,870	2,441	2,114½	4,393
March	505	2,085	1,125	1,635	932	2,794	2,721	6	3	4,912	3,009	2,667	5,563
April		1,694	935	1,394	778	2,327	2,135			3,997	2,534½	2,344½	4,706
May		1,635	923	1,469	753	2,539	2,307	3,385	380	4,089	2,795	3,790½	4,629
June		1,290	717	1,509	679	2,640	2,317	6,441	364	4,065	2,840	3,151	4,496
	1,805	19,028	11,209	18,688	8,862	30,872	25,999	33,367	2,115	50,712	34,369	35,321	58,748

Month.	Cuffs, pairs.	Collars.	Shoulder belts.	Waist belts.	Sword belts.	Gray trousers.	Gray jackets.	Blankets, single.	Spreads.	Vests.	Dusters.	Bathing suits.	Total pieces.
1890.													
July	4,400½	8,976	1,596	1,600	147	2		2	1		1	14	50,313½
August	3,846½	8,269	1,824	1,825	188		2	4				11	48,264
September	4,351	5,535	1,803	1,805	402	11	1	115	28		2	14	55,820½
October	2,744	4,717	789	793	180	4	4	6	3				32,387½
November	2,507	4,274	743	745	190	6	1	6				1	31,852½
December	3,230	5,301	624	626	181	1	3	7	1				39,525½
1891.													
January	2,395	4,194	528	529	118	4		2	1			3	30,228
February	2,277	4,270	710	713	179	3			2			1	30,089½
March	2,998	5,550	830	831	175	42		14	2	1			38,460
April	2,893½	5,097	715	715	171	11	4		2			1	32,462½
May	3,108	5,587	941	942	184	52	14	18	2				38,510½
June	3,431	6,887	1,638	1,641	173	21	4	29	2	2	3	3	44,343
	38,211½	71,657	12,741	12,765	2,288	159	47	191	43	3	7	49	472,256½

Memorandum of clothing manufactured and repaired in the tailor shops, Cadet Quarter-master's Department, for the year ending April 30, 1891.

Articles.	Manufactured.	Repaired.
Blouses:		
Gray.....	362	640
Officers.....	60	
Coats:		
Dress.....	216	375
Over.....	160	276
Jackets:		
Shell.....	59	
White.....	175	
Trousers:		
Gray.....	565	1,083
Riding.....	59	
Flannel.....	81	
White.....	644	1,666
Officers.....	106	
Dress coats, officers.....	17	
Officers' capes.....	16	
Total.....	2,520	4,039

Laundry price list.

	Cents.		Cents.
Clothesbags.....	2	Cuffs, pairs.....	2
Sheets.....	3	Collars.....	1
Pillowcases.....	2	Shoulder belts.....	1
White shirts.....	3	Waist belts.....	1
Nightshirts.....	3	Sword belts.....	1
Undershirts.....	2	Gray trousers.....	10
Drawers.....	2	Gray jackets.....	10
White trousers.....	4	Blankets, single.....	10
White jackets.....	4	Spreads.....	10
Towels.....	2	Vests.....	4
Socks, pairs.....	1	Dusters.....	3
Gloves, pairs.....	1	Bathing suits.....	2
Handkerchiefs.....	1		

REPORT OF THE COMMITTEE.

Following is the report of the committee on Supplies and Expenditures for Cadets:

WEST POINT, N. Y., June 9, 1891.

To the Board of Visitors:

The committee on Supplies and Expenditures for Cadets submits the following report:

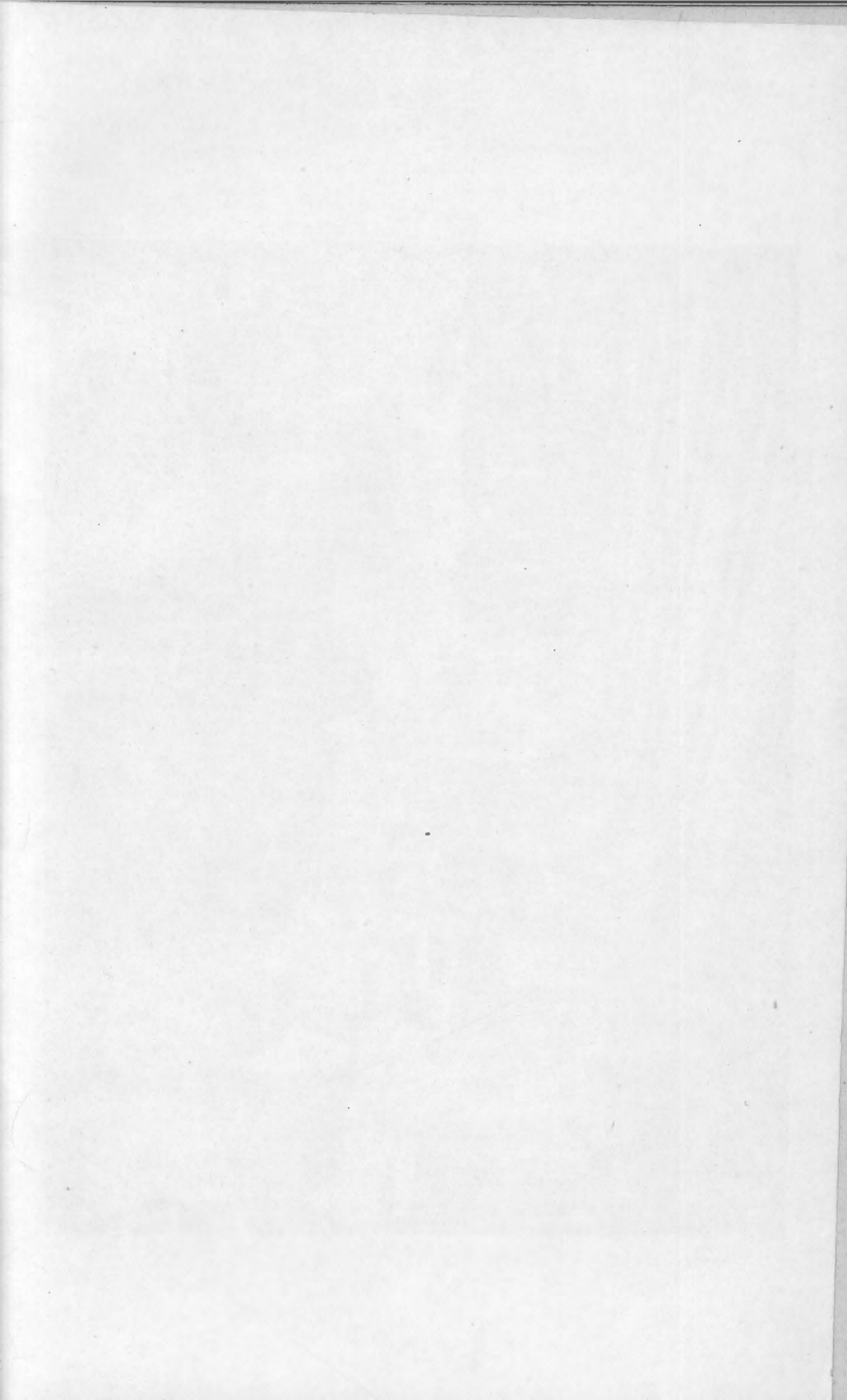
Your committee made frequent and careful examination into the supply department, visiting the mess hall and kitchen at various hours and making an inspection of the food and clothing supplies. In every particular the high standard of excellence in the quality of materials and in their intelligent preparation for the consumption of cadets which has marked the administration of this department under the direction of Capt. W. F. Spurgin has been maintained.

The supplies purchased are of the very best quality and the prices paid are as low as similar supplies can be purchased in the wholesale markets. The system of accounts is perfect and are so kept that the entire history of every individual transaction may be exhibited at any time. Recent improvements and additions made to the culinary department seem to make further expenditure unnecessary at this time. The dining hall, however, should be supplied with a tile floor. The present wood floor is in fair condition, but will necessarily have to be replaced the coming year. The daily tramp of nearly 300 men three times each day is calculated to wear out a wood floor in a comparatively short time.

In addition to this wear, a wood floor has frequently to be scrubbed with soap and water, which, for a considerable time following the operation, gives forth an odor suggesting the close proximity of a laundry and tainting the atmosphere of the room to a degree that is very unpleasant during the time that meals are being served. Previous boards of visitors have directed attention to this matter and recommended that the wood flooring be replaced with tiles. Your committee believe that such a change is demanded, that it would be more economical than wood, and that it would certainly be more wholesome and comfortable than wood. Your committee therefore renew the recommendations made in previous years for an appropriation to tile the floor of the dining hall.

Respectfully submitted.

J. C. BURROWS,
S. W. T. LANHAM,
JOHN M. CARSON.





GRANT HALL--CADET DINING ROOM.

FISCAL AFFAIRS OF THE ACADEMY.

Committee on Fiscal Affairs.—Messrs. JOSEPH A. SCRANTON, ROBERT O. FULLER, and DAVID W. PAYNE.

The fiscal affairs of the Academy and the methods of administration are set forth in the report of the committee in charge of this branch and the papers which accompany the report. The pay of a cadet is \$45 per month. The corps is mustered for pay every two months, when muster rolls are made out by the tactical officers in charge of cadet companies. These rolls are transmitted by the commandant of cadets to the treasurer of the Academy, by whom they are in turn transmitted to the chief paymaster of the Department of the East at New York. An officer of the Pay Corps is then designated to pay the rolls, and this officer deposits the amount required to do this with the assistant treasurer of the United States at New York to the credit of the treasurer of the Military Academy, to be drawn upon by the latter in his official capacity as treasurer of the Corps of Cadets. When thus drawn the money is credited to the cadets individually, but the cadet is not permitted to handle any part of this money nor permitted to have in his possession money from any source whatever. When he goes on furlough at the end of two years from entrance or when he severs his connection with the Academy, he is given whatever money is due him, but under no other circumstances, and at no other times, is the cadet permitted to be possessed of money.

The account of each cadet is kept by the treasurer of the Academy, each individual being furnished with a pass book upon which all items of debit and credit are entered, so that the cadet can see at all times how his account stands. Out of the monthly pay of each cadet there is set aside the sum of \$4, thus reducing his allowance for subsistence to \$41 per month. The \$4 held back is for the purpose of creating an equipment fund with which to purchase the necessary outfit upon graduation. This equipment fund amounts to \$192 in four years. Out of the remaining \$41 of his monthly pay the cadet must pay for subsistence, clothing, washing, text books, policing barracks, gas, barber, bath, shoeblack, etc. Subsistence costs about \$16 per month. The cost of clothing depends upon the care exercised by the individual cadet. Washing is an expensive item in summer when white clothes are worn, but it is not so expensive as a whole. For policing barracks a charge of 85 cents per month is made against each cadet, and the charge for

gas is 50 cents per month. The charge for baths, shoeblack, etc., vary from 60 to 80 cents per month. Notwithstanding these numerous charges the pay of the cadet is sufficient to maintain him at the Academy by the exercise of proper economy. In the enforced economy which he is obliged to constantly practice the cadet acquires habits of economy which usually adheres to him through life. At all events he is taught to practice economy in his personal expenditures while at the Academy and the lessons thus inculcated for a period of four years can not fail to be beneficial.

REPORT OF THE COMMITTEE.

Following is the report of the committee on Fiscal Affairs:

WEST POINT, N. Y., June 9, 1891.

To the Board of Visitors:

The committee on Fiscal Affairs respectfully present the following report:

We have carefully examined the methods of conducting the fiscal affairs of the Academy and find they are dual in character. First, that which relates to the pay, subsistence, and clothing of the Corps of Cadets, and second, that which relates to the building and grounds and the subsistence of the enlisted men of the garrison of West Point and of the animals used in the cavalry and artillery instruction of the cadets. The former is under charge of Capt. W. F. Spurgin, Twenty-first Infantry, and the latter under Capt. William H. Miller, of the Quartermaster's Department.

Your committee visited the office of Captain Spurgin, examined his records and books of account, and received from him a full verbal explanation of the way in which he conducts his exceedingly interesting and important department.

From the examination of the office made by your committee the following appears:

The pay of a cadet is \$45 per month. Every 2 months a muster-roll of each company of cadets is made out and these rolls are forwarded by Captain Spurgin to the proper paymaster. They are then paid by placing to the credit of Captain Spurgin, as treasurer of the United States Military Academy, with the assistant treasurer of the United States at the city of New York, the entire sum of the rolls.

In Captain Spurgin's office twenty-eight separate accounts are kept. His office is the bank of the cadets. Their personal deposits consist of the sums deposited by them when they first report and their regular bimonthly pay.

The cadet never handles any part of his pay excepting when he goes on furlough or severs his connection with the Academy. Captain Spurgin keeps an account with each cadet. Each cadet has an account book and can see at any settlement just how his account stands and the items of debit and credit of which it is composed.

Out of the monthly pay (\$45) of the cadet there is withheld the sum of \$4 monthly. This is under no circumstances to be expended prior to his graduation. It makes what is termed the equipment fund, and in 4 years amounts to \$192. It is expended by the cadet upon his graduation in buying his equipment as an officer.

Out of the \$41 thus remaining as the available monthly pay of the cadet all of his expenses are paid through Captain Spurgin. The cadet thus pays for his subsistence, clothing, text-books, washing, policing barracks, gas, barber, shoe-black, baths, etc. His subsistence costs him upon an average about \$16 per month. It is a close matter to live upon \$41 per month, but it is done under this system and the cadet is taught that invaluable lesson, to live within his means.

Captain Spurgin's system of purveying and his management of the cadet mess are admirable in every way. The young men are well fed. This is the result of careful system and close personal attention to details by Captain Spurgin. He possesses great natural aptitude for his present position and it is the opinion of your committee that he should be retained in it.

Your committee also examined the books and papers of Captain Miller, and received from him full and satisfactory explanations of the methods of conducting business. Attached to this report is a statement from Captain Miller showing the amounts appropriated, disbursed, and remaining unexpended under the several heads of appropriations for the support of the Academy for the current fiscal year. There is also appended a statement from Captain Spurgin exhibiting condition of funds in his charge.

Attention is directed to the fact that the cadets were required to pay \$1,017 for gas during the year. Your committee believe that Congress should make an appropriation for the manufacture of gas to avoid this charge against the cadets.

Your committee have no criticism to make upon the conduct of the fiscal affairs of the Academy so far as they are administered by Captains Spurgin and Miller. Both these officers conduct their business under systems made perfect by years of usage, and we found each of them efficient and industrious officers and attentive and courteous gentlemen.

Respectfully submitted.

JOSEPH A. SCRANTON,
ROBERT O. FULLER,
DAVID W. PAYNE,

Committee.

STATEMENT OF CAPTAIN MILLER.

HEADQUARTERS UNITED STATES MILITARY ACADEMY,
QUARTERMASTER'S OFFICE,
West Point, N. Y., June 9, 1891.

SIR: In accordance with your request, I have the honor to inclose herewith for the information of the Board of Visitors an abstract showing the amounts appropriated, disbursed, and remaining unexpended under the several heads of appropriations for the support of the Military Academy during the fiscal year 1890-'91.

The funds shown on the abstract as received have been supplied by request of the honorable Secretary of War upon requisition of the Superintendent of the Military Academy forwarded at such times as the necessities of the service demanded.

The amount reported as disbursed is supported by vouchers which are forwarded monthly to the War Department for the approval of the Secretary of War and then transmitted to the Treasury Department for audit.

The amount reported as unexpended is deposited to my official credit, as disbursing officer, in the subtreasury of the United States in New York City. At the end of the fiscal year such funds as are not needed to cancel outstanding indebtedness will be transferred to the Treasurer of the United States.

In addition to the funds referred to in Abstract A, herewith, I inclose an abstract of the fund known as the "gas fund."

Congress annually appropriates \$3,500 for gas, coal, oil, candles, lanterns, matches, chimneys, and wicking for lighting the academy, chapel, library, cadet barracks, mess hall, shops, hospital, offices, stables and riding hall, sidewalks, camp, and wharves.

