

MESSAGE

FROM THE

PRESIDENT OF THE UNITED STATES

TO THE

TWO HOUSES OF CONGRESS,

AT THE

COMMENCEMENT OF THE SECOND SESSION

OF

THE THIRTY-SECOND CONGRESS.

DECEMBER 6, 1852.—Read.

DECEMBER 7, 1852.—*Ordered*, That the message be referred to the Committee of the Whole on the state of the Union, and printed; and that 15,000 extra copies, with the accompanying documents, be printed for the use of the House.

PART II.

WASHINGTON:
ROBERT ARMSTRONG, PRINTER.
1852.

[The text on this page is extremely faint and illegible. It appears to be a multi-paragraph document, possibly a letter or a report, but the specific words and sentences cannot be discerned.]

REPORT OF THE SECRETARY OF WAR.

WAR DEPARTMENT,
Washington, December 4, 1852.

SIR: I beg leave to submit a brief account of the operations of this department during the year.

The efforts of the department have been principally directed to the defence of our frontiers and those of Mexico from the Indian tribes within our borders. For this purpose, out of about 11,000 officers and men borne on the rolls of the army, about 8,000 are employed in the defence of Texas, New Mexico, California, and Oregon, or of emigrants destined to the two last.

It affords me great pleasure to say that the efforts of the department for this purpose have been attended with more than usual success.

The benefits that were anticipated from the judicious arrangements made by the commanders of the 8th and 9th military departments (Texas and New Mexico) have been fully realized. With the exception of a portion of the Rio Grande country, the former has been comparatively exempt from Indian depredations. A number of persons of desperate character and fortunes were attracted to that frontier by the lawless attempts of Carvajal; and, after his defeat, they dispersed through the country, and resorted to plunder for subsistence. On the other hand, many of the inhabitants of Mexico either sought to avenge themselves for the wrongs inflicted on them by that adventurer and his followers, or found in his lawless proceedings a justification for their own, and retaliated on the peaceable inhabitants.

The Indians in that vicinity availed themselves of the confusion and alarm consequent upon this state of things to renew their depredations. Thefts, robberies, and even assassinations were the consequence.

Although the prevention or punishment of disorders like these when committed by others than Indians belongs rather to the civil authorities of the State than to the military force of the United States, the commanding officer used every exertion to put a stop to them; and, for that purpose, ordered several additional companies of troops to the part of the State where they had occurred. It is believed that these measures have been at least partially successful. So long, however, as the species of border warfare which has lately been carried on in that region between the inhabitants of the two countries continues, it will be difficult, if not impossible, with any number of troops, and with the strictest vigilance on the part of their officers, to prevent, on so extensive a frontier, a repetition of these disorders.

In New Mexico the depredations of the Indians have been entirely arrested. The Navajos and the Apaches, the two most formidable tribes in all that region, have been completely overawed, and manifest every desire to be at peace with the whites.

In consequence of frequent collisions between the Indians and the white inhabitants of California and Oregon, it was deemed advisable to send the 4th regiment of infantry to the Pacific to replace the mounted riflemen that had been ordered thence to Texas.

Intelligence has been recently received that the Yuma Indians, a bold and hostile tribe occupying a portion of country on the Gila and Colorado rivers, whose inroads and depredations have been the source of frequent annoyance and alarm to the inhabitants both of our own territory and of the Mexican State of Sonora, have agreed to a peace.

The troops stationed on the frontier may justly be considered as in active service—a service, too, in which they are exposed to all the hardships and dangers of war without its excitement to stimulate, or its hopes of honorable distinction to sustain them.

Owing to the many officers who, from disability or other causes, are excused from duty, the cares and responsibilities of command frequently devolve on a small number, and the establishment, during the last season, of a number of new posts has added very much to the labors both of the officers and men; nevertheless it affords me great pleasure to bear testimony to the cheerfulness and alacrity with which all have discharged their duty. To Brevet Major General Smith and Brevet Colonel Sumner, in particular, much praise is due. The former, although in feeble health, has been unremitting in his exertions; and to his energy and judicious arrangements his department is greatly indebted for the comparative tranquillity it enjoys. The latter has not only succeeded in arresting the incursions of the Indians within his command, but has greatly reduced its expenditures.

Brevet Brigadier General Hitchcock has also displayed great energy and prudence, and done all that it was possible to do with a very inadequate force, and amid many difficulties and embarrassments, to protect his extensive command,

I regret to say that the attempt to cultivate farms by the troops has, but in few instances, during the past season, been attended with beneficial results. This failure is owing in part to the constant activity in which it has been found necessary to keep the troops, and to the necessity of employing them in the construction of barracks and in other works at the many new posts that have recently been established. Hopes are entertained, however, that when a fair trial of the experiment can be made, it will, at least at such of the posts as are favorably situated for the purpose, be more successful.

In spite of this failure, of the unusual activity of the troops during the past season, and of the fact that so large a portion of them are stationed on the remote frontier, I have the satisfaction to announce that the expenditures have been considerably reduced, and this, too, in the quartermaster's department—that branch of the service of which the expenditures are most affected by these circumstances. The expenses of that department, ascertained and estimated, (exclusive of clothing, the amount of which is fixed by permanent regulations,) continue to exhibit an annual decrease, viz: for the current year, as compared with the last year, a reduction of \$501,252; and for the next year, as compared with the current year, a further reduction of \$500,000.

In spite, however, of every effort to reduce the expenses of the army, they must continue to be very great in proportion to its numbers, so long as it is necessary to maintain so large a force in countries which supply so little of what is necessary to its support as those in which the greater part of it is now stationed. I beg leave, therefore, to repeat the suggestion contained in my last annual report—that sound policy, no less than humanity, requires that some other means than force should be tried to restrain the Indians, and to prevent the frequent collisions that occur between them and the white inhabitants in their neighborhood. The whole history of our country shows that, whenever the two races are brought frequently into contact, collisions (generally produced by aggressions of the stronger on the weaker party) are inevitable. I know of no other means by which those collisions can be prevented than a rigid adherence to the policy which has heretofore been successfully pursued—of setting apart a portion of territory for the exclusive occupancy of the Indians.

A difficulty occurs in the application of this policy to Texas. By the terms of the compact admitting that State into the Union, she reserved to herself all the vacant territory within her limits. It is understood that she acknowledges no right of occupancy in the Indians within her border, but proceeds to lay off her territory into counties, and, as fast as it is needed, to sell it, without assigning any portion of it to them, or providing in any other mode for their support. Nothing could be more calculated to alarm and irritate the Indians, and to produce collisions between them and the whites, than the adoption of this policy. It, in fact, drives the Indians to desperation, by leaving them no alternative but to steal or to starve. It also deprives the government of the United States of that control over them and of the territory they occupy which is necessary for their own preservation as well as for the safety of the white settlements in their vicinity. If the United States are bound to protect Texas against the Indians, it is manifest that the government of that State should do nothing to thwart, but, on the contrary, all in its power to promote, the fulfilment of this duty. I therefore respectfully suggest the expediency of endeavoring to make some arrangement with that State, whereby a portion of her vast unoccupied domain may be temporarily allotted to the exclusive occupancy of the Indians within her borders.

What policy, however, it may be deemed proper to adopt in reference to the Indian tribes of Texas, California, and Oregon, is a question only of humanity, or of temporary policy, as the period cannot be very remote when they will be swept before the resistless tide of emigration which continually flows towards these countries.

The case is different with regard to New Mexico. That territory is so remote and inaccessible, and holds out such little inducement to emigration, that the struggle between the two races is destined, in all probability, to continue there long after it shall have ceased in every other portion of the continent.

By the last census, the total population of New Mexico, exclusive of wild Indians, is (in round numbers) 61,000 souls, and its whole real estate is estimated at (in round numbers) \$2,700,000.

To protect this small population, we are compelled to maintain a

large military force at an annual expense nearly equal to half the value of the whole real estate of the territory. Would it not be better to induce the inhabitants to abandon a country which seems hardly fit for the habitation of civilized man, by remunerating them for their property in money or in lands situated in more favored regions? Even if the government paid for the property quintuple its value, it would still, merely on the score of economy, be largely the gainer by the transaction, and the troops now stationed in New Mexico would be available for the protection of other portions of our own and of the Mexican territory. Unless the means I have indicated, or some others, be adopted to relieve the Indians from the necessity of plundering to procure the means of subsistence, their depredations must not only continue, but increase. This would require a corresponding increase in the means of protection. In that view I concur in the recommendation of the General-in-chief—that an additional regiment of mounted men be authorized.

Allow me to call your attention to the state of our defences on the sea-coast.

Shortly after the termination of the last war with Great Britain, a Board of Engineers was organized to prepare a system of coast defence.

This board recommended that fortifications be constructed at a number of points on the sea-coast, and on the northern lakes. Their recommendation was adopted, and its execution was commenced—first, by repairing and enlarging such of the old works as were deemed worthy of preservation; secondly, by the construction of new works, beginning, of course, with those that were considered the most important.

Although doubts have been occasionally expressed whether some of the works proposed by the board might not be dispensed with, and whether others were not on a scale unnecessarily large, the works recommended by it slowly but steadily advanced; and, until the year 1850, Congress never failed, except in a single instance, to provide the necessary means for prosecuting them. In the last-mentioned year no appropriations for fortifications were made, but the House of Representatives adopted a resolution directing the Secretary of War to submit, at their next session, a report on this subject. That report was submitted, but no action was taken on it, and no appropriation was made.

It is believed that this omission was caused by an opinion which seems to prevail, that the system adopted by the board in 1816, if not originally too extensive, has become so in consequence of events that have since occurred, and ought to be revised and restricted.

In that opinion I concur, and in the report above mentioned I expressed the opinion that many of the works embraced in the original plan might and ought to be dispensed with.

The subject is undoubtedly worthy of all the consideration that Congress can bestow upon it; and it is to be hoped that they will, at an early period, adopt some mode of revising the plan, and making any changes in it which the present circumstances of the country may seem to them to require.

In the mean time, however, there are a number of works which have been commenced, and are in various stages of advancement, but the prosecution of which is suspended for the want of the necessary appropriations. Most of these works are highly important, being intended for the protection of our principal seaports and naval stations, viz: Boston, New York, Philadelphia, Baltimore, Norfolk, Charleston, Savannah, Pensacola, Mobile, and New Orleans, or other points of scarcely less importance.

Whatever difference of opinion may exist as to the extent to which the system of fortifications should be carried, all must admit that no expense should be spared to render points like those above mentioned absolutely impregnable by any force that may reasonably be expected to be brought against them.

I hereto append a statement of these unfinished works, showing the amounts required to complete them, respectively, and the sums that could be advantageously expended on each of them during the next fiscal year, and earnestly recommend that Congress be urged to make the necessary appropriations with a view to the completion, if not of all, at least of the most important among them, at as early a period as practicable. If this be not done, the large sums already expended on them will, in many cases, be lost.

Among the works recommended by the board, which have not yet been commenced, there are several which appear to me of obvious necessity. I refer, particularly, to those designed for the protection of New Bedford and of San Francisco, both of which are now entirely defenceless.

It is also the opinion of the engineers that a work at Sandy Hook, for the protection of the outer harbor of New York, is necessary to complete the defences of that city.

Congress also omitted, the two last sessions, to make the usual appropriations for the purchase of the heavy ordnance used in coast defence. As this description of ordnance is generally intended for fortifications, it has been the practice to estimate for it under the head of "Armament of fortifications." It is hardly necessary to observe, however, that it is an indispensable part of any system of defence that may be adopted, and that the fewer the fortifications, the greater the quantity that will be required.

On this subject, I beg leave to subjoin a few remarks contained in the report on fortifications above referred to:

"Whatever policy may be adopted with reference to fortifications, it will still be necessary to provide a much larger supply of ordnance than we now have on hand. By reference to the report from the head of the Ordnance Bureau, hereto annexed, (marked C,) it will be seen that the whole number of guns, of all calibres, now on hand, whether in the forts or in the arsenals, amounts only to 3,535, and that of gun-carriages is still smaller. The entire number of guns that can be mounted in the forts already completed, (classes A and B,) amounts to 4,572 guns; and if the works now in progress of construction should be completed, the total number of guns that would then be required for all the forts would be 6,093. It appears, therefore, that the supply of ordnance now on hand is very inadequate, even to the present wants of the ser-

vice. I will observe, too, that even if Congress should determine to restrict the system of fortifications, this would not obviate the necessity for a large increase in the supply of heavy ordnance. Some means of defence must be employed, and cannon is an indispensable part of any system that may be adopted.

"It appears, too, from the reports hereto appended, that the great naval powers of Europe have, within a few years past, greatly increased the calibre of the guns mounted on their vessels of war. This renders it obviously necessary that the power of the batteries intended to resist them should also be proportionably increased. I believe it is the opinion of all officers, both of the army and navy, who have devoted much attention to this subject, that many of the guns now in our most important forts ought to be removed, and others of longer range substituted. A glance at the report of the Ordnance Bureau will show how very deficient we are in the heavy descriptions of ordnance, particularly in eight and ten-inch columbiads, the most effective weapons against vessels of war.

"To manufacture cannon of good quality is a work that demands considerable time; and as they are imperishable when properly taken care of, there is no good reason why the government should not at once provide the requisite supply.

"In connexion with this subject, I would venture to suggest that provision be made for a distribution of artillery among the militia of the States and Territories. Our people are more deficient in the knowledge of this arm than of any other, and yet it is the one that would be most required in a war with any European power. If a standing appropriation were made applicable to the distribution of artillery, and of the book on artillery practice among the States and Territories, it would tend very much to promote the knowledge of this essential branch of the military art among the citizens of the country."

One of the most important and responsible duties which have devolved on the department during the present year, is the execution of the works known as the river and harbor improvements.

The number of works for which appropriations were made by the act recently passed is about one hundred, and the sum appropriated about two millions and a quarter. The appropriations, however, will only, in a few instances, be sufficient to complete the works for which they were made. By far the greater number will require additional, and some of them very large additional, appropriations to complete them. It is to be presumed that, even if Congress should not see fit to continue the system, and to provide for other works of a similar character not included in the present act, they will, at least, finish the works that have been begun.

I deemed it, therefore, of the utmost importance to make, at the outset, such permanent arrangements for the execution of these works as would, as far as practicable, insure the faithful, judicious, and economical application of the large sums of money that have been and may be appropriated for these works to the important purpose for which they were intended.

Experience has shown that, for works of this description, in which large sums are disbursed, and which require for their execution a com-

bination of science and practical skill, it is, as a general rule, safer to rely on officers of the army (aided, when necessary, by civil assistants) than on civil agents, of whose character and qualifications the department must often be ignorant. I determined, therefore, to avail myself of all the aid which the army could afford, and to confide the superintendence of the works to the two corps, of engineers and topographical engineers, both of which are eminently qualified for this duty.

This arrangement not only enabled me to dispense with a number of civil agents whose assistance would otherwise have been necessary, but (a consideration of hardly less importance) to secure the invaluable aid of the distinguished head of the corps of engineers.

I at first intended to establish a joint board, composed of the heads and another officer of each of the corps, aided, when circumstances would require it, by an officer of the navy, to superintend the execution of all the works; but some difficulties having arisen in arranging the details of this plan, I finally determined to divide the works between the two corps, and to establish two boards—one for each corps—composed of its own officers, to aid its head in preparing, supervising, and correcting plans and estimates, &c., the members to act separately as inspectors of the works when in process of construction.

This plan has been carried into effect; and, in pursuance of it, the works on the Atlantic and Gulf of Mexico have been assigned to the corps of engineers, and those on the northern lakes and western rivers to the corps of topographical engineers.

It is believed that this arrangement will eminently conduce to the speedy and economical execution of the works.

Owing, principally, to the advanced season when the appropriations were made, little has been done in regard to many of the works beyond making the necessary arrangements to commence them as early as practicable in the spring.

For more detailed information on this subject, and on others connected with their duties, I respectfully refer to the reports of the colonels of engineers and of the topographical engineers, appended to this report.

The estimates for such of the works as require additional appropriations will be submitted as soon as they can be prepared.

The expedition which I mentioned in my last annual report as having been sent, under the command of Brevet Captain Lorenzo Sitgreaves, to explore the Zuni and Colorado rivers from the source of the former to the Pacific, has completed the exploration, and returned; but the report has not yet been submitted.

Early last spring, Captain Marcy was sent with a party to explore the head-waters of the Red river. He accomplished the object, and has returned; but the report of the expedition has not yet been prepared.

It affords me pleasure to repeat my commendations of the good order and discipline which prevail at the Military Academy, and to express my conviction of the benefits which result to the service from that institution.

The reports of the Chief of the Ordnance Bureau, and of the Quartermaster's Department, will show the operations of these important

branches of the service. Several of the suggestions contained in them are deserving of attention.

The first of these two reports exhibits a very satisfactory view of the operations of the national armories at Springfield and Harper's Ferry; and I concur in the opinion that no benefit would be likely to result from a return to the former mode of governing these establishments.

In my last annual report, I called your attention to several points in regard to which legislation appeared to me to be necessary. I will simply renew these suggestions without repeating the reasons on which they were founded. They were:

1st. That the department be authorized to abolish such arsenals as are no longer needed, and are a source of useless expense.

2d. That an additional number of commissaries be authorized.

3d. That a retired list of the army be established, as a measure of justice both to the officers that are disabled and to those that are not.

4th. That the distribution of arms among the militia of the States and Territories, under the act of 1808, be made hereafter on the basis of the free white male inhabitants of age to bear arms, as shown by the latest census, instead of the official returns of the militia, which are frequently not furnished, and, when furnished, are often inaccurate.

To these recommendations I beg leave to add a few more that further experience has suggested.

By the 5th section of the act of September 28, 1850, it is made the duty of the Secretary of War to discharge any soldier who at the time of his enlistment was under the age of twenty-one years, unless such enlistment had been made with the consent of the parent or guardian of the soldier.

Young men are frequently enlisted who represent themselves to be of age, but whose discharge is afterwards applied for on the ground of minority. The consequence is that they are frequently discharged, after they have been clothed and fed for months, without rendering any service, or after they have been sent, at great expense, to some remote station. There is reason to believe that in some instances parties have enlisted with a view to defraud the government.

I recommend that any person, being above the age of eighteen years, who shall practise such an imposition may be compelled to serve out his term of enlistment.

If further appropriations for fortifications, and for river and harbor improvements, should be made, the number of officers in the corps of engineers and topographical engineers will be insufficient to supply the necessary details for these works, and for the coast and lake surveys, added to the other duties they are called upon to perform. I recommend, therefore, that, in that event, the officers of these corps be increased by an annual addition to each, for six years, of not more than three second lieutenants, to be taken, as heretofore, from the graduates of the Military Academy.

In consequence of the great number of remote military posts at which troops are stationed, the number of medical officers has been, for some years past, entirely inadequate to the wants of the service; the

consequence of which is that a number of private physicians are necessarily employed.

I am satisfied that it would be a measure of economy to authorize an increase of the medical corps.

Besides the above recommendations, there are several contained in the report of the General-in-chief, hereto appended, which appear to me to deserve attention. I will mention particularly his suggestions, that the 3d section of the act of June 17, 1850, entitled "An act to increase the rank and file of the army, and to encourage enlistments," be repealed; that measures be taken to distribute, for the use of the militia or the States and Territories, the books of tactical instruction used in the regular service; and that the pension laws be so amended as to place the widows and orphans of officers of the army on an equal footing with those of naval officers.

Respectfully submitted:

C. M. CONRAD,
Secretary of War.

THE PRESIDENT OF THE UNITED STATES.

Documents accompanying the Report of the Secretary of War of December 4, 1852.

- I. A table of fortifications which need further appropriation, (attached to Secretary's report.)
- II. Reports from the Eighth Military Department—Texas.
- III. Reports from the Ninth Military Department—New Mexico.
- IV. Reports from the Pacific Division—California and Oregon.
- V. Report of the General-in-chief.
- VI. Report of the Quartermaster General.
- VII. Report of the Paymaster General.
- VIII. Report of the Commissary General.
- IX. Report of the Surgeon General.
- X. Report of the Colonel of Engineers.
- XI. Report of the Colonel of Topographical Engineers
- XII. Report of the Colonel of Ordnance.
- XIII. Report of the Third Auditor.

I.

TABLE SHOWING THE FORTIFICATIONS THAT NEED FURTHER APPROPRIATIONS.

Designation of the works.	Amount required to complete the work.	Amount asked for in estimate for the fiscal year ending June 30, 1854.	Additional amount that might be advantageously expended in that year.
SECTION 1.—Containing the forts now in course of construction—most of them being very near completion—with the amounts required to complete them; the amounts asked for in the estimates for the year ending June 30, 1854; and also the additional amounts that might be advantageously expended in that year.			
Fort Wayne and barracks, near Detroit.....	\$66,000	\$15,000	\$51,000
Fort Montgomery, at outlet of Lake Champlain.....	224,142	15,000	35,000
Fort Knox and barracks, at narrows of Penobscot river.	500,000	20,000	55,000
Fort Warren, Boston harbor.....	75,000	30,000	45,000
Fort Adams and permanent quarters and barracks thereat, Newport, Rhode Island.....	35,000	35,000	.....
Fort Schuyler, Long Island sound, New York.....	25,000	15,000	10,000
Fort Richmond, Staten island, New York.....	300,202	60,000	40,000
Fort Delaware, Pea Patch island, Delaware river.....	580,000	50,000	150,000
Fort Carroll, Soller's Point Flats, Baltimore harbor.....	865,000	50,000	50,000
Fort Monroe, Hampton Roads, Virginia.....	75,000	20,000	55,000
Repairs of wharf at Old Point Comfort, Virginia.....	6,000	6,000	.....
Fort Sumter, Charleston harbor, South Carolina.....	150,000	40,000	110,000
Fort Pulaski, including barracks and quarters, Savannah river.....	35,000	15,000	20,000
Fort Clinch, at entrance to Cumberland sound, Georgia.	180,000	25,000	25,000
Fort Barrancas and barracks thereat, Pensacola, Florida.	75,000	35,000	40,000
Fort McRee, Pensacola harbor, Florida.....	80,000	15,000	65,000
Fort Jackson, Mississippi river, extension of batteries and barracks and quarters thereat.....	40,000	20,000	20,000
Fort Taylor, at Key West, Florida.....	805,000	75,000	75,000
Fort Jefferson, at Garden Key, Florida.....	989,862	50,000	100,000
Total.....	5,106,206	591,000	946,000
SECTION 2.—Containing the existing forts, of which some are new forts finished and some old forts repaired, all being in efficient condition, but absolutely needing certain repairs, additions, or modifications, for their preservation, or greater efficiency, or for the accommodation of their garrisons, or the preservation of stores, ammunition, &c.; in some cases for the preservation of the sites they occupy.			
Repairs of Fort Mackinac, Michigan.....	\$50,000	\$5,000	\$45,000
Barracks and storehouses at Fort Niagara, New York..	25,000	10,000	15,000
Repairs of Fort Ontario, New York.....	5,000	900	4,100
Repairs of Fort Preble, Portland harbor, Maine.....	1,000	1,000	.....
Purchase of lands for extension of site of Fort Preble..	6,500	6,500	.....
Fort Winthrop, Governor's island, Boston harbor.....	39,573	10,000	29,573
Repairs of Fort Independence, Boston harbor.....	10,000	10,000	.....
Repairs of Fort Columbus and Castle Williams, New York.....	10,000	4,500	5,500

Designation of the works.	Amount required to complete the work.	Amount asked for in estimate for the fiscal year ending June 30, 1854.	Additional amount that might be advantageously expended in that year
Repairs of Fort Wood and sea-wall, permanent wharf, and hospital, Bedlow's island, New York.....	\$32, 689	\$20, 000	\$12, 689
Repairs of Fort Hamilton and permanent wharf thereat.....	20, 000	10, 000	10, 000
Repairs of Fort Mifflin, Delaware river.....	2, 000	2, 000	.....
Repairs of Fort Macon, Beaufort harbor, North Carolina.....	2, 000	2, 000	.....
Preservation of site of Fort Macon.....	1, 000	1, 000	.....
Repairs of Fort Caswell, Cape Fear river, North Carolina.....	5, 000	5, 000	.....
Preservation of site of Fort Caswell.....	2, 000	2, 000	.....
Repairs of barracks and quarters at Fort Johnson, South Carolina.....	1, 200	1, 200	.....
Preservation of site of Fort Johnson, including wharf.....	4, 200	4, 200	.....
Repairs of Castle Pinckney, Charleston harbor, South Carolina.....	5, 000	5, 000	.....
Preservation of site of Fort Moultrie, Charleston harbor.....	12, 300	12, 300	.....
Repairs of Fort Jackson, Savannah river, Georgia.....	45, 000	20, 000	25, 000
Repairs of Fort Morgan and for additional barracks and quarters thereat, Mobile bay, Alabama.....	30, 000	15, 000	15, 000
Repairs of Fort St. Philip and barracks thereat, Mississippi river.....	60, 000	35, 000	25, 000
Repairs of Fort Pike and for additional barracks thereat.....	4, 000	4, 000	.....
Repairs of Fort Macomb (formerly Fort Wood) and for additional barracks thereat.....	11, 500	10, 000	1, 500
Repairs of Tower Duprè, Louisiana.....	500	500	.....
Total.....	385, 462	197, 100	188, 362
RECAPITULATION.			
First section.....	\$5, 106, 206	\$591, 000	\$946, 000
Second section.....	385, 462	197, 100	188, 362
Total.....	5, 491, 668	788, 100	1, 134, 362

II.

REPORTS FROM THE EIGHTH MILITARY DEPARTMENT—TEXAS.

July 18, 1852.—General Smith reports difficulties on the Rio Grande frontier, growing out of revolutionary enterprises against the adjacent Mexican States; also, respecting the Indians on the northwestern border of the State. Further legislation is necessary in regard to the execution of the neutrality laws, &c.

October 3, 1852.—The same. Reports a skirmish with Indians, and states that he has a sufficient military force to protect the country within the limits of his command.

HEADQUARTERS, EIGHTH DEPARTMENT,
San Antonio, July 18, 1852.

GENERAL: I have the honor to report concisely, for the information of the government and my more immediate superiors, the events which have transpired in this department in connexion with the late revolutionary movement of Carvajal in Mexico.

I transmit documents numbered from 1 to 54, containing various orders, reports, and communications on the subject.

Brevet Brigadier General Harney was detained on the Rio Grande some time after his operations were concluded, by the necessity of being ready to attend the court-martial which tried Brevet Majors Paul and Garnet, and by indisposition. The day before he arrived at San Antonio, I was obliged to leave it, and on my return, the 5th of this month, he met me. On the information now derived chiefly from him, but carefully compared with that from other sources, are forwarded the views and statements I now present.

There is no doubt that, for some years, much disaffection has existed in the adjacent Mexican States towards their central government. It was so previous to 1846, and it is not less so now.

While some of the population on the west side of the Rio Grande are ready to overturn their government, for motives interesting to themselves, there have been, on our side, many individuals ready to begin, or assist, for motives of their own, any such movement. Some who, in their own persons, or in those of friends, had suffered from the cruelties exercised by the Mexicans in the early contest with Texas, sought, and yet seek, to revenge them.

Many adventurers who have carried on an irregular trade find it easiest to evade the authorities when the country is disordered by revolution.

At the time the expeditions were preparing for Cuba, similar ones against Mexico were projected, and the neighboring parts of Texas were made the scene of their assembling. The exhortations of the press and orators intended for one, equally applied to the other, and produced its effect.

Some parties who had large quantities of goods to get into Mexico without duty, saw the means of introducing them in a revolution, whether finally successful or not.

Some particular speculations were founded on that event, and could only be carried on through it. Of this kind is one in particular which figures often in this history. Certain persons have purchased a large number of runaway negroes, said to be living in the adjoining Mexican States, and who can only be recovered by the consent of the actual authorities of these States.

When the companies of Texas rangers were disbanded last fall and winter, many men of unsettled habits were left without occupation or means of subsistence. These were ready for anything that offered to supply their necessities. Some of their officers, and many of their men, were already engaged to the inroad into Mexico while yet in the service of the United States; and you will see, by their final muster-rolls, that in some of the companies (Captain Ford's in particular) nearly all their arms are retained, none being turned in to the ordnance officer except such as were unserviceable. A large part of the population in the towns along the Rio Grande looked forward to disturbances there as being likely to cause large public expenditures, of the benefits of which they would chiefly partake; and the press, public meetings, and inferior civil officers, joined in everything that could aid in producing the event, or embarrass and obstruct those engaged in preventing it.

With these dispositions for revolution on one side; for revenge, speculation, plunder, and adventure, on the other; neither the will nor the means were wanting for the attempt.

Carvajal offered to each the reward that suited his circumstances. High rank and pay were offered to some as officers; certain commercial advantages to those engaged in business; the plunder of their enemies to others; and with the purchasers of the runaway negroes an engagement was made, in consideration of their services in the revolution, to allow them to seize and transport into Texas all such as might come within their reach. The chief of this party, by representation to the governor of the State that they were seeking runaway negroes on *this* side of the river, obtained from him a written authority and protection to cover their preparations. A copy of it is with Lieutenant Huston's report, Document No. 26.

Upon learning with sufficient certainty what was projected, the government of the United States immediately took measures to exercise to the fullest extent the authority given it by law. The President specially authorized the commander of the 8th military department to execute the law of 1818.

The communication notifying me of this delegation of authority, was transmitted from division headquarters. By accident, the authority itself did not accompany the notice which reached me while on a reconnaissance of the frontier, and near the head of the Hano river. Not having the documents from Washington, though judging correctly what was its purport, I could, in the orders I transmitted, only refer in general terms to it, and to the law; and when, in conformity with the suggestion of the commanding general of the division, that an officer of rank should be sent to have a general superintendence of the execution of this duty, General Harney was despatched for that purpose, I could, in my instructions to him, only state generally the nature of the duty, re-

ferring him to the documents which the next mail would doubtless (as it did) bring to the headquarters, San Antonio, while I continued my route on the frontier in a direction to carry me beyond all communication for some weeks. It thus happened that the department orders, giving to General Harney authority to carry out the orders of the President, did not specify with more detail the extent of the power committed to him. (See Document No. 1.) On my return in December other more specific orders were issued. (See Document No. 8.) All the troops in the department were directed to join in carrying out the instructions of the government.

I will not recite the events that happened on the frontier, since they are related with more precision in the reports of the various officers on duty there.

It will be seen that, taking advantage of the great extent of the line of the Rio Grande, being near 800 miles by the course of the river from its mouth to Eagle Pass, (Fort Duncan,) and crossed without much difficulty by small parties without baggage within almost every mile, Carvajal and his adherents several times invaded the adjoining Mexican States, attacked the government troops, were always defeated, committed many outrages, and were finally driven out of Mexico, and have dispersed on our border within our limits, where many of them remain to the great terror of our own people and of travellers.

That, encouraged by their successes over these parties, the Mexicans who suffered most from them are now retaliating by excursions across to our side; but, as usually happens in such cases, the retaliation often falls on the innocent, who, conscious of no wrong, are unprepared for the danger.

Since this state of things has arisen, (the natural result of unlawful acts of last winter,) various demands are made from all parts of that Territory for protection against these robbers.