The gas consumed in these places cost more than the amount appropriated. A tax therefore becomes necessary. Gas consumed at all places not enumerated in the act is sold at actual cost of manufacture with a small increase for contingencies, which includes a portion of the deficiency above named and also provides for contingent repairs which experience has shown to be necessary from time to time. The remainder of the deficiency is charged to cadets. They pay for gas at the rate of 30 cents per month for the time they are actually present.

Attention is invited to the amounts paid by the several classes of persons consuming gas.

I also inclose an abstract of the fund known as the "Special contingent fund, U. S. M. A.," which is derived from the rent of certain public structures at this post. Congress authorizes its expenditure under the supervision of the Superintendent of the Academy, the same to be accounted for annually, accompanied by proper vouchers, to the Secretary of War.

Very respectfully, your obedient servant,

W. H. MILLER,

Captain and Assistant Quartermaster,

U. S. A., Disbursing Officer, U. S. M. A.

Hon. JOSEPH A. SCRANTON,

Chairman Committee on Fiscal Affairs.

Abstract of appropriations made for the support of the Military Academy for the fiscal year ending June 30, 1891, disbursed by Capt. W. H. Miller, assistant quartermaster, U. S. Army, disbursing officer U. S. Military Academy.

	Amount received.	Expended to include June 9, 1891.	Unexpended balance on hand.
Current and ordinary expenses	\$61,431.15	\$49,716.14	\$11,715.01
Miscellaneous items and incidental expenses.....	21,020.00	16,123.33	4,896.67
Buildings and grounds.....	60,000.00	48,869.75	11,130.25
New Academy building.....	16,000.00	11,873.09	4,126.91
New gymnasium building.....	53,500.00	21,678.69	31,821.31
Total.....	211,951.15	148,261.00	63,690.15

I certify that the above abstract is correct, and that the expenditures reported have all been made by the undersigned on vouchers approved by the Superintendent of the Military Academy.

W. H. MILLER,

Captain and Asst. Q. M., U. S. Army, Disbursing Officer, U. S. M. A.

WEST POINT, N. Y., June 9, 1891.

Abstract of receipts and expenditures pertaining to the U. S. Military Academy gas fund between July 1, 1890, and June 9, 1891.

Receipts:

Sales of coke	\$596.50
Sales of tar.....	514.46
Sales of gas to officers.....	1,533.53
Sales of gas to civilians.....	685.12
Sales of gas to buildings	473.58
Sales of gas to cadets	1,015.70
Sales of gas fixtures.....	37.33

4,856.22

Op hand July 1, 1890..... 655.16

Total..... 5,511.38

Expended to include June 9, 1891..... 5,171.81

Unexpended balance on hand June 9, 1891 339.57

I certify that the above abstract is correct, and that the expenditures reported have all been made by the undersigned on vouchers approved by the Superintendent of the U. S. Military Academy.

W. H. MILLER,

Captain and Assistant Quartermaster, U. S. A., Director of Gas Works.

WEST POINT, N. Y., June 9, 1891.

Abstract of receipts and expenditures pertaining to the special contingent fund, U. S. Military Academy, between July 1, 1890, and June 9, 1891.

On hand July 1, 1890.....	\$645.54
Receipts:	
By rent of West Point Hotel	\$3,500.00
By rent of post-office cottage.....	112.50
By rent of public stables.....	100.00
By rent of confectionery store.....	787.50
	<u>4,500.00</u>
Total.....	5,145.54
Expended to include June 9, 1891	2,473.14
	<u>2,672.40</u>
Unexpended balance on hand June 9, 1891.....	2,672.40

I certify that the above abstract is correct, and that the expenditures reported have all been made by the undersigned on vouchers approved by the Superintendent of the U. S. Military Academy.

W. H. MILLER,

Captain and Asst. Quartermaster, U. S. A., Treasurer Special Contingent Fund.

WEST POINT, N. Y., June 9, 1891.

STATEMENT OF CAPTAIN SPURGIN.

HEADQUARTERS U. S. MILITARY ACADEMY.

OFFICE TREASURER, QUARTERMASTER, AND COMMISSARY OF CADETS.

West Point, N. Y., June 9, 1891.

SIR: In compliance with your verbal request, I have the honor to submit the following, viz:

(1) *Statement of the treasurer U. S. Military Academy, May 19, 1890.*

Dr.	Amount.		Cr.
Assistant treasurer.....	\$29,539.12	Cadet laundry.....	\$4,724.52
Cadet cash.....	70.00	Cadet quartermaster.....	7,731.98
Trust funds.....	20,000.00	Cadet subsistence department.....	531.49
Cash on hand.....	231.26	Corps of Cadets.....	7,211.21
		Dialectic Society.....	25.48
		Equipment fund.....	29,606.00
		Miscellaneous fund.....	9.70
Total.....	49,840.38	Total.....	49,840.38

(2) *Statement of receipts and disbursements made by the treasurer U. S. Military Academy from May 19, 1890, to May 19, 1891.*

	Amount.		Amount.
DISBURSEMENTS.		RECEIPTS.	
Assistant treasurer (deposited)	\$151,266.06	Assistant treasurer (amount of checks drawn)	\$151,089.34
Balances paid	13,302.39	Balances paid	13,302.39
Barber, etc.	568.60	Barber, etc.	568.60
Cadet cash	11,433.71	Cadet cash	11,503.71
Cadet hospital	2,615.81	Cadet hospital	2,824.19
Cadet laundry	8,643.28	Cadet laundry	9,459.99
Cadet quartermaster	72,222.57	Cadet quartermaster	66,389.23
Cadet subsistence department	55,501.72	Cadet subsistence department	55,658.05
Confectioner	148.00	Confectioner	148.00
Corps of Cadets	169,377.86	Corps of Cadets	173,738.16
Damages, ordnance	24.24	Damages, ordnance	24.24
Dancing	615.00	Dancing	615.00
Dentist	719.00	Dentist	719.00
Deposits	16,642.53	Deposits	16,832.53
Dialectic Society	317.13	Dialectic Society	310.40
Equipment fund	10,888.00	Equipment fund	12,926.00
Expressage	20.30	Expressage	20.30
Gas	1,070.60	Gas	1,070.60
Hops and german	1,620.90	Hops and german	1,620.90
Miscellaneous fund	32.50	Miscellaneous fund	26.82
Miscellaneous items	545.64	Miscellaneous items	551.96
Oaths	20.50	Oaths	20.50
Paymaster	151,356.06	Paymaster	151,266.06
Periodicals	58.30	Periodicals	58.30
Photographs	70.50	Photographs	70.50
Policing barracks, etc	5,695.83	Policing barracks, etc	5,780.23
Total	674,777.03	Total	676,345.00

(3) *Statement of the treasurer U. S. Military Academy, May 19, 1891.*

	Amount.		Amount.
Assistant treasurer	\$29,715.84	Cadet hospital	\$8.38
Paymaster	90.00	Cadet laundry	5,541.23
Trust funds	20,000.00	Cadet quartermaster	1,809.64
Cash on hand	1,799.23	Cadet subsistence department	687.82
		Corps of Cadets	11,571.51
		Deposits	190.00
		Dialectic Society	18.75
		Equipment fund	31,644.00
		Miscellaneous fund	4.02
		Miscellaneous items	6.32
		Policing barracks, etc	34.40
Total	51,605.07	Total	51,605.07

I have the honor to ask attention to the Report of the Board of Visitors for 1890, p. 19, where reference is made to previously published statements and communications from this office contained in the Reports of the Board of Visitors for 1887 and 1889, which give full information relative to the affairs of this office, and have the honor to be,

Very respectfully, your obedient servant,

WM. F. SPURGIN,

Captain Twenty-first Infantry, Treasurer U. S. Military Academy.

* Hon. JOSEPH A. SCRANTON,

Chairman Committee on Fiscal Affairs.

HEADQUARTERS U. S. MILITARY ACADEMY,

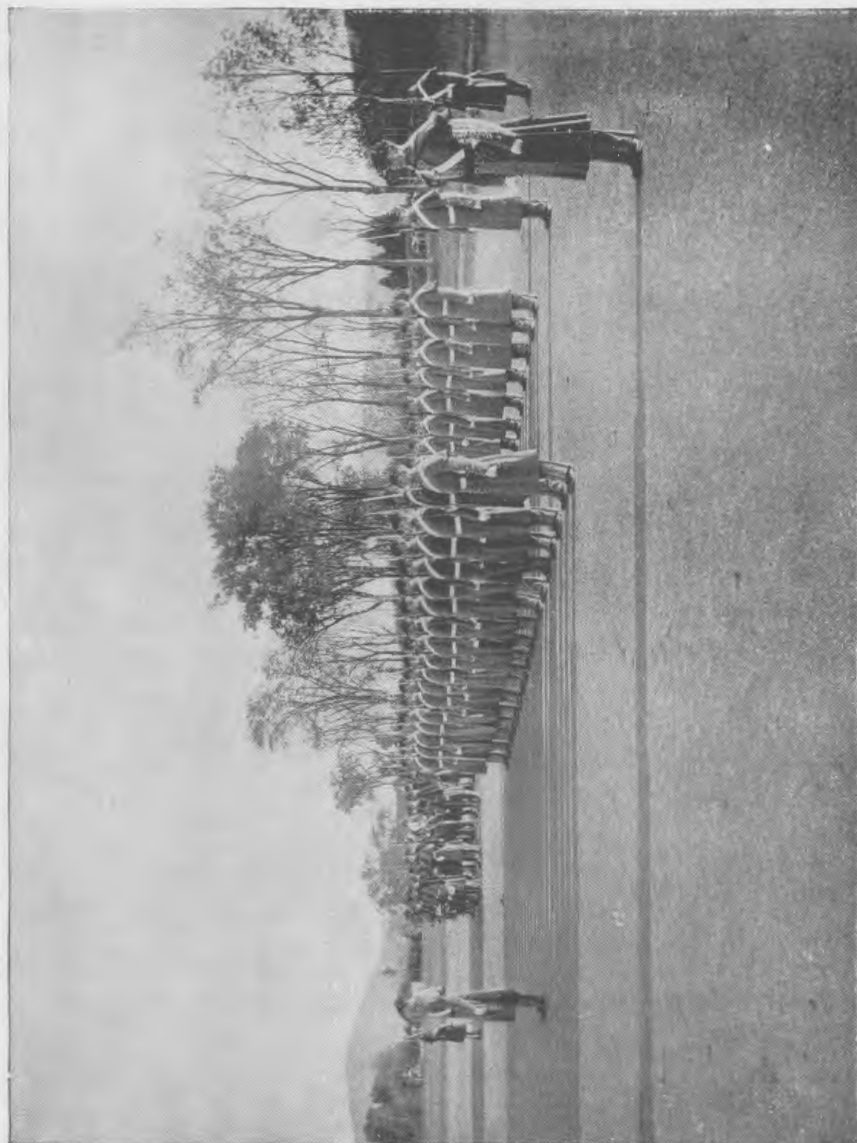
West Point, N. Y., June 9, 1891

Respectfully transmitted to Hon. J. A. Scranton, member Board of Visitors.

By order of Colonel Wilson:

J. M. CARSON, Jr.,

Second Lieutenant Fifth Cavalry, Adjutant



Copyright.

GUARD MOUNTING.

Stoddard, Glens Falls, N. Y.

MISCELLANEOUS.

THE MILITARY ACADEMY BAND.

The condition of the Military Academy band was given careful consideration by the Board. The matter was discussed with Colonel Wilson and other officers of the Academy, and able arguments were made by Lieut. Edward E. Harden, of the Seventh Infantry, who has charge of the band, and by Bandmaster Clappé, in favor of a reorganization. These gentlemen presented facts and figures which impressed the Board with the belief that the band should be increased in numbers, and that it should be reorganized so that good musicians would be attracted to it. As at present constituted it is surprising that musicians of any merit can be induced to remain in the Academy band. Indeed, the greatest difficulty is experienced in securing musicians and in retaining them after they have been secured. The band is now limited to 24 pieces, and the men are graded into three classes, who are paid \$17, \$24, and \$34 per month, respectively. It is notorious that the bands of the United States Army are poorly equipped, inadequately paid, and small in numerical strength. They are not to be compared with first-class civilian bands in our own country, nor with the regimental bands of any country which maintains a military establishment. While it is not within the province of this Board to offer suggestions and make recommendations so far as the bands of the Army are concerned, we do earnestly recommend legislation looking to the reorganization of the Military Academy band. Music has become an important factor in our national life, and viewed either in its educational tendencies or as a source of amusement for the people, should command the attention of the Government.

While private enterprise has furnished grand orchestras, splendid bands, and fine choral bodies, our Government has done absolutely nothing to keep pace with the growth and development of music, nor has anything been done to encourage a taste for music among the people. A national band so wretchedly equipped as that at the Academy is an offense against the music-loving people of the United States and a discredit to the Government. This band should be placed upon a respectable footing in its equipment, its numerical strength, and the monthly pay of its members, and this can be done at so comparatively a small addition to the present annual allowance that we are hopeful Congress will act favorably upon this recommendation. The World's Fair at Chicago will doubtless bring to our country some of the famous

bands of Europe and Spanish America, and this fact furnishes an additional reason for preparing the band at the Academy, the only distinctive band known to our military service, for presenting a creditable appearance. The band of the Academy may not be called upon to compete at Chicago with the bands of other countries, but West Point will undoubtedly be visited during the season of the fair by distinguished military, and by skillful and accomplished musicians, men from every country of the world. These men are in the habit of hearing well-equipped bands perform, and to them the Military Academy band with twenty-four pieces will present a sorry spectacle.

We believe that the bandmaster at the Military Academy should have the grade of a second lieutenant of infantry. The nature of his duties, the scientific and theoretic knowledge required, his relation to the discipline of the men under his charge, require that the position should be made one of relatively official equality with other instructors at the institution. The band should be increased to at least 40 performers, divided into two classes, and paid as much as similar talent is paid in civil life. The men should be enlisted for no other duty than that properly belonging to a band, and should be given every opportunity to exercise their professional skill not inconsistent with military discipline, as well for the benefit of the people at large as for the Government. There is no reason why West Point should not furnish trained musicians as well as trained officers for the Army, and we believe that the band at the Academy could be made to do this with very little effort and at a trifling expense above that now paid for the present band organization. If a proper organization was established the chief musicians for the Army could be drawn from the Military Academy Band, and young men could be trained at West Point to be drummers and trumpeters, and sent to regiments fully prepared to perform their duties.

If a system should be adopted such as is here outlined, the men sent to West Point for instruction in music could be utilized in the band of the Academy while undergoing instruction, and in this way that organization would gain additional numerical strength while acting as a practical school for musicians for the Army. Whether the band is or is not increased by the action of Congress, we recommend that the Secretary of War direct that all recruits for the field music of the Army enlisted within a certain radius of West Point be sent there for instruction. The advantage which would follow the establishment at West Point of a school for musicians is pointed out in a communication from Bandmaster Clappé to the secretary of the Board, which is appended to this report, and to which the attention of the Secretary of War and the Adjutant-General of the Army are invited.

The Board after fully considering this matter unanimously decided to recommend the following:

(1.) That the bandmaster be given the grade of a second lieutenant of infantry, with the pay and allowances of that grade.

(2.) That an assistant bandmaster be established to rank as a chief musician, with the pay and allowances of that grade.

(3.) That the band be increased to 40 performers, to be divided into two classes. The first class to consist of 25 performers, to be paid \$40 per month each; the second class to consist of 15 performers, to be paid \$30 per month each. Both classes to have the allowances now granted enlisted men.

(4.) That at least 20 recruits be sent every year to West Point for instruction in music, these recruits to be retained there at least 12 months before being assigned to regiments.

The amount now annually appropriated for the pay of the band at the Academy is \$9,240. Should it be increased to 40 performers, and classified as we here recommend, the annual appropriation would be \$17,400, an increase of only \$8,160, a very insignificant sum when the great advantages that would attend it are considered. We have no doubt that this increase would be approved by the great majority of the people.

VIEW OF BANDMASTER CLAPPÉ.

Following is the letter addressed to the secretary of the Board by Mr. Arthur A. Clappé, teacher of music and bandmaster at the Academy:

WEST POINT, N. Y., September 14, 1891.

DEAR SIR: In compliance with your request I beg to submit the following suggestions and recommendations relative to the reorganization and improvement of the U. S. Military Academy Band.

By act of Congress the band is limited to 24 musicians and 1 teacher of music. The number, aside from other considerations, is too small to produce that volume of tone necessary to distinctly mark the cadence for a body of troops on the march.

This fact is recognized on all hands, and nowhere more than among the regiments of the State National Guards. For instance, among the New York regiments the bands average a membership of 55 skilled performers. The Seventh Regiment turns out with at least 50, the Twenty-second with 65, the Seventy-first with 50, and it has been decided to increase the strength of the band of the Sixty-ninth Regiment to 65 instrumentalists. The reason of this large membership is to insure the music being heard by troops in rear of the column.

When it is remembered that usually such regiments parade in the confined thoroughfares of large cities, and that the buildings on either side, reflecting the tone, add to its volume, or at least do not permit the tone to escape, it must be admitted that the experience leading up to and compelling the support of such large musical organizations is the outcome of the positive needs of the situation, not purely ideal nor an effort for show.

If, then, it be necessary, under such circumstances and where the conditions are favorable for the propagation of sound, to have and maintain huge bands for military purposes, is it not doubly so where, as at West Point, the band, so inferior in point of numbers, invariably performs on a large open plain, where the music is diffused and lost before really achieving the purpose for which intended?

But apart from the purely military uses of the U. S. Military Academy band the artistic side of its duties, as exhibited in concerts it is called upon to perform, should be considered. It is in these performances as well as upon the parade that the band is expected to maintain the credit of the only military institution of a great country.

The only legalized and representative band of our military system should be adequate to fulfill its functions in equal degree with the leading bands of the armies of France, Germany, and England. It can not reasonably be expected to do this unless liberal provision is made for its maintenance. Although every possible effort is made to arrive at good results with the material at our disposal here, I am deeply conscious of the fact that visitors to the Academy, among whom are included ministers, military men, and persons of distinction from foreign countries, carry away with them the impression that the musical appreciation of those who legislate for the Army is of a low standard.

Though Congress has enacted that the band shall consist of 24 musicians and 1 teacher of music, the provision that divides this organization into three classes defeats the intention of the law. As an instance of this, I may state that for nearly six months two vacancies have existed in the third class, and, although numerous applications have been received from musicians seeking employment, it has been found impossible to fill them. The reason of this lies in the fact that musical services are very much better remunerated in civil life than at West Point. The pay of a third-class musician is \$17 per month, with quarters and rations. He must be a poor musician, indeed, who outside can not make at least four times that amount in a month. In New York City orchestra players receive from \$15 to \$40 a week for their services at performances. They supplement these amounts by playing other engagements, as parades, excursions, and balls, some of which pay not less than from \$5 to \$7 each engagement. It will thus be apparent that we at West Point can not offer, even though all positions were paid as in the first class (\$34 per month), any inducements equal to those in civil life.

If the Academy were so located that the bandmen could secure outside playing, the case might be somewhat different; but being practically isolated these men, except on rare occasions, have but little opportunity to add to their inadequate income. This fact must be taken into account when dealing with the subject of the reorganization of the band, because the Government, seeking to employ what may be classed as skilled labor, has to face outside competition in a market where the commodity sought brings a fair and reasonable price. Where any individual is employed by the Government to perform work requiring special skill, he should be paid prices such as are paid for similar employment by private parties. If this be not done the service suffers by being intrusted to incompetent hands. This is precisely the case here. Everything of which our musicians are capable is elicited from them, yet we fall short and can not hope, under the present system, to attain results such as could be attained were we in position to offer better inducements and in return secure a better class of musicians.

I would, therefore, respectfully suggest that the U. S. Military Academy Band be reorganized so as to consist of 40 members and 1 bandmaster and 1 assistant bandmaster. The new organization should be divided into two classes as follows: 20 musicians at \$34 per month, 20 at \$30 per month, with privileges and allowances such as are accorded to enlisted men of the Army.

The bandmaster, as intimated above, should be accorded the status of an officer, for reasons of discipline as well as in recognition of the fact that the man who holds the position must possess superior musical attainments and socially maintain himself with proper dignity.

In addition to the foregoing I would venture to suggest that steps be taken looking to the supply of musicians and band leaders for the Regular Army from some central source, that is, from an institution under Government control. The facilities that an increased and better paid organization at West Point would afford might be turned to account in this direction. Army bands, as well as the band here, experience great difficulty in obtaining musicians to fill the constantly occurring vacancies, and, further, it frequently happens that commanding officers have to depend upon the good offices of some music-dealer when requiring a man to fill the position of band leader.

All trouble and uncertainty might be avoided by having organized in connection with the Academy band a school of instruction for military musicians. In my opinion there are many young men in the country who, having musical inclinations, would be found desirous of entering such an institution for the sake of the education afforded and who would be willing to engage to serve an enlistment in the Army which would date from the period of their transfer as a trained musician to some regiment.

But, supposing such a plan not feasible, it would still be possible to have recruits assigned from recruiting depots to undergo one year's training in music at West Point before joining regiments needing their services. If, say, twenty or more men were sent here for instruction in music from November in one year to November in the next, a source of supply would be created that would be of the greatest possible benefit to the Army and meet the warmest approval of regimental commanders and other officers. But, beyond this, provision should, in the first instance, be made for the examination of all candidates for the position of chief musician in the Army, and who could not hope to receive an appointment unless capable of undergoing the ordeal. I would, however, advise that the foregoing be only a temporary measure, and in force up to the time when Army musicians could be drawn upon to supply the material from which to train chief musicians. The course necessary to fit a man for such office would extend over a period of at least three years, that is, three years' training in the higher branches of music at the school for instruction in military music. No man should be eligible for entry who could not pass a reasonable preliminary examination and who had not served at least one enlistment in the Army.

I believe that such a system of itself would have a beneficial influence upon Army musicians, who now can not hope for promotion to the best musical position in the bands, however much they might wish to strive to attain it. Unless some such plan be adopted the present law, which permits men to retire at the expiration of practically two years and nine months, will so deplete the ranks of Army bands as to render them next to useless and make it impossible to replace the retiring members.

It occurs to me that the approaching World's Fair at Chicago might reasonably be urged to strengthen the plea for the immediate increase of the Military Academy Band.

Following the precedent of European countries, there is great probability that application will be made for permission to utilize the services of Government bands. Already rumors are current that negotiations are in progress to bring over the foremost and representative army bands of Europe. In event of such a movement being successful, our bands would cut a sorry figure by comparison, unless the work be at once commenced of building them up to a higher degree of perfection, and such as to enable them to creditably represent the musical status of the country.

Yours, respectfully,

ARTHUR A. CLAPPÉ,
Teacher of Music, U. S. Military Academy.

Maj. JOHN M. CARSON,
Secretary Board of Visitors, U. S. Military Academy.

IEWS OF BANDMASTER SOUSA.

The U. S. Marine Band is similarly situated to the Military Academy Band, except that the former has forty performers. At the last session of Congress the Committee on Naval Affairs reported a bill to increase the numerical strength of the Marine Band and to put it upon a footing which an organization of this character deserves. The bill was approved by the Secretary of the Navy, who addressed a letter to the chairman of the Committee on Naval Affairs, inclosing with approving

comments a letter from Bandmaster John Philip Sousa, in which urgent reasons were given for the reorganization of the Marine Band. These reasons are pertinent in the case of the Military Academy Band, and we therefore produce in this report Bandmaster Sousa's letter :

WASHINGTON, D. C., *December 17, 1890.*

SIR: I have the honor to submit, in conjunction with the draft of a bill for the reorganization of the band of the United States Marine Corps, the following statement explaining the reason why the band should be placed on a proper and equitable basis with other famous bands. The leading government bands of the nations of the Old World, notably the Garde Républicaine, the Prussian Guards, the Seventy-third Austrian, the Russian Mounted Guards, the Grenadier Guards, and others, number from 50 to 90 men each. The Mexican National Band, which made a tour of the United States a few years since, comprises nearly 90 musicians, and I am informed that many of the South American governments have bands consisting of 60 to 80 pieces. Even Japan and Turkey have well-equipped bands, based on modern instrumentation. Many of the orchestral bands of Europe have a membership of at least 100, while Lamoureux, of Paris, numbers 110.

Among the militia bands of our land, Gilmore is allowed by regimental regulations 65 musicians, and many others have from 50 upwards. The large factories of America have bands numbering from 30 to 75 performers. These bands are sustained by hiring musicians to perform some light employment in the factory and allowing them to accept musical engagements whenever offered. Among the well-known organizations of this class may be mentioned the Elgin Watch Company's, the Pullman Car Company's bands. The men constituting the membership in the factory bands are assured a livelihood throughout the year and receive wages largely in excess of that paid by the Government to its musicians. Where formerly we could recruit our members from musical talent of that class, the supply is almost entirely shut off, for of course nearly every man would prefer employment in a factory at \$2, \$3, or \$4 a day with opportunities of following his profession, and thus adding largely to his income, rather than becoming an enlisted man at \$13 to \$38 per month, with few opportunities of adding to his governmental compensation.

Another and much greater competitor in bidding for the musician's services is the theatrical manager. He pays salaries varying from \$15 to \$42 per week to the rank and file of the profession, and with very few exceptions allows his musicians to send substitutes when a more profitable engagement is offered. During the summer months the myriad of watering places create a great demand for the musician's services, and he is in nearly every instance well paid. When it is understood that theatrical musicians are employed but a few hours during the evening, and with the exception of Monday morning and Saturday afternoon have the entire week to pursue their calling elsewhere, it is not to be wondered that we find it difficult to secure and keep suitable material for our organization. Dime museum and variety hall managers here pay their musicians \$15 per week; the Government pays musicians of the same skill about that per month. Grand opera orchestral players receive about \$40 a week; our soloists receive about that sum per month. The theatrical and comic opera managers pay their conductors from \$120 to \$450 a month; the United States pays the bandmaster of the Marine Band \$94 per month, with 13 cents a day added for commutation of rations. The Twenty-second Regiment of New York pays Mr. Gilmore a personal salary of \$2,500 a year, for which in return he gives about two weeks of his time. The Boston Symphony Orchestra pays their conductor a salary of over \$2,000 a month; the proposed reorganization does not ask the Government to pay the bandmaster of the Marine Band that much a year.

The city of New York appropriates \$25,000 every year for open air band concerts during the summer months. In proportion not one-half that amount is asked for our band, virtually the national band, and the band that should be as great among bands as America is great among nations.

I beg to present the commercial side of the question: The present duty on musical merchandise and books, based on the value of imports of former years, amounts to between \$800,000 and \$900,000 a year. Business men assert that it is good policy to spend a dollar to make a dollar, and if our legislators hesitate to spend Government money for music, the art, they should in all fairness spend it for music, the business.

There can be little doubt but that the professional musician creates the demand for musical literature and musical merchandise. Were it not for him the national revenue would lose that amount. As a plain business proposition it is but reasonable to assume that the Government should use a portion of this large sum in further developing the musical culture and musical resources of our land. No better way can be devised than by proper equipment of the musical bodies in its employ, and especially the organization that represents it musically on official occasions. Begging your earnest consideration for this measure, and requesting that you will favorably recommend it to Congress, I am,

Very respectfully,

JOHN PHILIP SOUSA,
Bandmaster United States Marine Corps.

The SECRETARY OF THE NAVY.

GYMNASTIC INSTRUCTION AND EXERCISES.

The calisthenic exercises by the fourth class was an exceedingly interesting and creditable exhibition, in which the entire membership of the class participated. The performances, in addition to contests with foils, broadswords, and bayonets, included all exercises taught in the gymnasium. Considering that the participants had but 9 months of instruction a wonderful degree of efficiency was shown, and in view of the fact that the equipment of the gymnasium at the Academy, both as regards building and paraphernalia, is very limited, special credit is due Mr. Herman Koehler, who has charge of this department. This gentleman is an able and accomplished instructor, and performs an amount of labor that challenges admiration. In addition to his duties in the gymnasium he is master of the sword, and teacher of swimming and dancing, the last being taught the cadets of the first year in order to give grace and ease to their movements. All this labor is performed alone by Mr. Koehler, and the entire fourth class, generally numbering over 100 members, are his pupils. An act should be passed conferring upon Mr. Koehler the assimilated rank of second lieutenant of infantry, and he should be given an assistant. The leading colleges of the country recognize the importance and value of physical training, and many of them have made those in charge of this branch of instruction members of the faculty.

The great efficiency of Mr. Koehler's services is attested by the performances of his pupils, and their value is exhibited by the muscular and well-developed limbs and bodies of the cadets who have been under his instruction for 9 months of the first year at the Academy. The conferring of rank upon this accomplished instructor would be not only a proper recognition of his services, and the means of attaching him permanently to the Academy, but would add to his efficiency, because at a strictly military school like that at West Point, rank and authority

must be synonymous in order to promote and maintain thorough discipline. The academic board is unanimous in the opinion that the instructor in calisthenics and the sword should have the rank of second lieutenant, and recommendations to this effect have been made by the Superintendent and by former Boards of Visitors. We earnestly renew this recommendation. We also join in the recommendation heretofore made that an assistant instructor of gymnastics be provided. These two objects could be accomplished at the coming session of Congress by a paragraph in the Military Academy appropriation bill. The new gymnasium building will be ready for occupation in the spring of 1892, and it is to be hoped that Congress will liberally provide for its proper equipment, and make it what such a department at the United States Military Academy should be.

In the opinion of the Board it is a mistake not to continue the instruction in gymnastics beyond the first year. We realize that this could not heretofore be done to any extent, with the limited resources of the old building devoted to this class of instruction, and with the poverty of equipment which has been heretofore provided. But when the new gymnasium building is completed and thoroughly equipped, we recommend that steps be taken to have this class of instruction continued throughout the 4 years.

PORTRAIT GALLERY IN GRANT HALL.

Several years ago, through the generosity of Mr. George W. Childs, of Philadelphia, who donated oil portraits of Generals Grant, Sherman, and Sheridan, a portrait gallery was started of distinguished graduates of the Academy. The three portraits alluded to were hung in Grant Hall, and formed the nucleus of what has become a very valuable collection of paintings of men who achieved distinction in the military service of the United States. Several portraits which had been previously donated to the Academy, and which were hanging in the Library, were transferred to Grant Hall, and additions have been made from time to time to the collection through the generosity of friends and relatives of distinguished alumni. This collection now numbers seventeen valuable oil portraits, all of which are hanging in the hall in which the cadets daily assemble three times each day for meals. It is to be hoped that this collection will receive other additions, and that before long the portraits of Hancock, Thomas, McPherson, Canby, and other distinguished soldiers will be found on the walls of Grant Hall. Following is a list of the portraits now at the Academy:

(1) Maj. Gen. JOHN F. REYNOLDS.—Presented by the First Corps, Army of the Potomac. Members of the committee on presentation: Gen. R. Coulter, Gen. C. S. Wainwright, Col. Chapman Biddle, and Col. Thomas Hewson Bache. Painted by Alexander Lawrie. Received November, 1878.

(2) Maj. Gen. JOHN SEDGWICK.—Purchased. Painted by H. Balling, 1864. Received February, 1870.

(3) Col. JOHN J. ABERT, Chief of Topographical Engineers.—Presented by ———. Painted by ———. Received ———.

(4) Maj. Gen. JOHN M. SCHOFIELD.—(*Superintendent's Portrait.*) Painted by J. Carroll Beckwith. Received May, 1880.

(5) Gen. ULYSSES S. GRANT.—Received June 1, 1887.

(6) Gen. WILLIAM T. SHERMAN.—Received June, 1889.

(7) Gen. PHILLIP H. SHERIDAN.—Received June, 1889. Presented by George W. Childs, Philadelphia, Pa. Painted by Mrs. L. H. Darragh. Unveiled with appropriate ceremonies, October, 1889.

(8) Maj. Gen. EDWARD O. C. ORD.—Presented by Dr. Ord, of Washington, D. C., to the Alumni Association. Painted by ———. Received March, 1885.

(9) Brig. Gen. WESLEY MERRITT.—(*Superintendent's Portrait.*) Painted by J. Carroll Beckwith, 1887. Received February, 1887.