So much that is false comes in the shape of reports from the frontier, that unless they are corroborated by official information it is not safe to depend on them. Affidavits and certificates of anything deemed convenient to circulate are spread over the country without a word of foundation in truth. Witness the accounts published of Carvajal's measures, numbers, and successes. But it is certain that Mexicans, aided by Indians, have crossed the Rio Grande and committed murders and robberies in Texas. Though I cannot say that their numbers at all approach that which rumor assigns them, I believe myself that a party under Villerial, mentioned in the papers handed to me by Governor Bell, and one or two smaller ones above, are frequently across on evil errands. I believe that two parties of Indians are down in that country from among those who made a treaty last October on the San Saba, about forty in all. Though some scattering Indians may have joined them, yet some have undoubtedly returned home. On the state of affairs as presented in the documents handed by Governor Bell, copies of which are hereby transmitted, marked 39 to 54, inclusive, I do not pretend to form an *exact* opinion. If I were to decide for myself, I should say many things are much exaggerated. The same parties and acts, represented incorrectly by different persons, are counted as additional causes of complaint. But the governor pronounces some of the

principal as worthy of credit. Acting on his opinion and official desire for aid, I have ordered five companies of mounted riflemen to move towards the Rio Grande and sweep the whole country between the Nueces and that river. I will direct the officers to attack any armed parties that may come over the river in hostile array, and to aid the civil authorities in arresting any that may have committed crimes, or that they have warrants to arrest; to attack and destroy all parties of Indians found in that part of the country. But this will not entirely meet the evil. Mexicans, armed, may cross into our borders, if they can conceal any hostile purpose, and may when here commit crimes for which United States troops have no more authority to arrest them than if they committed burglary in the city of New York.

It is proposed to call out volunteer companies to restore order on the frontier, but they will have no more authority in their cases than United States troops, and, when once organized and armed, they can easily be directed to other objects, as has been done before.

I have plenty of troops under my command to insure the tranquillity of the border if the law furnished them with authority to act; but what between the opposition of the population, and in favor of State authorities, and in fact the laws and claimed authority of the State, and the insufficient legislation of Congress, it is hard to find a path that does not lead into difficulty.

I regret that the rifles must be called into the field in this extremely hot season, and in the hottest region on the continent. The men and horses are unacclimated, and a year's service was necessary to prepare them for the field. Under these circumstances, the building of their quarters will be interrupted, and winter may find them without shelter; but these are the contingencies of service, and must be met by extraordinary care and attention.

But to render the employment of the troops effective, I beg to suggest the following: That the state of the frontier country, as it appears from all these documents, and from the experience of the last year, should be taken into consideration, and that laws should be passed defining exactly the powers and duties of officers and soldiers of the army, in maintaining the laws of the United States, and in aiding such civil officers as may be charged with the same duty; and, especially, in protecting them from the partial and sectional prosecutions to which they may be subjected when acting among a population all tinctured with interests identical with those the United States authorities are called upon to oppose. That civil officers be created and invested with power and authority to execute the laws. That appropriations be made for the additional expenses incident to troops acting in the field, and for furnishing what climate and peculiarity of country require to render service efficient.

Mounted men, serving against mounted Indians, have need of repeating fire-arms: they charge them suddenly, are in contact with them but a few minutes, and in that time must do all the execution they expect to do, and for that purpose the revolving pistol is absolutely necessary. The universal opinion among all classes, citizens, or soldiers conversant with warfare on this frontier, is identical on this point.

I therefore recommend that the ordnance depot be furnished with at

least eight hundred Colt's revolving pistols, for the use of the mounted troops.

The riflemen should all have the hunting-knife, which was made part of their armament in place of the sabre, and I beg that four hundred be furnished to the ordnance depot here, for them.

I respectfully suggest that a quantity of oats, sufficient to forage three hundred horses for sixty days, be sent to Brownsville, and thence up the Rio Grande as far as Ringgold barracks, to various points on the river, to meet the wants of mounted troops in the neighborhood. Hay being scarce, oats are preferable to corn. The ordinary appropriation bills not having passed, embarrassment may be caused. There is no money for current expenses here now.

I would respectfully present the necessity of some different arrangement being made by Congress with the State of Texas, in regard to the Indians, and then that some determinate policy with regard to them should be adopted,

I cannot protect them against the encroachments of settlers or traders, and can, consequently, hardly undertake to punish them when they do wrong. I cannot even tell them what is expected of them. I can only wait until they commit a depredation, and then endeavor, when already too late, to discover who did it.

I repeat, there are troops enough in the department (when the ranks are full) for all the purposes expected of them. The dragoons, however, want horses; and if active operations of any kind be expected, they will be absolutely necessary. And such operations will, of course, require much larger expenditures and appropriations than that suitable for a state of comparative rest.

There is much demand made for troops opposite El Paso. If that country should be included in this department, I would endeavor to visit it, and make myself acquainted with its wants, as soon as my health would permit.

There will be no medical officer to send with any detachment that takes the field on the Rio Grande; there is one to each post.

I respectfully refer to General Harney's last report on these subjects, dated "Austin, Texas, June 24, 1852." (Additional documents.)

He evidently thinks, and I concur with him, that another attempt is to be made by Carvajal's party. They will have legal advice, as the mode necessary to evade the present laws, and will carry on their projects without infringing the letter of them. Some new and very effective legislation is necessary to meet this case. But I do not go so far as General Harney, and confine my suggestion to the action of our own government alone. If the troops, or civil officers whom they are to aid, are not protected by some such legislation, it is useless to multiply posts. With a sufficient knowledge of the laws, a party could cross over into Mexico, through one of our posts, without affording sufficient grounds to justify their arrest.

I may here remark that we have no copy of the Laws of the United States here, and up to this moment I have no authentic or even printed copy of even the Act of 1818. I can refer to it only from memory, or from citations borrowed from other documents.

If troops are to be sent towards El Paso, another regiment will be

necessary, and will not be too many; for the efforts necessary to restrain the depredations of the Indians will produce hostilities with them before a year goes by.

I most heartily recommend General Harney's active, judicious, and energetic conduct in all the matters above referred to. The final suppression of Carvajal's enterprise is, in a great measure, due to the personal efforts of General Harney, which so embarrassed and precipitated the final revolutionary movements, that all precautions for certain success could not be taken, and the last effort was made under more unfavorable circumstances than its partisans expected.

He is possessed of valuable information in relation to the present state and future prospect of this frontier, which I should rejoice to see laid by him personally before the government.

With high respect, your most obedient servant,

PERSIFER F. SMITH,

Brevet Major General, Commanding 8th Military Department.

Brevet Major General R. JONES,

Adjutant General, Washington City, D. C.

HEADQUARTERS, EIGHTH MILITARY DEPARTMENT,

San Antonio, October 3, 1852.

SIR: I have the honor to transmit a copy of Lieutenant Frost's report of a rencontre he had with the party of Indians that had previously passed up between the Nueces and Rio Frio. For want of proper arms none of the Indians were killed, though the party was routed and dispersed and their horses and accoutrements taken. In a contested fight with Indians who intend to maintain their ground, nothing can compare with the rifle; but when a sudden charge is made into a party of Indians whose recourse is to flight, the only useful weapon, especially in the chapparal, is the revolver, which furnishes several shots in quick succession, at close quarters, before the enemy can disperse; they possess a repeating arm in their bow and arrows which are very effective at close quarters. The place where the Indians were overtaken is near the crossing of the upper Presidio Del Rio Grande road, as marked on Cordova's map.

Captain Jones, mounted rifles, now in command at Fort Ewell, reports that some Texan rangers are at his post, who informed him that they attacked a party of Indians they had followed from the Rio Grande, and killed two of them. This must have been on the west side of the Nueces not far from the same crossing.

Five companies of riflemen, three of infantry, and one of artillery are in active movement over the whole of the country between the Rio Frio and Rio Grande and south of the Eagle Pass road: they are ordered to move slowly until they get on a fresh Indian trail, never to stop more than two days at a place, and to open roads in all directions for future operations. Officers and men have entered into this duty with zeal and spirit, and are amply sufficient to execute their orders effectually.

The Indians just spoken of crossed the upper Rio Grande and came down through the Mexican territory, and crossed above Laredo just as the troops were getting into the positions in the interior to commence their movements. Finding the whole country occupied, they struck immediately for their usual line of retreat, between the Frio and Nueces, by which they can pass either by Las Moras, recrossing the Nueces above, or by the cañon de Uvalde or Baudua pass. Orders have been sent accordingly to watch these passes for their return.

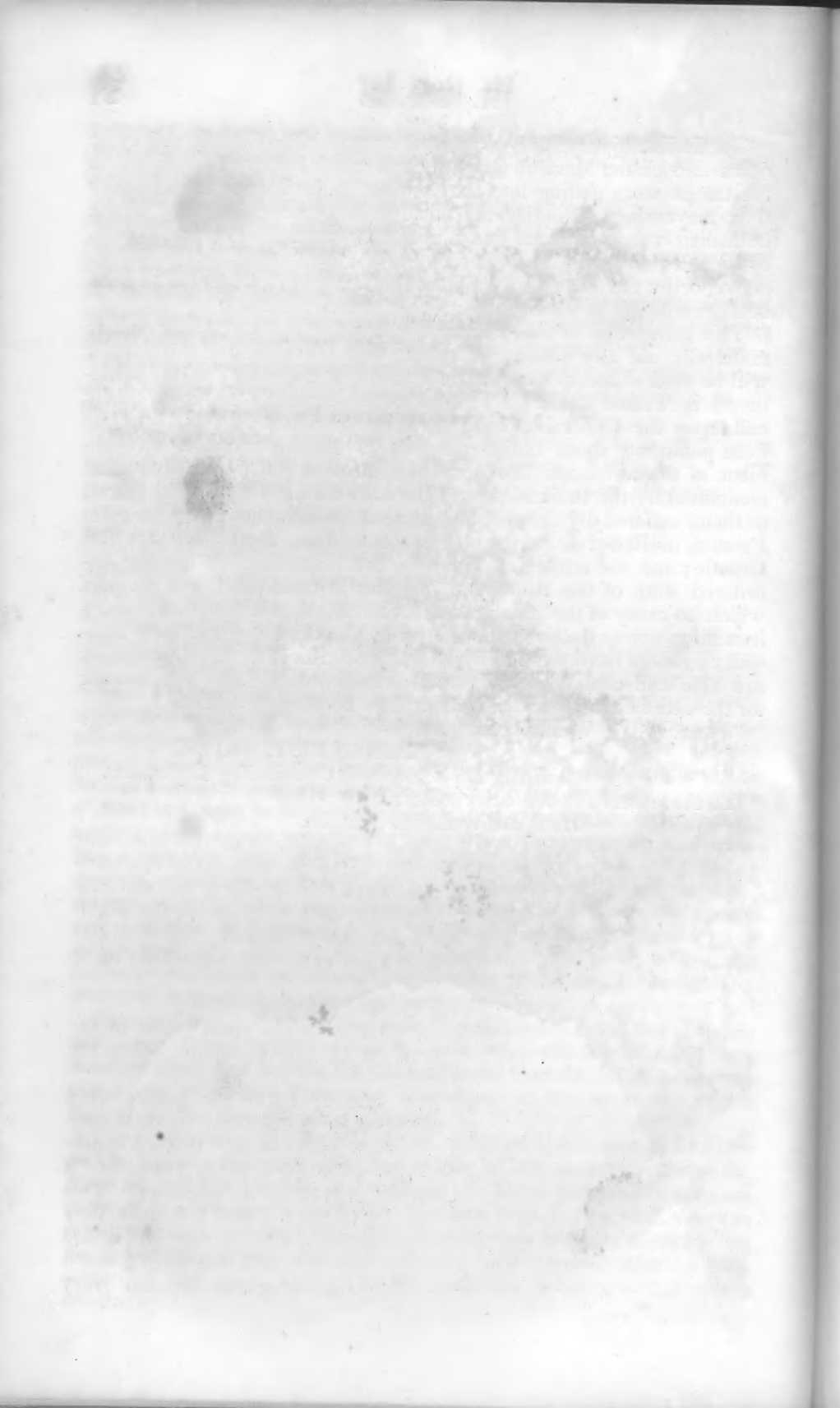
The knowledge of the country acquired by the troops now will so materially aid any future movement, that I feel assured this frontier will be soon as secure and tranquil as the northern limit of the settlements in Texas, as far as Indians are concerned; and I respectfully call upon the General to observe, that, notwithstanding all that has been published about Indian outrages in Texas, since the establishment of the advanced line of posts, not a single murder has been committed by the Indians, nor theft or other outrages that can be traced to them, suffered by the inhabitants on the whole line of frontier from Preston, on Red river, to the neighborhood of Las Moras, near the Rio Grande; and the settlements there are fast extending. When the disordered state of the Rio Grande frontier is considered, and the part which so many of the inhabitants there have taken in the revolutionary incursions across the river, it is not surprising that they and their tranquil neighbors have suffered by retaliation. But if the civil authorities are able and zealous in preventing *these* disorders, I can then answer for the entire security of the frontier from hostile aggression.

With respect your obedient servant,

PERSIFER F. SMITH,

Brevet Major General, Commanding Department.

To the ASSISTANT ADJUTANT GENERAL,
Headquarters Eastern Division.



III.

REPORTS FROM THE NINTH MILITARY DEPARTMENT, NEW MEXICO

May 27, 1852.—Colonel Sumner reports fully upon the present condition and future prospects of the Territory with regard to government, &c.

September 24, 1852.—The same reports Indian hostilities suppressed and expenses reduced; remarks upon military farm culture.

HEADQUARTERS, 9TH DEPARTMENT, SANTA FE, NEW MEXICO,
May 27, 1852.

SIR: Believing that at some leisure moment you would like to see an exact picture of New Mexico, I have drawn up the enclosed paper. The facts cannot be controverted; some of the inferences may be questioned, but I think every one of them can be maintained. I regret that I am obliged to make it so lengthy.

With high respect, your obedient servant,

E. V. SUMNER,

Brevet Col., Lieut. Col. 1st Dragoons; Commanding Department.

HON. C. M. CONRAD,

Secretary of War.

NEW MEXICO, SANTA FE,
May 27, 1852.

SIR: It may be well to premise that I consider it certain that some radical change must and will be made, in the government of this territory, sooner or later; that the people of the United States will not consent to bear this heavy burden, endlessly, without receiving the slightest return, and without even the possibility of bettering the condition of this people. It would, therefore, seem to be a question only as to time.

I would respectfully submit the following project:

Place the territory in the same relation to the government of the United States that it held towards the Mexican government before the war.

Withdraw all the troops and civil officers, and let the people elect their own civil officers, and conduct their government in their own way, under the general supervision of our government. It would probably assume a similar form to the one we found here in 1846, viz: a civil government, but under the entire control of the governor. This change would be highly gratifying to this people, and I believe they would cheerfully pledge themselves never to ask for any further aid from the United States than the same appropriations that were granted to the other Territories. There would be a pronunciamiento every

month or two, but these would be of no consequence, as they are very harmless when confined to Mexicans alone.

* * * * *

With all the economy that can be used, and exertions in agriculture, &c., so long as we hold this country, as we do now, it must be a very heavy burden to us; and there never can be the slightest return for all this outlay—not even in meliorating the condition of the people; for this distribution of public money makes them more idle and worthless. There is no possibility of any change for the better. Twenty—fifty years hence—this Territory will be precisely the same it is now. There can never be an inducement for any class of our people to come here whose example would improve this people. Speculators, adventurers, and the like, are all that will come, and their example is rather pernicious than beneficial.

No civil government, emanating from the government of the United States, can be maintained here without the aid of a military force; in fact, without its being virtually a military government. I do not believe there is an intelligent man in the Territory who is not, at the present time, fully sensible of this truth. All branches of this civil government have equally failed—the executive, for want of power; the judiciary, from the total incapacity and want of principle in the juries; and the legislative, from want of knowledge—a want of identity with our institutions, and an extreme reluctance to impose taxes; so much so, that they have never even provided the means to subsist prisoners, and, consequently, felons of all kinds were running at large.

The New Mexicans are thoroughly debased and totally incapable of self-government, and there is no latent quality about them that can ever make them respectable citizens. They have more Indian blood than Spanish, and in some respects are below the Pueblo Indians, for they are not as honest or industrious. In this remark, I allude to the lower classes; there are some educated gentlemen, with respectable families—about enough for magistrates and other official persons. There is not much increase in the population, owing to their gross depravity. I doubt if there is a tribe of Indians on the continent who are more abandoned in their commerce between the sexes than the great majority of this people.

The reduction of government expenses was, no doubt, the primary cause of the recent disaffection. As a conquered people, they feel a natural dislike towards us; but so long as we kept them supplied with money, and they had nothing to do but revel in their vices, they were content to stifle their patriotism. It requires but very little to subsist them, and, therefore, a small pittance enables them to pass their time in idleness and vice; but that little they must have, and there is now no way they can get it. The truth is, the only resource of this country is the government money. All classes depend upon it, from the professional man and trader down to the beggar. Before we took the country, a considerable part of the population earned a scanty livelihood at the mines; but this work was abandoned directly when the government money was scattered broadcast among them. These mines are not productive, and never can be made so, in comparison

to the inexhaustible mines of California; but a part of this people managed to earn at them a few shillings a day, and that supported them. They will be obliged to return to this work again, as the only means of living, while the rest must get from the soil the few articles that are necessary for their subsistence. There can never be any profitable agriculture in this country. There is but a very small part of it that is arable land; the valleys of the few streams comprise the whole of it; and much of this cannot be cultivated, owing to the efflorescence of salt; and the residue requiring such a laborious kind of irrigation and cultivation that corn cannot be raised here for less than a dollar a bushel. But, even if it could be raised as cheap as it is in Missouri, there would be no market for it beyond the wants of the government; and no agricultural product would ever pay transportation from this remote country.

With regard to their protection from the Indians, they would have the same that was extended to them by the Mexican government—that is to say, permission to defend themselves. Besides, they would be much better armed than they have ever been before, and the Indians would have more respect and fear for them. There is, too, a growing disposition on the part of the Indians to remain at peace, and support themselves by cultivation. The Navajoes and Utahs are perfectly quiet, and the Apaches, the only hostile bands now in the Territory, have committed no depredations within the last month, and have sent in word that they wish to make peace. If the Mexicans should act justly by the Indians, I think there would be no difficulty; but if they did not, and war should ensue, the Mexicans would always steal from the Indians quite as much as the Indians would steal from them, and thus they would be no losers in the end. On this point, too, I would remark that if this Territory was erected into a State, it would be expected that the people would take care of themselves, and they would be no better able to do it then than they are now. Again, why are we bound to give any more protection to this Territory than we give to Oregon and Utah? Those people are obliged to defend themselves against the Indians. Why should not this people do the same? I should think it would be well to give the Mexicans a liberal allowance of arms and ammunition, especially as there is a large supply here that is not worth transporting back.

It would be impossible for our troops to remain here with Mexican civil officers, for we should have to interpose in their squabbles, which would make them serious matters. There would be no danger of any attempt to throw off our sovereignty; the authorities (and they would soon be absolute) would be too much interested in getting appropriations: besides this, they would know that we could annihilate them at any time.

There would be very few Americans remain in the Territory; the number has already diminished very much. They are nearly all adventurers, not intending to reside here permanently; and, when they can no longer make money, they will soon leave. At all events, the few that would remain could take care of themselves quite as well as those did who were here before the war.

It may be thought that the abandonment of the new posts so recently established would be a great sacrifice; but it would not be so. They were built entirely by the troops, and cost but little, and labor was beneficial to the command.

I am, sir, with high respect, your obedient servant,

E. V. SUMNER,

*Brevet Col., Lieut. Col. 1st Dragoons, 9th Department,
in charge of executive office.*

HON. C. M. CONRAD,
Secretary of War.

NOTES.—If there are any obligations upon us, either by treaty or promise, to give more protection to this Territory than to the others, (of which I am not aware,) I have no doubt but this people would gladly absolve us from all such obligations to have the government placed in their own hands.

With regard to the execution of the eleventh article of the treaty of Guadalupe Hidalgo, the advance of two posts to the western limits of Texas (on the Rio Grande) would give all the protection to the inhabitants of Mexico that can be given by troops stationed in this Territory.

HEADQUARTERS, NINTH DEPARTMENT,
Albuquerque, New Mexico, September 24, 1852.

SIR: Governor Lane arrived at Santa Fé on the 9th instant, and on the following day I relinquished all charge of civil affairs and returned to this place. I have the pleasure to report that all things continue quiet in this department. The only hostile Indians in the Territory are a small band of Apaches, headed by the chief with whom Major Richardson had the difficulty last spring. This chief (Delgarito) continues sour and suspicious, but he has committed no depredations of late, and I think will soon come into the treaty. The new posts in the Indian country have had the happiest effect; indeed, it is plain that this is the only certain way of controlling Indians.

The orders of the War Department for the reduction of expenses have been rigidly carried into effect in spite of the most determined opposition from all classes.

In making these reforms, I have been very much aided by the intelligent and zealous co-operation of Brevet Majors Sibley and Rucker, of the quartermaster's department.

I would respectfully refer to the quartermaster and commissary general for the difference of expenses in this department between the fiscal years of 1850-'51 and 1851-'52, notwithstanding five new posts were built in the latter year.

The farming operations have not been as successful at all the posts as I expected, but I think that all difficulties will vanish when it is known and felt that no officer will be continued in command of a post who does not exert himself to carry out the orders of the government in relation to this matter. The scheme is unquestionably practicable and advantageous to the troops as well as the government; as a proof

of it, I enclose a brief statement of what has been done this year by
Brevet Major Rucker on a small place of thirty acres.

Very respectfully, your obedient servant,

E. V. SUMNER,

Brevet Col., and Lieut. Col. 1st Dragoons, Com. Dept.

To the ADJUTANT GENERAL U. S. ARMY.

Statement of the proceeds from the farm of thirty acres, near Albuquerque, New Mexico, during the year 1852.

Current prices of forage in St. Louis, Missouri.	Amount.	Lowest price of forage in New Mexico.	Amount.
98 20-32 bushels of barley, at 37½ cents per bushel.....	\$36 98	98 20-32 bushels of barley, at \$1 20 per bushel.....	\$118 35
113 8-32 bushels of wheat, at 80 cents per bushel.....	90 60	113 8-32 bushels of wheat, at \$1 60 per bushel.....	181 20
163 18-32 bushels of corn, at 44 cents per bushel.....	71 96	163 18-32 bushels of corn, at \$1 20 per bushel.....	196 27
11,487 pounds of straw, at 1 cent per pound.....	114 87	11,487 pounds of straw, at 1 cent per pound.....	114 87
11,470 pounds of fodder, at ½ cent per pound.....	57 35	11,470 pounds of fodder, at 1 cent per pound.....	114 70
Total amount received from farm.....	371 76	At the prices in New Mexico.....	725 39
Amount paid by Major D. H. Rucker, assistant quartermaster, on account of farm culture.....	87 00	At the prices in St. Louis.....	371 76
Net amount received from farm.....	284 76		353 63

NOTE.—In addition to the above, there has been cultivated at this place a garden, in which there was raised a fair crop of vegetables for general use

D. H. RUCKER, *Brevet Major United States Army.*

IV.

REPORTS FROM THE PACIFIC DIVISION—CALIFORNIA AND OREGON.

October 28, 1851.—General Hitchcock reports that the Indians who have committed depredations south of the Gila, lived habitually south of that river until the signing of the treaty of Guadalupe Hidalgo.

August 31, 1852.—The same reports Indian hostilities suppressed for the present, but, unless provision be made by law to define and protect their rights, disorder must ensue. The whites now commit aggressions and demand military protection against retaliation on the part of the Indians.

October 29, 1852.—The same reports that the Yuma Indians have agreed to a peace, and the troubles in the southern district are quieted; remarks respecting the navigation of the Colorado, above the junction of the Gila, which may prove to be the best route to the Great Salt Lake.

HEADQUARTERS, PACIFIC DIVISION,
Benicia, October 28, 1851.

SIR: I have just had an interview with Colonel Harasthy, a member of the legislature of California, from San Diego, who mentioned, in answer to many inquiries addressed to him, that the Indians who have committed depredations in Mexico along or south of the Gila, from a point above some two hundred miles from its mouth, though now many of them ranging in the country north of the Gila, habitually lived south of the river until the signing of the treaty of Guadalupe Hidalgo. Colonel Harasthy passed through that country in 1849, and spoke as if he knew the facts he represented, and he gave the information simply as truth, and without any view to its effect upon Mexican claims for depredations committed by those Indians.

If Colonel Harasthy be correct as to his facts, the Indians in question, so far from being regarded as depredating in Mexico from the United States, are, on the contrary, intruders in the United States from Mexico; and I have thought proper to communicate the statement for such use as the department may think proper.

I have the honor to be, very respectfully, your obedient servant,
E. A. HITCHCOCK,

Col. 2d Infantry, Brev. Brig. General.

Hon. C. M. CONRAD,
Secretary of War.

HEADQUARTERS, PACIFIC DIVISION,
San Francisco, August 31, 1852.

SIR: I have the honor to state that the measures reported by my letter of the 30th July have succeeded in temporarily repressing a disposition to hostility on the part of the Indians on the upper waters of the San Joaquin; but I deem it my duty to suggest that unless something decisive shall be speedily done to determine by law the rights of the Indians, nothing but disorder and confusion, with bloodshed, can be anticipated.

The question to be determined is, whether the Indians in this State have rights, and shall be protected in them, according to legal usage in the older States? The practice is assumed by the whites in this country of occupying the desirable lands, either for gold hunting or agriculture, without leave of the Indians; and this inevitably leads to irritation, and must, in the end, produce wars of more or less serious character.

It is not wise to leave this state of things to settle itself; but competent and *honest* agents of the government should be employed to make treaties with the Indians calculated to give them support and protection, while the best portions of the country must be purchased for the whites. The task of settling this matter will become more and more difficult the longer it is delayed. I do not mean to be understood by these remarks as recommending the sanction of the treaties hitherto made, which I have many reasons for supposing worse than ill-judged.

As matters now stand, the United States troops are placed in a most delicate and awkward position. The whites go in upon Indian lands, provoke the Indians, bring on collisions, and then call for protection, and complain if it is not furnished, while the practical effect of the presence of the troops can be little else than to countenance and give security to them in their aggressions; the Indians, meanwhile, looking upon the military as their friends, and imploring their protection. This is precisely the case on the San Joaquin, where an extensive and expensive war may be expected to break out at any moment, produced by the conduct of the whites, and not of the Indians—the object of the former being to drive the Indians out of the rich valleys, that they may appropriate them to their own use.

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

E. A. HITCHCOCK,

Col. 2d Infantry, Brev. Brig. Gen'l Comd'g.

HEADQUARTERS, PACIFIC DIVISION,
San Francisco, October 29, 1852.

SIR: Division orders No. 52, herewith enclosed, announces that the Yuma Indians have agreed upon peace with the whites, and there seems to be good grounds for the hope that the troubles in the southern district of California have been terminated. Brevet Major Heintzelman returned to Fort Yuma on the 10th instant from an expedition up the Colorado. He reports that the navigation of the Colorado above the junction of the Gila, for about a hundred miles, is better than below the

junction, "and far superior to the Ohio." "There was at no place in the channel less than six feet water." "The lands on the river bottoms are excellent." "This may ultimately be found the best route to the Great Salt Lake, and should the southern route be selected for a railroad, the iron could be introduced by this river."

The contractor for supplying the post with provisions, &c., had just arrived at the post from below, and expected to reach it with his steamboat in all of this month.

I am, sir, very respectfully, your obedient servant,

E. A. HITCHCOCK,

Col. 2d Infantry, Brev. Brig. Gen. Commanding

The ADJUTANT GENERAL U. S. ARMY,

City of Washington, D. C.

The first part of the book is devoted to a general history of the world, from the beginning of time to the present day. The author discusses the various civilizations that have flourished on the earth, and the progress of human knowledge and art. He also touches upon the political and social changes that have shaped the course of history.

In the second part, the author turns to a more detailed account of the life of the subject of the book. He describes the early years of the subject's life, his education, and his various occupations. He also relates the important events of the subject's life, and the influence of these events upon his character and actions.

The third part of the book is a collection of the subject's letters and other writings. These documents give us a more intimate view of the subject's mind and heart, and show us how he thought and felt about the world and his fellow-men.

The fourth part of the book is a collection of the subject's speeches and public addresses. These documents show us the subject's views upon the most important questions of his time, and his power of eloquence and reasoning.

The fifth part of the book is a collection of the subject's private papers and other documents. These documents give us a more complete and accurate view of the subject's life and character, and show us the various influences that shaped his mind and actions.

The sixth part of the book is a collection of the subject's portraits and other illustrations. These illustrations give us a more vivid and interesting view of the subject's life, and show us the various scenes and events that were so important to him.

The seventh part of the book is a collection of the subject's names and other titles. These names and titles show us the various honors and distinctions that were bestowed upon the subject, and the respect and admiration that he enjoyed throughout his life.

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V.

REPORT OF THE GENERAL-IN-CHIEF.

HEADQUARTERS OF THE ARMY,
Washington, November 22, 1852.

SIR: The following returns from the Adjutant General's Office accompany this annual report:

1. Organization of the army as established by law—marked A.
2. General return of the army, showing the actual numbers borne on the rolls—B.
3. Distribution of the troops in the Eastern Division—C.
4. Distribution of the troops in the Western Division—D.
5. Distribution of the troops in the Third or Pacific Division—E.
6. Statement of the number of recruits enlisted from October 1, 1851, to September 30, 1852—F.

During the past twelve months the troops on the frontiers have been actively employed, and have had several sharp combats with parties of Indians in Texas, New Mexico, and California. All, however, is now quiet, and it is hoped the judicious distribution of the forces made by the commanders in those quarters may prevent any further outbreaks. Eight companies of the rifle regiment, withdrawn from Oregon last year, having been recruited and remounted, were ordered to Texas, where an additional mounted force was much needed. For the defence of the frontiers of that State there are now, under the orders of Brevet Major General Smith, fourteen companies of cavalry, two companies of artillery, with three regiments and two companies of infantry—in all, forty-eight companies. The three infantry regiments are distributed along an exterior cordon of posts, in advance of the white settlements, and stretching from Eagle Pass, on the Rio Grande, to Preston, on the Red river. The remainder of the force is posted on the Rio Grande, below Eagle Pass, and along a second line interior to the first. By this arrangement the mounted troops are foraged more economically and with greater facility, and are in position to move promptly to any assailed point of the first line.

The force in New Mexico consists of nine companies of dragoons, two of artillery, and one regiment (ten companies) of infantry. Several new posts have been recently established in this Territory, near the heart of the Indian country, and appear to have had the effect of awing the warlike tribes into quietness.

The hostile disposition manifested by the Indians in California and Oregon, requiring that our troops in that quarter should be reinforced, the fourth regiment of infantry was withdrawn from the northern lakes and ordered thither. The force under Brevet Brigadier General Hitchcock, who commands the Pacific division, will soon consist of three companies of dragoons, five companies of artillery, and two regiments (twenty companies) of infantry—in all, twenty-eight companies. Sev-

eral changes in the stations of the troops, within this division, have been made during the year. The post at the mouth of the Gila has been reoccupied with a garrison of three companies. This post will exercise a salutary check on the Yuma Indians, the most warlike tribe in California, and who have hitherto greatly harassed the emigrants passing through their country by the southern route to the Pacific. The whole of the fourth infantry, eight companies of which have already arrived out, is to be stationed in Oregon and northern California—the headquarters; with four companies at Vancouver, one company at the dalles of the Columbia river, and the remainder of the regiment so distributed as to guard and keep open the communication between Oregon and California.

The other movements of troops, of less importance, may be thus briefly stated: a portion of the fourth artillery, sent from the sea-board to replace the fourth infantry on the northern lakes, and two companies of the second artillery, sent from Charleston harbor to Florida, to meet the possibility of difficulties in that quarter, growing out of the contemplated removal thence of a remnant of Seminoles to the country assigned them west of the Arkansas.

The *Recruiting Service* has been conducted with the usual success—the number of men enlisted being 4,174. The officers engaged in this branch of the service have shown a commendable zeal in the performance of their duties. Their accounts have, in general, been promptly rendered and the expenditures judiciously made.