(10) Capt. BRADFORD R. ALDEN. (*Commandant of Cadets, 1848 to 1852.*) Presented by Mrs. B. R. Alden. Painted by John F. Weir, 1887. Received July 30, 1887.

(11) Bvt. Maj. Gen. GOUVERNEUR K. WARREN.—Presented by Messrs. Joseph Choate, James C. Carter, James J. Higginson, and other gentlemen of New York City, and friends in Newport, R. I., through Mr. Robert Stickney. Painted by Alexander Lawrie. Received December, 1889.

(12) Bvt. Maj. Gen. THOMAS SWORDS (*Colonel and Assistant Quartermaster General*), as he appeared when captain of the First Dragoons.—Presented by Mrs. Thomas Swords (through her sister, Ellen H. Cotheal). Painted by ———. Received August, 1890.

(13) Maj. Gen. GEORGE G. MEADE.—Presented by Henry Carey Baird, of Philadelphia. Painted by T. Henry Smith, 1890. Received May 23, 1891.

(14) BVT. MAJ. GEN. ROBERT O. TYLER, *Lieutenant-Colonel and Deputy Quartermaster-General.*—Presented by his brother, E. S. Tyler, of Hartford, Conn. Painted by W. R. Wheeler, 1875. Received September, 1890.

(15) Col. JAMES GILCHRIST BENTON.—Presented by Mr. William Seward Webb, of New York City. Painted by J. Carroll Beckwith. Received June, 1891.

(16) Maj. Gen. JAMES BREWERTON RICKETTS.—Presented by Benjamin W. Richards, of Philadelphia, Pa. Painted by Robert Hinckley, of Washington, D. C. Received June, 1891.

(17) Maj. Gen. GEORGE B. McCLELLAN.—Presented by General E. Burd Grubb, of New Jersey. Painted by Anthony Lamore. Received June, 1891.

THE GRADUATION EXERCISES.

The graduation exercises were held on the green in front of the chapel on the morning of June 12, in presence of a large audience. Colonel Wilson, the Superintendent of the Academy, presided. Following was the programme of exercises.

1. The graduating class will proceed to the designated place escorted by the Corps of Cadets, under the command of the commandant of cadets.
2. Prayer.
3. Music: U. S. Military Academy band.
4. Address to graduating class: Hon. Julius C. Burrows, M. C., Board of Visitors.
5. Music: U. S. Military Academy band.
6. Delivery of Diplomas: Hon. Redfield Proctor, Secretary of War.
7. Remarks: Rev. Frank O'Brien, Board of Visitors.
8. Music: U. S. Military Academy band.
9. Benediction.

The Board directed that the address of Mr. Burrows to the graduating class should be printed as part of the report. Upon being introduced by Colonel Wilson, Mr. Burrows said:

ADDRESS OF HON. JULIUS C. BURROWS.

Gentlemen of the graduating class of '91: Knowing and appreciating how impatient you are to be released, I shall not long restrain you from the full fruition of your desires. After four years of patient application you have successfully completed the prescribed course of instruction at this National Military Academy, and you are soon to be assigned to duty with the Army of the United States. Thus far the Government has served you; you must now serve the Government.

If you have availed yourselves of the advantages which this institution has afforded for scholastic and soldierly training, you are amply equipped for the service upon which you are about to enter. At this juncture in your career, in this supreme moment of your life, there is a single thought uppermost in my own mind, which I would be glad to so impress upon you as to secure for it a permanent lodgment in your hearts in the hope and belief that it will serve to dignify and exalt the profession you have espoused, and to which you have dedicated your lives.

You will go to your posts of duty in a time of profound peace. The nation is at peace with all the world. There is neither "war nor rumors of war." All causes of internal dissension are forever removed, and fratricidal war will never again distract or divide this happy, reunited people. It is not improbable, therefore, that you may never be called upon to put the knowledge you have here acquired to the practical and crucial test of actual war.

With this prospect before you, the thought I would impress upon you is this: That faithful and efficient service in the Army of the United States in times of peace is as important to the Government and as honorable to the soldier as when rendered in the midst of actual hostilities.

The accomplished Superintendent of this Academy, together with its efficient corps of instructors in military science; you who go to your commands to impart to others something of the military skill and soldierly training which you have here acquired; the lone sentinel who walks his midnight beat, under the silent stars, with no foe to answer his stern challenge; all these render a service to the country of as inestimable value as those who lead armies and fight battles. It has been said that "peace hath her victories no less renowned than war." The triumphs of armies

are not recorded alone on battlefields. Armies win victories in peace as well as in war. The silent majesty of a nation's military and naval power in peace, fully disciplined and equipped, is as potent for the public weal as when marshaled on hostile fields. A nation prepared for war holds the bond of every other nation to keep the peace.

I would have you understand, therefore, that though the Government may never require your services in actual war, yet in making choice of the profession of arms you have identified yourself with an important, and I may say an indispensable, function of civil government. A military power in peace is as essential to government as the legislative, executive, or judicial power. A government without force is as impossible as a government without law. There is no nation on the face of the globe, democratic or despotic, that has not at ready command armies and navies to enforce its sovereign decrees. The presence of such a power is the heart-beat of a nation's life. Disband the armies, dismantle the navies of the nations of the world and governments would perish and civilization decay. If, therefore, in years to come you may sometimes weary of the endless monotony of camp life in peace, these reflections may inspire you to renewed zeal and fresh courage.

But you may say, "Is there nothing before me but this endless routine of camp life and duty? Are there no campaigns to be prosecuted or battles fought except imaginary ones? Are sentinels to be posted, pickets thrown out, skirmishers deployed, lines of battle formed, charges made, sieges prosecuted, pontoons laid, cities bombarded, and fortresses stormed only in mimicry of war?" Possibly that is all, but if all, it is sufficient to fill the measure of a soldier's laudable ambition. It is the disciplined army in peace that makes the invincible army in war.

The purpose of the Government in founding this institution was to give to those who entered it not only an opportunity to acquire such knowledge of military science as might enable them to serve the Government in war, but in peace to impart to the recruited army of the United States something of that discipline and soldierly spirit without which armies are mobs and battles butcheries. Congress has testified its appreciation of the disciplinary service by placing the additional incentive of personal advancement, as a reward for superior attainment, in authorizing the President of the United States to prescribe a system of examination of all officers in the Army below the rank of major to determine their fitness for promotion. If the officer fails in such examination and is reported unfit for promotion, the officer next below him in rank (if passing) shall receive the promotion. The officer failing, if for physical reasons, shall be retired. If for other reasons, he shall be suspended for promotion for the period of one year, at the expiration of which time he shall be reexamined, and if upon such reexamination he shall again be found unfit for promotion, he shall be discharged from the Army of the United States. Heretofore promotions have had to wait on death or resignation; hereafter they will come as a reward for superior attainments. Every consideration therefore of public duty and personal pride conspire to stimulate you to the highest possibilities of your profession.

Go, therefore, gentlemen, to your posts of duty. Take with you the strict discipline, the high sense of honor, the soldierly bearing, and the love of country which this institution has sought to inculcate, and not only treasure them as the priceless jewels of a soldier's life, but by precept and example inspire their acquisition in others. And above all else venerate the flag of your country as you do the altar of your religion. It is a memory and a hope. Morning and evening salute it, and as the rising and setting sun lights up its glories, with uncovered head swear renewed and eternal allegiance to this symbol of a nation's sovereignty. Senator Manderson, as I rose to address you, related an incident which once came under his observation. Seated in a great assemblage, the band struck up "God save the Queen," and instantly every Englishman present sprang to his feet and reverently stood during the rendition of this national invocation. Let us imitate that spirit, and not only salute the flag, but

when the music of our national airs falls upon the ear, let every soldier and citizen rise in patriotic recognition of its inspiring strains.

Go then to your posts of duty, and, though peace smiles continually upon the land, serve the country with the same fidelity as if involved in war. And though your names may never be sounded in the trumpet of fame, chiseled in marble, or cut in brass, yet you will have the consolation of knowing that you have desolated no homes, made no graves, and broken no human hearts; and your enduring monument will be blossoming fields, happy homes, and the plaudits of a free people reposing in security and peace behind the bulwark of a disciplined, patriotic, and invincible Army.

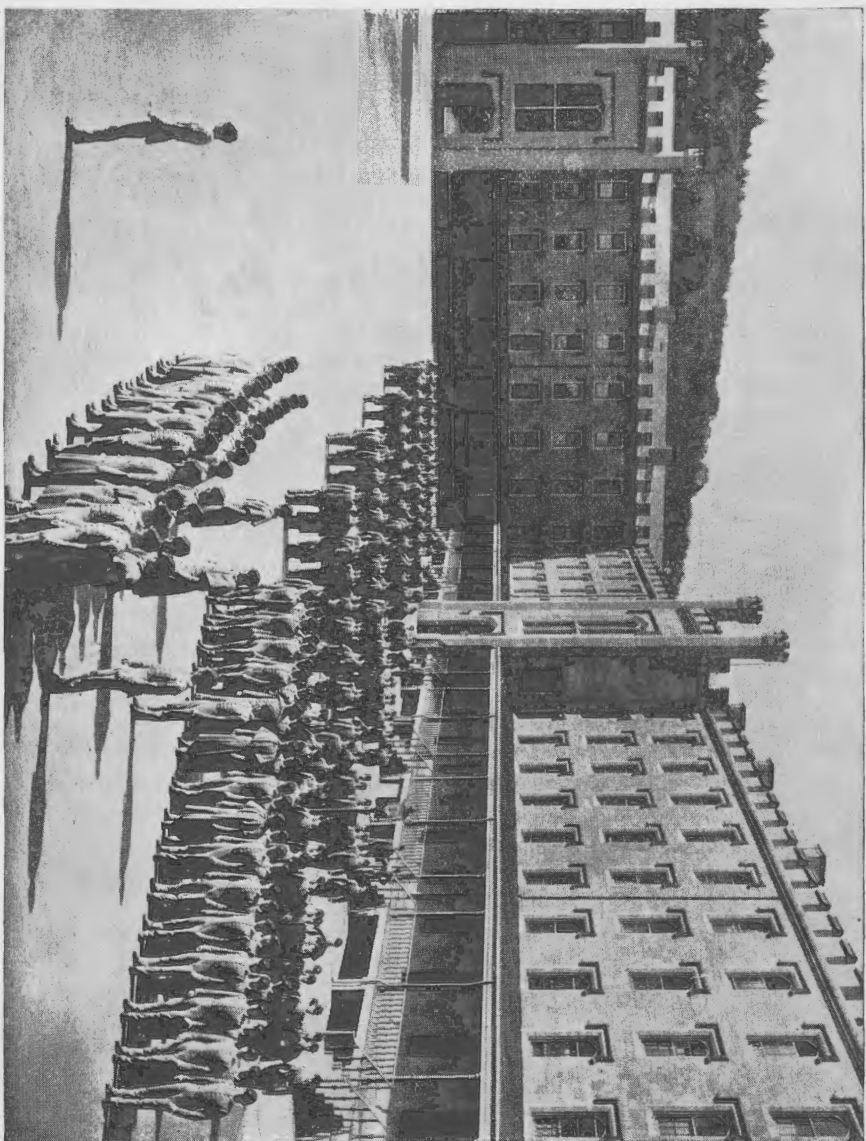
ADDRESS BY HON. REDFIELD PROCTOR, SECRETARY OF WAR.

Upon the conclusion of Mr. Burrows's address and the performance of an appropriate air by the Military Academy Band each member of the graduating class was called to the platform by the Superintendent and handed his diploma by the Secretary of War. The diplomas having been distributed, the Secretary addressed the assembly as follows:

Colonel Wilson, cadets, ladies, and gentlemen: I am sure one thought occurs to all of us to-day. We miss a familiar face and voice from this platform, the face and voice of one we all respected, admired, and loved. It rarely falls to the lot of any man to fill so large a space in the minds and hearts of his countrymen as did General Sherman. And I could not by any elaborate speech say anything better to you young soldiers than simply to commend the life of this great soldier and citizen as one in every way worthy of study and imitation. His career as a soldier is too familiar to you all for any review, but in our admiration of his great soldierly qualities we may lose sight of another side of his character. It may fairly be said of him that he was a great statesman and politician, in the best sense of the term, and in support of this statement I need only refer to the masterly manner in which he handled the many questions which came before him, more or less relating to statecraft and politics, and often requiring immediate action.

The soldier is freed by the character and conditions of the service from most of the ordinary political obligations of free men. But you are nevertheless citizens and sovereigns of a free country as well as soldiers. You are not free. No man is free from the duty of studying and understanding the political system under which he lives. Every man may have fixed political ideas and principles and be ready to act upon them when occasion demands. He is as much bound to understand and do his duty in political affairs as he is to deal honestly by his neighbor or perform any of the obligations of good citizenship.

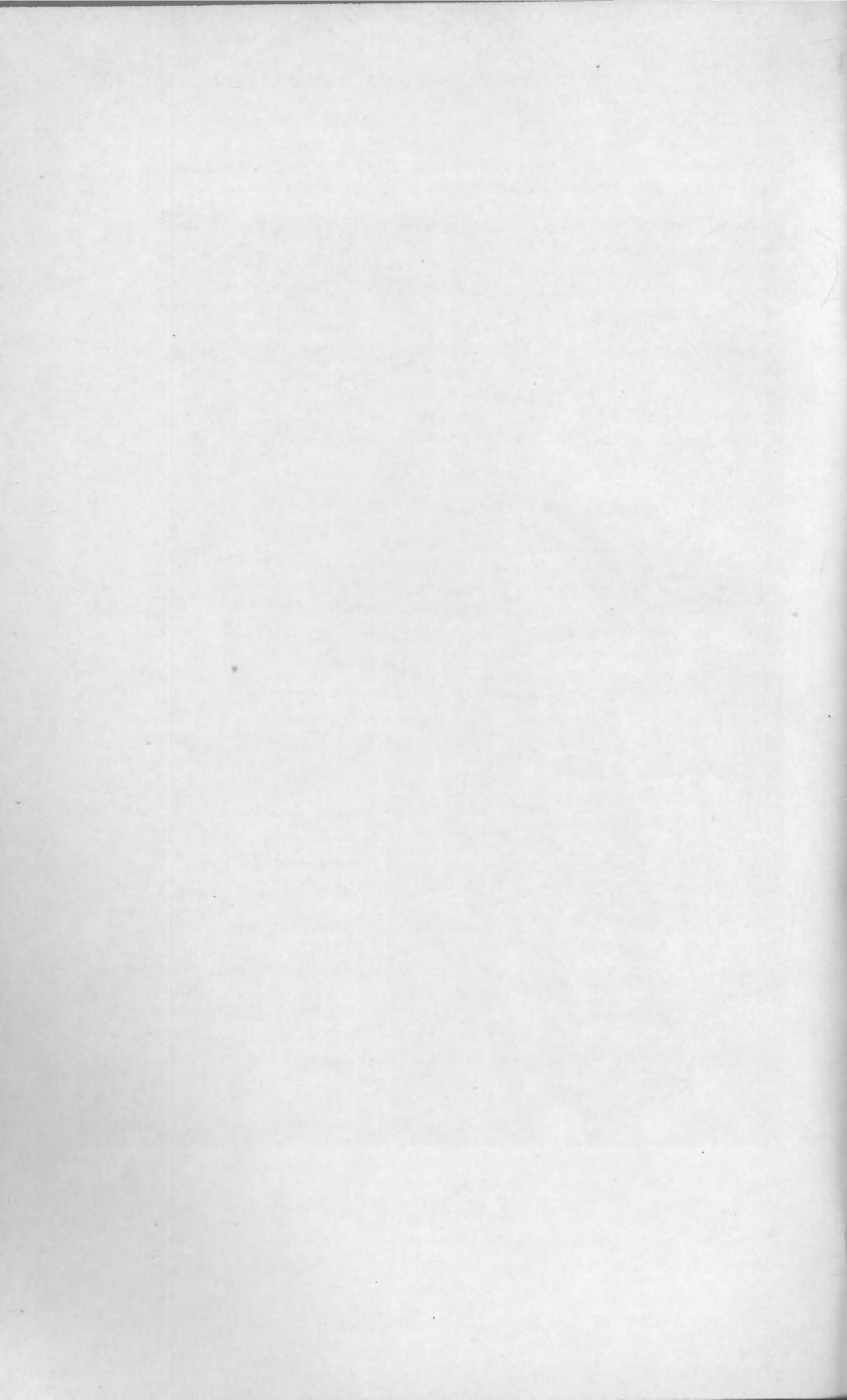
General Sherman's political platform was short, a model in that respect, and I know it will commend itself to you and trust it will henceforth to all within our borders. He stated these principles many times, notably when he left the school in Louisiana, in January, 1861, in a letter to Governor Moore, of that State, in which he said: "On no earthly account will I do any act or think any thought hostile to or in defiance of the whole Government of the United States. I prefer to maintain my allegiance to the Constitution as long as a fragment of it survives." He set another good example to the politicians, for he always lived up to his platform. He kept in mind the safe general rule that the National Government has, and must have, all the powers necessary for its preservation, the maintenance of its authority, and the honor of its flag. I know that this emblem, so faithfully and ably guarded by him, is safe in your hands.



Copyright.

CADETS MARCHING TO DINNER.

Stoddard, Glens Falls, N. Y.



ADDRESS OF REV. FRANK A. O'BRIEN.

The Rev. Frank A. O'Brien followed Secretary Proctor, making a short address to the graduating class, concluding his remarks by saying:

We are standing and will stand before the world as we make ourselves with the use of God's gifts. It is enough to have done our duty whether it brings cross or crown. Be bold and confident. Work for the cause of truth, of justice, and for that great gift of freedom. We need our best men in the thickest of the fight. Honesty, intelligence, and independence in public life will be the glory of the longest day. Intrigue, deceit, and treachery may rule the shorter hours; but its sundown is darkness. Let your motto be the watchword of our country—"In God we trust." In the words of Mother Church let me conclude by saying: "Gallant Knight, receive your honors. Go forth to battle. May you always know the just cause, have courage to espouse it, and strength of arm and tongue and pen to ever lead it to victory."

MEMBERS OF THE CLASS OF 1891.

Following is the list of the graduating class:

Order of gen- eral merit.	Name.	Where born.	Ap- pointed from.	Order of gen- eral merit.	Name.	Where born.	Ap- pointed from.
*1	Crosby, Spencer.....	Md.....	At large.	34	Hirsch, Harry J.....	Pa.....	Pa.
*2	Sowell, John S.....	Tenn.....	Ky.	35	Hine, Charles De L.....	Va.....	Va.
*3	Echols, Charles P.....	Ala.....	Ala.	36	Frazier, Joseph.....	Mo.....	Mo.
*4	McIndoe, James F.....	Md.....	Md.	37	Hamilton, Robert L.....	W. Va.....	W. Va.
*5	McIndoe, Jay J.....	W. Va.....	Pa.	38	Upton, LaRoy S.....	Mich.....	Mich.
6	Horney, Odus C.....	Ill.....	Ohio.	39	Smith, Harry A.....	Kans.....	Kans.
7	Lyon, LeRoy S.....	Va.....	Va.	40	Clark, Hollis C.....	Ill.....	N. Y.
8	Horo, Andrew, Jr.....	La.....	La.	41	Saffarrans, George C.....	Tenn.....	Ky.
9	Horn, Tiemann N.....	N. Y.....	N. J.	42	Pierce, Palmer E.....	Ill.....	Iowa.
10	Anderson, Edward D.....	Tenn.....	Tenn.	43	Wahl, Lutz.....	Wis.....	Wis.
11	Murphy, Truman O.....	Ohio.....	Ohio.	44	Jackson, William P.....	Mo.....	Mo.
12	White, George P.....	Iowa.....	Iowa.	45	Donworth, Albert B.....	Me.....	Me.
13	Fuller, Lawson M.....	Wis.....	Wis.	46	Ogden, Charles C.....	Ind.....	Ill.
14	Scherer, Louis C.....	Minn.....	Minn.	47	Voorhies, Gordon.....	Ky.....	Ky.
15	Furlong, John W.....	N. J.....	Pa.	48	Hines, John L.....	W. Va.....	W. Va.
16	Livermore, Richard L.....	N. Y.....	N. J.	49	Smith, Guy H. B.....	Mich.....	Md.
17	Corcoran, Thomas M.....	Mass.....	Mass.	50	Whitman, Walter M.....	N. Y.....	N. Y.
18	Fleming, Robert J.....	Ireland.....	Mich.	51	Crowley, Matthias.....	Ireland.....	N. Y.
19	Winans, Edwin B., Jr.....	Mich.....	Mo.	52	LaFitte, Jacques de L.....	La.....	La.
20	Johnston, William F.....	Pa.....	Pa.	53	Bradley, John J.....	Ill.....	Ill.
21	Osborne, William H.....	Pa.....	Pa.	54	Settle, Douglas.....	N. C.....	N. C.
22	Schoeffel, Francis H.....	N. Y.....	N. Y.	55	Switzer, John S.....	Pa.....	Pa.
23	Howard, Harold P.....	Minn.....	Minn.	56	Williams, Herbert O.....	Miss.....	Miss.
24	Bertsch, William H.....	Mich.....	Mich.	57	Guyer, George D.....	N. Y.....	N. Y.
25	Bush, Ross L.....	Ill.....	Ill.	58	Grote, William F.....	Ill.....	Ill.
26	Donovan, Joseph L.....	Ky.....	Ky.	59	Chapman, William H. H.....	Wis.....	Wis.
27	Lindsley, Elmer.....	N. Y.....	N. Y.	60	Royden, Herbert N.....	Conn.....	Conn.
28	Bennet, John B.....	N. J.....	Colo.	61	Jenks, Isaac C.....	Mass.....	Mass.
29	Crabbs, Joseph T.....	Ind.....	Ill.	62	Drew, Alfred W.....	Tex.....	Tex.
30	Glasgow, William J.....	Mo.....	Mo.	63	Ely, Hanson E.....	Iowa.....	Iowa.
31	Armstrong, Frank S.....	Ind.....	Ind.	64	Sorley, Lewis S.....	England.....	Tex.
32	Jarvis, McVilleville S.....	W. Va.....	W. Va.	65	Cordray, David P.....	Ohio.....	Ohio.
33	Heavey, John W.....	Ill.....	Ill.				

APPOINTMENT AND ADMISSION OF CADETS.

The following is a copy of the circular issued by the War Department, furnishing all necessary information relative to the appointment and admission of cadets to the U. S. Military Academy.

APPOINTMENTS.

How made.—Each Congressional district and Territory—also the District of Columbia—is entitled to have one cadet at the Academy. Ten are also appointed *at large*. The appointments (except those *at large*) are made by the Secretary of War at the request of the Representative or Delegate in Congress from the district or Territory; and the person appointed must be an actual resident of the district or Territory from which the appointment is made. The appointments *at large* are especially conferred by the President of the United States.

Manner of making applications.—Applications can be made at any time, by letter to the Secretary of War, to have the name of the applicant placed upon the register, that it may be furnished to the proper Representative or Delegate when a vacancy occurs. The application must exhibit the full name, date of birth, and permanent abode of the applicant, with the number of the Congressional district in which his residence is situated.

Date of appointments.—Appointments are required by law to be made one year in advance of the date of admission, except in cases where, by reason of death or other cause, a vacancy occurs which can not be provided for by such appointment in advance. These vacancies are filled in time for the next annual examination.

Alternates.—The Representative or Delegate in Congress may nominate a legally qualified second candidate, to be designated the *alternate*. The alternate will receive from the War Department a letter of appointment, and will be examined *with the regular appointee*, and if fully qualified will be admitted to the Academy in the event of the failure of the principal to pass the prescribed preliminary examinations. The alternate will not be allowed to defer his reporting at West Point until the result of the examination of the regular appointee is known, but must report at the time designated in his letter of appointment. The alternate, like the nominee, should be designated as nearly one year in advance of date of admission as possible.

ADMISSION OF CADETS.

A candidate, upon receiving his conditional appointment, is ordered to report at West Point to the Superintendent of the Military Academy in time to appear before the Academic Board for examination at its meeting early in June, unless there be good reasons for designating another time.

The candidate, soon after his arrival at West Point, is subjected to a rigid physical examination by a board of experienced surgeons of the Army. If he passes successfully this examination, he is then examined by the Academic Board. These examinations are made with as little delay as practicable after the candidate reports to the Superintendent.

The candidate who passes successfully these examinations is admitted at once to the Academy without returning to his home. Immediately after his admission, and before receiving his warrant of appointment, he is required to sign an engagement for service in the following form, in the presence of the Superintendent or of some officer deputed by him:

I, ———, of the State (or Territory) of ———, aged ——— years ——— months, do hereby engage (with the consent of my parent or guardian) that, from the date of my admission as a cadet of the United States Military Academy, I will serve in the Army of the United States for eight years, unless sooner discharged by competent authority.

In the presence of—
—————.

The candidate is then required to take and subscribe an oath or affirmation in the following form:

“I, ———, do solemnly swear that I will support the Constitution of the United States, and bear true allegiance to the National Government; that I will

maintain and defend the sovereignty of the United States, paramount to any and all allegiance, sovereignty, or fealty I may owe to any State or country whatsoever; and that I will at all times obey the legal orders of my superior officers, and the rules and articles governing the armies of the United States.

Sworn and subscribed, at ———, this ——— day of ———, eighteen hundred and ———, before me.

Qualifications.—The age for the admission of cadets to the Academy is between seventeen and twenty-two years. Candidates must be unmarried, at least five feet in height, free from any infectious or immoral disorder, and, generally, from any deformity, disease, or infirmity which may render them unfit for military service. They must be well versed in reading, in writing, including orthography, in arithmetic, and have a knowledge of the elements of English grammar, of descriptive geography (particularly of our own country), and of the history of the United States.

CHARACTER OF EXAMINATIONS.*

* It is suggested to all candidates for admission to the Military Academy that, before leaving their place of residence for West Point, they should cause themselves to be thoroughly examined by a competent physician, and by a teacher or instructor in good standing. By such an examination any *serious* physical disqualification or deficiency in mental preparation would be revealed, and the candidate probably spared the expense and trouble of a useless journey and the mortification of rejection.

It should be understood that the informal examination herein recommended is solely for the convenience and benefit of the candidate himself, and can in no manner affect the decision of the Academic and Medical Examining Boards at West Point.

PHYSICAL EXAMINATION.

Every candidate is subject to a rigid physical examination, and if there is found to exist in him any of the following causes of disqualification to such a degree as would immediately, or at no very distant period, impair his efficiency, he is rejected:

1. Feeble constitution and muscular tenuity; unsound health from whatever cause; indications of former disease; glandular swellings or other symptoms of scrofula.
2. Chronic cutaneous affections, especially of the scalp.
3. Severe injuries of the bones of the head; convulsions.
4. Impaired vision, from whatever cause; inflammatory affections of the eyelids; immobility or irregularity of the iris; fistula lachrymalis, etc., etc.
5. Deafness; copious discharge from the ears.
6. Loss of many teeth, or the teeth generally unsound.
7. Impediment of speech.
8. Want of due capacity of the chest, and any other indication of a liability to a pulmonic disease.
9. Impaired or inadequate efficiency of one or both of the superior extremities on account of fractures, especially of the clavicle, contraction of a joint, extenuation, deformity, &c.
10. An unusual excurvature or incurvature of the spine.
11. Hernia.
12. A varicose state of the veins of the scrotum or spermatic cord (when large), sarcocele, hydrocele, hemorrhoids, fistulas.
13. Impaired, or inadequate efficiency of one or both of the inferior extremities on account of varicose veins, fractures, malformation (flat feet, etc.), lameness, contraction, unequal length, bunions, overlying or supernumerary toes, etc., etc.
14. Ulcers, or unsound cicatrices of ulcers likely to break out afresh.

* NOTE.—There being no provision whatever for the payment of the traveling expenses of either accepted or rejected candidates for admission, no candidate should fail to provide himself in advance with the means of returning to his home, in case of his rejection before either of the examining boards, as he may otherwise be put to considerable trouble, inconvenience, and even suffering on account of his destitute condition. If admitted, the money brought by him to meet such a contingency can be deposited with the treasurer on account of his equipment as a cadet, or returned to his friends.

ACADEMICAL EXAMINATION.

Reading.—In reading, candidates must be able to read understandingly, with proper accent and emphasis.

Writing and Orthography.—In writing and orthography they must be able, from dictation, to write sentences from standard pieces of English literature, both prose and poetry, sufficient in number to test their qualifications, both in handwriting and orthography.

Arithmetic.—In arithmetic they must be able—

(1) To explain, accurately and clearly, its objects and the manner of writing and reading numbers—entire, fractional, compound, or denominate;

(2) To perform, with facility and accuracy, the various operations of addition, subtraction, multiplication, and division of whole numbers, abstract and compound or denominate, giving the rule for each operation, with its reasons, and also for the different methods of proving the accuracy of the work;

(3) To explain the meaning of reduction—its different kinds, its application to denominate numbers in reducing them from a higher to a lower denomination and the reverse, and to equivalent decimals; to give the rule for each case, with its reasons, and to apply readily these rules to practical examples of each kind;

(4) To explain the nature of prime numbers, and factors of a number—of a common divisor of two or more numbers, particularly of their greatest common divisor—with its use, and to give the rule, with its reasons, for obtaining it; also the meaning of a common multiple of several numbers, particularly of their least common multiple and its use, and to give the rule, with its reasons, for obtaining it, and to apply each of these rules to examples;

(5) To explain the nature of fractions, common or vulgar, and decimal—to define the various kinds of fractions, with the distinguishing properties of each—to give all the rules for their reduction, particularly from mixed to improper and the reverse—from compound or complex to simple—to their lowest terms—to a common denominator—from common to decimal and the reverse; for their addition, subtraction, multiplication, and division, with the reasons for each change of rule, and to apply each rule to examples;

(6) To define the terms ratio and proportion—to give the properties of proportion and the rules, and their reasons, for stating and solving questions in both simple and compound proportion, or single and double rule of three, and to apply these rules to examples;

(7) The candidates must not only know the principles and rules referred to above, but they are required to possess such a thorough understanding of all the fundamental operations of arithmetic as will enable them to combine the various principles in the solution of any complex problem which can be solved by the methods of arithmetic. In other words, they must possess such a complete knowledge of arithmetic as will enable them to take up at once the higher branches of mathematics without further study of arithmetic;

(8) It is to be understood that the examination in these branches may be either written or oral, or partly written and partly oral—that the definitions and rules must be given fully and accurately, and that the work of all examples, whether upon the blackboard, slate, or paper, must be written plainly and in full, and in such a manner as to show clearly the mode of solution.

Grammar.—In English grammar candidates must be able—

(1) To define the parts of speech and give their classes and properties; to give inflections, including declension, conjugation, and comparison; to give the corresponding masculine and feminine gender nouns; to give and apply the ordinary rules of syntax.

(2) To parse fully and correctly any ordinary sentence, omitting rules, declensions, comparisons, and principal parts, but giving the subject of each verb, the governing word of each objective case, the word for which each pronoun stands or to which it

refers, the words between which each preposition shows the relation, precisely what each conjunction connects, what each adjective and adverb qualifies or limits, the construction of each infinitive, and, generally, showing a good knowledge of the function of each word in the sentence. Omissions will be taken to indicate ignorance.

(3) To correct in sentences or extracts any ordinary grammatical errors, such as are mentioned and explained in ordinary grammars.

It is not required that any particular grammarian or text-book shall be followed; but rules, definitions, parsing, and corrections must be in accordance with good usage and common sense. The examination may be written or oral, or both written and oral.

Geography.—Candidates will be required to pass a satisfactory examination, written or oral, or both, in geography, particularly of our own country. To give a candidate a clear idea of what is required, the following synopsis is added to show the character and extent of the examination. Questions are likely to be asked involving knowledge of—

(1) Definitions of the geographical circles, of latitude and longitude, of zones, and of all the natural divisions of the earth's surface, as islands, seas, capes, etc.

(2) The continental areas and grand divisions of the water of the earth's surface.