The attention of recruiting officers has been repeatedly called to the subject of minors, in order to guard against the enlistment of any except in strict accordance with law. The General Regulations, in conformity therewith, prohibit such enlistments without the written consent of the parent, master, or guardian of the minor, if he have any; and if he affirm that he has neither, he is required, before acceptance, to have a guardian appointed, according to law, to give the written consent. With all the care and scrutiny thus exercised, many minors, whose appearance indicate full age, but who turn out to be less by ten, fifteen, and even twenty months, impose themselves upon the recruiting officers. This is almost daily shown by applications from parents and guardians to the Secretary of War, who, on proof of minority, is compelled to grant discharges under the fifth section of the act "making appropriations for the support of the army," &c., approved September 28, 1850. To guard the public interest against the vexations and great pecuniary loss attending such frauds, additional legislation would seem to be necessary. It is accordingly suggested that the minor who thus seeks to make money by imposing himself on the service, should either be compelled to serve out the term of enlistment or the offence be made punishable before a civil court.

The third section of the act of June 17, 1850, "to increase the rank and file of the army, and to encourage enlistments," having almost entirely failed to effect its purposes, may advantageously be repealed. Very few men enter the service, for the first time, at our more distant stations; and an ample bounty is provided for the soldier who re-enlists, by the 29th section of the act "to increase the present military establishment," &c., approved July 5, 1838.

Farm Culture.—So far farm culture, by the troops, as directed by General Orders No. 1, January 8, 1851, (a copy of which was appended to my last annual report,) has not fulfilled the desired objects. In Texas, California, and Oregon, nothing has been attempted, in consequence of the troops in those departments being constantly employed either in the pursuit of marauding Indians, or in the establishment of new posts to hold them in check, and to protect the frontier settlements. In New Mexico but little was accomplished during the past year, and the outlay far exceeded the receipts. Better results, doubtless, may hereafter be expected there, particularly as it has been found necessary to employ as farmers hired citizens. At the distant posts, on the western plains, cultivation failed entirely. It will, perhaps, be expedient, looking to the encouragement of population in the neighborhood of military posts, to discontinue the system. Besides the protection gained, a main inducement with emigrants to settle near a military station, is to find a ready market for their surplus produce, which inducement would be taken away if the public farms were successful. It is found, moreover, that troops cannot be kept actively engaged in military duties, and maintain discipline, if required to engage in cultivation beyond kitchen gardens.

Revision of the Rules and Articles of War. Congress, September 20, 1776, borrowed entire from the mother country the statutory code for our revolutionary army, which stood, without material change, down to April 10, 1806, when the present rules and articles were re-enacted upon a revision made in one of the military committees of Congress. This revision gave a cast and form entirely new to the previous code, and embraces material changes and discrepancies—each a blunder—the effect of the excessive low state of every kind of military knowledge in the United States at that period. It is recommended that the whole subject be now referred to a board of officers to report a new revision to be laid before Congress.

For the codes of 1776 and 1806, see *Hetzell's Military Laws*, page 13, &c., and page 107, &c.

Tactical Instruction for the Militia.—By existing laws the militia are required to observe the systems of instruction provided for the regular army, and yet no provision has been made for furnishing them with the necessary systems, although some nine millions of dollars have been appropriated in the last forty years towards *arming* them. Without books to teach their use, the arms themselves are of little value. Hence it is again recommended that the books be supplied. The additional annual expense need not exceed \$20,000, and that only for a few years.—See the remarks on this subject in my last annual report.

Military Asylum.—For the progress made in carrying out the beneficent intentions of Congress, as expressed in the act of March, 1851, see the recent report of the board created by that act, addressed to the War Department for Congress.

Retired list for superannuated and disabled Officers.—See the remarks on this subject in my last annual report. The necessity for some such measure has greatly increased since the Mexican war, the number of officers of the junior grades wounded in that war having swelled the invalid list, which previously consisted almost exclusively of officers of

the senior grades, disabled by the infirmities of age. The creation of such a list ought not to be mistaken for an extension of the pension system. The officers who would be placed on it are already in the receipt of full pay without performing any duty. The system so often recommended would retire them on reduced compensation, promote efficient officers in their stead, and thus greatly contribute to the good of the service without any new imposition on the treasury.

The cavalry force now authorized is inadequate, by the demonstration of experience, to the wants of the service. No troops are, generally, so efficient against Indians; and the immense extent of our frontiers requires that at least one more regiment of horse should be added to the establishment. The number of privates allowed to companies of all arms should, in no case, fall below *sixty-four*, with a sliding scale, upwards, to eighty-four, at the discretion of the Executive.

It would seem but just that the pension laws provided for the navy should be extended to the army. No reason is seen for the discrimination between these kindred branches of the public service. The pensions in both cases come out of the general fund, and, as both share common dangers and undergo equal vicissitudes in the discharge of duties, the same rewards should be appointed to each. The widows and orphans of deceased naval officers, seamen, and marines, receive five-year pensions, renewable every five years, whether the deaths occurred in battle or were caused by disease contracted in service; while the widows of army officers receive pensions only when their husbands have been killed in action, and then but for five years; and the period has never been extended. Widows of the enlisted men (non-commissioned officers and privates) of the army receive no pensions, no matter what the circumstances, although the laws allow pensions to the widows and orphans of volunteers (whether officers or privates) who may have been killed, or have died from any cause, while in service. Such unequal legislation ought surely to be corrected, and no time could be more appropriate than the present. The five-year pensions granted to the widows, &c., of the Mexican war have just expired, or are about expiring. These relicts and children of gallant officers are, almost without an exception, in the humblest circumstances. The subject of pensions is well presented in a report dated January 7, 1846, made by the Committee on Military Affairs of the Senate.— See Senate Documents No. 43, 3d volume, 1st session 29th Congress; also (hereto annexed) extracts from my annual reports, dated Nov. 22, 1841, and Nov. 26, 1846.

I have the honor to remain, sir, with high respect, your most obedient servant,

WINFIELD SCOTT.

Hon. C. M. CONRAD,
Secretary of War.

Extract from annual report from Headquarters of the Army, Washington, November 22, 1841.

“I beg leave to recall attention * * * * * to some provision of law in favor of widows and orphans of regular officers, who have died, or may die, in consequence of wounds received, or diseases contracted, in service; there being such provision already made in behalf of the widows and orphans of navy, volunteer, and militia officers dying under such circumstances. Indeed, the whole subject of army pensions to widows and orphans and to disabled officers requires equitable revision.”

Extract from annual report from Headquarters of the Army, New York, November 26, 1846.

“Our pension system, including allowances to widows and children—interesting alike to regulars, volunteers, and militiamen, disabled in service, and to their families when the officers and men die of wounds, or other disabilities—is the poorest in all Christendom. * * * * * (Please see *Cross's* [or *Hetzels*] *Mil. Laws*, following the references of the index, under the heads: ‘Pensions to invalids,’ and ‘widows and orphans—provisions for.’) 1. The limitation to half pay, excluding half subsistence; 2. To the half pay of lieutenant colonel, [\$30 a month] no matter how much higher the rank of the disabled or deceased officer, [and less and less for inferior grades;] 3. Requiring the highest rate of disability to entitle the officer or man to receive even that sort of half pay; and 4. The limitation to five years, in respect to both widows and orphans—are all disreputable to our Statute-Book and civilization. I trust the whole system may be liberally revised.”

A—Organization of the regular army of the United States—1852.

General officers	1	2	1	1	*4	8	*1	2	1	2	2	5	*29	1	1	2	*8
Aids-de-camp to general officers																	
Adjutant general's department			1	1													
Judge advocate's department						8	*1										
Inspector general's department								2									
Quartermaster's department									1	2	2	5	*29	1	1	2	*8
Subsistence department																	
Medical department																	
Pay department																	
Corps of engineers																	
Corps of topographical engineers																	
Ordnance department																	
1st regiment of dragoons																	
2d regiment of dragoons																	
Aggregate of dragoons																	
Regiment of mounted riflemen																	

1st regiment of artillery																	
2d regiment of artillery																	
3d regiment of artillery																	
4th regiment of artillery																	
Aggregate of artillery																	
1st regiment of infantry																	
2d regiment of infantry																	
3d regiment of infantry																	
4th regiment of infantry																	
5th regiment of infantry																	
6th regiment of infantry																	
7th regiment of infantry																	
8th regiment of infantry																	
Aggregate of infantry																	
Non-commissioned staff unattached to regiments																	
Grand aggregate	1	2	1	1	*4	8	*1	2	1	2	2	5	*29	1	1	2	*8

* *Three* of the four assistant adjutants general, (majors by brevet,) *seven* of the twenty-nine assistant quartermasters, and *four* of the eight commissaries of subsistence, (captains,) belonging also to regiments, and being reported in the strength thereof, to avoid counting them twice, are excluded as *staff* officers from the columns "total commissioned" and "aggregate" of their respective departments. The regimental and staff commissions held by these officers are of *unequal* grades, and hence they are not affected by the provisions of the 7th section of the act of June 18, 1846. The like remark is applicable to the *judge advocate* of the army, who is also a captain in the Ordnance department.

† Under the act of July 19, 1848, section 3, vacancies in the grades of quartermaster and assistant quartermasters cannot be filled until the number of quartermasters be reduced to *four*, and of assistant quartermasters to *twenty-eight*.

A—Organization of the regular army of the United States—Continued.

	Surgeon general.	Surgeons.	Assistant surgeons.	Paymaster general.	Deputy paymasters general.	Paymasters.	Colonels.	Lieutenant colonels.	Majors.	Captains.	Aids-de-camp.	Adjutants.	Regimental quartermasters.	First lieutenants.	Second lieutenants.	Brevet second lieutenants †	Military storekeepers.
General officers.....																	
Aids-de-camp to general officers.....											*4						
Adjutant general's department.....																	
Judge advocate's department.....																	
Inspector general's department.....																	
Quartermaster's department.....																	2
Subsistence department.....																	
Medical department.....	1	22	72	1	2	25											
Pay department.....																	
Corps of engineers.....							1	2	4	12				12	12	8	
Corps of topographical engineers.....							1	1	4	10				10	10	6	
Ordnance department.....							1	1	4	12				12	6	4	15
1st regiment of dragoons.....							1	1	2	10		1	†1	10	10	4	
2d regiment of dragoons.....							1	1	2	10		1	†1	10	10	3	
Aggregate of dragoons.....							2	2	4	20		2	†2	20	20	7	
Regiment of mounted riflemen.....							1	1	2	10		1	†1	10	10	4	

1st regiment of artillery.....							1	1	2	12		†1	†1	24	12	2	
2d regiment of artillery.....							1	1	2	12		†1	†1	24	12		
3d regiment of artillery.....							1	1	2	12		†1	†1	24	12	3	
4th regiment of artillery.....							1	1	2	12		†1	†1	24	12	2	
Aggregate of artillery.....							4	4	8	48		†4	†4	96	48	7	
1st regiment of infantry.....							1	1	2	10		†1	†1	10	10	3	
2d regiment of infantry.....							1	1	2	10		†1	†1	10	10	4	
3d regiment of infantry.....							1	1	2	10		†1	†1	10	10	3	
4th regiment of infantry.....							1	1	2	10		†1	†1	10	10	2	
5th regiment of infantry.....							1	1	2	10		†1	†1	10	10	4	
6th regiment of infantry.....							1	1	2	10		†1	†1	10	10	4	
7th regiment of infantry.....							1	1	2	10		†1	†1	10	10	4	
8th regiment of infantry.....							1	1	2	10		†1	†1	10	10	3	
Aggregate of infantry.....							8	8	16	80		†8	†8	80	80	27	
Non-commissioned staff unattached to regiments.....																	
Grand aggregate.....	1	22	72	1	2	25	18	19	42	192	*4	†15	†15	240	186	†63	17

* The four aids-de-camp, being taken from regiments and reported in the strength thereof, to avoid counting them twice, are excluded as *staff* officers from the columns "total commissioned" and "aggregate."

† The adjutants of artillery and infantry, (12,) and *all* the regimental quartermasters, (15,) being taken from the subalterns, and accounted for in their several regiments as belonging to companies, are excluded as regimental *staff* officers from the columns "total commissioned" and "aggregate."

‡ Under the 4th section of the act of April 29, 1812, "making further provision for the corps of engineers," one brevet second lieutenant is allowed for every "company." The number authorized is, consequently, *one hundred and fifty-nine*. The number now attached to the army is *sixty-three*.

A—Organization of the regular army of the United States—Continued.

	Sergeant majors.	Quartermaster sergeants.	Principal or chief musicians.	Chief buglers.	Ordnance sergeants.*	Sergeants.	Corporals.	Buglers.	Musicians.	Farriers and blacksmiths.	Artificers.	Privates.†	Enlisted men of ordnance.	Total commissioned.	Total enlisted.	Aggregate.
General officers.....														3		3
Aids-de-camp to general officers.....																
Adjutant general's department.....														11		11
Judge advocate's department.....																
Inspector general's department.....														2		2
Quartermaster's department.....														34		34
Subsistence department.....														8		8
Medical department.....														95		95
Pay department.....														28		28
Corps of engineers.....						10	10		2			78		51	100	151
Corps of topographical engineers.....														42		42
Ordnance department.....													250	55	250	305
1st regiment of dragoons.....	1	1	1	2		40	40	20		10		500		39	615	654
2d regiment of dragoons.....	1	1	1	2		40	40	20		10		500		38	615	653
Aggregate of dragoons.....	2	2	2	4		80	80	40		20		1,000		77	1,230	1,307
Regiment of mounted riflemen.....	1	1	1	2		40	40	20		20		640		39	765	804
1st regiment of artillery.....	1	1				48	48		24		24	†526		54	672	726
2d regiment of artillery.....	1	1				48	48		24		24	†526		52	672	724
3d regiment of artillery.....	1	1				48	48		24		24	†526		55	673	727

4th regiment of artillery	1	1	.....	.....	.....	48	48	.....	24	.....	24	1526	.....	54	672	726
Aggregate of artillery	4	4	.....	.....	.....	192	192	.....	96	.....	96	42,104	.....	215	2,688	2,903
1st regiment of infantry	1	1	2	.....	.....	40	40	.....	20	.....	.....	420	.....	37	524	561
2d regiment of infantry	1	1	2	.....	.....	40	40	.....	20	.....	.....	420	.....	38	524	562
3d regiment of infantry	1	1	2	.....	.....	40	40	.....	20	.....	.....	420	.....	37	524	561
4th regiment of infantry	1	1	2	.....	.....	40	40	.....	20	.....	.....	420	.....	36	524	560
5th regiment of infantry	1	1	2	.....	.....	40	40	.....	20	.....	.....	420	.....	38	524	562
6th regiment of infantry	1	1	2	.....	.....	40	40	.....	20	.....	.....	420	.....	38	524	562
7th regiment of infantry	1	1	2	.....	.....	40	40	.....	20	.....	.....	420	.....	38	524	562
8th regiment of infantry	1	1	2	.....	.....	40	40	.....	20	.....	.....	420	.....	37	524	561
Aggregate of infantry	8	8	16	.....	.....	320	320	.....	160	.....	.....	3,360	.....	299	4,192	4,491
Non-commissioned staff unattached to reg'ts ..	.....	.....	.....	.....	.....	59	.....	.....	.....	.....	.....	.....	.....	.....	59	59
Grand aggregate	15	15	19	6	*59	642	642	60	258	40	96	47,182	250	959	9,284	10,243

* By the act of April 5, 1832, section 2, "providing for the organization of the Ordnance department," the number of ordnance sergeants cannot exceed "one for each military post." The number actually in service is *fifty-nine*.

† One company in each of the four regiments of artillery, being equipped as light artillery, is allowed, in consequence thereof, "sixty-four" instead of forty-two privates. See act "to increase the rank and file of the army," &c., approved June 17, 1850, section 1.

‡ By the act of June 17, 1850, (cited in the preceding note,) section 2, the President is authorized, whenever the exigencies of the service require it, to increase to *seventy-four* the number of privates in any company "serving at the several military posts on the western frontier, and at remote and distant stations." In the table the minimum, or fixed organization, is given, viz: *fifty* privates to a company of dragoons, *sixty-four* to one of light artillery and riflemen, and *forty-two* to the artillery and infantry. Under the authority conferred upon him, the President has directed that the number of privates be carried up to *seventy-four* in the several companies serving in Texas, New Mexico, California, and Oregon, as well as those stationed at Forts Snelling and Ripley, on the upper Mississippi; Forts Kearny and Laramie, on the Oregon route; Fort Dodge, on the Des Moines river; Fort Atkinson, at the crossing of the Arkansas, on the Santa Fé route; and Fort Arbuckle, at the crossing of the Washita river, near Wild Horse creek. There being at this time *one hundred and seven* companies serving at these distant stations, the authorized increase in the number of privates is 3,096; making the "total enlisted" (as the troops are now posted) 12,380, and the "aggregate" 13,399. If *all* the companies belonging to "regiments" (158) were serving at the distant stations described, the additional number of privates allowed would then be 4,488—thus increasing the "total enlisted" to 13,772, and the "aggregate" to 14,731.

ADJUTANT GENERAL'S OFFICE, Washington, November 15, 1852.

HEADQUARTERS OF THE ARMY, Washington, November 15, 1852.

S. COOPER, Adjutant General.

WINFIELD SCOTT.

B.—General return of the army of the United States, compiled from the latest returns (of different dates) corrected at the Adjutant General's Office.

	PRESENT.																								
	For duty.																								
	Major general.	Brigadier generals.	Adjutant general.	Assist. adjutant general, (lieutenant colonel.)	Asst. adjutants general, (majors by brevet.)*	Assist. adjutants general, (captains by brevet.)	Judge advocate.*	Inspectors general.	Quartermaster general.	Assistant quartermaster general.	Deputy quartermasters general.	Quartermasters.	Assist. quartermasters.*	Commissary general of subsistence.	Ass't commissary general of subsistence.	Commissaries of subsistence, (majors.)	Commissaries of subsistence, (captains.)*	Surgeon general.	Surgeons.	Assistant surgeons.	Paymaster general.	Deputy paymasters general.	Paymasters.	Colonels.	
General officers.....	1	2																							
Aids-de-camp to general officers.....																									
Adjutant general's department.....			1	1	4	6																			
Judge advocate's department.....							1																		
Inspector general's department.....								2																	
Quartermaster's department.....									1	1	2	4	20												
Subsistence department.....														1	1	1	6								
Medical department.....																		1	19	61					
Pay department.....																						2	22		
Corps of engineers.....																									1
Corps of topographical engineers.....																									1
Ordnance department.....																									1
1st regiment of dragoons.....																									1
2d regiment of dragoons.....																									1
Aggregate of dragoons.....																									1

B—General return of the army of the United States—Continued.

	PRESENT.																							
	For duty.																							
	Lieutenant colonels.	Majors.	Captains.	Aids-de-camp. *	Adjutants. †	Regimental quartermasters. †	First lieutenants.	Second lieutenants.	Brevet second lieutenants.	Military storekeepers.	Sergeant majors.	Quartermaster serg'ts.	Principal or chief musicians.	Chief buglers.	Ordnance sergeants.	Sergeants.	Corporals.	Buglers.	Musicians.	Farriers & blacksmiths.	Artificers.	Enlisted men of ordnance.	Privates.	
General officers.....																								
Aids-de-camp to general officers.....				4																				
Adjutant general's department.....																								
Judge advocate's department.....																								
Inspector general's department.....																								
Quartermaster's department.....										2														
Subsistence department.....																								
Medical department.....																								
Pay department.....																								
Corps of engineers.....	2	4	10			12	10	6							7	3		2			17		49	
Corps of topographical engineers.....	1	4	8			10	9	6																
Ordnance department.....	1	4	11			11	6	4	14													223		
1st regiment of dragoons.....		2	6			1	3	5	1		1	1		1		30	23	16		7			293	
2d regiment of dragoons.....		2	4		1	1	2	4							30	22	15		5				315	
Aggregate of dragoons.....		4	10		1	2	5	9	1		1	1		1	60	45	31		12				608	
Regiment of mounted riflemen.....	1	2	5		1	1	2	3	1		1	1	1	2	23	26	14		11				283	

1st regiment of artillery.....	1	1	9	1	1	11	8	1	1	1	1	1	1	1	35	29	18	13	325				
2d regiment of artillery.....	2	7	1	1	9	9	1	1	1	1	1	1	1	40	29	19	13	276					
3d regiment of artillery.....	1	2	9	1	1	12	6	1	1	1	1	1	1	32	24	18	16	298					
4th regiment of artillery.....	1	8	1	1	12	5	1	1	1	1	1	1	1	36	26	13	5	307					
Aggregate of artillery.....	3	5	33	4	4	44	28	3	3	4	4	4	4	143	108	68	47	1,206					
1st regiment of infantry.....	1	1	6	1	1	5	1	1	1	1	1	1	1	22	16	15	15	153					
2d regiment of infantry.....	1	6	1	4	8	1	1	1	1	1	1	1	1	21	14	7	7	242					
3d regiment of infantry.....	1	1	5	1	1	2	6	1	1	1	2	2	2	21	21	17	17	418					
4th regiment of infantry.....	1	2	3	1	1	5	8	2	1	1	2	2	2	26	29	14	14	418					
5th regiment of infantry.....	1	4	1	1	1	7	1	1	1	1	1	1	1	23	18	9	9	161					
6th regiment of infantry.....	1	6	1	1	3	7	1	1	1	1	1	1	1	23	22	14	14	294					
7th regiment of infantry.....	1	7	1	1	2	4	1	1	1	1	1	1	1	25	16	13	13	106					
8th regiment of infantry.....	1	3	1	1	2	3	2	1	1	1	1	1	1	24	18	5	5	161					
Aggregate of infantry.....	5	7	40	8	7	19	48	6	8	7	9	9	9	185	154	94	94	1,953					
Non-commiss'd staff unattached to regiments.....														59									
Military Academy detachments.....														2	2	1	2	64					
Principal recruiting depot, Fort Wood, N. Y.....														9	7	26	26	192					
Cavalry recruit'g depot, Carlisle barracks, Pa.....														3	3	1	2	34					
Recruiting depot, Newport barracks, Ky.....														4	4	2	2	188					
Recruits at rendezvous and in route.....																							
Grand aggregate.....	13	30	117	4	14	14	103	113	27	16	13	13	10	3	59	436	352	46	195	23	66	223	4,577

* The aids-de-camp, being taken from regiments, and reported in the strength thereof, to avoid counting them *twice*, are excluded as *staff* officers from the columns "total commissioned" and "aggregate."

† The adjutants of artillery and infantry, (12,) and *all* the regimental quartermasters, (15,) being taken from the subalterns, and accounted for in their several regiments as belonging to companies, are excluded as regimental *staff* officers from the columns "total commissioned" and "aggregate."

B—General return of the army of the United States—Continued.

48

	PRESENT.														Total commissioned.	Total enlisted.	
	On extra or daily duty.					Sick.					In arrest or confinement.						
	General staff officers.	Field officers.	Captains.	Subalterns.	Enlisted men.	General staff officers.	Field officers.	Captains.	Subalterns.	Enlisted men.	General staff officers.	Field officers.	Captains.	Subalterns.			Enlisted men.
General officers.....																3	
Aids-de-camp to general officers.....																4	
Adjutant general's department.....																9	
Judge advocate's department.....																	
Inspector general's department.....																2	
Quartermaster's department.....																26	
Subsistence department.....																6	
Medical department.....	2															83	
Pay department.....					2											26	
Corps of engineers.....				1						1					2	45	82
Corps of topographical engineers.....								1								40	
Ordnance department.....										6					3	52	232
1st regiment of dragoons.....				80						28					24	19	504
2d regiment of dragoons.....				99						52					26	14	564
Aggregate of dragoons.....				179						80					50	33	1,068
Regiment of mounted riflemen.....			1	158				1		37					19	18	576

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1st regiment of artillery				83			1	62				6	34	572	
2d regiment of artillery			2	52				67				17	32	515	
3d regiment of artillery				37			1	37				30	35	494	
4th regiment of artillery				95			1	68				30	31	582	
Aggregate of artillery			2	267		1	2	1	234			83	132	2,163	
1st regiment of infantry				92				74				35	15	410	
2d regiment of infantry			1	75				23				25	22	409	
3d regiment of infantry			1	117				36				22	18	656	
4th regiment of infantry				33			2	149				17	25	690	
5th regiment of infantry			1	169		1		40				33	18	456	
6th regiment of infantry				137				45			1	28	22	566	
7th regiment of infantry				83			1	44				14	18	304	
8th regiment of infantry				75			1	25				21	15	331	
Aggregate of infantry			3	781		1	2	3	436			1	195	3,822	
Non-commissioned staff unattached to regiments ..														59	
Military Academy detachments				64				1				2		138	
Principal recruiting depot, Fort Wood, N. Y.				32				18				6		290	
Cavalry recruiting depot, Carlisle barracks, Pa.				8				2				1		54	
Recruiting depot, Newport barracks, Ky.				6				9				25		238	
Recruits at rendezvous and in route															
Grand aggregate	2		6	1,496	2	2	5	5	824			1	386	632	8,722

B—General return of the army of the United States—Continued.

	ABSENT.														PRESENT & ABSENT.			†Number of recruits required.	
	On detached service.					With leave, or on furlough.		Without leave.		Sick.		In arrest or confinement.		Total commissioned.	Total enlisted.	Commissioned officers.	Enlisted men.		Aggregate.
	General staff officers.	Field officers.	Captains.	Subalterns.	Enlisted men.	Commissioned officers.	Enlisted men.	Commissioned officers.	Enlisted men.	Commissioned officers.	Enlisted men.	Commissioned officers.	Enlisted men.						
General officers															3		3		
Aids-de-camp to general officers																			
Adjutant general's department	1				1							2		11		*11			
Judge advocate's department																			
Inspector general's department														2		2			
Quartermaster's department	4				4				3			6		34		*34			
Subsistence department	2				1							2		8		*8			
Medical department	1				6				4		1	12		95		95			
Pay department									2			2		28		28			
Corps of engineers			1	3	9	1						5	9	50	91	141	9		
Corps of topographical engineers						2						2		42		42			
Ordnance department			1	1	6	1	1					3	7	55	239	294	11		
1st regiment of dragoons		1	2	11	51	2	1		4	19		6	20	77	39	581	620	250	
2d regiment of dragoons			4	12	80	2	5	1	5	4		3	24	92	38	656	694	199	
Aggregate of dragoons		1	6	23	131	4	6	1	9	23		9	44	169	77	1,237	1,314	449	
Regiment of mounted riflemen		1	4	11	83	3		2		10		19	21	112	39	688	727	157	

1st regiment of artillery	2	1	13	47	2	5	1	1	1	1	1	20	54	54	626	680	142		
2d regiment of artillery	2	9	24	6	4	1	3	1	3	1	3	20	32	53	547	599	189		
3d regiment of artillery	2	14	4	4	1	1	2	2	2	2	3	20	8	55	502	557	234		
4th regiment of artillery	2	12	16	5	1	1	1	1	1	1	4	21	22	52	604	656	132		
Aggregate of artillery	2	5	48	91	17	11	2	7	3	7	11	81	116	213	2,279	2,492	697		
1st regiment of infantry	4	12	148	3	3	3	7	1	1	1	1	22	159	37	569	606	275		
2d regiment of infantry	1	3	8	14	3	2	12	1	2	12	15	17	41	39	450	489	394		
3d regiment of infantry	3	8	130	7	1	1	6	1	6	7	19	144	37	800	837	44			
4th regiment of infantry	4	2	1	2	1	3	1	8	1	8	11	12	36	702	738	142			
5th regiment of infantry	4	6	67	7	1	3	2	2	2	4	20	74	38	530	568	314			
6th regiment of infantry	1	2	8	45	3	4	2	1	1	3	16	53	38	619	657	129			
7th regiment of infantry	1	3	12	43	3	3	1	2	1	2	11	20	56	38	360	398	292		
8th regiment of infantry	1	3	10	133	6	2	15	5	22	153	37	484	521	360	398	292			
Aggregate of infantry	4	26	66	581	26	8	4	6	12	51	46	147	692	300	4,514	4,814	1,950		
Non-commissioned staff unattached to regiments															59	59	.....	
Military Academy detachments															138	138	.....	
Principal recruiting depot, Fort Wood, N. Y.				5		1							6		296	296	.....	
Cavalry recruiting depot, Carlisle barracks, Pa.															54	54	.....	
Recruiting depot, Newport barracks, Ky.				4									4		242	242	.....	
Recruits at rendezvous and in route															408	408	.....	
Grand aggregate	8	8	43	152	910	75	27	9	6	37	87	1	85	329	1,115	957	10,245	11,202	42,135

* Three of the assistant adjutants general, (majors by brevet,) seven of the assistant quartermasters, and four of the commissaries of subsistence, (captains,) belonging also to regiments, and being reported in the strength thereof, to avoid counting them twice, are excluded as staff officers from the columns "total commissioned" and "aggregate" of their respective departments. The regimental and staff commissions held by these officers are of unequal grades, and hence they are not affected by the provisions of the 7th section of the act of June 18, 1846. The like remark is applicable to the judge advocate of the army, who is also a captain in the Ordnance department.

† The "number of recruits required" is calculated for each regiment according to the stations of the several companies at the present date—the number of privates varying according to stations, as explained by note (†) to table A, showing the legal organization of the army. The number of enlisted men necessary to complete the military establishment is obtained by deducting from the whole number of recruits required to fill up all the regiments the several detachments at the Military Academy, the three depots, (Fort Wood, Carlisle, and Newport barracks,) and the recruits at rendezvous and in route. The number required for regiments and corps is 2,273; the number at the Academy, at depots, and in route, 1,138; leaving 2,135 as the number of recruits yet required to fill up the establishment.

ADJUTANT GENERAL'S OFFICE, Washington, November 15, 1852.

HEADQUARTERS OF THE ARMY, Washington, November 15, 1852.

S. COOPER, Adjutant General.

WINFIELD SCOTT.

C.—Position and distribution of the troops in the Eastern Division, under Headquarters,

DEPARTMENTS AND POSTS.	SITUATION.	COMMANDING OFFICERS.	GARRISONS.	
			Number of companies.	Regiments.
<i>Military Department No. 1, commanded by Colonel Wm. Gates, 3d artillery. Headquarters, Fort Adams, R. I.</i>				Division staff.....
Fort Sullivan	Eastport, Maine.....	Capt. & Bt. Lt. Col. M. Burke.	1	3d artillery
Fort Preble	Portland Harbor, Maine.....	Capt. & Bt. Maj. R. Anderson.	1	do.
Fort Constitution	Portsmouth Harbor, N. H.....	Major and Bt. Lt. Col. J. M. Washington.	1	do.
Fort Independence	Boston Harbor, Mass.....	Capt. & Bt. Maj. F. O. Wyse.	2	do.
Fort Adams	Newport Harbor, R. I.....	Colonel William Gates	3	do.
Fort Turnbull.....	New London Harbor, Conn.....	Lt. Col. & Bt. Col. F. S. Belton	1	do.
Fort Griswold	do. ....do.	do. ....do.	1	do.
Aggregate of the 1st department.....			9	.....
<i>Military Department No. 2.—Command suspended. (The posts of this department are under the immediate orders of the division commander.)</i>				Department staff..
Fort Brady	Sault de Ste. Marie, Mich...	Captain F. N. Clarke.....	1	4th artillery.....
Fort Mackinac.....	Michilimackinac, Mich.....	Capt. & Bt. Maj. T. Williams.	1	do.
Fort Gratiot	Outlet of Lake Huron, Mich.			.....
Aggregate of the 2d department.....			2	.....
<i>Military Department No. 3, commanded by Colonel and Brevet Brigadier General J. B. Walbach. Headquarters, Baltimore, Maryland.</i>				Department staff..
Fort Niagara.....	Youngstown, N. Y.....	Captain J. P. McCown	1	4th artillery.....
Fort Ontario.....	Oswego, N. Y.....	Capt. & Bt. Maj. S. C. Ridgely.	1	do.
Madison Barracks.....	Sackett's Harbor, N. Y.....			.....
Plattsburg Barracks	Plattsburg, N. Y.....			.....
Fort Columbus	Governor's Island, N. Y.....	Lt. Col. and Bt. Col. M. M. Payne.	1	4th artillery and recruits.
Fort Wood	Bedlow's Island, N. Y.....	Capt. & Bt. Maj. J. T. Sprague.		General recruiting depot.
Fort Hamilton	Narrows, New York harbor.	Capt. & Bt. Maj. W. W. Morris	1	4th artillery
Fort Lafayette	do. ....do.	do. ....do. ....		.....
Fort Mifflin	Delaware River, Penn.....	Captain Joseph Roberts	1	4th artillery
Carlisle Barracks	Carlisle, Penn.....	Capt. and Bt. Maj. C. F. Ruff.		Cavalry recruiting depot.
Fort McHenry	Baltimore Harbor, Md.....	Capt. and Bt. Lt. Col. F. Taylor.	2	1 co. 1st artillery, and 1 co. 2d reg.
Fort Washington	Potomac River, Md.....	Capt. and Bt. Maj. J. B. Scott.	2	4th artillery
Aggregate of the 3d department.....			9	.....