(3) The grand divisions of the land—the large bodies of water which in part or wholly surround them:

Their principal mountains, location, direction, and extent; the capes, from what parts they project and into what waters.

Their principal peninsulas, location, and by what waters are they embraced.

The parts connected by an isthmus, if any.

Their principal islands, location, and surrounding waters.

The seas, gulfs, and bays, the coasts they indent, and the waters to which they are subordinate.

The straits, the lands they separate and the waters they connect.

Their principal rivers, their sources, directions of flow, and the waters into which they empty.

Their principal lakes, location, and extent.

(4) The political divisions of the grand divisions:

Their names, locations, boundaries, and capitals; general questions of the same character as indicated in the second section made applicable to each of the countries of each of the grand divisions.

(5) The United States.

The candidate should be thoroughly informed as to its general features, configuration, location, and boundaries (both with respect to neighboring countries, and latitude and longitude); its adjacent oceans, seas, bays, gulfs, sounds, straits, and islands; its mountain ranges, their location and extent; the sources, directions, and terminations of the important rivers and their principal tributaries; the lakes; and in short, every geographical feature of the country as indicated above. The location and termination of important railroad lines and other means of communication from one part of the country to another should not be omitted.

The States and Territories are to be accurately located with respect to each other by their boundaries, and as to their order along the Atlantic coast, the Gulf of Mexico, the Pacific coast, the Northern frontier, the Mexican frontier, and the Mississippi, Missouri, and Ohio Rivers.

The boundary and other large rivers of each State as well as all other prominent geographical features should be known.

The names and locations of their capitals, and other important cities and towns are likewise to be known.

In short, the knowledge should be so complete that a clear mental picture of the whole or any part of the United States is impressed on the mind of the candidate. More weight is attached to a knowledge of the geography of the United States than that of all other countries combined.

History.—The candidate should make himself familiar with so much of the History of the United States as is contained in the ordinary school histories. The examination may be written or oral, or partly written and partly oral, and will usually consist of a series of questions similar to the following:

I. Name the earliest European settlements within the present limits of the United States—when, where, and by whom made? When did the settlements made by other nations than the English come under the Dominion of Great Britain, and of the United States?

II. What was the difference between the royal, the chartered, and the proprietary colonies? How many colonies were there originally in Massachusetts and Connecticut? When were they united? How many in Pennsylvania? When were they separated?

III. In what wars were the colonies engaged before the Revolution? What were the principal events and results of those of King William, Queen Anne, King George, and the French and Indians?

IV. What were the remote and the immediate causes of the American Revolution? Explain the navigation act, the stamp act, writs of assistance. When did the war of the revolution properly begin? When, where, and how did it end? Give the particulars of Arnold's treason. Who were the most prominent generals in this war? Name the most important battles, and their results.

V. The Constitution of the United States—why and when was it formed? When was it adopted?

VI. Give the names of the Presidents of the United States in their order. Give the leading events of the administration of each one; for example, that of—

WASHINGTON.—Indian war; trouble with France; Jay's treaty; the whisky rebellion, etc.

JEFFERSON.—War with Tripoli; purchase of Louisiana; the embargo, etc.

MADISON.—War of 1812; its causes, the principal battles on land and sea, peculiarity of its last battle, when ended, etc.

MONROE.—Indian war; cession of Florida; Missouri compromise, etc.

JACKSON.—Black Hawk and Seminole wars; the United States Bank; nullification, etc.

POLK.—The Mexican war; its causes, principal battles, result of it, etc.

PIERCE.—Repeal of Missouri compromise; troubles in Kansas, etc.

BUCHANAN.—Civil war; how begun, etc.

LINCOLN.—War of secession; its causes; its results, social and political; explain doctrine of State sovereignty; alienation between Northern and Southern States; doctrine of secession; give an account of principal battles.

JOHNSON.—Fourteenth amendment; tenure-of-office bill; Johnson's impeachment.

GRANT.—Fifteenth amendment; Alabama claims and treaty of Washington; electoral commission.

ACADEMIC DUTIES.

The academic duties and exercises commence on the 1st of September and continue until the 1st of June. Examinations of the several classes are held in January and June, and, at the former, such of the new cadets as are found proficient in studies and have been correct in conduct are given the particular standing in their class to which their merits entitle them. After each examination cadets found deficient in conduct or studies are discharged from the Academy, unless the Academic Board for special reasons in each case should otherwise recommend. Similar examinations are held every January and June during the 4 years comprising the course of studies.

These examinations are very thorough and require from the cadet a close and persevering attention to study, without evasion or slighting of any part of the course, as no relaxations of any kind can be made by the examiners.

Military instruction.—From the termination of the examination in June to the end of August the cadets live in camp, engaged only in military duties and exercises and receiving practical military instruction.

Except in extreme cases, cadets are allowed but one leave of absence during the 4 years' course; as a rule the leave is granted at the end of the first 2 years' course of study.

PAY OF CADETS.

The pay of a cadet is \$540 per year, to commence with his admission to the Academy, and is sufficient, with proper economy, for his support. No cadet is permitted to receive money or any other supplies from his parents or from any person whomsoever without the sanction of the Superintendent.

Cadets are required to wear the prescribed uniform. All articles of their clothing are of a uniform pattern and are sold to cadets at West Point at regulated prices.

EXPENSES OF CADETS PRIOR TO ADMISSION.

The expenses of a candidate for board, washing, lights, etc., after he has reported and prior to admission will be about \$10. Immediately after being admitted to the institution he must be provided with an outfit of uniform, the cost of which will be about \$90, making a total sum of \$100, which must be deposited with the treasurer of the Academy before the candidate is admitted. It is best for a candidate to take with him no more money than will defray his traveling expenses and for the parent or guardian to send to "The Treasurer, U. S. Military Academy," the required deposit of \$100. Any deviation from the rule as to the amount or manner of making the deposit must be explained in writing by the parent or guardian of the candidate to the Superintendent of the Academy.

ASSIGNMENT TO CORPS AFTER GRADUATION.

When any cadet of the United States Military Academy has gone through all its classes and received a regular diploma from the academic staff, he may be promoted and commissioned as a second lieutenant in any arm or corps of the Army in which there may be a vacancy and the duties of which he may have been judged competent to perform; and in case there shall not at the time be a vacancy in such arm or corps, he may, at the discretion of the President, be promoted and commissioned in it as an additional second lieutenant, with the usual pay and allowances of a second lieutenant, until a vacancy shall happen.

GENERAL QUALIFICATIONS.

A sound body and constitution, suitable preparation, good natural capacity, and aptitude for study, industrious habits, perseverance, an obedient and orderly disposition, and a correct moral deportment are such essential qualifications that candidates knowingly deficient in any of these respects should not, as many do, subject themselves and their friends to the chances of future mortification and disappointment by accepting appointments at the Academy and entering upon a career which they can not successfully pursue.

Course of study and books used.

[Books marked thus * are for reference.]

FIRST YEAR—FOURTH CLASS.

Department.	Course of study, text-books, and books of reference.
Mathematics	Davies's Elements of Algebra, Davies's Legendre's Geometry, Ludlow's Elements of Trigonometry, Davies's Surveying, Church's Analytical Geometry.
Modern languages.....	Keetels's Analytical and Practical French Grammar, Keetels's Analytical French Reader, *Spiers and Surenne's Dictionary, Whitney's Essentials of English Grammar, Hart's Manual of Rhetoric and Composition, Abbott and Seeley's English Lessons for English People, Abbott's How to Write Clearly, *Webster's Dictionary.
History, geography, and ethics....	Lectures in ethics and in universal history.
Tactics of artillery and infantry...	Practical instruction in the schools of the soldier, company, and battalion, *Blunt's Rifle and Carbine Firing, practical instruction in artillery.
Use of the sword, etc.....	Instruction in fencing and bayonet exercise and military gymnastics.

SECOND YEAR.—THIRD CLASS.

Mathematics	Church's Analytical Geometry. Church's Descriptive Geometry, with its application to Spherical Projections. Bass' Introduction to the Differential Calculus. Church's Calculus. Church's Shades, Shadows, and Perspective. Chauvenet's Treatise on the Method of Least Squares.
Modern languages.....	Keetels' Analytical and Practical French Grammar. Borel's Grammaire Française. Böcher's College Series of French Plays. Roemer's Cours de Lecture et de Traduction, Vols. I and II. *Spiers' and Surenne's Dictionary.
Drawing.....	Topography and plotting of Surveys with lead-pencil, pen and ink, and colors; construction of the various problems in Descriptive Geometry, Shades and Shadows, and Linear perspective and Isometric projections; practical surveying in the field. *Reed's Topographical Drawing and Sketching, including Photography applied to Surveying.
Tactics of artillery, infantry, and cavalry.	Practical Instruction in the Schools of the Soldier, Company, and Battalion. *Blunt's Rifle and Carbine Firing. Practical Instruction in Artillery and Cavalry.

THIRD YEAR.—SECOND CLASS.

Natural and experimental philosophy.	Michie's Mechanics, 3d Edition. Bartlett's Astronomy. Young's General Astronomy. Michie's Elements of Wave-Motion relating to Sound and Light.
Chemistry, mineralogy, and geology.	Bloxam's Chemistry, 6th Edition. Tillman's Elementary Lessons in Heat (revised edition). Tillman's Essential Principles of Chemistry. Brown's Electric Physiology. Thompson's Elementary Lessons in Electricity and Magnetism. Dana's Manual of Mineralogy and Petrography, 5th edition. Le Conte's Elements of Geology.
Drawing	Free Hand Drawing and Landscape in black and white. Constructive and Architectural Drawing in ink and colors. *Reed's Topographical Drawing and Sketching.

Course of study and books used—Continued.

[Books marked thus * are for reference.]

THIRD YEAR.—SECOND CLASS—Continued.

Department.	Course of study, text-books, and books of reference.
Tactics of artillery, infantry, and cavalry.	United States Army Artillery Tactics. Tidball's Manual of Heavy Artillery Service, U. S. A. United States Army Cavalry Tactics. Upton's United States Army Infantry Tactics. Practical Instruction in the Schools of the Soldier, Company, and Battalion. Practical Instruction in Artillery and Cavalry.
Practical military engineering.....	Practical and Theoretical Instruction in Military Signaling.

FOURTH YEAR.—FIRST CLASS.

Civil and military engineering and science of war.	Wheeler's Civil Engineering. Wheeler's Field Fortifications. Mercur's Mahan's Permanent Fortification, Ed. of 1887. Wheeler's Military Engineering (Siege Operations, and Military Mining). Mercur's Elements of the Art of War. Mahan's Stereotomy. *Royal Engineers, Aide-Mémoire, Parts I and II.
Modern languages	Knapp's Spanish Grammar; Knapp's Spanish Readings. *Seoane's Neuman and Barretti's Dictionary.
Law.....	Woolsey's International Law. Cooley's General Principles of Constitutional Law in the United States. Winthrop's Abridgment of Military Law. General Orders No. 100, A. G. O., 1863.
History, geography, and ethics. ...	Swinton's Outlines of the World's History. Labberton's New Historical Atlas and General History.
Practical military engineering	Practical Instruction in the construction of Ponton and Spar Bridges; in the preparation of Siege Materials; and in laying out field and siege works. Practical Instruction in Astronomy, in Surveying, in Military Reconnaissances, in Field Telegraphy, and Night Signalling. *Ernst's Manual of Practical Military Engineering.
Tactics of artillery, infantry, and cavalry.	Practical Instruction in the Schools of the Soldier, Company, and Battalion. Practical Instruction in Artillery and Cavalry.
Ordnance and gunnery.....	Metcalfe's Ordnance and Gunnery. Practical Pyrotechnics. Practical Ballistics.

PRELIMINARY EXAMINATIONS.

The following letter was received from the adjutant of the Military Academy, forwarding a list of questions used at the June examinations:

HEADQUARTERS U. S. MILITARY ACADEMY,

West Point, N. Y., September 15, 1891.

SIR: In accordance with your request of recent date, and with the authority of the Superintendent, I have the honor to forward herewith copies of the lists of questions used at the examination of candidates for admission to the Military Academy in June last.

The lists comprise questions in history of the United States; in the fundamental principles of arithmetic, and especially their application to practical problems; in the rules and principles of English grammar; in geography, particularly that of the United States; in orthography, which also indicates the candidates' ability in writing.

The examination in reading is conducted orally before the entire board, and consists in testing the candidates' ability to read correctly a paragraph or more from some standard school reader, such as "Sergeant's Standard Reader."

A perusal of the lists will show that the examinations, though not very advanced, are thorough, and require from the candidates an intimate acquaintance with the branches indicated.

All lists of examination questions are submitted to the academic board for its examination and approval before being used in the examination of candidates.

Very respectfully,

Maj. JOHN M. CARSON,

Secretary of Board of Visitors U. S. Military Academy,

Washington, D. C.

J. M. CARSON, Jr.,

Second Lieutenant, Fifth Cavalry, Adjutant.

EXAMINATION IN ENGLISH GRAMMAR.

Time allotted, 2½ hours.

DIVISION I.

[N. B.—Write the answers below, numbering them to correspond with the questions.]

1. Name all the *parts of speech*. Which of them are *declined*? Which of them is *conjugated*? Which of them are *not inflected*?
2. What is a *noun*? Name the *kinds* of nouns. How is the *plural* of nouns regularly formed? Write the plural of each of the following nouns: *scarf, wharf, hoof, beauty, mouse, potato, mussulman, story, attorney, brother-in-law, spoonful, Miss Smith, ox, fox.*
3. The three principal parts of the verb *see* are *see, saw, seen*; give the principal parts of the verbs *bid, break, fly, fall, loose, ride, mean, wear, win, shrink, set, steal, lay, freeze, sing.*
4. What is an *adverb*? What is a *conjunction*? What is a *preposition*? What is a *personal pronoun*? Give an example of each properly used in a sentence.

DIVISION II.

N. B.—Write quite across both pages if necessary. Intelligible abbreviations are allowed. In parsing give no rules, declensions, comparisons, or principal parts; but in other respects parse fully, being careful to give the subject of each verb, the governing word of each objective case, and to state precisely what each conjunction connects, between what words each preposition shows the relation, and to what each pronoun refers. Important omissions will be taken to indicate ignorance.

Parse the words in *italics* in the following sentence: *This nursery legend is the child's version of those superstitions which would have strangled in their cradles the young sciences now adolescent and able to take care of themselves, and which, having been driven from their nursery, are watching with hostile aspect the rapid growth of the comparatively new science of man.*

DIVISION III.

Correct all the errors that occur in the following sentences:

1. Those sort of books were a valuable present.
2. His wisdom, and not his money, produce esteem.
3. Each have their own faults.
4. Who doubts but what two and two are four?
5. He has not, I do not suppose, laid by much.
6. This result, of all others, is most to be dreaded.
7. I have and ever shall insist on the necessity of economy.
8. The number of inhabitants were not more than four millions.
9. Such expressions always sound harshly.
10. To this cause, no doubt, is due most of the failures.
11. I gave it to a man whom I thought was the proprietor.
12. Who do you take me to be?
13. One after another arose and expressed their approval.

14. The oldest of the two is about as tall as me.
15. I found it harder than I thought it would have been.
16. He has formerly been a resident of this town.
17. If you would take the trouble to look, you will see it.
18. If I was him, I would be ashamed to go there again.
19. I dare say he is as old if not older than you.
20. I could do it easy enough if every one paid their share.
21. Was it him that argued that the earth was flat?
22. I don't know as the exact cost is known yet.
23. Is there any prospect of the council passing such a by-law.

EXAMINATION IN HISTORY.

Time allowed, 3 hours.

[Write your answer as legibly and concisely as possible without omitting material or important facts.]

1. When was the main land of North America discovered? By whom? Where?
2. What explorations or discoveries did each of the following persons make? Give the date in each case.
 - (a) Narvaez.
 - (b) Coronado.
 - (c) Marquette.
 - (d) La Salle.
3. Of the thirteen English Colonies which was the first and which the last settled?
4. Name three colonies that were colonized for religious reasons, and name the denomination by which each was colonized.
5. What was meant by charter government, and name two colonies that were at some period under this form of administration?
6. What was meant by "the three lower counties on the Delaware?" What name was given to the territory by its earliest white settlers?
7. What part was taken in Colonial history by each of the following named persons?
 - (a) Lord Delaware.
 - (b) Patrick Henry.
 - (c) John Endicott.
 - (d) Peter Stuyvesant.
8. Who made the first draft of the Declaration of Independence?
9. Name some important results of each of the following battles of the Revolutionary War:
 - (a) Long Island.
 - (b) Trenton.
 - (c) Brandywine.
10. How many States belonged to the Union when Washington was inaugurated? and name those which had not adopted the Constitution.
11. Give the limiting dates of the war of 1812, and name the cause of that war.
12. When was the city of Washington taken by the British, and what were the circumstances of its capture?
13. During whose administration did each of the following events occur?
 - (a) Louisiana purchase.
 - (b) Nullification act.
 - (c) Gadsden purchase.
14. When and how was the Missouri Compromise virtually repealed?
15. Give three prominent features of the Seminole or Florida War, 1835-42.
16. What State first passed the Ordinance of Secession? When?
17. Where was the first bloodshed of the Civil War? How was it brought about?
18. Name and give the dates of three prominent events of McClellan's Peninsular Campaign of 1862.

19. Give the date and place of General Lee's surrender.
20. How and in what year was slavery constitutionally abolished in the United States?

EXAMINATION IN ARITHMETIC.

No. 1 [wt. 8]. The sum of two decimal fractions is $\frac{1}{10}$, and one is $\frac{1}{10}$ of the other; find the decimal fractions.

No. 2 [wt. 8]. A vessel contains 5 bu. 3 pk. 2 qt. 1 pt., how many quarts, beer measure, will it contain?

No. 3 [wt. 8]. Which is the greater, one pound avoirdupois or one pound troy? One ounce avoirdupois or one ounce troy? Show how much in each case.

No. 4 [wt. 11]. $\frac{1}{3}$ is an *erroneous value* of a *required fraction* because its denominator, 39, is too great by $\frac{1}{4}$. Is $\frac{1}{3}$ greater or less than the *true value* of the *required fraction* and how much?

No. 5 [wt. 11]. If 193 versts equal 205.9 kilometres, and 1,552.94 kilometres equal 964.9 miles, how many miles are equal to 100 versts?

No. 6 [wt. 12]. $7\frac{1}{2}$ dozen apples are sold for 6s. 2d., some are sold at the rate of 3 for $2\frac{1}{2}$ d., and the remainder at 8 for $6\frac{1}{2}$ d. How many are sold at each rate?

No. 7 [wt. 12]. Two numbers, one of which is 2,685, have for their greatest common divisor 537, and for their least common multiple 18,795; find the other number.

No. 8 [wt. 14]. £925 is so divided among A, B, C, and D, that B's portion is $\frac{1}{2}$ of A's, C's is $\frac{2}{3}$ of B's, and D's is half as much as B's and C's together. What does each receive?

No. 9 [wt. 16]. The grass of 20 acres grows continuously. 133 oxen can eat all of the grass in 13 days (that is the original grass and that which grows in 13 days). 28 oxen could eat 5 acres of the grass in 16 days (that is the original grass and that which grows in 16 days). How many oxen could eat 4 acres of the grass in 14 days (that is 4 acres of grass and that which grows on the 4 acres in 14 days)?

EXAMINATION IN GEOGRAPHY.

Time allowed 2½ hours.

1. Name the five oceans of the globe in order of size.
2. Name the seas on the east coast of Asia between Bering Straits and the Straits of Malacca.
3. Name the four most westerly countries of Europe in order from north to south.
4. Upon what river is Vienna situated, what is the direction of its flow below the city, where does it empty?
5. Where is the Isle of Wight? Isle of Man? the Orkney Isles?
6. What two large rivers of Russia empty into the Caspian Sea?
7. Locate definitely the following places: Teheran, Calcutta, Shanghai, and Singapore.
8. Name the Barbary States and the government to which each belongs.
9. Locate definitely the following towns of Africa: Morocco, Tunis, Alexandria, and Mozambique.
10. Name the colonies of Australia. Which is the most eastern, southern, western?
11. Name all the South American countries which touch the Pacific. Give their capitals.
12. Which of the South American countries lie north of the Equator?
13. In what States of Mexico are the following towns: Jalapa, Matamoras, Acapulco, Mazatlan? if upon waters state what.
14. Name the two most southern republics of Central America with their capitals.
15. Name the great lakes on the northern border of the United States in order from east to west. What water ways connect these lakes?
16. What is the most southern point of the United States? Give its latitude.
17. What States touch the Great Lakes? Name them in order from the west to east.
18. Name the States touched by the Missouri River.

19. Name the States east of the Missouri that have neither lake, sea, nor gulf coast line.

20. Bound Virginia, Utah, Missouri, Oregon (mountain and river boundaries not sufficient, all adjacent States must be given).

21. Which is the smallest and which is the largest State in the Union? How do they compare in area?

22. State where the Merrimac River rises, the direction of flow, where does it empty, what town is at its mouth?

23. Locate definitely the following places: Hartford, Little Rock, Montgomery, Milwaukee, Los Angeles.

24. A north and south line through Savannah would pass through what States?

25. Name five towns or cities of the most importance that one would pass in going from Pittsburg, Pa., to Mobile, Ala., by water.

CADETS ADMITTED JUNE, 1891.

The following-named young men passed the preliminary examinations held in June and were admitted to the Academy:

No.	Name.	Where born.	Ap- pointed from—	No.	Name.	Where born.	Ap- pointed from—
1	Akester, Arnold	Ind	Ind.	51	Kelly, William, jr.	Tex.	Tex.
2	Aldrich, Ward Priest	N. H.	N. H.	52	Knowlton, Joseph Lippincott.	Ill.	Ill.
3	Allen, Boughton Theodore	N. Y.	N. Y.	53	Langdon, Russell Creamer	N. Y.	N. Y.
4	Ames, Thales Lucius	Wis.	Wis.	54	Letourneau, Oswald	Ill.	Ill.
5	Arnold, Conway Hillyer, jr.	N. Y.	N. Y.	55	Mayo, Richard Claybrook	Va.	Va.
6	Augustin, Joseph Numz, jr.	La.	La.	56	McBroom, Walter Scott	Ind.	Ind.
7	Beauchamp, Runey Neal	Ky.	Ky.	57	McDonald, Thomas Benton	Md.	Md.
8	Bell, Ola Walter	Mich.	Mich.	58	McGrew, Milton Loomis	D. C.	N. J.
9	Bentley, Carle Edwin	Cal.	Ark.	59	McIntyre, Thomas Henry	Ala.	Tenn.
10	Bigelow, Mortimer Osborne	Mich.	Mich.	60	Miles, Perry Lester	Ohio	Ohio.
11	Bolles, Frank Crandall	Ill.	Mo.	61	Morrison, John, jr.	Iowa.	Iowa.
12	Botts, Louis Elkin	Mo.	Mo.	62	Myer, George Henderson	N. Y.	N. Y.
13	Briggs, Paul Robert	Mo.	Mo.	63	Newbaker, Edward Jay	Pa.	Pa.
14	Broatch, James Wallace	S. Dak.	Nebr.	64	Nissen, August Carl	Ohio	Ohio.
15	Brookes, Albert Sidney	Ark.	Ark.	65	Nuttman, Louis Meredith	N. J.	N. J.
16	Brown, Frank Reid	Miss.	N. C.	66	O'Harra, Aloysius Peter Joseph	Pa.	Pa.
17	Bugge, Jens, jr.	Wis.	Minn.	67	O'Sullivan, Ernest Philip	N. C.	N. Y.
18	Burgess, Harry	Miss.	Miss.	68	Paine, Charles Herman	Vt.	Md.
19	Butler, Clarence Metz	Ohio	Ohio.	69	Parker, James Southard	D. C.	Atl'rga
20	Cain, Cornelius Enoch	Ky.	Ky.	70	Payne, Brooke	Va.	Va.
21	Cavanaugh, Harry La Tourrette	Utah.	Okla.	71	Pearce, Thomas Abalom	N. C.	Tex.
22	Champion, Francis Marion	Nebr.	Ill.	72	Pritchard, George Barnard, jr.	Ga.	Ga.
23	Chapman, Charles Martin	Mo.	Mo.	73	Purdy, Clarence Newcomb	Ind.	Ind.
24	Charles, Oscar Jerome	Ill.	Ill.	74	Reisinger, Paul	Pa.	Pa.
25	Curtis, Thomas Pelham	Cal.	Mass.	75	Ricketts, William Andy	Ill.	Ill.
26	Darra, Thomas Walter	Kans.	Kans.	76	Rifenberick, Richard Parker	Ohio	Ohio.
27	Davis, Glenn Hedges	Ohio	Ohio.	77	Sample, Warren Store	Tenn.	Ky.
28	Delaney, Daniel	Cal.	Cal.	78	Schulz, Edward Hugh	W. Va.	W. Va.
29	Dennis, Samuel	Mo.	Mo.	79	Shelton, George Henry	Conn.	Conn.
30	Dickason, Denis Henry	Pa.	Colo.	80	Sills, William Gray	Ala.	N. C.
31	Dillaway, Alvan Simonds	Mass.	Mass.	81	Slviter, Francis Pierpont	Pa.	Pa.
32	Dixon, Henry Benjamin	Iowa	Iowa.	82	Smith, Fine Wilson	Ky.	Ky.
33	Duff, Clyde Lemont	Ill.	N. D.	83	Smith, Harry Ernest	Me.	Minn.
34	Duncan, Daniel	Ky.	Ky.	84	Smith, Morton Fitz	Colo.	Mich.
35	Durkin, Joseph Francis	Irel'd	N. Y.	85	Springer, Anton, jr.	France	N. Y.
36	Dwyer, James Charles	Ind.	Iowa.	86	Steigmeyer, Frederick Franklin	Ohio	Ohio.
37	Dwyer, Thomas Francis	Irel'd	N. Y.	87	Stout, Harry Howard	Ariz.	Pa.
38	Kltinge, Le Roy	N. Y.	N. Y.	88	Sturtevant, Girard	N. Y.	N. Y.
39	Fergusson, Frank Kerby	Tenn.	Tenn.	89	Sweeney, Thomas Maurice	Va.	Va.
40	Fleining, Adrian Sebastian	Ky.	Ky.	90	Turman, Reuben Smith	Miss.	Miss.
41	Gold, Edward Barnett	Va.	Va.	91	Vincent, James Irving	Mich.	Mich.
42	Gurney, John Asa	Mich.	Mich.	92	Watson, Frank Bingly	Va.	N. J.
43	Hammatt, William Cushing	Me.	Me.	93	Wheeler, Joseph, jr.	Ala.	Ala.
44	Hampton, Celwyn Emerson	Ohio	Ohio.	94	White, Herbert Arthur	Iowa.	Iowa.
45	Hartshorne, Benjamin Min-turn, jr.	N. J.	N. J.	95	Whitesides, John Garrett	Pa.	Pa.
46	Hawkins, Clyde Emile	Pa.	Pa.	96	Willoughby, Charles Russell	Cal.	Cal.
47	Hayes, Fitzhugh Lee	N. C.	N. C.	97	Wright, Robert John	Wis.	Wis.
48	Herron, Joseph Sutherland	Ohio	Ohio.				
49	Howland, Charles Roscoe	Ohio	Ohio.				
50	Hutton, Franklin Swart	N. Y.	N. Y.				

* Admitted September 1.

VACANCIES IN THE CADET CORPS FOR JUNE, 1892.

The tables given below show the districts in which vacancies now exist and those in which vacancies will exist in June next upon the graduation of the present first class. The lists were obtained from the War Department on October 3, and the asterisk (*) indicates those districts for which appointments were made up to that date. The first table shows the vacancies in the Cadet Corps on September 1, 1891. These number 70. It must be apparent to all who will give the subject the briefest consideration that a system of appointments under which so large a number of districts can be left unprovided for is sadly defective, and that some remedy is imperatively demanded to correct this large waste. It must not be forgotten that all these vacancies belong to the class which entered in June, 1891, and that at least 75 per cent. of them would have been avoided had members of Congress properly and promptly exercised the privilege bestowed upon them of nominating candidates.

The second table shows the vacancies which will exist by reason of the graduation of the present first class. These number 58, and in addition to these there will be four vacancies "at large" which the President has nominated candidates to fill. With the 70 vacancies that belong to the class which entered in June, 1891, there will be in June, 1892, 132 vacancies to be filled, and this number is pretty certain to be augmented by at least 20 casualties that will occur during the present academic year.

Congressional Districts unrepresented at the Academy September 1, 1891.

State.	District.	State.	District.
Arkansas.....	Second.*	New York.....	First.*
Do.....	Third.*	Do.....	Nineteenth.
Colorado.....	Third.*	Do.....	Twenty-sixth.
Georgia.....	Tenth.	Do.....	Thirtieth.*
Illinois.....	Eleventh.	Do.....	Thirty-first.*
Do.....	Twelfth.	North Carolina.....	Fifth.
Do.....	Eighteenth.	Ohio.....	Sixth.*
Do.....	Nineteenth.	Do.....	Eleventh.*
Indiana.....	First.*	Do.....	Thirteenth.*
Do.....	Third.*	Do.....	Fourteenth.*
Iowa.....	First.*	Do.....	Fifteenth.*
Kansas.....	Second.*	Do.....	Sixteenth.*
Do.....	Sixth.	Do.....	Seventeenth.*
Do.....	Seventh.*	Pennsylvania.....	Second.*
Kentucky.....	Sixth.*	Do.....	Eighth.*
Do.....	Eighth.	Do.....	Eleventh.
Do.....	Tenth.*	Do.....	Twelfth.
Louisiana.....	Second.*	Do.....	Fifteenth.
Do.....	Fifth.	Do.....	Sixteenth.*
Maryland.....	Second.	South Carolina.....	Fifth.
Do.....	Fifth.	Tennessee.....	Ninth.
Massachusetts.....	Seventh.	Do.....	Tenth.*
Michigan.....	First.	Texas.....	First.*
Do.....	Second.*	Do.....	Second.
Minnesota.....	First.*	Do.....	Fourth.
Do.....	Third.*	Do.....	Fifth.
Mississippi.....	Second.	Do.....	Tenth.*
Do.....	Sixth.	Virginia.....	Tenth.
Do.....	Seventh.	West Virginia.....	Second.
Missouri.....	First.	Do.....	Third.
Do.....	Third.	Do.....	Fourth.
Do.....	Twelfth.*	Wisconsin.....	Fifth.*
Nebraska.....	Third.*	Do.....	Sixth.*
New Jersey.....	Fourth.	Do.....	Seventh.
		Do.....	Ninth.*

* Districts from which candidates have been selected for June, 1892.

Congressional Districts to be vacant by the graduating class of June, 1892.

State.	District.	State.	District.
Alabama	Fifth.	New Jersey	Seventh. *
Do.	Seventh. *	New York	Sixteenth. *
Arizona Territory .....	.....	Do.	Eighteenth. *
Arkansas	Fifth. *	Do.	Twenty-first. *
Florida	First. *	Do.	Twenty-ninth. *
Do.	Second.	North Carolina	Sixth. *
Georgia	Fifth. *	Ohio	First. *
Do.	Sixth. *	Pennsylvania	Fourth. *
Do.	Seventh. *	Do.	Sixth. *
Illinois	Fourteenth. *	Do.	Tenth. *
Indiana	Seventh. *	Do.	Fourteenth. *
Iowa	Seventh. *	Do.	Twentieth. *
Do.	Ninth. *	Do.	Twenty-fifth. *
Do.	Tenth. *	Do.	Twenty-eighth. *
Kansas	Fourth. *	South Carolina	First. *
Do.	Fifth. *	Do.	Second. *
Kentucky	Second. *	Do.	Fourth. *
Louisiana	Sixth. *	Tennessee	First. *
Maine	Second.	Do.	Second. *
Massachusetts	First. *	Do.	Fifth. *
Do.	Second. *	Do.	Sixth. *
Michigan	Eleventh.	Texas	Sixth. *
Missouri	Fifth. *	Vermont	First. *
Do.	Sixth. *	Do.	Second.
Do.	Eighth.	Virginia	Second. *
Do.	Thirteenth. *	Washington	 *
New Hampshire	First. *	Wisconsin	Second. *

* Districts from which candidates have been selected for June, 1892.