C—Position and distribution of the troops

DEPARTMENTS AND POSTS.	SITUATION.	COMMANDING OFFICERS.	GARRISONS.	
			Number of companies.	Regiments.
<i>Military Department No. 4, commanded by Colonel and Brevet Brigadier General J. Bankhead. Headquarters at Fort Monroe, Virginia.</i>				
Fort Monroe	Old Point Comfort, Va.	Colonel and Bt. Brig. Gen. J. Bankhead.	2	Department staff. 2d artillery
Fort Johnston	Smithville, N. C. ....	.....	.....	.....
Fort Caswell	Oak Island, N. C. ....	.....	.....	.....
Fort Macon	Beaufort Harbor, N. C. ....	.....	.....	.....
Fort Moultrie	Charleston Harbor, S. C.	Maj. and Bt. Col. J. Monroe.	2	2d artillery
Fort Sumter	do.	do. ....	.....	.....
Castle Pinckney	do.	Capt. & Bt. Maj. H. J. Hunt.	1	2d artillery
Oglethorpe Barracks	Savannah, Ga. ....	.....	.....	.....
Aggregate of the 4th department .....	.....	.....	5	.....
Aggregate of the division .....	.....	.....	25	.....

ADJUTANT GENERAL'S OFFICE,
Washington, November 15, 1862.

S. COOPER, *Adjutant General.*

in the Eastern Division, &c.—Continued.

		PRESENT.	ABSENT.	PRESENT AND ABSENT.
1	Brigadier general.			
1	Assistant adjutants general (majors by brevet.)			
1	Assistant adjutants general (captains by brevet.)			
1	Assistant quartermasters general.			
1	Deputy quartermasters general.			
1	Quartermasters.			
1	Assistant quartermasters.			
1	Commissaries of subsistence (majors.)			
1	Commissaries of subsistence (captains.)			
6	Surgeons.			
5	Assistant surgeons.			
5	Deputy paymasters general.			
5	Paymasters.			
3	Colonels.			
2	Lieutenant colonels.			
3	Majors.			
2	Captains.			
4	Aids-de-camp.			
1	Adjutants.			
3	Regimental quartermasters.			
1	First lieutenants.			
3	Second lieutenants.			
1	Brevet second lieutenants.			
1	Military storekeepers.			
8	Enlisted men.			
1516	Total commissioned.	93	10	103
113	Aggregate.	2	2	4
1699	General staff officers.	1	1	2
1	Field officers.	1	1	2
1	Captains.	1	1	2
1	Subalterns.	1	1	2
3	Enlisted men.	2	2	4
37	Total commissioned.	2	2	4
35	Aggregate.	2	2	4
72	Commissioned officers.	12	2	14
146	Enlisted men.	93	10	103
1553	Aggregate.	1	1	2
1701		1	1	2

HEADQUARTERS OF THE ARMY,
Washington, November 15, 1852.

WINFIELD SCOTT.

D.—Position and distribution of the troops in the Western Division,
E. Twiggs. Headquarters,

DEPARTMENTS AND POSTS.	SITUATION.	COMMANDING OFFICERS.	GARRISONS.	
			Number of companies.	Regiments.
<i>Military Department No. 5.— Command suspended. (The posts of this department are under the immediate orders of the division commander.)</i>				Division staff....
New Smyrna*	New Smyrna, Fla.	Capt. and Bt. Maj. A. Lowd..	1	Department staff.
Fort Capron*	Indian River, Fla.	Capt. and Bt. Maj. F. Wood- bridge.	1	2d artillery
Key West Barracks	Key West, Fla.	Captain Israel Vogdes	1	1st artillery
Fort Myers	Caloosahatchee, 140 mls. from Tampa, Florida.	Capt. and Bt. Lieut. Col. J. H. Winder.	3	do
Fort Meade	Pea Creek, 46 miles from Tam- pa, Florida.	Major and Bt. Col. H. Brown.	3	1 co. 1st and 2 cos. 2d artillery.
Fort Brooke	Tampa, Fla.	Major and Bt. Brig. General T. Childs.	...	Detachments ...
Pensacola	Pensacola, Fla. ....	...	...	...
Barrancas Barracks	Pensacola Harbor, Fla.	Capt. and Bt. Maj. J. A. Haskin	1	1st artillery
Fort McRee	do do	do do .....	...	...
Fort Pickens	do do	do do .....	...	...
Fort Pike	Petite Coquille, La. ....	...	...	...
Fort Macomb (late Wood)	Chef Menteur, La. ....	...	...	...
Fort Jackson	75 miles below N. Orleans, La.	...	...	...
New Orleans Barracks	Near New Orleans, La.	Capt. and Bt. Lt. Col. G. Nau- man.	2	1st artillery
Newport Barracks	Newport, Ky.	Maj. and Bt. Lt. Col. W. Hoff- man.	...	Recruiting depot.
Aggregate of the 5th department .....	...	...	12	...
<i>Military Department No. 6, commanded by Colonel and Bt. Brig. Gen. N. S. Clarke. Headquarters at Jefferson Barracks, Missouri.</i>				Department staff.
Fort Ripley	Upper Mississippi, Min. Ter.	Captain J. B. S. Todd	1	6th infantry
Fort Snelling	Near St. Paul, Min. Ter.	Lt. Col. and Bt. Col. F. Lee..	3	1 co. 1st drags.; 2 cos. 6th inf.
Fort Dodge	Des Moines River, Iowa	Capt. and Bt. Maj. S. Woods.	1	6th infantry
Fort Laramie	Oregon route	First Lieut. R. B. Garnett	1	do
Fort Kearny	do do	Captain W. H. Wharton	1	do
Fort Atkinson	Crossing of Arkansas, Santa Fe route.	Second Lieut. Henry Heth	1	do
Fort Scott	Marmion River, Mo.	Major W. F. Sanderson	3	2 cos. rifles; 1 co. 6th infantry.
Fort Leavenworth	Missouri River, Mo.	Colonel Thos. T. Fauntleroy.	4	1 co. 1st drags.; 1 co. 4th art.; 2 cos. 6th inf.
Jefferson Barracks	Near St. Louis, Mo.	Col. and Bt. Brig. Gen. N. S. Clarke.	1	3d artillery and re- cruits.
Aggregate of the 6th department .....	...	...	16	...

* These two posts are situated within the 4th military depart

under the command of Brigadier and Brevet Major General David New Orleans, Louisiana.

		PRESENT.								ABSENT.				PRESENT & ABSENT.			
Brigadier generals.	1									9						10	
Assistant adjutants general (majors by brevet.)	1																
Assistant adjutants general (captains by brevet.)	1																
Assistant quartermasters general.	1																
Deputy quartermasters general.	1																
Quartermasters.	1																
Assistant quartermasters.	1																
Commissaries of subsistence (majors.)	1																
Commissaries of subsistence (captains.)	1																
Surgeons.	1																
Assistant surgeons.	1																
Deputy paymasters general.	1																
Paymasters.	1																
Colonels.	1																
Lieutenant colonels.	1																
Majors.	1																
Captains.	1																
Aids-de-camp.	1																
Adjutants.	1																
Regimental quartermasters.	1																
First lieutenants.	2									44	2	47	1	2	2	5	44
Second lieutenants.	2									42	3	45	1	1	2	5	50
Brevet second lieutenants.	2																
Military storekeepers.	2									50	5	55			1	5	51
Enlisted men.	2									134	8	142	2	4	15	6	149
Total commissioned.	2									123	9	132	2	4	18	6	141
Aggregate.	2									43	4	47					47
General staff officers.	2																
Field officers.	2									36	2	38				1	38
Captains.	2									1						1	1
Subalterns.	2									1						1	1
Enlisted men.	2									1						1	1
Total commissioned.	2									1						1	1
Aggregate.	2									86	6	92			3	5	3
Commissioned officers.	2									239	17	256			1	4	1
Enlisted men.	2									802	58	860	1	4	17	53	22
Aggregate.	2									6	6					6	6
Commissioned officers.	2									50	4	54				2	4
Enlisted men.	2									192	6	198	1	2	4	3	7
Aggregate.	2									59	3	62			1	8	1
Commissioned officers.	2									52	3	55	1	1	18	2	20
Enlisted men.	2									58	2	60			5	1	6
Aggregate.	2									73	2	75	1	2	9	3	12
Commissioned officers.	2									164	11	175	2			2	13
Enlisted men.	2									161	14	175	1	3	6	31	10
Aggregate.	2									163	11	174					11
Commissioned officers.	2									972	62	1034	1	8	13	77	22
Enlisted men.	2									64							64
Aggregate.	2									1049							1133

ment, but are temporarily attached to the Western Division.

D—Position and distribution of the troops

DEPARTMENTS AND POSTS.	SITUATION.	COMMANDING OFFICERS.	GARRISONS.	
			Number of companies.	Regiments.
<i>Military Department No. 7, commanded by Major George Andrews, 7th inf'ry. Headquarters, Fort Smith, Ark.</i>				Department staff.
Fort Smith	Arkansas	Major George Andrews.....	1	7th infantry
Fort Gibson	Cherokee Nation, west of Arkansas.	Captain Henry Little.....	3	do
Fort Arbuckle	Wildhorse Creek, west of Arkansas.	Capt. and Bt. Maj. J. C. Henshaw.	2	do
Fort Washita	False Washita, west of Arkansas.	Captain and Bt. Major T. H. Holmes.	1	do
Fort Towson	Choctaw Nation, west of Arkansas.	Captain and Bt. Major D. P. Whiting.	1	do
Aggregate of the 7th department.....			8	
<i>Military Department No. 8, commanded by Colonel and Bt. Maj. Gen. P. F. Smith. Headquarters, San Antonio, Texas.</i>				Department staff.
Fort Merrill	Nueces River, 50 miles above Corpus Christi, Texas.	Second Lieut. W. E. Jones...		Detachment of rifles.
Fort Ewell	Nueces River, at crossing of San Antonio and Laredo roads.	Lieut. Col. and Bt. Col. W. W. Loring.	2	Mounted rifles...
Fort Brown	Brownsville, Texas	First Lieut. H. M. Whiting...	2	4th artillery.....
Ringgold Barracks	Rio Grande City, Texas	Capt. and Bt. Maj. G. R. Paul.	2	7th infantry.....
Fort McIntosh	Near Laredo, Texas.....	Captain G. W. Wallace	2	1st infantry
Fort Duncan	Eagle Pass, Texas	Maj. and Bt. Lt. Col. T. Morris	2	do
Fort Clark	Head of Las Moras river, Tex.	Captain W. E. Prince	2	do
Fort Inge	Leona River, 90 miles from San Antonio.	Captain A. J. Lindsay.....	1	Mounted rifles...
Fort Mason	Llano River, 110 miles northwest from San Antonio.	Capt. and Bt. Col. C. A. May.	2	2d dragoons
Fort Terrett	North fork of Llano river, Tex.	Lieut. Col. H. Bainbridge....	4	1st infantry
Camp McKavett	San Saba River, 165 miles from San Antonio.	Major P. Morrison	5	8th infantry
Camp Johnston	North branch of Concho river, Texas.	Col. and Bt. Brig. Gen. J. Garland.	5	do
Post on Clear Fork of Brazos.	Phantom Hill, Texas.....	Lieut. Col. and Bt. Col. C. A. Waite.	5	5th infantry
Fort Belknap	Red fork of Brazos river, Tex.	Colonel G. Loomis.....	5	do
Fort Worth.....	West fork of Trinity river, Texas.	Captain and Bt. Major H. W. Merrill.	1	2d dragoons
Fort Graham	Jose Marie Village, near Brazos river.	Capt. and Bt. Lt. Col. W. J. Hardee.	2	do
Fort Croghan	Hamilton Valley, Texas	Captain and Bt. Major H. H. Sibley.	1	do
In the field			5	Mounted rifles...
Aggregate of the 8th department.....			48	

D—Position and distribution of the troops

DEPARTMENTS AND POSTS.	SITUATION.	COMMANDING OFFICERS.	GARRISONS.	
			Number of companies.	Regiments.
<i>Military Department No. 9, commanded by Lieut. Colonel and Bt. Col. E. V. Sumner, 1st dragoons. Headquarters, Albuquerque, New Mexico.</i>				Department staff.
Fort Massachusetts	Utah country, 85 miles from Taos, New Mexico.	Major G. A. H. Blake	2	1 co. 1st drags.; 1 co. 3d inf.
Cantonment Burgwin	Near Taos, New Mexico.....	Second Lieut. Robt. Ransom.	1	1st dragoons.....
Fort Union	Moro River, New Mexico....	Captain and Bt. Major J. H. Carleton.	3	1 co. 1st drags.; 2 cos. 3d inf.
Fort Marcy	Santa Fe, New Mexico.....	Captain and Bt. Lt. Col. H. Brooks.	1	2d artillery
Albuquerque	New Mexico.....	Brevet Second Lieut. Kenner Garrard.	1	1st dragoons.....
Las Lunas	25 miles below Albuquerque, on Rio Grande.	Captain R. S. Ewell.....	1	.... do.....
Fort Conrad	Valverde, New Mexico.....	Major M. S. Howe	2	1 co. 2d drags.; 1 co. 3d inf.
Fort Fillmore	Brasito, 40 miles above El Paso.	Lieut. Colonel D. S. Miles...	4	1 co. 1st drags.; 1 co. 2d drags.; 2 cos. 3d inf.
Fort Webster	Near Copper Mines, Apache country.	Major G. Morris	2	1 co. 2d drags.; 1 co. 3d inf.
Fort Defiance.....	Navajo country, 190 miles west of Albuquerque.	Captain and Bt. Lt. Col. J. H. Eaton.	3	1 co. 2d art.; 2 cos. 3d infantry.
Escort to Mexican boundary	commission	Second Lieut. D. C. Green...	1	3d infantry
Aggregate of the 9th department.....	.....	.....	21	.....
Aggregate of the division .....	.....	.....	105	.....

ADJUTANT GENERAL'S OFFICE,
Washington, November 15, 1852.

S. COOPER, Adjutant General.

in the Western Division, &c.—Continued.

PRESENT.										ABSENT.				PRESENT & ABSENT.																												
Brigadier general.	Assistant adjutants general (majors by brevet.)	Assistant adjutants general (captains by brevet.)	Assistant quartermasters general.	Deputy quartermasters general.	Quartermasters.	Assistant quartermasters.	Commissaries of subsistence (majors.)	Commissaries of subsistence (captains.)	Surgeons.	Assistant surgeons.	Deputy paymasters general.	Paymasters.	Colonels.	Lieutenant colonels.	Majors.	Captains.	Aids-de-camp.	Adjutants.	Regimental quartermasters.	First lieutenants.	Second lieutenants.	Brevet second lieutenants.	Military storekeepers.	Enlisted men.	Total commissioned.	Aggregate.	General staff officers.	Field officers.	Captains.	Subalterns.	Enlisted men.	Total commissioned.	Aggregate.	Commissioned officers.	Enlisted men.	Aggregate.						
..	..	..	..	..	..	1	1	..	..	1	..	3	..	1	..	..	..	..	..	1	..	..	..	2	2	8	..	..	..	..	..	..	..	..	..	..	8	8
..	..	..	..	..	..	1	..	..	..	1	..	..	..	1	2	..	..	..	..	1	..	..	106	5	111	..	..	3	23	3	26	8	129	137	..	..	..		
..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	2	..	..	..	..	1	..	69	2	71	..	1	1	4	2	6	4	73	77	..	..	..	..	..
..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	2	..	..	..	..	1	..	180	5	185	..	1	4	45	5	50	10	225	235	..	..	..	..	..
..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	1	..	..	..	..	1	..	90	3	93	..	2	3	2	5	5	93	98	..	..	..	..	..	..
..	1	1	1	1	..	39	2	41	..	1	2	17	3	20	5	56	61			
..	1	1	1	1	..	55	2	57	..	2	20	2	22	4	75	79			
..	1	1	1	1	..	120	4	124	..	2	2	28	4	32	8	148	156		
..	1	1	1	2	1	1	1	1	..	251	6	257	..	2	7	23	9	32	15	274	289		
..	1	1	1	2	..	106	4	110	..	1	3	35	4	39	8	141	149		
..	1	1	2	2	..	168	5	173	..	1	4	23	6	29	11	191	202	
..	1	1	1	1	..	68	1	69	..	1	1	7	2	9	3	75	78	
..	1	7	..	3	..	3	11	..	1	5	11	1	..	12	47	1299	..	1	10	31	228	42	270	89	1480	1569
1	1	3	1	1	1	8	5	8	36	111	5	7	11	63	110	9	48	72	21	5825	324	5949	2	5	44	131	860	182	1042	506	6485	6991

HEADQUARTERS OF THE ARMY,
Washington, November 15, 1852.

WINFIELD SCOTT.

E.—Position and distribution of the troops in the Third, or Pacific Division, Hitchcock. Headquarters,

DEPARTMENTS AND POSTS.	SITUATION.	COMMANDING OFFICERS.	GARRISONS.	
			Number of companies.	Regiments.
<i>Military Department No. 10.— (The command of this department is merged in that of the Pacific Division.)</i>				Division staff.
Fort Yuma	Mouth of Gila, California...	Captain and Brevet Maj. S. P. Heintzelman.	3	2d infantry
Mission of San Diego.....	Near San Diego, California...	Capt. and Bt. Lt. Col. J. B. Magruder.	2	1 co. 1st artillery; 1 co. 3d artillery.
Rancho de Jurupa.....	Santa Anna River, California.	Capt. Christopher S. Lovell..	1	2d infantry
Fort Miller	San Joaquin River, California.	Capt. & Bt. Maj. G. W. Patten.	2	.... do.....
Monterey Redoubt.....	Monterey, California.....	First Lt. J. H. Lendrum	1	3d artillery
Presidio San Francisco.....	Near San Francisco, Cal.	Major A. S. Miller.....	5	2 cos. 1st drags.; 3 cos. 2d infantry.
Benecia Barracks.....	Benecia, California.....	Second Lt. and Bt. Capt. C. P. Stone.	2	Detachment of ordnance.
Fort Reading	Cow Creek, Upper Sacramento, California.	Maj. and Bt. Col. G. Wright..	2	1 co. 2d infantry; 1 co. 4th infantry.
Aggregate of the 10th department.....			16	.....
<i>Military Department No. 11.— (The command of this department is merged in that of the Pacific Division.)</i>				
Fort Orford.....	Port Orford, Oregon	First Lt. H. W. Stanton.....	1	1st dragoons.....
Post on Oregon trail.....	East of Fort Orford; site not determined.	Capt. and Bt. Lt. Col. R. C. Buchannan.	2	4th infantry.....
Dalles of Columbia.....	Columbia River, Oregon.....	Capt. & Bt. Maj. B. Alvord..	1	.... do.....
Columbia Barracks.....	Vancouver, Oregon	Lt. Col. B. L. E. Bonneville.	4	.... do.....
Steilacoom	Puget's Sound, Oregon	Capt. & Bt. Maj. J. S. Hatheway.	2	1st artillery
In route via Cape Horn.....	.....	Major G. J. Rains	2	4th infantry.....
Aggregate of the 11th department.....			12	.....
Aggregate of the division.....				

ADJUTANT GENERAL'S OFFICE,
Washington, November 15, 1852.

S. COOPER, Adjutant General.

under the command of Colonel and Brevet Brigadier General Ethan A. San Francisco, California.

PRESENT.															ABSENT.					PRESENT AND ABSENT.																
Brigadier generals.	Assistant adjutants general (majors by brevet.)	Assistant adjutants general (captains by brevet.)	Assistant quartermasters general.	Deputy quartermasters general.	Quartermasters.	Assistant quartermasters.	Commissaries of subsistence (majors.)	Commissaries of subsistence (captains.)	Surgeons.	Assistant surgeons.	Deputy paymasters general.	Paymasters.	Colonels.	Lieutenant colonels.	Majors.	Captains.	Aids de camp.	Adjutants.	Regimental quartermasters.	First lieutenants.	Second lieutenants.	Brevet second lieutenants.	Military storekeepers.	Enlisted men.	Total commissioned.	Aggregate.	General staff officers.	Field officers.	Captains.	Subalterns.	Enlisted men.	Total commissioned.	Aggregate.	Commissioned officers.	Enlisted men.	Aggregate.
..	1	1	5	..	1	3	1	2	..	1	15	15	2	2	2	17	..	17
..	1	..	..	..	..	..	..	2	..	..	..	3	1	1	..	151	8	159	..	1	4	25	5	30	13	176	189	
..	1	..	..	..	..	..	..	2	..	..	..	3	1	..	..	79	7	86	..	2	37	2	39	9	116	125		
..	1	..	..	..	..	..	..	1	..	..	..	1	..	..	..	46	3	49	..	..	1	..	1	3	47	50		
..	1	..	..	..	..	..	..	1	..	..	..	1	2	..	..	66	5	71	..	1	2	12	3	15	8	78	86	
..	1	..	..	..	..	..	..	1	..	..	..	1	..	..	..	1	1	1	2	..	..	..	..	..	1	1	2	
..	1	..	..	..	..	..	..	1	..	..	..	1	1	..	..	27	3	30	..	1	2	..	4	4	7	27	34	
..	1	..	..	..	..	..	..	1	..	..	..	1	4	..	..	300	11	211	..	2	5	19	7	26	18	219	237	
..	2	..	..	..	..	..	..	1	..	..	..	1	1	..	..	16	2	18	..	..	..	..	..	..	2	16	18	
..	2	..	..	..	..	..	..	1	..	..	..	2	1	1	..	101	7	108	..	2	1	3	4	10	102	113		
..	1	7	2	9	..	1	..	11	12	2	2	687	47	734	..	1	7	16	95	24	119	71	782	853
..	1	..	..	..	..	..	..	1	..	..	..	1	1	..	..	52	3	55	..	1	1	5	2	7	5	57	62	
..	1	..	..	..	..	..	..	1	..	..	..	1	2	..	..	124	4	128	..	1	1	2	2	4	6	126	132	
..	1	..	..	..	..	..	..	1	..	..	..	1	..	..	..	63	3	66	..	1	2	1	3	4	4	65	69	
..	1	..	..	..	..	..	..	2	..	1	1	1	4	1	..	268	13	281	..	2	1	8	3	11	16	276	292	
..	1	..	..	..	..	..	..	2	..	..	..	3	2	..	..	88	8	96	..	1	3	1	4	9	91	100		
..	1	..	..	..	..	..	..	1	..	..	..	3	3	..	..	165	9	174	..	1	..	1	1	10	165	175		
..	1	5	..	..	1	1	7	..	1	1	10	12	1	..	..	760	40	800	..	5	5	20	10	30	50	780	830	
..	1	..	..	1	5	..	1	2	12	..	3	1	1	3	16	..	2	1	23	24	4	2	1447	100	1540	2	1	12	21	115	36	151	138	1562	1700

HEADQUARTERS OF THE ARMY,
Washington, November 15, 1852.

WINFIELD SCOTT.

F.

ADJUTANT GENERAL'S OFFICE,
Washington, November 15, 1852.

Statement showing the whole number of recruits enlisted in the army from the 1st of October, 1851, to the 30th of September, 1852.

I.—GENERAL RECRUITING SERVICE.

Bvt. Col. J. Plympton, lt. col. 7th infantry, Superintendent.

Massachusetts.....	245
Rhode Island.....	25
New York.....	1,031
Pennsylvania.....	427
Maryland.....	89
Kentucky.....	239
Illinois.....	112
Louisiana.....	70
Missouri.....	124

Number of recruits enlisted for the general service..... 2,362

II.—MOUNTED SERVICE.

Bvt. Lt. Col. P. St. G. Cooke, major 2d dragoons, Superintendent.

New York.....	331
Pennsylvania.....	152
Maryland.....	159

Number of recruits enlisted for mounted service..... 642

III.—REGIMENTAL SERVICE.

1st regiment of dragoons.....	41
2d regiment of dragoons.....	21
Regiment of mounted riflemen.....	53

Total mounted troops..... 115

1st regiment of artillery.....	102
2d regiment of artillery.....	32
3d regiment of artillery.....	211
4th regiment of artillery.....	257

Total artillery..... 602

1st regiment of infantry.....	9
2d regiment of infantry.....	10
3d regiment of infantry.....	8
4th regiment of infantry.....	102

5th regiment of infantry	8
6th regiment of infantry	233
7th regiment of infantry	17
8th regiment of infantry	2
	<hr/>
Total infantry	389
Corps of sappers and miners.....	18
Detachment at West Point.....	46
	<hr/>
Total number enlisted from the 1st of October, 1851, to the 30th of September, 1852.....	<u>4,174</u>

IV.—RECAPITULATION.

For the general service.....	2,362
For mounted service.....	642
By regiments { Dragoons and mounted riflemen.....	115
{ Artillery	602
{ Infantry.....	389
Sappers and miners and detachment.....	64
	<hr/>
	<u>4,174</u>

V.—Amount of recruiting funds in the hands of officers of the army, September 30, 1851.....	\$7,151 30
Amount of recruiting funds advanced to recruiting officers, from October 1, 1851, to September 30, 1852.....	40,037 28
	<hr/>
	47,188 58
Amount of funds accounted for from October 1, 1851, to September 30, 1852.....	36,221 94
	<hr/>
Balance in the hands of recruiting officers, September 30, 1852	10,966 64

Respectfully submitted.

S. COOPER,
Adjutant General.

Major General W. SCOTT,
Commanding-in-chief, Washington, D. C.

.....	200
.....	17
.....	2

At the date of my last annual report there was an ap-
 propriation of \$1,500,000 for the year 1935.
 The amount of the appropriation for the year 1935
 was \$1,500,000.

At the date of my last annual report there was an ap-
 propriation of \$1,500,000 for the year 1935.
 The amount of the appropriation for the year 1935
 was \$1,500,000.

.....	1,500,000
.....	115
.....	102
.....	80
.....	64
.....	4,174
.....	1,500,000

At the date of my last annual report there was an ap-
 propriation of \$1,500,000 for the year 1935.
 The amount of the appropriation for the year 1935
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At the date of my last annual report there was an ap-
 propriation of \$1,500,000 for the year 1935.
 The amount of the appropriation for the year 1935
 was \$1,500,000.

VI.

REPORT OF THE QUARTERMASTER GENERAL.

QUARTERMASTER GENERAL'S OFFICE,
Washington City, November 20, 1852.

SIR: I have the honor to submit, in obedience to your instructions, and in accordance with the provisions of the regulations, a report of the operations of the Quartermaster's department, for the year beginning the 1st of July, 1851, and ending the 30th of June, 1852.

At the date of my last annual report there was an apparent balance to be accounted for, of..... \$728,185 00
To which is to be added—

1. *Remittances, viz:*

In the 1st quarter of the fiscal year....	\$1,501,278 68	
2d.....do.....do.....	865,121 49	
3d.....do.....do.....	554,122 40	
4th.....do.....do.....	6,820 00	
	<hr/>	2,927,342 57

2. *Proceeds of sales of public property, and rents of public lands and buildings, viz:*

Prior to the fiscal year, the accounts of which were not received in time for last report.....	\$182 72	
Within the fiscal year.....	78,906 57	
	<hr/>	79,089 29

Drafts drawn on this office, the proceeds of which were applied to the service within the fiscal year, which were not paid during the year, but have since been paid from the appropriation for deficiencies.....		148,698 65
		<hr/>

Making the whole amount to be accounted for.... 3,883,315 51

From which are to be deducted—

1. Expenditures and disbursements prior to the fiscal year, including drafts drawn in 1850 and paid in 1851, but not included in my last report, the drafts from omission, and the expenditures from the accounts in which they appeared, not having been received in time	\$762,828 34	
Expenditures within the fiscal year....	2,646,907 43	
	<hr/>	

Amount carried forward, \$3,409,735 77 3,883,315 51

Amount brought forward, \$3,409,735 77	\$3,883,315 51
2. Deposited to the credit of the Treasurer within the fiscal year.....	30,924 09
	<u>3,440,659 86</u>
Leaving to be accounted for.....	<u>442,655 65</u>

Included in the remittances made during the year are the following sums of other appropriations than those for the Quartermaster's department, viz :

From the appropriation for clothing.....	\$161,000
From the Mexican war appropriations.....	218,700
From the contingencies of the army.....	840

The second of these sums will be required to settle outstanding claims; but, as it comes into the treasury by the settlement of officers' accounts, it will be carried to the surplus fund if not re-appropriated. In addition to this sum, there are balances which have already been carried to the surplus fund, viz :

Mexican hostilities.....	\$10,569 06
Contingencies of the army.....	4,804 75
The former of which will be required in the settlement of claims, and the latter for the service of the present year. I request that they be appropriated.	

Included in the expenditures are—

For clothing and equipage.....	\$213,655 40
For contingencies of the army.....	6,141 83
For barracks at Newport, Kentucky.....	2,660 05
For Texan volunteers.....	6,607 02
For the Indian department.....	169 63
For the recruiting service.....	445 91
For the Ordnance department.....	98 30
For the Subsistence department.....	320 16
For the Medical department.....	9,178 44

To settle the accounts of the officers who have made the expenditures on account of the Texan volunteers an appropriation will be necessary, or at least authority by law to settle their accounts.

Of the officers reported last year for having failed to present their accounts for settlement, Captain Reynolds, late principal quartermaster in New Mexico, has rendered his, and has reduced the apparent balance against him to \$3,053 62. He reports that he had vouchers sufficient to cover the whole balance, which he has either lost or accidentally left in New Mexico, and declares himself ready and willing to pay this or any other balance found against him, should he not recover his vouchers in a reasonable time.

Captain Folsom, who was reported last year, is the only officer of the Quartermaster's department proper from whom accounts are due for the year ending on the 30th June, 1852. He rendered accounts to the 31st March, at which time the balance against him on his former account—the vouchers for which are supposed to have been destroyed

in the fire at San Francisco, in 1850—was \$112,757 31, and on account of the present fiscal year, at the date of his last accounts, \$41,086 53; but it appears from the accounts of Major Allen and Captain Miller, for the fourth quarter of the fiscal year, that the latter amount was reduced, by transfers to those officers in that quarter, \$36,107 08, leaving the actual balance at the close of the year \$117,736 76. He has been relieved, and is now at San Francisco endeavoring to collect evidence in regard to his payments previous to the fire.

Lieutenants George W. Hawkins, F. S. K. Russell, and C. E. Irvine, of the mounted rifles, reported last year, are still delinquent: the two latter are out of service, and the former, though he has been recently here, has left without submitting his accounts; and it is not known where either is to be found. From the disbursements known to have been made by those officers, it is believed that, if their accounts could be obtained, the balances against them would be small.

Accounts are due from seventeen acting assistant quartermasters, whose joint accountability is \$34,825 86—one of whom, Lieutenant John Bold, is dead; the others, with one exception, are in Texas, New Mexico, California, or en route to California.

The regular supplies, with means of transportation for the army, horses and equipments for the mounted corps, and all the facilities required for the service, have been furnished to the utmost extent of the means placed at the disposal, or within the control, of the department.

A gradual reduction of expenditure is taking place: though the amount exhibited in this report, of the past year, is no fair test of what the necessary expenditures may be in future; for much of that which was imperiously demanded by the wants of the service was necessarily postponed, for lack of means, and will appear in the next report.

The measures adopted in New Mexico, by placing the troops in positions where both supplies and accommodations have, to some extent, been provided by their own labor, have reduced the expenses there at least one-half, though five new posts have been established—and some of them in advanced positions—by which the routes of transportation have been considerably lengthened.

For details in regard to New Mexico, I respectfully refer to the appended reports of Major Sibley, Captain Bowman, and Lieutenant Moore, marked A, 1, 2, and 3.

In regard to the operations of the department in Texas, I have not yet received a report for the fiscal year; but it is known that the officers acting in the department there have been prompt in the performance of all their duties. The frontiers have been extended, and eight new posts established. From the large force in that State, and their constant and active employment, with the long routes of transportation to be traversed, the expenses are heavy, as it is but reasonable to expect them to be; but they are gradually lessening. Other new posts must necessarily be established, and the sum estimated for these, and to complete those in progress, will barely be sufficient.

By referring to the accompanying map, it will be seen that the troops in Texas are so placed as to defend that State on the north and north-west; but there is a long line, extending from Fort McKavett to Fort Fillmore, where there are no posts, and where it would be impossible

to find suitable sites, or to support the troops, if sites on the route were occupied, except at an enormous expense. The greater part of that distance is mountainous, and the mountain ranges, trending to the south, approach the Rio Grande at the great bend below the mouth of the Conchos. Here the Comanches, as well within our territories as those of Mexico, have their principal crossing-place. From our side of the line they enter by this route, unite with the bands on the Laguna de Jaca and the branches of the Conchos, plunder the Mexican people, cross the Rio Grande into Southwestern Texas, plunder the inhabitants on our side of the line, recross into Mexico, and return to their homes on the Conchos and Laguna de Jaca, or through the pass at the great bend, to their mountain fastnesses north of Texas.

To control these Indians, Spain had a fort or presidio near the mouth of the Conchos. That is the true strategic point on that part of our frontier, and it should be occupied as well with a view to our own defence as that of Mexico. Five hundred men stationed there under an efficient commander would be worth more in military effect than thousands scattered in small posts along the line to New Mexico. The only objection which could be urged against a post there is, that it must depend, in a great measure, for its supplies upon the republic of Mexico. That would be a sound objection were we the weaker nation; but being the stronger, and the object being to protect Mexico as well as ourselves, the objection is without force. I have reliable information that all needful supplies, except clothing and tools, could be now obtained at reasonable rates at the towns and villages of Mexico, within from forty to one hundred and fifty miles of the proposed site; and, under the protection of a post there, they would soon be furnished from the immediate neighborhood. In regard to the Comanche Indians, I refer to the report of Captain Bowman already noticed, (A 2.)

In California and Oregon several new posts have been established; they, with those previously occupied, number seventeen, including the two depots—twelve in California and five in Oregon. These posts must be kept up at a heavy cost. Fort Yuma, on the Rio Colorado, established to hold the hostile Indians in check and to protect immigrants, is two hundred and twenty-six miles from San Diego, the depot whence it is supplied. One hundred miles of the route is a desert, without water or grass, and where the heat for several months of the year is almost insupportable. It is estimated that the loss from the damage and wastage of subsistence and other perishable stores on that route, is equal to ten per cent. upon the whole amount transported. Should the Colorado be found navigable for small steamboats, the cost of supplying the post may be reduced; but the outlay would be considerable in the first instance, as the materials and machinery for the boats, with the workmen to put them together, must be transported from the Atlantic to the mouth of the Colorado, at the head of California bay.

In establishing the posts north of San Francisco a vessel was wrecked with troops and supplies; but fortunately there were no lives lost, and much of the public property has been saved.

All reinforcements for the posts in California and Oregon should be sent in sail-vessels around Cape Horn. Fast sailing-vessels could be chartered; and though more time would be occupied in the voyage

than by the way of the Isthmus of Panama, there would be less danger of fatal diseases among the troops, and the cost would be far less.

The Indians both north and south annoy the frontier settlers, as well as the emigrants from the old States. Those in the southern part of California number about three thousand; a portion of them are warlike, and all are thieves. Until the country be settled by an American population, troops will be necessary for its protection.

It is important that authority be obtained to settle the titles to the sites now occupied as military posts, and such as may be necessarily occupied in future, not only in California and Oregon, but in Texas and New Mexico.

For the details in relation to the affairs of the department on the Pacific I respectfully refer to the excellent reports of Major Cross, Major Allen, Major McKinstry, Captain Miller, and Captain Ingalls, copies of which are appended, marked B, 1, 2, 3, 4, and 5.

The economy of the service, as well as its efficiency, would be promoted, were better positions selected for the defence of the western frontier. By referring to the map it will be seen that Fort Ripley and Fort Dodge, in Minnesota and Iowa, are placed where there is nothing to defend, and where they have to be supplied by land transportation. Were the former removed to the head of navigation on the Minnesota river, and the latter to the Missouri, near the mouth of the Sioux river, their military effect upon the Indians would be doubled, and both could be supplied by water transportation at far less expense.

A post at or near the junction of the Republican Fork with the Kansas river, in advance of Fort Leavenworth, would greatly improve the efficiency of the service, and in a short time cause a reduction of expense. The military advantages of that point are, that it is in the midst of a fertile country, abounding in timber, good water, and grass. It would be the common point of departure for troops and emigrants going to Oregon and New Mexico, where both could refit and obtain supplies. It would be about one hundred and fifty miles nearer than Fort Leavenworth to the powerful bands of Indians who inhabit, or range over, the extensive western prairies. It would be on a shorter route to Santa Fe than that now travelled. All the materials for building are on the spot. The country offers great advantages to settlers, who would, probably in two years' time, furnish at St. Louis prices all the supplies of subsistence and forage required for the garrison, as well as for detachments and trains on the routes to Oregon and New Mexico. Besides, at favorable seasons of the year, supplies might be taken from the Missouri river up the Kansas, to the site proposed for the post. This post established, the troops might be withdrawn from Forts Scott, Atkinson, and Kearny, and the heavy expense of keeping up the two latter saved.

In regard to the advantages of the proposed site, I submit a letter from Colonel Fauntleroy, of the 1st dragoons, marked C.

As an order has already been issued directing an examination of this position and that on the Minnesota, I have presented estimates for the works at both.

Great difficulties are often experienced and heavy expense incurred by the lack of direct, certain, and expeditious communications from

the Mississippi river and the Gulf of Mexico to the outposts on the frontiers. On a recent occasion it became necessary, by the failure of a contractor, to send the supply of subsistence stores for Forts Towson and Washita, on upper Red river, from New Orleans; but, in consequence of the obstruction to the navigation of Red river, caused by the raft, the quartermaster at New Orleans was obliged to send the stores to Fort Smith, on the Arkansas, whence they were transported in wagons, on long land routes, at a heavy expense, to the posts named. More than half a million of dollars have been appropriated for removing the raft on Red river, and the navigation is no better, it is believed, than in 1828, when the improvements were begun. I impute nothing wrong to those in charge of the work; the difficulty lies not in the application of the means provided, but in the nature of the obstruction to be removed.

The whole southern portion of our country west of the Mississippi is an inclined plane, and during the annual heavy rains the same thing takes place which is observed during the fall of rain on the roof of an ordinary dwelling. While the rain continues, the gutters fill to overflowing, but when it ceases they run dry. So in regard to the rivers of Arkansas and Texas; when the rain is falling the channels of the rivers fill and overflow their banks, and the torrent carries down large masses of timber, which lodge and obstruct the navigation; and on Red river the timber brought down accumulates above the raft, and annually increases the obstruction. When the rainy season passes, the channels run dry, or the water in them becomes too low to be useful for navigation.

This condition of the rivers referred to would seem to indicate the necessity of a different, more certain, and rapid means of communication with our distant posts and new territories. For ordinary turnpike, or even plank roads, the routes are too long, and to traverse them too costly. The only system of improvement, then, which seems to be at all adapted to the peculiar condition of the country necessary to be traversed, is that of railroads. A central railroad, from some suitable point on the Mississippi river, through the State of Arkansas, and along the northern frontier of Texas to the Rio Grande, from the immense resources, agricultural and mineral, which it would develop, and from the rapidity with which troops could be thrown upon any point of that line, besides the facilities which it would afford to commerce, would more than quadruple our military power in that quarter.

A similar work, to intersect this at a suitable point, might be made through Texas; and another from the frontier of Missouri, on the route to the Pacific, at least to the proposed post on the Kansas. Similar works to meet them might be commenced on the Pacific. In a military point of view, apart from all other considerations, these works would be more important than any other in which the government could engage. They are strictly national; are necessary to bind our distant possessions together, and to enable us, in the event of war with a great maritime power, to supply our troops and defend our possessions on the Pacific.

The duties of the Quartermaster's department are so much increased by the dispersed condition of the troops, that, in addition to the regimental quartermasters, and such commissaries of subsistence as I can

occasionally employ, there are more than fifty regimental officers acting in the department, either at posts or with marching detachments. The greater number of them perform the duty confided to them in the best manner, but they are subjected to a heavy responsibility, often sustain losses, and receive no compensation for the extra duty performed. I respectfully ask your attention to the cases of these gentlemen. Justice would seem to require that they should have sufficient additional compensation, at least, to cover small losses and extra expenses; and I recommend that provision be made by law that a number of lieutenants, not exceeding forty or fifty, be employed in the department, and, while so employed, be allowed from ten to twenty dollars extra a month, to be determined by the Secretary of War, according to the duty they respectively perform, or the responsibility they incur. I also recommend that soldiers employed as teamsters and mechanics be allowed thirty cents, and laborers twenty-five cents, extra a day, when employed under the direction of the officers of the Quartermaster's department, provided they perform the duties assigned to them faithfully and diligently.

I have the honor to be, sir, most respectfully, your obedient servant,
 TH. S. JESUP,
Quartermaster General.

The Hon. C. M. CONRAD,
Secretary of War, Washington City.

Reports referred to in the Quartermaster General's Report of November 20, 1851.

A 1.

ASSISTANT QUARTERMASTER'S OFFICE,
Fort Union, September 1, 1852.

GENERAL: In obedience to your instructions of April 17, 1851, have the honor to make the following report of the operations of the Quartermaster's department in New Mexico, from the 21st of July, 1851, when I entered on duty as the principal quartermaster of the 9th military department, to the 30th of June, 1852.

Immediately after the present commanding officer of this military department relieved his predecessor, an order was issued transferring headquarters, and the principal depot of the staff departments, from Santa Fe to Fort Union, and directing the discharge of all citizens employed in the public service in New Mexico, except a few clerks. This order was carried into execution without delay, and in twenty days from its date nearly all the property belonging to the Quartermaster's department, except clothing, and a large quantity of subsistence, ordnance, and medical stores, were transferred from Santa Fe, almost exclusively in public wagons, to the site of the new depot, and the citizens employed in the Quartermaster's department in New Mexico, except three clerks and a principal carpenter, were discharged.

In organizing a train last fall to transport supplies to Fort Defiance a post then recently located in the Navajo country—I was obliged to hire citizens, and thirty-seven were, by authority, employed, all of whom were discharged on their return to Fort Union. Since then a few citizens have been, from necessity, hired as teamsters, and in other capacities; but in most instances they were discharged from service as soon as they had performed the duties for which they had been engaged. A statement of the amount of money paid by me to hired citizens during the 3d and 4th quarters of 1851, and the first and second quarters of 1852, is appended and marked "A." Of this amount, however, one thousand eight hundred and twenty-one dollars and sixty-five cents was paid for services performed elsewhere than in New Mexico, the greater part to wagon-masters and teamsters who were connected with the train of wagons that accompanied the troops from Fort Leavenworth in the spring of 1851.

The price of forage of all kinds was at such a high mark in this country on Colonel Sumner's arrival, and had for years before commanded such high prices, that it was determined, by reducing the number of animals to be fed, and by the labor of enlisted men in procuring hay, to reduce, if possible, the price to a proper standard of value. For this purpose, also, grazing public animals, where it could be done, was adopted; and the consequence of the measures that were taken has been, that nearly all the grain consumed by public animals the past year has been bought for one dollar and twenty cents, or less, a bushel. A statement of the money paid by me for forage is annexed, and is marked "B." A large proportion of the hay was delivered at Fort Conrad, Socorro, and Laguna, under contracts made prior to my arrival in New Mexico. The exact quantity delivered, the places at which it was delivered, and the prices paid for it, are shown in the statement.

Statements marked "C" and "D" exhibit, respectively, the amount of money I have advanced to officers serving in the Quartermaster's department during the year, and the amount of money I have, in the same period of time, expended at this post.

The transportation of nearly all public supplies from this depot to the different posts in New Mexico, has been done by public teams; and, notwithstanding the losses that have occurred, at an expense less than it could have been done by private contract. Ox trains have been used to a great extent; and I am satisfied from experiment, that oxen cannot, in this country, owing to a scarcity of water and the want of long forage, be used to as much advantage as mules, mule power being both more economical and more reliable.

It has, therefore, been determined to dispense with oxen hereafter, and to use mules altogether in the supply trains, and no doubt the service will be greatly benefited by the change.

As the troops, soon after Col. Sumner's arrival in New Mexico, were, with a few exceptions, withdrawn from towns and villages, they have been actively employed during the fall and winter in building quarters, barracks, storehouses, &c. These buildings are in most instances made of logs, at a slight cost to the United States; are quite comfortable, and answer well the purposes for which they are required.

The following is a list of the buildings that have been erected at

Fort Union, and the other new posts in New Mexico, from the time those posts were located to the 30th of June last:

Fort Union.

Nine sets of officers' quarters; each set—with one exception, which is composed of three rooms and a kitchen—eighteen feet long and fifteen feet wide. These quarters have earthen roofs; and five of them have, in addition, board roofs. The other sets of quarters will also be covered with board roofs, as soon as lumber for the purpose can be sawed, and it can be conveniently done.

Two barracks—each one hundred feet long and eighteen feet wide, with two wings fifty feet long and sixteen feet wide; board roofs.

Hospital—forty-eight feet long and eighteen feet wide, with a wing forty-six feet long and sixteen feet wide; board roofs.

Storehouse—one hundred feet long and twenty-two feet wide, with a wing forty-five feet long and twenty-two feet wide; board roofs.

Commanding officer's office and court-martial room—forty-eight feet long and eighteen feet wide; earthen roof.

Offices for assistant quartermaster and commissary of subsistence—thirty-eight feet long and eighteen feet wide; earthen roofs.

Smoke-house—one hundred feet long and twenty-two feet wide; board roof.

Guard-house and prison—forty-two feet long and eighteen feet wide; earthen roof.

Blacksmith's and wheelwright's shop—fifty feet long and eighteen feet wide; board roof.

Bakehouse—thirty-one feet long and seventeen feet wide; earthen roof.

Ice-house—twenty feet long and thirty feet wide; earthen roof, covered by a board roof.

Quarters for laundresses—one hundred and fourteen feet long and eighteen feet wide; six rooms; earthen roof.

In addition, yards to five sets of officers' quarters have been enclosed, and two corrals have been made, each one hundred feet square.

The lumber used in the construction of these buildings, with the exception of fourteen thousand eight hundred and seventy-two feet, has been sawed at the post.

Fort Defiance.

Ten sets of officers' quarters.—One room of each set, eighteen feet square, is finished, and a second room and a kitchen of similar dimensions will probably be finished this fall.

Five barracks—each one hundred feet long and twenty feet wide, and ten feet in their rear; five buildings of similar dimensions for kitchens, mess-rooms and company store-rooms. Three barracks have been completed, and two, having been for some time vacated, will require repairs. The rear buildings to two barracks have been finished, and the others partially finished.

Hospital—one hundred feet long and twenty feet wide; fifty feet of the hospital and a kitchen ten feet in its rear have been finished.

Storehouse—one hundred and thirty feet long and twenty feet wide.

Guard-house, office, and smoke-house—one hundred and twenty feet long and twenty feet wide.

Quarters for laundresses.—One building of two rooms, forty feet long and twenty feet wide, and one building twenty feet square. These buildings are all covered with earth, and, with the exception of the one used as a guard-house, office, and smoke-house, which is built of stone, are made of logs. The expenditure of money in their erection has been small.

Fort Fillmore.

Commanding officer's quarters—main building, containing two rooms twenty feet long and eighteen feet wide, and a passage; and two wings, containing three rooms and a kitchen, each fourteen feet square.

Company officers' quarters—four buildings, containing each two sets of quarters, of one room twenty feet long and eighteen feet wide, one room fourteen feet square, and a kitchen of similar dimensions.

Two barracks—two rooms, each thirty feet square, and two wings, each fifty feet long and fourteen feet wide.

Commissary's storehouse—sixty feet long and thirty feet wide, with two wings, each fifty feet long and fourteen feet wide. One of the wings is used as a smoke-house, and the other as a bake-house.

Quartermaster's storehouse—sixty feet long and thirty feet wide.

Hospital—similar in dimensions and number of rooms to the quarters of the commanding officer.

Guard-house—twenty-five feet long and sixteen feet wide, with a wing adjoining thirty-seven feet long and fourteen feet wide, used for a prison and cells.

The buildings at Fort Fillmore are constructed of wood, with the exception of the quartermaster's and commissary's storehouses, which are made of adobes, and the hospital, which is built partly of wood, and partly of adobes.

Fort Conrad.

Commanding officer's quarters—one building, fifty feet square.

Company officer's quarters—one building forty-two feet long and forty feet wide; one building twenty feet long and fourteen feet wide; one building twenty-eight feet long and thirteen feet wide, with a wing twelve feet long and ten feet wide; one building twenty-six feet long and twelve feet wide; one building twenty-three feet long and thirteen feet wide.

Two barracks—each seventy-three feet long and twenty feet wide, with two wings, each fifty feet long and ten feet wide.

One barrack—seventy-three feet long and twenty feet wide, with two wings, each thirty-five feet long and eleven feet wide.

Quartermaster's and commissary's storehouse—seventy-three feet long and twenty feet wide, with two wings fifty feet long and eleven feet wide.

Hospital—thirty-four feet long and twenty-nine feet wide, with a wing twenty-two feet long and fourteen feet wide.

Offices—two buildings, each twenty-five feet long and nineteen feet wide.

Smoke-house—forty feet long and twenty feet wide.

Officers' mess-room—fourteen feet long and twelve feet wide.

All the buildings at Fort Conrad, with the exception of the commanding officers' quarters and the smoke-house, which are cotton-wood frames filled with adobes, are made of cotton-wood poles; the company officers' quarters being daubed with mud.

I have not received reports from Fort Webster, Fort Fillmore, or from Santa Fe. The data on which the report of buildings at Fort Fillmore is made are unofficial, and were given to me by an officer who has been stationed at that post, and who passed Fort Union a few days since on his way to Fort Leavenworth.

As the site of Fort Massachusetts, in the Utah country, was selected in June last, little more was done than to make preparations for building before the termination of the month. The building of quarters, barracks, &c., since that time, has been pushed forward with great energy, and I have no doubt, from information I have recently received, the troops will be comfortably quartered, and the public property be securely stored, long before the approach of cold weather.

The expenditure of public money required to establish the new posts in this Territory is nearly at an end, and a fraction only of the amount expended last year, small as that amount is, will be necessary to finish the buildings that may be wanted, and to keep them in proper repair a number of years. The buildings are, however, confessedly of a temporary character; and if the posts are to be permanent, sound economy would prescribe that the necessary buildings should be permanent also; and as at most of the points where garrisons are located timber and building-stone can be easily procured, permanent structures might be erected at small expense.

Very respectfully, your obedient servant,

E. S. SIBLEY,

Brevet Major, Assistant Quartermaster.

Major General T. S. JESUP,

Quartermaster General U. S. A., Washington, D. C.

A.

Statement of the amount of money paid to citizens hired at the depot of Fort Union, during the fiscal year ending June 30, 1852, by Brevet Major E. S. Sibley, assistant quartermaster United States army.

Third quarter of 1851.....	\$1,497 58
Fourth quarter of 1851.....	1,509 42
First quarter of 1852.....	2,850 62
Second quarter of 1852.....	1,197 73
Total.....	<u>7,055 35</u>

ASSISTANT QUARTERMASTER'S OFFICE,

Fort Union, September 1, 1852.

Statement of forage paid for at Fort Union, New Mexico, during the fiscal year ending June 30, 1852, by Brevet Major E. S. Sibley, assistant quartermaster United States army.

	Corn.	Wheat.	Hay.	Fodder.	Total cost.	Remarks.
	Bushels.	Bushels.	Pounds.	Pounds.		
3d quarter of 1851.....						No forage paid for.
4th quarter of 1851.....	10,437½	.....	461,623	2,194	\$22,747 49	59,775 pounds hay delivered at Laguna, at \$45 per ton, and 172,000 pounds at Cibolletta, at \$50 per ton. Contract made by Lieut. J. N. G. Whistler, May 15, 1851. 229,624 pounds hay delivered at Fort Conrad, at \$39 85 per ton. Contract made by Captain L. C. Easton, assistant quartermaster, June 7, 1851.
1st quarter of 1852.....	8,492 7-16	.....	155,936	8,233	11,885 67	27,936 pounds hay delivered at Rayado and Ocate, at \$20 per ton. Contract made by Lieut. J. H. Whittlesey, acting assistant quartermaster.
2d quarter of 1852.....	6,330 9-16	4,060	294	6,533	12,994 51	101,000 pounds hay procured by troops and charged on account of "farm culture." 1,535 bushels corn purchased by Lieut. R. Ransom, jr., 1st dragoons, acting assistant quartermaster, Galisteo. 5,832 bushels and two quarts corn, and 4,060 bushels wheat, purchased by Lieut. J. C. Moore, acting assistant quartermaster, Santa Fe.
Total.....	25,260 8-16	4,060	617,853	16,960	47,627 67	

E. S. SIBLEY,
Brevet Major, Assistant Quartermaster.

ASSISTANT QUARTERMASTER'S OFFICE,
Fort Union, September 1, 1852.

C.

Statement of the amount of public money advanced to officers acting in the Quartermaster's department in the fiscal year ending June 30, 1852, by Brevet Major E. S. Sibley, assistant quartermaster United States army.

	Amount.
Third quarter of 1851.....	\$32,679 78
Fourth quarter of 1851.....	26,494 90
First quarter of 1852.....	29,204 28
Second quarter of 1852.....	34,415 00
	122,793 96

E. S. SIBLEY,

Brevet Major, Assistant Quartermaster.

ASSISTANT QUARTERMASTER'S OFFICE,
Fort Union, September 1, 1852.

D.

Statement of public money disbursed on account of the Quartermaster's department at Fort Union, New Mexico, during the fiscal year ending June 30, 1852, by Brevet Major E. S. Sibley, assistant quartermaster United States army.

	Amount.
Third quarter of 1851.....	\$4,617 02
Fourth quarter of 1851.....	29,122 32
First quarter of 1852.....	24,763 79
Second quarter of 1852.....	20,393 13
	78,896 26

E. S. SIBLEY,

Brevet Major, Assistant Quartermaster.

ASSISTANT QUARTERMASTER'S OFFICE,
Fort Union, September 1, 1852.

WASHINGTON, D. C., *October 24, 1852.*

Since my last report the troops which occupied the posts of Doña Ana and Paso del Norte have been removed from those points, and a new post, called Fort Fillmore, established about sixteen miles southward of Doña Ana, on the Rio Grande, and about forty from Paso del Norte. This post is occupied by two companies of troops, one of dragoons and one of infantry. With much labor and expense temporary quarters have been erected and a farm opened, which will probably yield a crop this fall that will cover the expense incurred in its cultivation.

Owing to the decreased demand, and an increase of production, forage has become much more moderate in price than formerly, and there is every reason to expect a still further reduction.

A step has been taken towards holding the Apaches in check by the establishment of Fort Webster, west of the Rio Grande and in their country. They are still troublesome, and I doubt much whether we can ever have peace with them permanently without giving them first a severe chastisement.

The depredations of the Comanches are carried on throughout the southern part of the State of Chihuahua, nearly all of Durango and Zacatecas, and the other States to the eastward and north of the latter; in fact, their power is so great that they only lack organization to become the rulers of the country. They have, as I am informed by the military authorities of the State of Chihuahua, permanent villages on the Laguna de Jaca, which is in the northern part of the Bolson de Mapimi; and other points have been mentioned to me in the territory of Mexico, where they are said to live. I am fully satisfied that, as soon as they find themselves cramped by our extending settlements, they will remove across the Rio Grande, unless strong measures are taken to prevent them. Their principal crossing, as well as I can learn, is, at present, in the great bend of the river below Presidio del Norte; their main trail crosses the lower road from San Antonio to El Paso, at the Comanche spring. There are other routes followed by them, but none so much as the one above mentioned.

As to the route most eligible for the supply of the posts mentioned in the first part of this report, with all such stores as have to be transported from the coast, or other points, I have no hesitation in recommending the southern. I have just travelled over it, and must say that I have never passed over a natural road, of the same length, which is superior to it. It is also much shorter than the road from Fort Leavenworth, and, with the same care in packing and selecting stores to be sent out by the southern road that has been shown in those sent by the northern, they can be carried through in equally as good order and at less expense.

Herewith I enclose you a table of distances from Paso del Norte to the city of Mexico. I have travelled over most of the route, as far as Agua Caliente, and found the road excellent, offering no obstacles to the passage of the heaviest loaded wagons. Forage can be obtained in large quantities at most points of the road; grazing is generally

abundant; fuel scarce, but sufficient for culinary purposes; water is rarely to be obtained, except at the points mentioned. From Durango to Zacatecas there is a better route, leading through the open country, than the one mentioned, which runs through the mountains, and is used only by travellers on horseback or light carriages.

In conclusion, I would respectfully state that there are many points affecting the efficiency of the service in New Mexico which I have avoided, as seeming to me beyond my province and pertaining to the commanders of posts and the commanding officer of the department. Should the few ideas conveyed in this paper be new, or of service to you, I shall be more than gratified.

I am, very respectfully, your obedient servant,

A. W. BOWMAN,

Captain Third Infantry.

Maj. Gen. THOS. S. JESUP,

Quartermaster General, U. S. A.

A 3.

ACTING ASSISTANT QUARTERMASTER'S OFFICE,
Santa Fé, New Mexico, August 15, 1852

SIR: I have the honor to make for your information the following report respecting the public buildings at this post, their condition, capacity, and the repairs, alterations, &c., made within the last year:

Buildings.

No. 1. An adobe building, one story, being 33 by 211 feet, with twenty-eight rooms, formerly occupied by Mexican troops, subsequently by United States troops. The building is old, and requiring repairs of walls, roof, doors, and windows.

No. 2. A one-story adobe building, 49 by 190 feet, with ten rooms, built by the quartermaster's department for company quarters. This building requires slight repairs of roof, &c.

No. 3. A one-story frame work, filled with adobes, being 20 by 240 feet, with five rooms, built by the quartermaster's department, for carpenter's and blacksmith's shops, at present occupied as company quarters by companies D, second artillery, and D, third infantry. In good condition.

No. 4. A one-story adobe building, 36 by 229 feet, built by the quartermaster's department for stables. One-half finished, the other unfinished, requiring roof, &c.

No. 5. A one-story adobe building, 30 by 148 feet, with five rooms; one ninety feet long and thirteen feet in height, formerly occupied as a quartermaster's storehouse—at present three small rooms, occupied by Major F. A. Cunningham, paymaster United States army. In good condition.

No. 6. A one-story adobe building, 40 by 150 feet, being eleven feet

in height, with three rooms, occupied as commissary, quartermaster's and ordnance storehouses. In good condition.

No. 7. A one-story adobe building, 17 by 47 feet, with four rooms, occupied as store-rooms for the hospital. In good condition.

No. 8. A one-story adobe building, 75 by 77 feet, with interior plaza, containing six rooms, occupied as a hospital. In good condition.

In addition to the above, there are two other buildings, adobe, sufficiently large to accommodate three companies, but requiring great repairs of walls, roofs, doors, windows, &c. These buildings are of such a nature, that unless they are kept in a constant state of repair the walls and roofs soon give way and become useless, from the effects of weather.

Repairs, alterations, &c.

In building No. 1. One set of rooms have been repaired by adding new doors, windows, plastering the walls, and repairing the roof. Occupied by Lieutenant J. E. Maxwell, third infantry.

In No. 2. Three sets of rooms have been altered and repaired by adding new doors, windows, floors, and partitions dividing the large rooms, intended for companies, into small ones. The quarters are occupied by Brevet Lieutenant Colonel J. C. Brooks, First Lieutenant L. Beall, and Second Lieutenant John C. Moore, second artillery.

In No. 3. Alterations have been made by partitions dividing the two large rooms, as first built, into five smaller ones.

Expenses of repairs, &c.

The lumber used in the repairs above named was on hand at that time, having been sawed at the government mill at this place. The only expense to the quartermaster's department was the purchase of locks, bolts, nails, &c., and the payment of men on extra duty.

I am, sir, very respectfully, your obedient servant,

JOHN C. MOORE,

Second Lieut. 2d Artillery, Act. Assist. Quartermaster.

Major E. S. SIBLEY,

Acting Quartermaster, Fort Union, New Mexico.

A true copy :

E. S. SIBLEY,

Brevet Major, Assistant Quartermaster.

B 1.

CHIEF QUARTERMASTER'S OFFICE,
Pacific Division, San Francisco, California, August 31, 1852.

GENERAL: I have the honor to enclose you my annual estimate for funds required to meet the wants of the Pacific division for the fiscal year ending on the 30th of June, 1854.

Having entered on my duties on the 17th of May, the short time I have been in this country, together with the limited information which I have received from the several posts, and the many changes that have taken place in so short a period, have made it difficult to form as accurate a calculation as I would have desired as to what amount of funds will be necessary for the period which this estimate is intended to embrace.

The amount required for forage may probably be considered large; but when we reflect that a greater portion of the public animals are kept constantly engaged in transporting stores to the several posts, besides the many detachments that are frequently required to penetrate the country on exploring expeditions, I am induced to believe that the sum estimated for will not be found too much. The several points from which stores are taken and transported to, will be found in a table herewith transmitted, marked No. 1, together with the distances and the cost of transportation.

Fuel should be procured at the several posts in this division, with the exception of those for which funds have been estimated to purchase it.

At San Diego, the old mission of San Diego and Rancho del Chino, it has, up to this time, been procured with much difficulty by the several commands, costing no more than the price of cutting it by extra-duty men; but in some instances private property has been encroached upon, and even with this it has become so scarce as to induce me to make an estimate to meet the wants of the troops in that vicinity at two of those posts.

The estimate for the Benicia depôt is much larger than any of the other stations; this proceeds from the fact that it is from this point that the greater portion of stores are drawn which are not embraced in estimates for other stations; and in that estimate I beg leave to call to your attention that all the stores called for in my requisition forwarded to you on the 27th of May have not been enumerated, and will be required, and I may say some of them, such as pack-saddles, wagons, and harness, are wanted at this time; I therefore respectfully request that the same may be forwarded without delay.