MILITARY AND ACADEMIC STAFF.

The officers on duty in June, 1891, at the Military Academy, in the several departments, was as follows :

SUPERINTENDENT.

Colonel JOHN M. WILSON, *Colonel of Engineers.*

MILITARY STAFF.

Second Lient. JOHN M. CARSON, Jr., Fifth Cavalry, Adjutant of the Military Academy, Post Adjutant, and Recruiting Officer.

Capt. WILLIAM F. SPURGIN, Twenty-first Infantry, Treasurer of the Military Academy and Quartermaster and Commissary of Cadets.

Capt. WILLIAM H. MILLER, Assistant Quartermaster, U. S. A., Quartermaster of the Military Academy, Post Quartermaster, and Disbursing Officer.

First Lient. DANIEL H. BOUGHTON, Third Cavalry, Officer of Police, Post Commissary of Subsistence, Post Treasurer, and Assistant to Post Quartermaster.

Maj. HENRY McELDERRY, Surgeon, U. S. A., Post Surgeon.

Capt. WM. FITZHUGH CARTER, Assistant Surgeon, U. S. A.

Acting Assistant Surgeon WILLIAM P. COMPTON, U. S. A.

ACADEMIC STAFF.

[Professors whose service at the Academy as professor exceeds 10 years have the assimilated rank of colonel, and all other professors the assimilated rank of lieutenant-colonel.]

Department of Natural and Experimental Philosophy.

PETER S. MICHIE, Professor (14 Feb., 1871).

First Lient. Sedgwick Pratt, Third Artillery, Assistant Professor.

First Lieut. James S. Pettit, First Infantry, First Lieut. John B. Bellinger, Fifth Cavalry, Instructors.

First Lieut. Frank S. Harlow, First Artillery, in charge of Observatory and Astronomical Observations.

Department of Modern Languages.

GEORGE L. ANDREWS, Professor (28 Feb., 1871).

Capt. Edward E. Wood, Eighth Cavalry, Assistant Professor of the Spanish Language.

First Lieut. Warren P. Newcomb, Fifth Artillery, Assistant Professor of the French Language.

*First Lieut. Charles H. Hunter, First Artillery; First Lieut. William W. Forsyth, Sixth Cavalry; First Lieut. Benjamin Alford, Twenty-second Infantry; †Second Lieut. Samuel D. Sturgis, First Artillery; * Second Lieut. John E. McMahon, Fourth Artillery, Instructors.

Department of Drawing.

CHARLES W. LARNED, Professor (25 July, 1876).

† First Lieut. Hamilton Rowan, Second Artillery, Assistant Professor.

First Lieut. George H. Cameron, Fourth Cavalry; Second Lieut. Cecil Stewart, Third Cavalry; Second Lieut. E. S. Wright, Ninth Cavalry, Instructors.

Department of Mathematics.

EDGAR W. BASS, professor (17 April, 1878).

First Lieut. John A. Lundeen, Fourth Artillery, Assistant Professor.

First Lieut. Wright P. Edgerton, Second Artillery; First Lieut. Charles R. Noyes, Ninth Infantry; † First Lieut. Harry C. Benson, Fourth Cavalry; First Lieut. George F. Barney, Second Artillery; † First Lieut. Alfred B. Jackson, Ninth Cavalry; † First Lieut. Samuel D. Freeman, Tenth Cavalry; Second Lieut. Frank McIntyre, Nineteenth Infantry, Instructors.

Department of Chemistry, Mineralogy, and Geology.

SAMUEL E. TILLMAN, professor (21 December, 1880).

First Lieut. John P. Wissner, First Artillery, Assistant Professor.

* First Lieut. Erasmus M. Weaver, jr., Second Artillery; Second Lieut. Elmer W. Hubbard, First Artillery; Second Lieut. Harry Freeland, Third Infantry, Instructors.

Department of History, Geography, and Ethics.

WILLIAM M. POSTLETHWAITE, Chaplain, Professor (21 December, 1881).

First Lieut. Frank L. Dodds, Ninth Infantry, Assistant Professor.

First Lieut. Francis J. Kernan, Twenty-first Infantry, Instructor.

Department of Civil and Military Engineering.

JAMES MERCUR, professor (29 September, 1884).

First Lieut. Harry F. Hodges, Corps of Engineers, Assistant Professor.

First Lieut. Lansing H. Beach, Corps of Engineers; First Lieut. Joseph E. Kuhn, Corps of Engineers, Instructors.

* Relieved from duty at the Military Academy June 15, 1891.

† Relieved from duty at the Military Academy August 28, 1891.

‡ Relieved from duty at the Military Academy August 8, 1891.

Department of Tactics.

Lieut. Col. HAMILTON S. HAWKINS, Twenty-third Infantry, Commandant of Cadets and Instructor of Tactics. (1 Feb., 1888.)

Capt. Louis A. Craig, Sixth Cavalry, Senior Assistant Instructor of Cavalry Tactics.

First Lieut. John D. C. Hoskins, Third Artillery, Senior Assistant Instructor of Artillery Tactics.

First Lieut. Edward E. Hardin, Seventh Infantry, Senior Assistant Instructor of Infantry Tactics, commanding Band and Detachment of Field Music.

* First Lieut. William W. Galbraith, Fifth Artillery, Assistant Instructor of Tactics, commanding Company of Cadets.

* First Lieut. John A. Johnston, Eighth Cavalry, Assistant Instructor of Tactics, commanding Company of Cadets.

First Lieut. Daniel L. Tate, Third Cavalry, Assistant Instructor of Tactics, commanding Company of Cadets.

Second Lieut. Robert A. Brown, Fourth Cavalry, Assistant Instructor of Cavalry Tactics.

Second Lieut. T. Bentley Mott, First Artillery, Assistant Instructor of Tactics, commanding Company of Cadets.

Department of Law.

JOHN W. CLOUS, Major and Judge Advocate, U. S. A., Professor (28 Aug., 1890, by assignment under act of 6 June, 1874).

First Lieut. Frank L. Dodds, Ninth Infantry, First Lieut. Francis J. Kernan, Twenty-first Infantry, Instructors.

Department of Ordnance and Gunnery.

† Capt. HENRY METCALFE, Ordnance Department, Instructor (28 Aug., 1886).

First Lieut. Edwin B. Babbitt, Ordnance Department, First Lieut. John C. W. Brooks, Fourth Artillery, Assistant Instructors.

Department of Practical Military Engineering.

Capt. GEORGE McC. DERBY, Corps of Engineers, Instructor (4 Jan., 1889).

First Lieut. Eugene W. Van C. Lucas, Corps of Engineers, Second Lieut. Charles H. McKinstry, Corps of Engineers, Assistant Instructors.

HERMAN J. KOEHLER, Master of the Sword.

ARTHUR A. CLAPPÉ, Teacher of Music.

* Relieved from duty at the Military Academy August 26, 1891.

† Relieved from duty at the Military Academy August 8, 1891.

CONCLUSION.

The Board earnestly commends the Military Academy to the fostering care of Congress and the liberal support of the people. It is the only national military school we have, and nothing should be left undone to maintain its high character, promote its efficiency, and increase its usefulness. National pride, regard for the common defense, and sound public policy require that its equipment should be thorough, and that the highest patriotism and best talent should continue to characterize its direction. Its graduates in the past have met every requirement of the public service, and there can be no manner of doubt that should occasion arise West Point will in the future fully meet the expectations of the American people. No consideration of economy should be permitted to thwart or delay the furnishing of proper supplies and equipment so urgently needed to place the Military Academy abreast of similar institutions in other countries.

The deficiencies in proper equipment now so manifestly apparent should be corrected without delay by Congress. Considering these deficiencies, which have been pointed out in this report, it is surprising that those charged with the immediate direction of the Academy have accomplished, and are still accomplishing, such remarkable results. Even with the existence of deficiencies in equipment, our Military Academy does not materially suffer by comparison with similar schools of Europe. If we compare the advantages of West Point with other military establishments it will be seen how much wider and broader are our systems of military education. In England there is one school devoted alone to training officers for the staff, and although much of the education is devoted to field work and out-door duties, military history and languages receive close attention, and in addition, as in our Academy, special care is given to the sciences, and especially practical astronomy.

The value of astronomy alone as a potent adjunct in military warfare was seen in Egypt, when the regiments of Lord Wolseley made a night attack on the Arabs, and went into action by the guidance of the stars. The stars marked the line of advance and the position of regiments, and in a country where the skies are generally cloudless, and the stars always shine, such aspects of nature as are manifest at so many points on our continent, astronomy becomes as important as at sea. There is another English school of apparently a lower grade, for the training

of officers in cavalry and infantry, and where the tuition embraces the elementary principles of military art. The Woolwich Academy, perhaps the best known, prepares officers for the artillery and the engineers. Here the scholars are expected to spend three years, and when graduation comes, the cadets with the higher averages, like our own, can have an option on the engineers.

For a cadet to pass either through one school or the other and afterwards take staff duty, involves an additional course of two years. So that a subaltern in the British army can hardly hold himself as equipped for duty without an educational training of five or six years. In these schools, however, the standard has steadily advanced. Critics who complain of the higher grades established at West Point, and the apparent hardships attending an entrance to the Army, forget that there has been a steady progress in the art of war—that war is a progressive art—and that even the elementary problems are not under present conditions, as was possible in ruder times, to be passed without a certain maturity of mind.

The days when regimental colors were given to boys of 13, when even as famous a general as Marlborough was promoted from court page to the Guards at 16, and Wellington was made an ensign at 17, have passed away. The very eminence that Marlborough and Wellington attained in the military art would have had added value if either of them had taken the colors with as complete an academic education as Napoleon, Grant, Moltke, Sherman, Wolseley, and commanders of equal fame. Not alone as masters of the art of war, but in the civil functions which so often devolve upon the modern soldier, this academic education such as Napoleon enjoyed, and as we have in better form at West Point, must have great value. The just criticisms of history upon the civic careers of Marlborough and Wellington; the incredible mistakes of Wellington, especially in keeping out of tone and temper with the English people when he was in the cabinet and prime minister, would have been impossible to the soldier, however brilliant as a tactician, whose mind had been formed upon the sound academic principles of our Military Academy.

In these later years when we train soldiers it should be remembered that the art to be a soldier is only the first step in the art of being a statesman. And nothing, we think, redounds more to the glory of the Academy than the fact that so many of her alumni hold so proud a position in the civil annals of their country.

The Army is the disciplined force of the nation. It is the expression of national power. As no chain is stronger than its weakest link, so no nation is stronger than the organized military embodiment of its strength. Now, if we accept this as an axiom, one which, unhappily or otherwise, has been imposed upon us by modern civilization, then it is the first duty of the lawgiver to see that the sword of the nation is even-tempered and true. There are various examples. If we look at England

we have an army which is a class. It stands apart from the nation. When there is the canker of a long peace it is apt to disintegrate or suppurate into mutiny.

Not many months since a regiment of the Guards bearing one of the illustrious names in the British service was sent into exile because it would not obey its officers. The mutiny, however, was not really against military duty, but against the enervation of London life, barrack luxuries in Knightsbridge, and a system of command which severed the men from any actual contact with their commanders; which permitted officers to dawdle around clubs and drawing rooms; and, keeping out of touch with their men, remanded them to noncommissioned officers for whom the men had no respect, and who were incapable of intelligent authority. Such a mutiny would have been impossible in an American regiment under graduates of West Point. Every American officer is in sympathy, in contact with his command. To this extent, therefore, the West Point training does away with the evil of the Army becoming a class, the evil which English critics appreciate and deplore.

This English system of isolation is only possible in an army whose principal duty is to govern Ireland and police England on occasions of royal ceremony. A large part of the English army is needed to govern India, 75,000 at least of Europeans in that separate command alone, with an unusual percentage of artillery, as would be expected from a military organization whose duty is the defense of garrison towns. As India is practically a nation of garrisons, the military laws governing its army must be narrow and limited, and are hardly worthy of consideration as far as they apply to other systems of military education.

On the continent conditions have found the other extreme. Empires are armies. Under the law of conscription, which the French revolution bequeathed to the monarchies, the military aspect changed, and it seems as if continental nations were returning to the nomadic methods of warfare which made possible the invasions of Genghis Khan and Timour. Conscription was the source of the extraordinary battalions of Napoleon, and made it possible for him to lose an army in the snows of Russia in one year and take another from the fields and vineyards of France for the year ensuing. Germany was better served in her own method of thorough discipline. Reduced as Prussia was, during Napoleonic wars, to the necessity of maintaining a small standing army, —not quite 50,000— the Germans kept constantly changing their men as soon as drilled. The army in the field was, therefore, simply one of recruits. At home in peaceful employments, but waiting the sound of the drum, was an ever increasing army of well-trained men.

This short-service system, as a contrast to the long term which prevails in England—and that of desertion and pardon, which may be summed up as the existing condition of the American Army—compelled the establishment in Germany of high-class schools for military education. And

although the German system became more like the French after the war with Austria in 1866, and conscription has become as fixed under the German Emperor as under Danton and the French revolution, it was necessary that the German army should be strong at the top. Armies might come and go; one generation would tread on the heels of another; the front ranks would soon fall out, if not before the bullet of the enemy before the surer and steadier fire of advancing years; but there must be a permanent, highly trained head, and especially a staff which should be as perfect in its workings as the most cunning inventions devised by the mechanical genius of man.

We find in this staff system the highest form of military attainment toward a perfect knowledge of the art of war. Moltke's military genius reduced to a Euclid problem is its supreme type. The nearer therefore we approach its severe and thorough standards in our Academy the better the ultimate value to the nation, should war come with its stern supreme commands. No amount of intelligence, natural aptness, ability in active peaceful business or industrial callings, will take the place of this finished and exacting education. The unarmed nation is the surprised nation. No high development of art and genius can resist the sword. Look at countries like India, Egypt, the Roman Empire, before the northern invasion, the Chinese Empire. How admirable their development! What art! what literature! What have they not done for man? There is no day, no hour, when we may not feel an obligation to them. In the finer forms of civilization, in poetry, literature, morals, and exquisite achievements of patience and artistic fancy, how much we may learn from them. Yet, because they neglected the one art of all in which everything is embodied, honor, safety, prowess, national pride, and the very integrity of religion and home; because the art of self-protection was permitted to drift into abeyance, they became the prey of ravaging tribes and conquering nations. The dagger in the hands of a Vandal was mightier than the verses of Homer and Virgil, while the sword in the hands of an Englishman was a power greater than the luxurious civilization of generations of Mogul princes.

What these highly developed and refined nations never learned, we should not forget to learn, until like them, it may be too late. There is no civilization stronger than its capacity for self-defense. Its capacity for self-defense can only be measured by the standards of its highest military education. It should be the aim of those who govern our Military Academy to advance towards an ever ascending, ever maturing ideal. They should remember that the science of war changes with the generations; that every new force in nature will in time be a new force in war; that the telegraph would have made the surprise of Austerlitz impossible; that the telephone would have brought Grouchy to Waterloo in time to have saved the battle for Napoleon.

We must remember that science and discovery have not come to a standstill, that these forces will grow as they have grown, and that the

surest military faculty is that which is instant to search them out and apply them. With trained men to lead the nation, there need be no fear of what the people will do in the day of peril. It has been the high privilege of West Point to give the nation such leaders, and their renown now illumines the noblest pages in our country's annals. Let us so guard and strengthen the venerable Academy that, with other trials, other soldiers will come from its halls ready to defend the Republic and add new luster to the glory which, as a proud heritage of West Point, surrounds the names of Thomas and Sheridan, Sherman and Grant.

CHAS. F. MANDERSON.
SAML. W. T. LANHAM.
JOHN M. CARSON.
FRANK A. O'BRIEN.
JAMES T. MURFEE.
JAMES A. WAYMIRE.
DAVID W. PAYNE.
THEODORE S. PECK.
ROBERT O. FULLER.
JAMES L. PUGH.
JULIUS C. BURROWS.
JOSEPH A. SCRANTON.

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