The funds embraced under the head of "incidental expenses" will not, I think, be considered too high. There are many things which tend to increase the expenses of the department under this head, and its several classes; the hire of laborers, mechanics, clerks, and agents greatly increases the sum, and, situated as the posts are, where it becomes necessary to have land transportation, teamsters and laborers have to be employed; and as labor hire in this country bears no comparison with that of other States, it necessarily requires a very large sum to defray the actual expenses. This, however, will correct itself in the course of time, and, like the produce of this country, as it becomes more plenty, must lessen in price; and I am induced to believe that in less than eighteen months labor hire will be as low as fifty dollars, instead of seventy and eighty dollars per month, which is now paid generally throughout the State.

The sum required for barracks and quarters, as well as transportation, has been greatly increased of late by new stations being made.

When our troops first occupied this country there were comparatively but few posts erected, and those confined to the seaboard, where our public transports could easily reach them, but within the last twelve months they have increased to seventeen—in Oregon five, California ten, besides two depôts. Four of these posts lie in the interior; that of Camp Yuma, at the distance of 225 miles from the depôt from which supplies have to be drawn and transported across a desert bordering on the Colorado, and running back to the mountains at least one hundred and twenty miles. All these stations require quarters, which are more or less expensive; and I am fearful that the sum required will not be sufficient to meet the wants of the division under that head.

From my limited time since arriving here, I have been prevented from visiting all the posts throughout the State. Those in the southern district, embracing the depôt of San Diego, Rancho del Chino, and Camp Yuma, the latter being at the junction of the Gila and Colorado rivers, I inspected in the month of July.

The depôt of San Diego is necessarily the next expensive one to that of Benicia, rendered so from the necessity of keeping up a large train to supply the post of Camp Yuma; but I am pleased to find that under the admirable system now adopted by Major McKinstry, the depôt quartermaster, much public property is saved, and particularly public animals, compared with losses heretofore at that station previous to his taking it, proceeding from the want of a proper system being observed in cutting hay and making other arrangements which I find now observed by him.

The route across to the Gila and Colorado is one of the severest I have ever travelled, and is ruinous to any train required to cross it. Throughout the whole distance it is very sandy, and the heat almost insupportable, causing great loss generally both of animals and wagons. Water is scarce through the whole desert: what little is found is obtained by digging wells in the sand at two points, forty miles distant; and from the time the teams leave "Little valley," until they return, there is no grass to be found at any stopping place—making a distance of two hundred miles from "Little valley" to Camp Yuma and back to the same point.

Major McKinstry has established a point at Santa Ysabel, a distance of sixty-five miles from San Diego, where water and grass of the finest kind can always be obtained. He has had a large quantity of hay cut, and the trains leaving San Diego change here, taking fresh trains to cross the desert, which is commenced in about three days from Santa Ysabel; and with a little forage, teams are able to cross and re-cross the desert, back to the same place, without any very great loss, where they are left to rest and graze until the train returns from San Diego again. These animals are kept at but little expense, as a few "vaqueros" are employed to take care of them; and although in the neighborhood of Indians, there has been, up to this time, no loss. There are but few settlements in this vicinity, to which may be attributed the safety of our animals.

As Camp Yuma will, no doubt, be made a permanent post, supplies should, by all means, be sent up the Colorado river; and it is to be

regretted it has been left to this late date to make the necessary arrangements.

I have made a contract to carry from Benicia to Camp Yuma one hundred and fifty tons of public stores, at one hundred and twenty dollars per ton; and until September, 1853, all stores transported to the mouth of the Colorado river are to be delivered at the post for fifty dollars per ton. This contract was received after advertising in the public prints for nearly four weeks; and I was in hopes that some one having sufficient capital would have undertaken it, but no one seemed disposed to make the experiment; and I am fearful that this will also prove as much a failure as the one entered into last winter by my predecessor. There is generally but little known of the river, as it never has been navigated. It has been, however, explored to the junction of the two rivers—a distance of one hundred and fifty miles—and can be navigated by small steamers, made with a stern-wheel, drawing not over thirty inches of water, with a powerful engine. By using a boat of this kind, stores may be carried up in safety; and I would suggest the propriety that one of this description be placed on the river, if the post of Camp Yuma is to be made a permanent one. Should this not be approved of, it will cost the government a very large sum to supply it across the desert, by keeping up the present train, which, in the event of the river being navigated, could be dispensed with. This subject was laid before you in my letter of the 26th of May last. The advantage of having a boat of this description would be, that the Colorado river could be ascended to the "Great Cañon," a distance of one hundred and fifty miles from the post, but of no use on the Gila river, as there would be many obstacles to contend against that must render it impossible to push supplies up that river further than the mouth of the Two rivers. The Gila is crooked and rapid, and has but little water in it, except a short time in the spring, when it rises and falls very rapidly.

At the post of Camp Yuma wood can be procured in the greatest abundance, as the bottoms are filled with musquit trees. Cottonwood can be had for building purposes, by establishing, in the vicinity of the forks of the Two rivers, a saw-mill. The soil is productive, if irrigated, and greatly resembles the bottoms of the Rio Grande, while the color of the water of both streams resembles that of the Missouri, though a little greater tinge of red than that stream, and inferior in taste, which may be attributed to the excessive heat in that section of the country, which is almost insupportable—the thermometer, through the month of June, being 101 degrees mean temperature in the middle of the day.

There is not a sprig of grass about the post or its vicinity, and all the forage used is carried by land from San Diego. They have been compelled to resort to musquit beans, which are a pretty good substitute; but even with these, hay is indispensably necessary to keep animals in good order. You must therefore see, from these few remarks, that without an immediate change, or some better mode adopted, this post will cost the government a greater sum than probably has

been anticipated, and I can see no mode except the one I have referred to in this report.

The Yuma Indians have given our troops much trouble this spring and summer in hunting them. They do not reside at any particular point: heretofore they have generally made the junction of the Gila and Colorado their principal location; but, since they have commenced hostilities, have gone above on the Colorado over one hundred miles. Marauding parties pass down and cross the line, and probably are found as much in the Mexican country as they are in the State of California. Their number is estimated not to exceed five hundred.

The "Cocopas" reside on the Colorado and towards the mouth of the river, in the republic of Mexico. They are very friendly, or at least have not shown themselves hostile to our troops; but there is very little dependence to be placed in them, and they are like all Indian tribes—treacherous—and should not be relied on. These two tribes live on fish, roots, and musquit beans, which they dry; and, after pounding them into a flour, it is a very good substitute for bread.

They resemble in this particular the tribes residing on the Columbia river, who feed on salmon-bread, made of grass-seed and acorns, which are gathered in the fall and laid in for the winter months.

The mission of San Luis Rey, about forty miles north of San Diego, situated about five miles from the seacoast, is one of the most beautiful valleys in the southern district. It was occupied some time since by a part of the 1st regiment of dragoons, but at present is garrisoned by a corporal's guard to keep it free from squatters. This valley is admirably adapted for farming purposes, and I know of none better to carry on farming operations of the government, if it is ever intended to carry the system of cultivation into effect. It is beautifully watered by irrigating ditches, which lead in every direction through it, made after great labor by the priests who settled there some forty years since. The buildings are large and commodious, and are well adapted to quarter a regiment of troops. There are many fruit trees still found in the gardens, and several acres planted with grape-vines, which, by a little attention, would be very productive. I know of no place so well calculated as this for mounted troops, in consequence of fine grass throughout the valley, as well as a plenteous supply of water. It is probable the dragoons would have been kept there, if their presence had not been required in the upper part of the State, as it is from this point that mounted troops can traverse the country to the east, passing through the lower part of San Bernardino, the valley of Temacula, Santa Ysabel, San Felipe, and even to the desert, where several tribes of Indians are to be found, who sometimes annoy the rancheros by stealing cattle and horses on that route. The front of the old mission, including the church, is 503 feet in length, with a court-yard 268 feet in width, and 241 feet in depth. There are fine sheds and stables for horses, and, although fast falling into decay, there is still sufficient of it in preservation to meet the wants of a large command. No place in southern California, to my knowledge, is better adapted to farming than this; and, with two or three companies, barley could be raised in sufficient quantities to supply every post in the State. There is, however, but little wood to be obtained in the vicinity, and

what is required for the use of the troops would have to be brought from the mountains, some fifteen miles distant. Should this place be occupied again by troops, the supplies would be furnished from San Diego depôt, where wagons could make the journey and return easily in four days. From this point the road to Rancho del Chino approaches the coast, and in one part follows the beach for at least eight miles before leaving the sea, when it diverges and passes through the valley of San Juan de Capistrano, where another mission was established many years since, but has now become nearly dilapidated. This valley is occupied by squatters, and by others who have grants or claims of the land. The distance from the mission of Saint Luis Rey to this place is about twenty-five miles. The road from here leads through a hilly, broken country for some sixteen miles; then passes into a plain, which extends nearly all the way to Los Angeles. On reaching this plain, the eye rests upon a large expanse of flat country, probably thirty miles in extent, dotted here and there by the ranches of Californians and herds of cattle and horses, which seem to the spectator almost without number. The direction here changes to the east; and after passing up the river Santa Ana twenty miles, you come into the valley of Chino, only separated from the plains by a small range of hills, which comes from Sierra Nevada, and also separates the valley of San Gabriel, in which the old mission of San Gabriel is located.

The post of Rancho del Chino is occupied by one company, and is in sight of the Cajon (or Cahone) Pass, which is a point where marauding parties of Indians come into the plain for the purpose of stealing. Quarters for the troops are hired here at the rate of \$3,000 per annum; but, being garrisoned only temporarily, no public buildings have been erected for their use. It is in contemplation to remove the troops further to the eastward, where quarters equally as good can be hired for a sum not exceeding eighteen hundred dollars per annum. Wood is brought from the mountains, ten miles distant from the post, and is cut by the troops, with but an additional expense paid to extra duty men, and for hauling. Grass grows here in great abundance. Water for the garrison is brought, by irrigating ditches, to within ten steps of the company quarters. This property is owned by Colonel Williams, who resides on a part of the ranch, and rents these buildings for the use of the troops.

Barley can be had, by judicious management on the part of the acting assistant quartermaster, for a price not to exceed four cents per pound, which would save the necessity of hauling it from San Pedro, the landing-place for Los Angeles. This post is about fifty miles from here, where public stores are landed and brought to the post by public teams over a very fine road. In relation to the manner in which the Indians can be controlled at the least expense to the government, I have not been able to learn anything which could give you a proper idea of the course which the government ought to pursue towards them. The only information I have on this subject will be found in an admirably-written and interesting memoir from Brevet Major McKinstry, to which I respectfully call your attention. This report certainly contains much valuable information, and is transmitted to you herewith, marked No. 2.

The post of Camp Miller is established on the San Joaquin river, about one hundred and fifty miles from Stockton, and receives its supplies from that city by public teams. This post has been garrisoned by one company until recently, but, owing to Indian disturbances in that vicinity, another company has been sent there, which probably will not be required to remain longer than the latter part of this fall. The troops, thus far, have huddled themselves at but little expense.

At this place wood is procured by the command, and barley can be purchased in the neighborhood for about six cents per pound; the distance which it is brought not exceeding twenty miles.

Fort Reading is situated on Cow creek, near the junction of the Sacramento and that stream. It is garrisoned by one company, and draws its supplies from Benicia depot, which are carried up in steamers to Tehama, and from thence by public teams to the post. There is also forage in that vicinity, which can be purchased for a much more reasonable price than shipping it from Benicia. At this place the troops have also erected their own buildings, and procured their own wood.

The posts at the Umpqua, and on the Trinity and Klamath rivers, have not yet been occupied by the 4th infantry, which is in contemplation this fall. Five companies will occupy Columbia barracks, and the company now at that station will take post at Fort Steilacoom. The post on the Oregon trail will also be occupied this fall by two companies of the 4th infantry, and it is expected that a trail will be found leading from Fort Orford, by which they will be able to pass from that place; if so, their supplies will be sent from here to Fort Orford by water, and thence by pack-mules to the post on the trail. This course will obviate the necessity of keeping up a large land transportation, which cannot be kept in readiness without a large appropriation for that purpose, and I fear that my estimate will be found two small under that head.

Funds to meet the wants of the department can always be raised by drafts on you at par, and by adopting this plan it would save me much embarrassment in paying off demands on the department, for a credit system is not known in this country; and if merchants are required to lie out of their money, the price paid for stores must be much greater.

I call this subject to your particular attention, as I find it next to an impossibility to procure estimates monthly from the several posts, to be of the least use to me in making out my estimates on the department; and even if they were received, before I could get a remittance from Washington the department must be greatly embarrassed by the delay.

I have procured such information relative to the most important reservations as might be worthy of your notice. Those of Captains Folsom and Keyes, relative to the public domain here; of Captain Ingalls, of the principal ones in Oregon; and of Lieutenant Sully, at Monterey, will be found fully explanatory; and to those reports I beg leave to call your attention. There are several more—one at Benicia, San Diego, and Camp Yuma. The first you have in your possession, I presume, as well as all the papers connected therewith. The reserves at San Diego are in dispute, and it is impossible to give you any idea of the claimants, or even the value of the property, and it probably will never

be held by the government. The one at Camp Yuma has been made by Major Heintzelman, and is subject to the approval of the proper authorities. I believe, in several of those already mentioned there has never been any action upon them; thereby causing the government, doubtless, to lose more property than would have paid for the keeping of all the troops here since the formation of this country into a State government.

The outstanding debts of this department which were created in the last fiscal year, and before my arrival, are yet considerable, and do not amount to less than \$70,000. They have accrued for the want of funds, and I have not been able, with the means I have raised, to appropriate sufficient to pay them, though a portion has been liquidated. This sum is made up by upwards of \$40,000 being due on transportation and supplies, and nearly \$20,000, at San Diego, to laborers, mechanics, and teamsters. Certified vouchers have been given to those discharged, which have circulated through the State as a kind of scrip, and are purchased by brokers at a sum much less than their value, which is greatly felt by the original holders, who were justly entitled to the full sum when discharged. I have directed that, in future, this course be discontinued; and that each disbursing officer shall settle his own accounts, as it causes at some posts a great increase of expenditures, when at other stations it seems to be comparatively very small.

Rents for offices have considerably diminished in San Francisco, and you will perceive that the sum now paid does not exceed \$100 per month for each office. This, with other charges here, has somewhat diminished the expenses; but it is my duty to remark, in justice to those stationed here, that it is doing them great injustice to require their rooms to be commuted at \$25 per month, when the same are hired by citizens at double the amount. When officers are required to be stationed in a country where their expenses are as large as I find them in this State, it is unreasonable for the government to expect to curtail their allowance, because it is thought that such prices are exorbitant. It is ruinous to any public officer to support himself, as it is expected he should live in this country, without a liberal allowance being made to aid him in meeting the ordinary daily expenses which of necessity must take place.

In sending troops from the North to this place, I would suggest that they should hereafter come around Cape Horn. They reach here in clipper ships from New York in a very reasonable time, seldom taking over one hundred and twenty days, and sometimes less, and arrive in good health. Recent experience has shown that, unless in a case of emergency, the Isthmus is a very trying route, causing much sickness and a great loss in public property, besides double the expense, compared with the other route. The 4th infantry, which has recently arrived, shows the impracticability, as their loss has been seriously great, while those who have arrived are broken down with diseases, the seeds of which were engendered on the Isthmus.

The expenses of this department must necessarily increase or diminish, in proportion to the demands on it. If there are many calls, or changes made, where our troops are required to move from their pres-

ent locations, the expenses must, of course, be larger or smaller, as the case may be; and to foresee or anticipate these changes twelve months hence, I am unable at present to judge of. The price of produce will also have its weight, as well as that of the hire of laborers, mechanics, and teamsters, which I anticipate will greatly decrease, all of which, however, depends on the growth of the country; and as its resources are developed, it will bring things to a proper level, on which will also depend the increase or diminution of the expenses of keeping troops in this country.

I look upon it, however, as a mistaken policy, to cut down estimates by way of curtailing expenses; it has had a very bad effect in this State, and has had a tendency to rather aggravate than better our condition.

With our public transports, I shall soon be able to judge of the expediency of keeping more than one on hand. As the towns on this coast increase, it will invite competition, and freights will necessarily be much less than at present.

In closing this report, I am sorry that the short time I have been here will not allow me to go into a more minute detail than I have. It was, and still is, my intention to visit the several posts in the country, and such information as I can gain will hereafter be communicated.

I shall endeavor to curtail the expenses of the department; but, situated as the white inhabitants are at present in reference to the Indians, it will not surprise me if repeated outbreaks should take place. In that case our expenditures must be increased beyond the amount estimated for; but the current expenses I will endeavor to keep within proper limits.

Very respectfully, your obedient servant,

O. CROSS,

Major and Quartermaster.

Major Gen. THOS. S. JESUP,

Quartermaster Gen. U. S. A., Washington, D. C.

Table showing the distances between the several posts and stations in the Pacific division by land and water route, the manner in which their supplies are transported, and the average cost of transportation per ton.

Distance.			Route.		Cost per ton.		Supplies transported.		Remarks.
From—	To—	Miles.	Land.	Water.	By land.	By water.	By land.	By water.	
San Francisco	Benicia Depot	30		30		\$5 00		Per steamers	The cost of transportation by public teams is calculated by adding the price of forage and hire of teamsters together, with the probable amount of the wear and tear of wagons and harness.
San Francisco	Sacramento	130		130		8 00		Per steamers	
San Francisco	Stockton	130		130		8 00		Per steamers	
Stockton	Fort Miller	150	150		\$75 00		By public teams	Per steamers	
San Francisco	Tehama	320		320		55 00		Per steamers	
Tehama	Fort Reading	50	50		24 00		By public teams		
San Francisco	Trinity River	240	40	200	24 00	15 00	By pack mules	Per sailing vessels	
San Francisco	San Diego	480		480		30 00		Per steamers	
San Diego	Camp Yuma	240	240		250 00		By public teams		
San Diego	Mission of San Diego	6	6		12 00		By public teams		
San Diego	San Luis Rey	40	40		24 00		By public teams		
San Diego	Rancho del Chino	120	120				By public teams		
San Francisco	San Pedro	400		400		30 00		Per steamers	
San Pedro	Rancho del Chino	50	50		24 00		By public teams		
San Francisco	Umpqua	340		340		28 00		Per sailing vessels	
San Francisco	Fort Orford	300		300		15 00		Per steamer	
San Francisco	Columbia Barracks	690		690		30 00		Per steamer	
San Francisco	Astoria	600		600		30 00		Per sailing vessels	
San Francisco	Steilacoom	790		790		25 00		Per sailing vessels	
San Francisco	Dalles	770		770		30 00		Per sailing vessels	

To Astoria; from Astoria to Dalles unknown.

CHIEF QUARTERMASTER'S OFFICE, PACIFIC DIVISION,
San Francisco, California, August 31, 1852.

O. CROSS, Major and Quartermaster.

B 2.

DIVISION DEPOT, CALIFORNIA,
April 14, 1852.

GENERAL: I have given further consideration to your letter of the 31st January, and am satisfied that the present wants of the department in this division do not demand the purchase of a sea steamer. It is impossible, however, in this country, to judge of the future by the past, or to base calculations on current data for a fixed plan of operations. The rapid increase in population, its erratic tendency, the fluctuation in prices, the irregular and unstable character of private enterprises, present new phases in every step of progress, yet develop no system, and establish none of the rules or laws which elsewhere govern trade and direct industry.

Should the government be independent of private means of transportation? and if it employed only its own means, by what kind will it be best served? To answer these questions with any degree of confidence, I must myself ask for information.

What changes are contemplated in the present position of the troops? What old posts are to be abandoned, and what new ones established? What accession will be made to the existing force? Are active operations contemplated? and if so, what will be the principal theatre? Doubtless the principal service to be performed will be expeditions and enterprises against the Indians; and the vast influx of population is rapidly driving back from the sea-board the hostile tribes, and the line of operation, by which we understand the frontier, is not only enlarging, but becoming every day more and more remote. Hardly will a post be established, the foundations of which were laid upon this line, before it will find itself in the centre of a population, and out of position and use. The tendency, accordingly, is a succession of removals to more distant points in the interior, and rapid increase of land transportation. While the line of military operations is thus receding from the coast, the means and facilities of transportation consequent upon the settlement of the country are increasing in number and improving in character. Coasting by steam is no longer a monopoly; an active competition has sprung up, and freight throughout the length of the coast will very soon be transported at reasonable, if not at low rates. An increase and competition in private means, and a diminution in the quantity of government stores required at points on the coast, are reasons I would submit as opposed to the necessity of keeping in commission here an ocean steamer. But there are other causes, which in time will work out results that will lessen the difficulties with which the service has hitherto had to contend. The labor of the country is no longer confined exclusively to mining.

The farmers of Oregon have returned to the plough; and it is now discovered that the soil of California can be made to yield forage, and the staple products of food, at lower rates than they can be imported or brought from the Atlantic side. The essential elements of supply will, in another year, be produced in the vicinity of almost every post, since the farmer is now following close to the heels of the miner, with a sure guarantee that his labor will be rewarded. It is confidently

predicted that oats and wheat will be sold in Oregon, directly after the harvest of the present year, at prices not fifty per cent. higher than the market value of the same products in New York; and even in this State the crop of barley will be sufficiently large to afford a supply for one-half the year. The country will hereafter furnish, too, its building materials—lumber, brick, and lime. Oregon is even now overstocked with the former; and brick is manufactured, and lime burned, in this vicinity, at prices which will discourage the home market.

The foregoing general remarks but partially apply to the country bordering upon the Gila and Colorado, and the posts which may follow the boundary line between this country and Mexico. Immense deserts and wide ranges of mountains intervene, presenting obstacles sufficiently formidable to discourage settlements in that quarter. Nevertheless, the *Mormons* have already made significant agricultural demonstrations in the valleys of those rivers, influenced by the very causes which repel or turn aside the common citizen, viz: the difficulties of communications.

You are aware that attempts have been made, and are making, by the department here, to open and establish a communication by water with the post at the junction of the Gila and Colorado. By advices just received from the commanding officer of the post, it appears that the transport *Sierra Nevada* had arrived at the mouth of the Gila; that barges had been constructed by the contractors and started on their way up the river on the 8th of March. They were expected at the post about the 1st of April. The ascent of the river with loaded boats had been found much more difficult than was anticipated, and it is feared that the contractors cannot accomplish their agreement without ruinous losses to themselves. It was my opinion in the outset that the contractors had undertaken a task, the labor and expense of which would greatly transcend their estimates and expectations. What has already been done, however, proves the practicability of the route, and if the cost exceed by three-fold the calculations of those who have first embarked in the enterprise of transporting over it the public stores, it can still be pursued at one-half the cost of sending trains from San Diego across the desert.

Since it is the settled purpose of the government to maintain a post at the junction of the Gila and Colorado, a small steamer with good power, to ply upon the Colorado, will become indispensable to speed as well as economy; but sufficient information is not yet obtained to suggest the precise character of this boat, and it is probable that no boat suited to the river could safely pass through the Gulf. It may have to fulfil conditions that would render it too large to be carried entire or whole on the deck of a ship, and too small to venture alone upon a coast or sea voyage.

I have but little to add to what I have previously written in regard to the *Constitution*. She registers five hundred and ten tons measurement; is capable, by the present arrangements, of carrying four hundred passengers, and two hundred tons freight; she is a good sea vessel, of first class, *propeller* speed.

Steamers possess many advantages over sail-vessels in communicating from this depôt with the Columbia river, since they can enter and

pass up that stream and return at all weathers, without the long delays to which sail-vessels are subject; but cheapness, when the service is not constant, and the voyages are not required to be expeditious and regular, will heavily preponderate on the side of the latter.

I have the honor to be, your obedient servant,

ROBERT ALLEN,
Brevet Major.

Major General T. S. JESUP,
Quartermaster General U. S. A., Washington, D. C.

B 3.

ASSISTANT QUARTERMASTER'S OFFICE,
Depot, San Diego, California, June 28, 1852.

MAJOR: I am required, by your orders of the 17th ultimo, to report, "for the information of the Quartermaster General, the resources of the country, the disposition of the Indians, and how, in your (my) opinion, they might be best controlled."

The subject is a fruitful one, and, impressed with its importance, I shall enter upon its consideration with no small share of diffidence, involving, as it does, the discussion of a policy partly military, partly social, eminently political, and having a direct and important bearing upon the well-being and future prosperity of that tide of emigration "that is yet pouring its thousands of active and energetic spirits upon our shores, completing the chain of a nation whose empire extends from sea to sea, and who boast, within the past half century, an addition to their territory of 2,699,935 square miles."

In tracing the action of the general government on this subject, we find no difficulty in arriving at the policy that has dictated the course to be pursued in our intercourse with the Indians; and that policy is so well marked and defined, that no operations of its minor officers will ever be permitted to interfere with it.

That policy demands a removal of all Indian tribes from the limits of the State in which they may be found. As a consequence, all military intercourse with the Indians must be subservient to, and have a direct reference to, a final attainment of the end so anxiously sought by the authorities of the country. In the execution of this policy, we have more than once been involved in long, bloody, and expensive wars, prosecuted with a pertinacity that clearly shows a fixed determination to carry out, at all hazards, the system hereinbefore indicated.

This policy is distinctly announced and armed with statutory force by an act, passed in March, 1804, relative to a division of the Territory of Louisiana; and the numerous acts of Congress, extending through a period of thirty years, all having reference to Indian emigration, established a system it would be folly for any one to combat. Its advantages have, from time to time, been commented upon by the different Presidents of our country in congratulatory terms. Speaking of it, in his second annual message, President Jackson says: "It puts an end to all possible danger of collision between the authorities of the general

and State governments on account of the Indians;" and subsequently adds, in the same document, that "It is therefore a duty which this government owes to the new States, to extinguish, as soon as possible, the Indian title to all lands which Congress themselves have included within their limits." We must, therefore, as I have before stated, keep this policy of our government prominently in view in our official intercourse with the Indians, and make all things tend to the great end Congress has in view. If this policy has been aimed at by every administration that has governed the country during the past thirty years, and if (as its friends claim) the happiest results have everywhere followed its adoption—and to such an extent as to justify and embolden Congress in the appropriations of millions towards its final attainment—the question may be well asked, how comes it that, in our attempt to govern the red men of California, we have sought the revival of an antiquated system condemned by the general government a half century ago? There is force in the inquiry, and reason and sound sense in the argument of those who have especially sought to exclude this State from the operation of a system long since condemned by able administrations, under the conduct of both of the great political parties of the country.

President Van Buren, in one of his messages to Congress, makes use of the following emphatic language, in discussing the policy so long antagonistic to the one sought to be inflicted on this country by its present Indian agents: "That a mixed occupancy of the same territory by the white and red man is incompatible with the safety or happiness of either; is a position, in respect to which there has long since ceased to be room for a difference of opinion. Reason and experience have alike demonstrated its impracticability."

His predecessor had long before said that the policy of the government had been adopted after mature deliberation and experience, and "ought to be persisted in until the object is accomplished."

The refusal of the present Congress to aid the Indian agents of this State in the prosecution of their enterprise, by withholding all appropriations clearly shows that no departure from the established policy of the government will be permitted; and assuming this to be a fixed fact, and that it must of necessity be our guiding star in all our official relations with the Indians, I will proceed to give you a carefully collated history of the Indians of this country, their habits, manners, and customs, their present modes of subsistence, and their capacity for war. Of a necessity my narrative will be brief, but sufficiently to the point to enable the authorities to form a tolerably correct opinion of what is necessary to be done to control the Indians of South California. The limit of the county of San Diego (as defined by an act of the State legislature) covers an immense area of territory, and contains within its boundaries about 3,000 Indians, divided into three distinct nations or tribes—Yumas, 500; Cohuillas, 2,000; Dieguinas, 500. The two last named tribes are again subdivided into mission or Christianized Indians, and Gentiles.

The Yumas are a wild, fierce and warlike people, inhabiting the section of country watered by the Colorado, and from time immemorial have been at war with their neighbors, and never omit an opportunity to plunder their friends. The Dieguinas reside in the southern

part of the country, and claim the land from a point on the Pacific to the eastern foot of the mountains impinging on the desert. The Cohuillas reside in the northern half of the country, and southern part of Los Angeles; they claim a strip of country commencing on the coast and extending to within fifty miles of the Colorado river, following the eastern base of the mountains. This division of territory is well known to, and recognised by, all the Indians. No violation of a neighbor's empire is ever passed over; satisfaction is promptly demanded, and must be full and ample to meet the requirement of an international law, that rigidly enforces the rights of all. The grass-hopper grounds, the rabbit grounds, and the venerable oaks, whose annual crops are looked to for bread, are divided off and apportioned by some law, the validity of which the people acknowledge and respect. The greater number of Indians reside in villages, whose domains include the arable foothills at the western base of the mountains, and have some idea of agriculture and its attendant pursuits. About five hundred of the Cohuilla nation originally belonged to the mission of San Luis Rey, and are now residing at Pala Temacula, Ahuanga, Agua Caliente, San Jacinto, and some few at and about the mission. Less than one-half of the Dieguinas are neophytes. The greater part reside on land belonging to "Gente de Rason," and are partially domesticated, though manifesting a great aversion to labor, and at all times willing to resume their previous free and mountain life, that possesses charms for them that far outweigh anything to be found in the simple life of a husbandman. They are to be found in the valleys of San Pascual, Santa Isabel, and San José: a few cling to the mission of San Diego. The greater part of those who are neophytes, their descendants, and the partially domesticated Indians, are, for a greater or less period of the year, to be found scattered, not only over the country of San Diego, but also over that of Los Angeles, at the various grazing, agricultural, and vintage grounds, constituting a very considerable portion (as they formerly did the whole) of the hireling class of laborers. A portion of the Cohuillas never acknowledged allegiance to the missions, and of course were not subservient to the will of the friars. Yet no villages of theirs, not excepting those on the desert east of the mountains, fail to send forth representatives during the harvest in the southern counties of the State.

The value of this cheap labor to the farmer can only be understood by those who are familiar with the southern portion of the State, its resources and capabilities. Adopt the policy sought to be urged by the Indian agents of the State, and you concentrate and maintain at the expense of government a people upon whom we are dependent for the necessary labor to enable us to gather our crops and secure our vintage. Such a policy *cannot* but be prejudicial to the best interests of the inhabitants of South California—the vine-growing counties, and the State at large, and will never be sanctioned or respected by the people. A portion of the neophytes reside upon land the property of American citizens, and will not consent to a removal, unless very strong inducements are held out to them by the government. The grazier and the farmer find it to their interest to cultivate a friendly feeling with these people, and, in pursuance of their interest, have acquired an influence over them that cannot be easily shaken.

The Yuma nation (with whom we are now at war) reside at or near the junction of the Gila and the Colorado rivers. No particular section of that country can be designated as their abiding place; for we find them sometimes residing at the junction of the two rivers, again east of the Colorado and north of the Gila, and again south of the boundary line and on lands within the jurisdiction of the Mexican republic. Nomadic in their habits, their hostility to their neighbors, above and below them on the rivers, restrains them to a well-defined section of country, a large portion of which is nothing more than an interminable net-work of sloughs, rendering it extremely difficult, if not impossible, for our troops to find them when anxious for concealment. The nation was almost annihilated in 1828 by a combined effort of their Indian neighbors. Those that escaped destruction fled their homes and located for safety at the Mohave villages, high up the rivers, and remained there until the spring of 1845, during which time they had so far recuperated in numbers as to induce a return to their original hunting grounds.

A powerful effort on our part might compel these Indians to return to the Mohaves, and thus free the southern land route of immigration from the annoyances and dangers consequent upon their proximity to it. A removal of the Indians from the country will, necessarily, be attended with a heavy expense; but it must be acknowledged that a continuance in their present position and habits exposes the citizens of the country to great loss of life and property consequent upon their annual irruptions and incursions.

The State of California has been involved in a heavy debt, for the payment of which she is unprepared, by our failure to establish a few military posts, the maintenance of which would have been expensive, but beneficial beyond calculation.

The abandonment of Camp Yuma, and the failure to establish troops at or near Agua Caliente, afforded an opportunity long and anxiously sought for by an ambitious, discontented, and restless Indian, (possessing all the requisites of an Indian chieftain,) to ally the Cohuilla and Yuma nations in an attempt to sweep Lower California and exterminate the American inhabitants. Antonio Garra's plans and combinations evinced tact, talent, and profound knowledge of the country and our resources; and I hesitate not in saying that, but for the disaffection of Juan Antonio, a Cohuilla chieftain of influence, the war would not have terminated without an immense loss of life and property. Antonio Garra played high, but failed through the treachery of one whom he supposed a devoted partisan; but the recollection of his effort has not yet passed from the minds of his people, and I have this summer heard his requiem chanted on the foot-hills of his native Sierra by hundreds of his people, who mourn his death with a sincerity too apparent to be misconceived or misconstrued. That feeling points to another and perhaps a greater effort, unless we convince them of our strength of numbers and will.

My own judgment (founded upon an extensive acquaintance with the Indians and their habits) would dictate the maintenance of Camp Yuma; the location of a small mounted force at some point in the vicinity of San Felipe, Agua Caliente, or San Isabel; another, double

or treble the number of effective men, on the Mohave river, about 150 miles northeast of Los Angeles; and one somewhere in the vicinity of the four creeks of Tulé lake. I am convinced they would be all-sufficient for the protection of southern California. Without such a cordon of posts, holding in check the mountain Indians and restraining those more particularly spoken of in this report, it is idle to expect anything but a repetition of last year's occurrences.

Political economists lay it down as an axiom "that a large and patriotic population constitutes the strength of the country." That population is lacking in South California; and owing to our extreme remoteness from the power of the general government, and being in the midst of a population for the most part speaking a different language, smarting under what they consider the "iron rule of the conqueror," and I may safely add, the oppressor, and looking upon every act of ours with jealousy, we can never hope for their active assistance and co-operation in our endeavors to restrain the Indians. It is not to be expected that our republic will so far change her legislation as to create our army sufficient in numbers to perform the duties made incumbent by the recent extensive frontier additions to the country. The spirit of our institutions, it is well said, is opposed to an "increase of national power in this particular," notwithstanding the history of the past four years has demonstrated beyond all controversy that our army is not adequate to the performance of the duty demanded of it. With this fact staring every one in the face, we are met with a response indicating "a reliance upon the people" in times of danger and trouble. By nature and education our people are self-reliant, and, as a consequence, this policy is a taking one; but it is utterly inapplicable to South-California, inasmuch as the country is but sparsely populated, and does not present sufficient inducements to emigrants. In this attitude the few American residents present themselves, with outstretched hands, imploring military aid and protection. Give them the means of defending their property and lives from Indian attacks, and, relying on your justice and good faith, they will march forward in the task they have assigned themselves of causing the "earth to bring forth in her plenty," with renewed confidence in the fostering care of a government whose march is onward to greatness and power.

It may be well to state, that the treaty stipulations made with the Indians of the south last winter, by one of the Indian agents, provided for the following described territory being set apart for the use of the Indians: For the Cohuillas, San Luisenga, and Serranos, a district of country bounded as follows: commencing at the southern corner of the Temacula grant—thence to the northwestern corner of the San Jacinto grant—thence along the west and south sides of the said grant, to the southeastern corner of the same—thence to the northwestern corner of the San Gorgonea grant—thence along the west and south sides of said grant to the southeastern corner of the same—thence on a direct line to a point at the foot of the Desert, and due east from the northeastern corner of the grant of San José del Valle, owned by the Hon. J. J. Warner—thence on a direct west line to said corner—thence to the southwestern corner of the Temacula grant—thence running round the boundaries of said grant, including it, to the

place of beginning. In this district, if the treaty be ratified, will be gathered all the Indians from the mission of San Luis Rey, from La Joya Pala, La Puerta, Puerta Cruz, Carvajal El Potrero, Pawna, and from Buena Vista; besides those who are already in the territory and all the Cohuillas.

For the San Diego Indians, (so-called Dieguinas,) the following district of country was set apart and bounded by lines: commencing at the northwestern corner of the grant of San José del Valle, running along the northern lines of said grant to its northeastern corner—thence due east to the foot of the hills on the Desert—thence following the edges of the foot hills, southerly to the crossing of the State line—thence westerly along said line, twenty-five miles—thence to the southwestern corner of the San Felipe grant—thence along the western lines of said grant to the northwestern corner of the same—thence to the southwestern corner of the grant of San José del Valle, and thence to the place of beginning. It is easy to understand the motives that influenced the rancheros in their opposition to the policy of thus congregating the Indians in settlements by themselves. Few ranchos have not their indigenous inhabitants, who have become, as it were, serfs of the soil—not by coercion of the law, but who have thus remained on account of the strong attachment of the Indian to the land of his fathers. This has given the rancheros, holding, as it were, a second and more powerful claim over the soil, the opportunity of forcing the Indian's services—not that he owned the Indian, but that he owned the soil, and the soil owned the Indian.

How strong must have been this love of birth-place in the Indian, to have held him in serfdom for a century! How could any man thus grow up without feeling that what he produced was his own, and that these men, inflated, as it appeared to him, with the robbery of the Indian's labor, were continued oppressors? When the Indian stole from their ranchos, he but felt he was taking that to which he had the best right.

It may be said that these are reflections above those that an Indian can entertain. I do not deny that they cannot express all that they feel; but that they do feel all this, and a great deal more, is well known to every man of intelligence who has been with them, and conversed with them, in their wilds, away from the fear of persecution. The first mission established in Upper California was that of San Diego. San Luis Rey was founded at a much later period, about 1790. In the early part of the Spanish career in this country, an attempt was made to found a mission at or near the present site of Camp Yuma, on the banks of the Colorado river. After an existence of one short year, the padre, and other Europeans connected with the attempt, were murdered by the Yumas, and no subsequent attempt was ever made, the Franciscans limiting future operations to the section of country north and west of the desert.

As late as the year 1830, the missions of California were in a flourishing and prosperous condition. That of San Diego included in its domains eight large farms, or ranchos, enclosing some forty miles square of territory; and great attention was paid to agriculture. Horticulture (abundant evidence of which still exists) also received great and deserved attention in the more immediate vicinity of the mission buildings. Brandy, wine, olives, and olive oil, were important articles of production. From

the herds and flocks, leather, soap, coarse flannels, blankets, hats and shoes, were manufactured in quantities. Each mission was well provided with carpenter's, blacksmith's and saddler's tools, and the different pursuits essential to the wants of the community were planned and executed with industry, and that patience so necessary in the instruction of a people recently recovered from a state of barbarism. The control and management of each mission was left to the resident padre, (priest or father,) who, however, was subject to removal from one mission to another by the Father President of the missions of Upper California, who alone could be deprived of office by his superiors of the college of San Fernando, located in the capital of the republic of Mexico.

In the exercise of a power that to a very great extent was absolute, the padres found little or no difficulty in accomplishing the great ends for which they were sent to this country; and the traveller at this day cannot but be struck with the evidences of their great labor and untiring assiduity in the performance of the duty assigned them. It was made the duty of each resident padre to make annual returns to the President, setting forth the state of the mission under his charge, the number of converts, births, baptisms, marriages and deaths, gross amount of agricultural and mechanical products, accompanied with a statement of the amount on hand of live stock of all kinds. Whenever these returns showed a want of any particular article, an order was promptly issued and directed to some other mission to supply the deficiency. Regular books were kept.

In the exercise of their power the resident priests were aided by Spanish overseers. Mechanics and artisans were employed to instruct the Indians in the different arts and pursuits deemed essential to their well-being, until, at the date referred to above, almost the entire mechanical labor was performed by the Indians. At this period, the Indians who acknowledged the authority of the mission of San Diego numbered 3,000.

The mission of San Luis Rey remained under the control and direction of its able founder, (Father Peyni,) until the year 1830, at which period it was regarded as the most flourishing institution of the kind in the country. Father Peyni was ever regarded as a man of enlarged and philanthropic views, and most indefatigable in his exertions and labors in the great cause of religion and civilization. The magnificent ruins (now occupied by a detachment of our troops) constitute a monument to his memory, worthy of our respect and solicitude. The number of neophytes who acknowledged allegiance to this mission was about 4,500.

The great work performed in a comparatively short period by the pious padres, who, leaving behind them the comforts and conveniences of civilized life, and actuated solely by a piety only equalled by their benevolence, went forth into the wilderness to preach to ignorant and hostile Indians the religion of their Master, attests the rapid advances towards civilization which the red men of this country made under their tuition.

The California Indians, with some few exceptions, are far inferior, in all the nobler attributes of man, to the Indians east of the mountains—

less formidable as enemies, yet replete with treachery and its concomitant attendants. The simpler arts made great progress among them, and we yet find many who are tolerably proficient as blacksmiths, shoemakers, tanners, soapmakers, &c. Soon after the year 1832 the great rival military parties of the country furnished them with arms, and, by dint of promises, succeeded in inducing large numbers of the neophytes to take part in the civil troubles of the country, contrary to the wishes of the padres. This was the first successful attempt to resist the hitherto absolute authority of the priests. Both the civil and military power of the country from time to time interfered, and the result was, that insubordination and idleness rapidly spread among the mission Indians until about 1834, when a decree was passed by the Mexican Congress secularizing the missions, and ruining forever the most successful and splendid attempt the world has ever seen for the civilization of savage tribes. The control of the mission property was conferred upon military officers and their favorites. The Indians rapidly diminished in numbers, and returned to their original haunts in the mountains. Yet to this day the Spanish language is spoken by them; and as they gaze from their mountain homes upon the crumbling remains of the poor padre's efforts that here and there dot the valleys at their feet, many a tear is shed at the sad fate that has overtaken them, and many a rude prayer is recorded on high in favor of those whom they still delight to call "fathers." A different race of people are now masters of the soil. Our orders for their government go forth in a language they do not understand, and will not comprehend. As a consequence, they listen to the native Californian, and, as the operations of last winter prove, oftentimes to their serious loss, and in some instances final and utter ruin. The wild Indians of California are, as I have before stated, far inferior to their brethren residing east of the mountains; and yet the study of their social economy, civil government, and customs, would not be an uninteresting one to the politician or divine. A close observer will find them patriarchal, yet free; almost without morality, yet filled with superstitious awe and reverence for all that is unseen or incomprehensible. Their religious ceremonial dances are as varied as the number of bands that form a nation or tribe. In some tribes, the men and women unite in the dance; in others, the men alone trip to the music of the women, whose songs are by no means unpleasant to the ear. Among their religious dances, the following are the most celebrated and imposing: the hawk feast, the dance of peace and plenty, the dance of victory, that of puberty, and that of deprecation. When any member of the tribe is unaccountably taken sick, the friends and relatives of the invalid assemble in the dance called "deprecation." The illness is regarded as the work of witches, or rather wizards; for it so happens they differ from the puritans of our country, and among them men are more liable to be accused than women. The members of the tribe having assembled, on a given signal each one deposits an offering in a basket, provided for the purpose, and the dance begins by each warrior taking his place in a circle, armed with his bow and arrows, with which he keeps time, by using them as "castanets," to the music sung by the women. The dancing is kept up to a late hour, and the ceremony concludes with the presence

of a high priest, who waves on high, from right to left, the different offerings, shouting at each wave, and responded to by deep groans from the assembled crowd. This part of the ceremony is marked by a deep and respectful attention, intended to appease the evil genius, and restore their brother to health.

The dance of puberty is conducted by the immediate family of the individual, and is the occasion of much joy to the tribe on the first proof of womanhood in a maiden. Invitations are sent off to the surrounding tribes announcing a grand ceremonial feast, which is conducted as follows: The different candidates are marched in solemn procession to a spot selected for the purpose, surrounded and accompanied by all the married women of the tribe, decorated in their finery, and chanting songs expressive of their thanks to the Great Spirit who guides their affairs. A large hole is scooped in the ground, and a fire lighted and kept burning until the sides of the cavity are well baked. The maidens are then wrapped in blankets and deposited upon a bed of aromatic plants, and covered with bushes, whose branches are ornamented with flowers.

The young girls assemble around the grave and sing, from morning until night, for three successive days. As the sun goes down the "candidates" are removed to their wigwams, only to undergo the same sweating operations on the morrow. The "three nights" are spent by the whole tribe in feasting and dancing. On the morning of the fourth day the candidates appear, and it is formally announced by their friends that they are in the market for matrimony.

The social influence that the system of serfdom, to which I have incidentally alluded, has exerted over the native Californians, would be an interesting study. Certain it is that New California has no desire to introduce to social and political liberty in our midst all the mongrels that are produced by licentious men and debased slaves. Certain it is that this *peonage* will ever choke enterprise among them, and render them forever an effeminate, indolent, and degraded people, alike unwilling and incapable of appreciating the blessings of a free government.

Accustomed to regard them as living under a government whose policy was an obstacle to all progress, and whose agents sought to depress rather than elevate the energies of the people, we ought not to be surprised if, in the sudden acquisition of liberty of thought, action, and enterprise, under our flag, they should sometimes find scope for their worst passions, and that their impulses of right and wrong require the restraints of a severe discipline. They will not submit to the wise and wholesome one dictated by our laws, presupposing the people to be governed abundantly capable of appreciating the blessings of true liberty. Therefore it is that I repeat, we cannot look to the militia of south California for assistance in any emergency that may arise requiring troops for service against the Indians. The greater part of the adult population being native Californians, and their habits, sympathies, and wishes being in opposition to ours, they must of necessity be excluded from any calculation based upon a reliance upon the people in the hour of danger and trial. Exclude them, and a corporal's guard does not remain. Yet the interest to be protected is a large and

growing one, and, though confined to the hands of a few citizens, demands that protection which I have no doubt will be cheerfully accorded whenever their position is properly understood.

I am under obligations to Hon. J. J. Warner, State senator, and a resident of this county for many years, for much of the information contained in this report; and I have also freely used the notes of that able and indefatigable officer, Lieut. John Hamilton, third artillery, who, in common with myself, has devoted much time and attention to the Indians of California, their habits and customs.

Very respectfully, your obedient servant,

J. MCKINSTRY,

Brevet Major U. S. A., and Assistant Quartermaster.

Major O. CROSS,

Chief Q. M. Pacific Division, San Francisco, California.

B 4.

ASSISTANT QUARTERMASTER'S OFFICE,
San Francisco, California, June 8, 1852.

MAJOR: I have the honor to report to you, that in conformity to the instructions of the general commanding the division, dated March 24, 1852, (A) I proceeded on the 4th of April, by the steamer Columbia, to Fort Orford, where I arrived on the 12th. I reached the point at which the schooner Captain Lincoln was wrecked, called Camp Cast-away, on the 24th. On the 26th I repaired to the Umpqua river, and on the 28th chartered the schooner Nassau, to take off the wrecked stores and deliver them at Fort Orford and Benicia; and, having turned over at Fort Orford nearly all the quartermaster's stores, and such subsistence stores as were required by the assistant commissary of subsistence at that station, I returned to Benicia in the Nassau, arriving at that depot, with the greater portion of the cargo of the schooner Lincoln, on the 24th of May, having been absent from this station nearly two months.

Such is a summary of my operations under the orders referred to; and I submit with it the following detailed account of the same.

The orders of the commanding general were received by me on the 25th of March, on the same day they were acknowledged and application made by me (B) for the invoices of the public stores shipped from Benicia on the schooner Captain Lincoln. On the 26th I received Major Allen's letter, (C) enclosing invoices of the quartermaster's stores only. Having no invoices of the subsistence, ordnance, nor medical stores, and a wide discretion being left me in my instructions, I found it necessary to repair in person to the headquarters, in order to collect the remaining invoices, and hold an interview with the general for more definite information. I therefore went to Benicia on the 26th; and, having secured the invoices and such insight into the matter as could be had, I returned to San Francisco on the 27th.

From the scanty information I could procure, it was impracticable to form a positive plan of procedure before personally repairing to Kowes

river. Several individuals whom I consulted seemed ready, at first, to charter a vessel to go to the camp and bring the stores to San Francisco; but, upon making an investigation, and discovering the difficulties of the undertaking, only one of them made an offer. This I submitted to the headquarters, with my remarks against its being accepted, (D) on the 30th of March, and it was disapproved by the general on the 1st of April, (E.) With my letter was also submitted the accompanying return of quartermaster's and subsistence stores put on board the schooner Lincoln, (F & G.)

The difficulty attending the undertaking arose from the fact that no vessel had ever been into Kowes river, nor was it supposed that any vessel could enter it. The point was almost unknown to seafaring men, being fifty miles north of Fort Orford, and twenty miles south of the Umpqua river. Lieutenant Stanton had reported to headquarters that the beach, from Camp Castaway to the Umpqua, was practicable for wagons; and vessels were trading between that river and San Francisco. Not being able to procure aid from the shipping in San Francisco, I had three alternatives, all of which were contingent:

1. To sell the stores where they lay, if practicable.
2. To haul them to the Umpqua river, and sell them there, if purchasers could be found.
3. To charter a vessel at the Umpqua river, if one could be persuaded to undertake so hazardous a trip.

With so many contingencies to contend with, I felt much uncertainty with regard to the success of my enterprise. To provide for the second alternative, I shipped, on the 1st of April, to the Umpqua river, two wagons, with harness, &c., and 100 bushels of barley, on the brig Fawn. There being no regular communication between San Francisco and Fort Orford, I was necessitated, in order to reach that point, to make a special arrangement with the steamer Columbia, plying between San Francisco and the Columbia river, her usual route being direct from port to port. This agreement was also contingent, and I learned that passengers had been carried to and fro the whole route, and sometimes twice, before being landed at Fort Orford. I sailed on the 4th of April, taking with me 100 bushels of barley and some public clothing for Fort Orford. The captain of the steamer had never put into Ewing harbor, in which Fort Orford lies. We approached it on the evening of the 6th of April; a heavy southeast wind was blowing, and increasing in violence. At about 8 o'clock, it being then dark, the steamer was run in to the shore until the lead-line showed $3\frac{3}{4}$ fathoms, when she was so near that the surf could be seen distinctly breaking with great force on the beach. Several fires were burning near the water's edge, and the captain felt very certain that he was at Fort Orford: two guns were fired, at intervals of ten minutes, but no reply was made to his signals. By this time, it was plainly seen by the eye that it was impracticable to land on account of the surf, and the steamer put to sea on her course for the Columbia river, setting her sails to regain the time lost by her detention. The gale had increased to such a degree, that in about half an hour afterwards the foresail and fore-topsail were both carried away. It was subsequently discovered that we had put in some distance south of Fort Orford, in the proximity of Rogue

river, where the Indians are supposed to be hostile. Had I succeeded in landing, the result would have been unfortunate—perhaps fatal.

The steamer entered the Columbia river on the 8th of April, stopping at St. Helen's, the depôt of the steamship's company. From this place a smaller steamer, the Willamette, conveys the freight and passengers to Portland, on the Willamette river. Smaller boats still are required from this point; and various miniature steamers ply between this port and Oregon city, supplying the valley of the Willamette.

Portland is a new and thrifty town, about nine miles in a direct line from Fort Vancouver, which lies on the Columbia river, just above its junction with the Willamette. These rivers are clad in perpetual green. The pine and cedar with which their banks are rivetted, grow, in some cases, to an immense size, and are eminently desirable for masts and spars, being very straight and tapering.

On the 12th of April, at about mid-day, the steamer succeeded in entering Ewing harbor, and a landing was effected at Fort Orford without difficulty, the wind being northwesterly. The harbor (see map attached) is an open roadstead, with water sufficient for any class of vessels, and for one-half the year the anchorage is perfectly protected and the water smooth; it is surrounded by an elliptical bluff, the face of which is almost entirely of rock; there are also rocks rising from the water a short distance from the shore; sunken rocks are also found in the harbor, but are readily seen. The southeasterly wind, usually bringing a storm, is the only one which would prevent a vessel from lying in this port; the bottom is excellent for anchoring. It lies in latitude $42^{\circ} 42'$ north.

I found at Fort Orford Assistant Surgeon Sorrel and Lieutenant Wyman, the latter commanding officer, acting assistant quartermaster, and assistant commissary of subsistence. On inquiring into the state of his supplies, he informed me that he should be short of subsistence by the time Lieutenant Stanton would arrive, unless stores which he had already sent for should arrive. Meanwhile, and at my suggestion, he wrote, by the Columbia, to headquarters to hasten their arrival; this letter, it appears, never reached its destination.

Lieutenant Wyman's command consisted of about twenty men of company "L," 1st artillery, and about twelve of Lieutenant Stanton's company. They were quartered in log-houses, erected by the troops from the pine and cedar which grows abundantly on the spot. Shingles are made of the latter wood of the most beautiful and durable kind, and with very little labor. Vast quantities of it are found on the government reserve laid out by Lieutenant Wyman, and extending from the quarters, in a northwesterly direction, to a lake nestled among the hills. Springs of fine water are also abundant, and most excellent pasturage, with clover occasionally interspersed among the grass. There are nine log-houses occupied by the troops; two for officers' quarters, four for the men, two storehouses, and one guard-house.

The town of Port Orford, as it is called, lies nearly half a mile from the barracks, and contains six houses finished, and two or three more are in contemplation. The first landing having been made about a year since, there has been no crop raised as yet. Two or three settlers in the neighborhood have planted this spring; but, as yet, it is as impractic-

cable to predict the capacity of the soil for raising grain as to foretell the future prosperity of the town. A map of the latter was shown me in which Gold river appears intersecting the principal streets, and affording plenty of water to cleanse the market-house, through which it also winds; and I was much surprised to find that I had repeatedly walked over Gold river without perceiving it. Water lots also appear to great advantage on the map. Gold has been found in minute quantities in the sand at the mouth of Gold river; it has also been said that coal has been discovered in this vicinity, but I could only ascertain, on inquiry, that a small specimen of some mineral resembling coal had been found a mile or two south of Fort Orford, the precise place being unknown. Elk and deer abound in the neighborhood in almost any direction, the former being an excellent substitute for fresh beef.

The only means of supplying this point at present, is by transports. The coast range of mountains cuts off all communication with the valley on the other side of the range, no trail or pass having, as yet, been found as an outlet. Lieutenant Stanton is, however, very sanguine in his hopes of finding one, and his well-known energy and perseverance may accomplish it. If he succeed, Port Orford will become a place of importance.

I found here a small party of dragoons who had been sent down from Camp Castaway by Lieutenant Stanton, to await the arrival of despatches from headquarters. Not being able to gather from them sufficient data to judge whether or not the route was practicable for loaded mules, I despatched a letter (I) by this party, to Lieutenant Stanton, the day after my arrival, employing the time, while awaiting his answer, in organizing a pack-train and recruiting the animals at Fort Orford, who had been without grain for nearly six weeks. On the 20th April Lieutenant Stanton's reply (K) arrived, and everything being in readiness, I set out for Camp Castaway. The train was composed of twenty mules loaded with barley, and had a corporal and ten men of Lieutenant Stanton's company as an escort.

The route skirts the Pacific shore the whole distance, and crosses the spurs and thalwegs of the coast range, which run perpendicularly to the coast, presenting a constant rise and fall to the traveller, and terminate at the ocean in high bluffs, generally abrupt and mostly of rock, and in valleys through which run the rivers and smaller streams emptying into the sea. The route is a very harassing one, and in some places dangerous; passing up and down precipices and through dense forests, with fallen timber in many places, and in others on the level sea-beach. Besides numberless rivulets, there are six rivers to cross between Fort Orford and Camp Castaway:

Elk river.....	5 miles from Fort Orford.
Sixes river	12 ..do.....do.....
Flora's creek	25 ..do.....do.....
Coquille river	35 ..do.....do.....
Killque and }	50 ..do.....do.....
Kowes rivers, }	

These rivers abound in fish, including salmon. They are all much affected by the tide. The first three are fordable at low water; the last

are not so. They increase in magnitude as they are enumerated; Elk being the smallest and Kowes the largest. There are Indian settlements at all of them, whose canoes are of much assistance in crossing. A road to the Coquille, practicable for wagons, had been made some time since, but it is now impassable in many places. The most difficult and dangerous part of the route is from the Coquille to the Kowes: the last six miles are particularly arduous, being a constant succession of ridges, with precipitous gulleys and creeks at the bottom, the soil being frequently but a few inches deep on the ridge: at the sides the foothold was precarious; added to which, the weather was showery, rendering the track slippery. It was with difficulty that the men could prevent themselves from falling in some places, and three of them were completely exhausted the night before we reached Kowes river. The mules would fall occasionally, and often refuse to proceed, seemingly aware of their danger. Many places were passed which, under other circumstances, would have been pronounced impracticable. Four days were employed in travelling the fifty miles, and on the 24th of April the party arrived at the Kowes river, without any serious accident.

Lieutenant Stanton had, at the time of the wreck, secured as much as possible of the public property and stores, and I found them covered with the sails of the vessel stretched on booms and spars. His exertions to prevent loss to the United States have been great, and worthy of all commendation. He and his men were under the same kind of covering as the stores. The camp was near the point where the wreck had occurred, on the sand-spit lying between Kowes river and the Pacific—a very dreary position, the sand being miles in extent in both directions, and blown by the wind in clouds, penetrating every canvass covering, and besprinkling every article of food while cooking—the only protection being a ridge of sand hillocks, behind which the camp was situated.

On the 25th the mules were gotten safely into camp by swimming them across Killque and Kowes rivers.

Agreeably to my letter of the 13th, Lieutenant Stanton had posted written notices (L) at Umpqua City, Gardiner, and Scottsburg, three settlements on the Umpqua river, inviting bids for the stores. No bids had been received on my arrival. I therefore determined to proceed to the Umpqua and endeavor to procure bids, or charter a vessel. The brig Fawn had arrived there with the wagons, and a party was to go on the 27th to take up the mules and bring down the wagons to the camp. On the 26th I repaired to the Umpqua, taking with me Captain Naghel, former master of schooner Lincoln, and two men. Arriving at Umpqua at about noon, I crossed the river. I found no bids were to be procured from any six white inhabitants of Umpqua City. I proceeded up the river to Gardiner, and the two citizens of that town gave me no more encouragement; and it being evident that no one wished to purchase, either at the camp or after the stores should be hauled to the mouth of the river, I was thrown upon my last resource, the chartering of a vessel. Finding the schooner Nassau loading for San Francisco, I commenced negotiations with her owners. They evinced great reluctance in undertaking the trip, in consequence of having no knowledge whatever of the Kowes river. Their first proposition was, that I should

agree to take their vessel at the risk of the United States, paying her crew and victualling them, and engage to deliver the vessel in her present condition to the owners at San Francisco, paying them also \$500 for the use of the vessel. This proposal I rejected without hesitation, and succeeded on the 28th in concluding the accompanying charter, (M) with the verbal understanding that Captain Naghel was to remain on board and pilot the vessel into Kowes river. The schooner was to enter the river and be moored to the west bank; the stores were then to be hauled across the sand point by the teams.

On the 29th I returned to the mouth of the Umpqua river, and, having seen the wagons ferried across and loaded, and the mules harnessed in, I preceded them to the camp on the same day. The wagons arrived on the 30th of April, and on the 1st of May the moving of the stores commenced. On the 4th the removal was nearly completed, and the schooner hove in sight, and on the 5th, a northwest breeze blowing, she triumphantly entered the river, at low water, finding three and a half fathoms on the bar by the lead-line.

The event was one of great interest to the command, which had been four months on the sand point. Captain Naghel deserves much credit for his enterprising conduct and his efficient assistance at Umpqua in procuring the charter.

The map of the entrance to Kowes river, attached, was drawn originally by him, and is, in the main, correct: the scale is inaccurate; the rest can be relied on.

The remainder of the stores having been hauled across the point, and the vessel at anchor near the point selected for embarking them, I proceeded, on the 7th, with a corporal and three men, by land, to Fort Orford, and reached that place on the 9th; my object being to arrange my unsettled business there before the arrival of the schooner, in order to take passage in her to Benicia. On the 9th the loading was completed under the direction of Lieutenant Stanton, and he arrived at Fort Orford on the 12th with the remainder of his command.

The schooner was detained in the river by adverse winds until the 19th, and arrived at Fort Orford on the 20th; and, having delivered such portion of her freight as was destined for that place, as well as such subsistence stores as were called for by the assistant commissary of subsistence, she sailed on the 21st for Benicia, taking as passengers myself and the crew of the Lincoln, and reaching the depot on the 24th of May, precisely two months from the date of my original orders.

There has been but little intercourse as yet between the Indians and the whites along the route from Fort Orford to Kowes river, and the use of ardent spirits is still unknown to them. They evinced throughout the most friendly disposition, aiding us readily with their canoes in crossing the rivers, bringing wood and water to the camp-fire, and considering themselves amply remunerated for these services by a small quantity of hard bread.

They are full of curiosity with regard to the whites, particularly desirous of procuring clothing, and much disposed to barter; offering even their children in trade. In the vicinity of Fort Orford they are

aware of the value of coin, but in other places their currency is small shells strung together, and called "sirvash." They are humble and peaceably disposed, being armed entirely with the bow and arrow; and, in my opinion, no difficulty need be apprehended from them, unless it originate in aggressions of the whites.

Trusting that my operations and their results will meet the approbation of my superiors, I am, very respectfully, your obedient servant,

MORRIS S. MILLER,

Captain, Assistant Quartermaster.

Major O. CROSS,

Chief Quartermaster Pacific Division, San Francisco.

A.

HEADQUARTERS PACIFIC DIVISION,
Benicia, California, March 24, 1852.

SIR: The government transport schooner, "Captain Lincoln," sailed from San Francisco December 28, with a detachment of company C, first dragoons, under Lieutenant Stanton, consisting of about thirty men, and stores belonging to the quartermaster's, subsistence, and medical departments. On the 3d of January the schooner stranded on the beach near Kowes river, about twenty miles from the mouth of the Umpqua. The stores were saved, but mostly in a damaged condition, and are now in the camp near the wreck. There is no definite account of the nature or quantity of the stores not damaged.

The general commanding directs that you proceed to Fort Orford, or the Umpqua river, availing yourself of the first convenient opportunity, which it is supposed will soon occur, since communication must naturally be expected with the settlements at those points; that you assume the entire direction and disposition of the property belonging to the departments above named saved from the wreck, as well as the wreck itself, so far as it may be of value; that you sell for cash everything which in your judgment had better be so disposed of, using a sound discretion whether to make the sale on the spot or transport the property to the mouth of the Umpqua, or to the nearest settlement, keeping, of course, separate accounts of the stores belonging to different departments. The medical stores, forming but a small package, will not be sold, unless manifestly injured beyond the hope of saving them, but will be transported to Fort Orford. The assistant quartermaster in charge of the depot has been instructed to furnish you all the information in his power, which, though limited, may be useful; and particularly with regard to the captain and crew of the Lincoln, that they may be disposed of appropriately. He will also send to you at San Francisco some clothing for the company of dragoons at Fort Orford, and some grain and such other stores as may be needed, in case you should find it expedient to haul the stores from where they now are to the mouth of the Umpqua, or elsewhere. Should there be

any portion of the stores which you deem it best not to sell, provision must be made for transporting such portion to the depot.

I am, sir, very respectfully, your obedient servant,

E. D. TOWNSEND,
Assistant Adjutant General.

Captain M. S. MILLER,
Assistant Quartermaster, San Francisco.

B.

ASSISTANT QUARTERMASTER'S OFFICE,
San Francisco, California, March 25, 1852.

CAPTAIN: I have this day received your letter of the 24th, containing the directions of the general commanding in relation to the stores and vessel wrecked near Kowes river. I shall avail myself of the first opportunity to repair to the spot via Fort Orford; meanwhile I would request that Major Allen be directed to furnish me with a copy of the invoices of the cargo as originally shipped, and a list of the names of the captain and crew, with their pay, &c.; also, the register of the schooner, which should accompany the bill of sale in case she be sold.

I am, very respectfully, your obedient servant,

MORRIS S. MILLER,
Captain, Assistant Quartermaster.

Captain E. D. TOWNSEND,
Assistant Adjutant General, Benicia.

C

QUARTERMASTER'S OFFICE,
Benicia, March 25, 1852.

CAPTAIN: Enclosed, please receive a list of public property shipped per schooner Captain Lincoln, bound for Port Orford and Steilacoom.

I shall forward by this evening's boat seven boxes ordnance stores, marked "Lieut. Col. J. B. Magruder, commanding mission of San Diego." I shall also forward a quantity of clothing, &c., for Lieut. H. W. Stanton, 1st dragoons, at Port Orford, an invoice of which please find enclosed.

I am, very respectfully, your obedient servant,

ROBERT ALLEN,
Bt. Maj. and A. Q. M.

Captain M. S. MILLER,
Assistant Quartermaster, San Francisco, Cal.

D.

ASSISTANT QUARTERMASTER'S OFFICE,
San Francisco, March 30, 1852.

CAPTAIN: I submit for the information of the general commanding the division the following papers, relative to the stores wrecked near Kowes river:

Return of subsistence stores shipped.

Return of quartermaster's stores shipped.

Estimate of the value of all the stores as they lie on the beach.

Proposals of William Tichenor to transport the stores to this place, or to Port Orford.

I am of opinion that the condition of the stores is such as not to warrant the transportation to this point, or to Port Orford, on the terms offered. As the proposals have been put in, however, I submit them for the decision of the general.

I am, very respectfully, your obedient servant,

MORRIS S. MILLER,
Captain, A. Q. M.

Captain E. D. TOWNSEND,
Assistant Adjutant General, Benicia.

E.

HEADQUARTERS PACIFIC DIVISION,
Benicia, California, April 1, 1852.

SIR: The general commanding, to whom your letter of the 30th ultimo, with enclosures, was submitted, confirms the opinion expressed by you in relation to transporting the stores from the wreck of the Lincoln.

It is not deemed expedient to accept any proposal of the kind without a decision made from a personal examination of the property, cargo, and materials saved from the wreck. The enclosures are herewith returned.

I am, sir, very respectfully, your obedient servant,

E. D. TOWNSEND,
Assistant Adjutant General.

Captain M. S. MILLER,
Assistant Quartermaster, San Francisco, California.

Return of Quartermasters' stores shipped on board schooner "Captain Lincoln," for Port Orford and Steilacoom.

F. & G.

Building materials, tools, &c.

			Invoices.
	1	6	Axes and helves.
	10	10	Axes.
	1	1	Axes, hand, and handles.
	1	1	Axes, broad, and handles.
	1	1	Adze and handle.
	1	1	Anvils.
	6	6	Augers.
	11	6	Brushes, paint.
	1	1	Bench screw.
	1	1	Blacksmiths' tools, sets of.
	1	1	Brace and bits.
	1	1	Buttress.
	21	21	Chalk, white, pounds of.
	1	1	Chalk, red, pounds of.
	6	6	Chalk lines, number of.
	1	1	Compasses, pairs of.
	4	4	Cement, barrels of.
	2,000	2,000	Coal, pounds of.
	1	1	Carpenters' tools, sets of.
	9	9	Chisels.
	1	1	Drawing-knives.
	6	6	Gimlets.
Total.	2		

Building materials, tools, &c.

Invoices.		Part II—8	
1	2	1	2
4	4	4	4
1	1	1	1
1	1	1	1
60	12	48	60
2	2	2	2
1	1	1	1
1	1	1	1
6	6	6	6
135	135	135	135
4	1	3	4
1	1	1	1
10	5	5	10
1,200	1,200	1,200	1,200
4	4	4	4
1	1	1	1
2	2	2	2
12	2	10	12
3	1	2	3
30	30	30	30
4	4	4	4
1	1	1	1
Total.			

F & G—Continued.

Building materials, tools, &c.

		Invoiced.
10	10	Putty, pounds of.
6	6	Planes, number of.
200	100	Rope, pounds of.
1	1	Rules.
2	2	Rasps, wood.
1	1	Squares, iron.
1	1	Squares, trying.
100	100	Spikes, pounds of.
2	2	Saws, hand.
1	1	Saws, tenon.
4	4	Saws, cross-cut.
1	1	Spoke-shaves.
2	2	Sand-paper, quires of.
12	2	Spirits turpentine, gallons.
2	2	Sail needles.
5	3	Saddlers' thread, pounds of.
4	4	Spades.
4	4	Shovels.
1	1	Saw-sets, number of.
4	4	Stoves, wood.
1	1	Stoves, cooking.
85	85	Stove-pipe, pounds of.
Total.	2	

Building materials, tools, &c.		Stationery.	
Invoices.			
Shoing tools, sets.	1		
Saddle blankets.	10		
Stable forks.	2		
Tar, barrels of.	1		
Whale boats.	1		
White lead, pounds of.	100		
Yellow chrome, pounds.	25		
Wagon whips.	6		
Wheelbarrows.	1		
Venetian red, pounds.	50	25	
Vice.	1		
Letter paper, reams.	4	10	14
Foolscap paper, reams.	4		4
Envelope paper, reams of.	1	1	2
Ink, bottles of.	4		4
Ink powder, papers of.		10	10
Inkstands, number.	2		2
Quills, number.	200		200
Sand boxes, number.	2		2
Sealing wax, pounds.	1	2	3
Tape, pieces.	10	20	30
Wafers, pounds.	4		4
Total.	2		

The foregoing return is based on the invoices of the assistant quartermaster.

F and G—Continued.

Return of the subsistence stores shipped on board schooner "Captain Lincoln," for Fort Orford and Steilacoom.

Invoices.	Beef, (salt,) bbls.	Beans, bbls.	Beans, sacks.	Bread,(hard,)bbls.	Coffee, bbls.	Candles, boxes.	Flour, sacks.	Hams, bbls.	Molasses, bbls.	Pork, bbls.	Rice, bbls.	Rice, sacks.	Sugar, bbls.	Sugar, loaves.	Salt, bbls.	Soap, boxes.	Vinegar, bbls.	Pickles, kegs.
1	10	.....	37	.....	5	7	219	.....	.....	50	7	1	14	.....	3	15	8	.....
2	15	10	.....	79	7	6	90	.....	.....	60	2	.....	9	.....	3	10	3	.....
3	.....	.....	.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....	2	.....	.....	.....	1
4	4	.....	.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total .	29	10*	37*	79†	12‡	13||	309	2§	2¶	110	9**	1**	23††	2††	6‡‡	25|||	11§§	1

COST.

Pork, per barrel.....	\$14 50	Sugar, per pound.....	7 cents.
Beef, do	12 50	Vinegar, per gallon.....	12 do
Flour, per sack (100 pounds).....	3 50	Candles, per pound.....	44 do
Rice, per pound.....	4	Soap, do	5 do
Beans, do	3	Salt, per bushel.....	45 do
Coffee, do	11½	Hard bread, per pound.....	5½ do
Hams, do	12	Molasses, per gallon.....	36 do
Pickles, per keg.....	4 50	Loaf sugar, per pound.....	8¼ do

The above return is based upon the invoices of the assistant commissary of subsistence.

* 5,650 pounds. † 9,309 pounds. ‡ 2,096 pounds. || 406½ pounds. § 387 pounds. ¶ 70 gallons. ** 2,868 pounds. †† 5,645 pounds.
 ‡‡ 23½ bushels. ||| 1,929 pounds. §§ 503 gallons.

I.

FORT ORFORD, *April 13*, 1852.

DEAR SIR: I arrived here yesterday, with orders from General Hitchcock to dispose of the public property wrecked on schooner "Captain Lincoln." The report you made him from this post is all the information I have officially on the subject. Acting on that information, I have shipped to Umpqua two wagons, with harness, and one hundred bushels of barley. I also brought with me to this point one hundred bushels barley, intending to organize a mule train here, of twelve mules, for wagons, and eight or ten for packs.

My present plan is, to haul to the Umpqua and sell to the highest bidder such stores as are worth the transportation, and to bring to this point on the pack-mules such small articles as will not sell, and may still be valuable; all the mules to start from this point packed with forage, which, together with that at Umpqua, will, I think, suffice to forage the animals until the stores are disposed of. The wagons, &c., sent to Umpqua are consigned to Mr. Snelling at Gardiner, and sailed from San Francisco on the 6th of April, and should be at Umpqua about this time. I would have accompanied the party who bring you this information, had I found the mules here in good condition, and had the practicability of the route for packed mules been more certain. I have concluded, however, to wait here until the mules have had an opportunity to benefit somewhat by the grain which has just arrived from Vancouver, and until I can again hear from you. Before I start for your camp I wish you would inform me whether or not the track is, in your opinion, practicable for loaded mules; and if so, whether they can carry two hundred pounds each, or what weight they should carry. I wish also to know whether the brig "Fawn," on which the wagons were shipped, has arrived at Umpqua. The wagons, &c., are placed at your discretion by my letter to Mr. Snelling, and he will turn them over to you at any time that you may send for them. If you could get them across the Umpqua by the time the mules arrive from this point, it would be a saving of time. The expenses I will settle on my arrival. I would like the fact of my being about to sell the stores to be communicated to Umpqua and Scottsburg; and if the merchants at either place are anxious to purchase, I would be glad to have them send in bids, stating what they are willing to offer, both at the camp and delivered by the United States at Umpqua. They may be willing to offer for them on the ground where they lie, as in that case I could sell them the wagons, harness, &c., and they could find mules at Umpqua to draw the wagons. This plan has occurred to me as the most expeditious, and I would ask for your views on the subject.

Please to let me know if you are of opinion that purchasers can be found on these terms. If this could be effected, the train of mules I take up could return, almost immediately, with such articles of public property and officers' effects as could be packed and sent here.

I beg you will communicate with me at once, and express your views fully on the subject; not only on the direct questions asked in this letter, but on the whole subject.

Corporal Abbott, who is now here, seems well acquainted with the track, and if he could return with your answer to this letter I would like it much.

I am, very respectfully, your obedient servant,
MORRIS S. MILLER,
Captain, Assistant Quartermaster

Lieut. W. H. STANTON,
Camp Castaway, near Kowes river.

K.

CAMP CASTAWAY, OREGON TERRITORY,
April 17, 1852.

DEAR SIR: I received your communication from Fort Orford day before yesterday. On the morning of that day I had started a party to the Umpqua, to ascertain if it were possible to charter a vessel to come into the Kowes, and also to learn if any vessel had arrived with any communication for me. As the party was to return to-night, I have kept the express for Fort Orford until to-morrow morning, in hopes of getting news from the Umpqua to send you. They have just this moment come in as I am writing, and their news amounts to this: that there is at present a schooner in the river, but the captain refuses to charter her to come down; and that another vessel was off the mouth of the river, supposed to be the "Fawn," and she may probably have got in by this time. I will send up next week, and endeavor to get the wagons and grain down to the mouth of the river, so that we can go to work as soon as the mules get up.

I think you may be able to hire a couple of ox-carts and some yoke of oxen, if you wish to push matters.

From the report of Corporal Abbott, on the present state of the trail, I hardly think it would be advisable to attempt to bring up more than a hundred weight on a mule; but that would enable you, if you bring up twenty animals, to transport about twenty-five or thirty bushels of barley, taking out the animals necessary for the rations and camp equipage, and for your own use. Twenty mules will not be too many to bring up here in order to change the animals in the teams occasionally. I shall endeavor to cut some grass, bad as it may be, and have it ready for the mules. It will help to fill their bellies, and, mixed with a little flour, will help out the grain.

I sent up the captain of the vessel last week to Umpqua to look around and see what was the chance of disposing of the stores at auction, either on the ground here, or at the Umpqua. On his return, he informed me that the articles which composed the stores are in demand, both at Umpqua city and Scottsburg; and if the cargo was at the Umpqua it probably would bring a good price, but to sell them as they lie here little or nothing could be got for them; so we will probably have to haul them to the Umpqua, without one of the vessels there would come into this river, and then her owners might be disposed to take all as they now are

There will be a man down here from the Umpqua next week, and he will let me know how matters then stand, and if it be possible to induce a vessel to run into this river for the stores. I believe she could accomplish it very easily; for a few days since I had a whale-boat run off through the breakers, in order to bring her round into the river, and the mate who was with her tells me he found a good channel all the way in, with from five to six fathoms water and no breakers.

I believe I have now given you all the information in my power, agreeably to your request in your letter, and remain, very respectfully,

Your obedient servant,

H. W. STANTON,
First Lieutenant First Dragoons.

Capt. M. S. MILLER,
Assistant Quartermaster, Fort Orford, O. T.

L.

CAMP CASTAWAY, OREGON TERRITORY,
Near the mouth of Kowes river, April 14, 1852.

Captain Morris S. Miller, assistant quartermaster United States army, who is now at Fort Orford, will be at this camp in a few days to dispose of the government property here; and should any of the merchants at Umpqua be desirous to purchase any of these stores—which consist of 90 barrels pork; 20 barrels salt beef; 57 barrels hard bread; 14 barrels sugar; 6 barrels rice; 8 barrels beans; 5 barrels salt; 1 barrel molasses; 8 barrels vinegar; 1 keg pickles; 7 boxes soap; 252 sacks flour; 3 kegs nails; 1 keg white lead; 1 can turpentine; 14 shovels; 3 coils rigging, and sundry other articles—he will be glad to have them send in bids, stating what they are willing to offer, both at the camp and delivered by the United States at the mouth of the Umpqua.

H. W. STANTON,
First Lieutenant First Dragoons, Commanding Camp.

M.

This charter-party, made, concluded, and agreed upon, this twenty-eighth day of April, in the year of our Lord one thousand eight hundred and fifty two, between Captain Morris S. Miller, assistant quartermaster United States army, on behalf of the United States, of the first part, and Charles W. Macy, of Gardiner, Oregon Territory, and part owner of the schooner "Nassau," for himself and in behalf of the owners, whomsoever, of the second part, witnesseth; That the said Charles W. Macy, for the consideration hereinafter mentioned, hath granted and to freight letten, and by these presents doth grant and to freight let, unto said Morris S. Miller, for the United States, their heirs, executors, administrators, and assigns, the whole tonnage of the hold,

stern-sheets, and half-deck of the said vessel, from the port of Gardiner, aforementioned, to the ports of Kowes river and Port Orford, Oregon Territory, Benicia and San Francisco, California, in a voyage to be made with the said vessel in the manner following: The said schooner is to sail from the port of Gardiner with the first fair wind and weather that shall happen after this date, to the Kowes river, and on her arrival enter the said river and be moored inside at the most convenient point for receiving cargo, and there receive on board such freight as may be delivered alongside of her by the agents of the United States, to the amount of seventy-five tons, or thereabouts, being the portion of the cargo saved from the wreck of the United States schooner "Captain Lincoln," including such parts of the outfit of the vessel as may be there delivered; also the captain and crew of said United States schooner, and any invalid soldiers that the army officer may think incapable of marching. As soon as practicable after receiving the aforementioned, to proceed to Port Orford, Oregon, and there deliver to the acting assistant quartermaster such portion of said freight as may have been previously designated for that purpose at Kowes river; the remaining freight and the captain and crew of schooner "Lincoln" to be delivered, the former at Benicia, and the latter at San Francisco, to the officers of the quartermaster's department at those places respectively; the freight at Benicia to be discharged within forty-eight hours after arriving. In consideration whereof, the said Morris S. Miller, on behalf of the United States, their heirs, executors, and administrators, doth covenant, promise, and agree, to and with the said Charles W. Macy, his executors, administrators, and assigns, and every of them, that he, the said Morris S. Miller, assistant quartermaster, for the United States, their heirs, executors, factors, and assigns, shall and will well and truly pay or cause to be paid unto Wood & Co., of San Francisco, their executors, administrators, and assigns, for the freight, &c., herein contracted for, the sum of eleven hundred dollars, on presentation of this charter-party, with the endorsement thereon of the officers of the quartermaster's department herein mentioned, setting forth that the terms thereof have been complied with.

In testimony whereof, we have hereunto set our hands and seals, the day and date before mentioned, to two charter-parties; one of which being fulfilled, the other to stand void.

MORRIS S. MILLER, [SEAL.]

Captain, Assistant Quartermaster.

CHARLES W. MACY. [SEAL.]

Signed, sealed, and delivered in presence of—

GEORGE F. BUNKER.

D. W. WOOD.

The within charter-party has been satisfactorily executed as far as it relates to Kowes river.

MORRIS S. MILLER,

Captain, Assistant Quartermaster.

FORT ORFORD, O. T., May 21, 1852.

The within charter-party has been satisfactorily executed as far as it relates to Fort Orford, Oregon Territory.

P. T. WYMAN,

Second Lieut. First Artillery, Acting Assistant Q. M.

FORT ORFORD, O. T., May 21, 1852.

The conditions of the within charter-party have been fulfilled relative to this depot.

R. E. CLARY, *Assistant Quartermaster.*

BENICIA, May 26, 1852.

Shipped by Captain Morris S. Miller, assistant quartermaster, on board the schooner called the "Nassau," whereof John Gibbs is master, now lying at the mouth of Kowes river, and bound for Benicia, to say:

2 anchors; 7 lots chain; 90 barrels pork; 16 barrels beef; 7 barrels sugar; 1 barrel molasses; 7 barrels beans; 8 barrels vinegar; 8 barrels rice; 53 barrels hard-bread; 245 sacks flour; 12 horse-collars; 7 boxes soap; 1 large iron boiler; 2 tins turpentine; 1 keg (25 pounds) black paint; 15 shovels; 3 coils hawser; 1 box and 1 keg powder; 7 parcels rope; 1 coil hemp-rope; 2 buckets; 1 keg (100 pounds) white lead; 4 stoves and part fixtures; 1 box sheet-copper; 1 side leather; 70 blocks; 3 pair can-hooks; 1 pair box-hooks; 1 lot old hoops and thimbles; lot standing rigging; 2 iron boat-davits; 2 wagons, complete; 2 wagon-saddles; 1 box harness; 1 can oil; 5 barrels salt; 2 ship's compasses; 2 copper gudgeons; 1 hawser:

being marked and numbered as in the margin, and are to be delivered at Benicia (the dangers of the seas excepted) unto the assistant quartermaster at Benicia, or to his assigns, freight for the said stores being payable in San Francisco, as per charter-party.

In witness whereof, the master of the said vessel hath affirmed to three bills of lading; one of which being accomplished, the others to stand void.

JOHN GIBBS.

Dated at KOWES RIVER,
the 9th of May, 1852.

Received, Port Orford, Oregon Territory, on within bill of lading, 7 barrels pork; 5 barrels beans; 30 sacks flour; 1 large iron boiler; 9 shovels; 1 keg black paint; 1 keg white lead; 1 can oil; 2 tins turpentine; 3 barrels beef; 1 stove.

P. T. WYMAN,

Second Lieutenant First Artillery, A. A. Q. M.

MAY 21, 1852.

One coil rope was also delivered to Lieutenant Wyman, at Fort Orford, just as the vessel was getting under way, and for which the vessel should receive credit.

MORRIS S. MILLER,

Captain, Assistant Quartermaster.

MAY 24, 1852.

Received, Benicia, May 26, 1852, the following stores, viz: 80 barrels pork; 15 barrels beef; 1 barrel hams; 52 barrels hard bread; 217 sacks flour; 4 barrels beans; 6 barrels rice; 12 barrels sugar; 9 barrels vinegar; 4 barrels salt; 1 barrel molasses; 7 boxes soap; and the quartermaster's stores within named.

R. E. CLARY,
Assistant Quartermaster.

Shipped by Captain Morris S. Miller, assistant quartermaster, on board the schooner called the Nassau, whereof John Gibbs is master, now lying at the mouth of Kowes river, and bound for Port Orford, to say:

2 kegs liquor; 30 boxes sundries; 1 company desk; 3 casks clothing; 6 mule-collars; 1 bundle sabres; 2 boxes medicines; 4 boxes candles; 5 trunks; 1 bundle blacksmith's tools; 1 pair bellows; 1 tool chest; 4 kegs nails; 1 keg pickles; 3 stoves and pipes; 2 boats, 9 oars, and 2 sails; 1 wheelbarrow; 1 grindstone and fixtures; 48 sacks barley; 2 bars iron; 6 spades; 1 box crockery; 6 buckets; 2 bags flour; 6 rolls canvass (sails, &c.) 6 camp-stools, 1 box tin-ware; 2 sacks beans (broken); 1 cabin table; 1 Champagne basket, sundries; 2 easy chairs; 1 pack saddle:

being marked and numbered as in the margin, and are to be delivered at the post of Fort Orford, (the dangers of the seas only excepted) unto the acting assistant quartermaster at Fort Orford, or to his assigns, freight for the said stores being payable in San Francisco as per charter-party.

In witness whereof, the master of the said vessel hath affirmed to three bills of lading; one of which being accomplished, the others to stand void.

JOHN GIBBS.

Dated at KOWES RIVER, OREGON TERRITORY,
the 9th day of May, 1852.

Received the within according to bill of lading, except one shovel being counted as a spade. This error having occurred in the shipment by the United States, the master is exempt on the whole bill.

P. T. WYMAN,
Second Lieut. 1st Artillery, A. A. Q. M.

FORT ORFORD, OREGON TERRITORY,
May 21, 1852.

B 5.

OFFICE OF ASSISTANT QUARTERMASTER,
Columbia Barracks, Oregon, July 16, 1852.

MAJOR: I have the honor to submit the following in answer to your letter of June 23, in relation to the reservations of lands in this Territory, by our military officers, for military uses.

I must state that I have been unable to find the necessary record of

orders and letters that would allow me to base a report upon written authentic data. They should have been found in the office of the late assistant adjutant general of this department; but they may have been transferred.

1. In February, 1850, by order of Colonel W. W. Loring, then in command of this department, I issued due notice declaring the island known as "Miller's island," lying in the Columbia river, and from five to twelve miles above this post, a "reserve for public uses," &c. This island contains, probably, about four square miles, though I have never had it surveyed for the want of proper instruments. It is something more than five miles in length, by three-fourths in breadth. During high water in June of each year, most, if not all, of this island is inundated; but during the rest of the year it has heretofore proved of great advantage to our government. I have hay of good quality cut there and boated to this post; and in autumn all the animals not wanted for service are placed there, and grazed with perfect safety, until the succeeding spring. When the reservation was declared, there was no claimant or other person on the island. No one has a shadow of claim to the premises except the United States. I am told that two squatters (by the advice of a Portland lawyer) have recently squatted on the upper part of the island. I have sent a notice for them to leave, and shall go myself, on the 22d instant, to be sure that they are off. I would recommend that this island be kept as a reserve so long as this point is garrisoned.

2. Soon after Major Hatheway occupied Astoria, he declared certain lands at that place a reserve. There are several claimants for improvements, among whom are Messrs. Shively, McClure, Hensill, Ingalls, and Marlin.

Major Hatheway took some of their houses, and appraised their value at some \$9,000. I do not believe that any of them had the slightest right to a foot of the soil, consequently no right to have erected improvements there; but, by a letter from the honorable Secretary of War, I know that the place is to be abandoned; and as I have recently reported the subject to General Jesup, I will pass on to the next in point of time.

3. The commanding officer at the Dalles of the Columbia declared a reserve of ten miles square at that place. The present public buildings are in the centre of the reservation. There were no claimants within its limits at the time, if the Methodist missionaries be excepted. One of their sect, a Mr. Roberts, made some pretensions to a claim; but he evidently had no good foundation. Having never visited the place, I cannot state its resources or probable value.

4. A reserve near Milwaukie was partially surveyed by Captain J. P. Hatch, in the spring of 1850, and declared a reserve, by Colonel Loring, as a site for an arsenal, &c. It has recently been confirmed by the President, but its boundaries are not finally established. This reservation will take all the land claim of one William Meek, and a part of that of Llewellen. The former had improvements to the value of \$150; the latter none at all. The reservation will contain about one and one-third square miles. It is highly valuable to the United States.

5. Colonel Loring, still in command of this department, declared a reserve of four miles square at this place, on the 31st October, 1850. The flag-staff occupies the centre, and all the public buildings are near. It is the spot first selected as garrison and depôt on the arrival of troops here, and it is still believed to be far the most eligible site in the Territory. It has more resources for a military depôt than any other known to any of us who have been here longest. It answers well as a depôt for army stores and a rendezvous for troops, and a starting-point to any place in the interior.

By the terms of the declaration, the possessory rights of the Hudson's Bay Company, as guaranteed by treaty, are to be respected. I append a copy of a letter from the chief factor in charge of the company's interests here, to the commanding officer of this post, to give you a correct idea how the matter stands between that company and the United States. It is my duty to give it as my opinion that this is the most superior point on the river for a military reservation of small extent; that the place is abundantly large both for the Hudson's Bay Company and the military post depôt, and that no difference of opinion will ever arise as to ownership or jurisdiction between the representatives of that company and the United States troops. Most of the reserve is of little value to the post, except it might, if confirmed, give the commanding officer power to select his neighbors by leasing out parcels of land as contemplated by the instructions from the War Department, issued January 29, 1848.

For the use of a post simply, a reservation of one mile square would answer all purposes. Let the lines run as follows:

From the point where a meridian line, one-half of a mile east from the present flag-staff, touches the bank of the Columbia river, run due north one mile, thence due west one mile, thence due south to the Columbia river, thence by course of said river to the place of beginning. Were the limits of the reserve reduced as indicated, there could be no claimant, except the Hudson's Bay Company, for damages, that I am aware of. It is not at all probable that the company would ever set up any claim. At the time the present reserve was declared, there were some two or three retired servants of the Hudson's Bay Company living within its limits; but they have never been disturbed, as they were not in the way of the garrison, and as they were, and are, living as stated, by the permission of the Hudson's Bay Company.

A few American citizens (three) have created some improvements subsequent to the declaration of the reserve. Col. Loring did not drive them off; but they were properly notified that the United States would never consider them as entitled to any compensation for their improvements. They were, and are, willing, in fact, to live by sufferance, trusting, perhaps, that the United States will not finally keep the reserves.

There was but one man, aside from those named above, living and cultivating within the limits of the reservation on the 31st October, 1850. He is an American citizen, called A. M. Short. He had at that date improvements not to exceed \$1,500 in cash value; though he has kept on regularly increasing the number and value of his improvements subsequently, against the frequent and most positive warnings of myself and the commanding officer of this post.

It has always been contended that this man was a trespasser upon the possessory rights of the Hudson's Bay Company. It is certain that the company regard him in that light at the present moment. I have been informed that he was forcibly ejected under the old provisional government of this Territory; consequently I have been led to look upon him as a person who can acquire no title where he is.

The question will be naturally decided when it is known what are to be the exact limits of the possessory rights of the Hudson's Bay Company. If it be decided that this Short had no right to have been residing within the reserve at the time referred to—and I presume the company will test it—then, of course, he never can have any claim for damages or improvements against our government. If, on the contrary, the lands upon which he has lived be decided *not* to have formed a part of the possessory rights of the Hudson's Bay Company, and they are finally confirmed as a reserve, then Short would in equity be entitled to compensation for his improvements, only as they were on the 31st October, 1850.

In addition to the foregoing reserves, I understand that two tracts of land are confirmed near the mouth of this river; one at Cape Disappointment, the other at Point Adamson Clatsop. It was done on the recommendation of the joint commission who made a reconnoissance in the propeller Massachusetts. I have seen no official announcement of these reservations.

You will not fail to observe that some two years have elapsed since these tracts of land were declared reservations, under what the officers supposed competent authority; yet only in one instance—that of the Milwaukie reserve—has his Excellency the President confirmed the act of his subordinate.

The citizens living near and upon the reservations have taken every opportunity to oppose the confirmation—I suppose on private grounds; and in many instances have put our military officers to no little trouble and personal embarrassment. It has been stated, that the simple declaration of a reserve by a military officer is not at all binding; that it cannot stop citizens from settling, improving, &c., within the limits so declared a reserve. It certainly places officers in an improper and awkward position towards citizens, and has a tendency to create prejudices against our service.

I hope the cases may be soon brought in a true form to the consideration of the President, so that his Excellency may set them at rest by confirming or disapproving these reservations. So far as my knowledge extends, (and I have long been here,) all of these reservations—particularly the one at this point—are of importance to the government; and in no instance has any considerable *real* damage been suffered by any citizen in consequence. I believe that the United States will find *some one* to claim damages, no matter *where* the reserve may be declared.

The justness of *such a claim* is another affair. Before a settlement is made with any claimant, the *nature* of the claim and the *character* of the claimant should be thoroughly understood. Some of these people, by petitions, and arrangements with petty politicians, frequently present a most magnified case of damages against the United States. I have heard that these good people here have strongly urged that no

reservation should be made; and no doubt their representations, added to the *ex parte* statements of the late delegate, Mr. Thurston, have induced his Excellency the President to defer acting in the premises, until the matter could be better comprehended.

All these reservations may be considered as having been declared by Brevet Colonel W. W. Loring, while in command of this department, upon the general direction of Brevet Major General P. F. Smith while he was in command of this division, based probably on the letter of Secretary Marcy, dated War Department, January 29, 1848.

I have the honor to be, Major, your most obedient servant,
 RUFUS INGALLS,
Captain, Assistant Quartermaster.

Major O. Cross,
*Chief Quartermaster Pacific Division,
 San Francisco, California.*

FORT VANCOUVER, *February 21, 1852.*

DEAR SIR: In reference to our conversation this morning, I think it well to state, more fully than I may possibly have done verbally, the reasons upon which my opinion is founded.

I conceived, and still think, from the wording of the public advertisement, that the Hudson's Bay Company are thereby precluded from instituting any legal proceedings against parties infringing upon their rights, *within* the limits of the government reservation; that reservation assuming only to exclude intruders, while reserving the rights of the Hudson's Bay Company.

Beyond those limits, I consider that I, as the agent of the company, am bound, for our own protection, to warn off parties intruding upon our claims; though, until those claims be formally acknowledged, on the completion of the official survey, I may defer to prosecute at law.

I think that, upon reconsidering the matter, you will agree with me as to this distinction, and acknowledge that, in referring the settlement of all trespasses within the limits of the government reserve to the military authorities, I comply strictly with the spirit, as well as the letter, of the proclamation issued by Colonel Loring.

I state these views after due reflection, and conceiving them to coincide accurately with those expressed by my predecessor, Mr. Ogden. In thus throwing myself, unreservedly, for the protection of our rights, upon the military authorities within the officially proclaimed limits, I do so without engaging the Hudson's Bay Company to restrict, in any shape, the just exercise of those rights; pointedly respecting, always, the claims of the United States government, where those claims do not interfere directly with our own.

You will, I feel persuaded, appreciate the motives which lead me thus to state my views frankly for your consideration, so that all occasion of future misapprehension between us may be avoided. In doing so, permit me at the same time to acknowledge, warmly, the courteous

and highly obliging conduct of the military authorities at Fort Vancouver, both towards my predecessor and myself.

With sentiments of esteem and high consideration, permit me to subscribe myself, dear sir, your most obedient servant,

JOHN BALLINDEN,

Chief Factor Honorable Hudson's Bay Company.

Major HATHEWAY,

United States Army, commanding at Fort Vancouver.

I certify that the foregoing is a true copy.

RUFUS INGALLS,

Captain, Assistant Quartermaster.

C.

WASHINGTON, July 31, 1852.

GENERAL: Some time since an estimate for repairs, &c., at Fort Leavenworth, I. T., was submitted to me as commanding officer of that post, on which I made an endorsement unfavorable to the expenditure of the amount estimated for, on the ground that I did not consider that post as best suited for the military operations in that quarter.

In order that my objection may not be considered captious, I now propose to give you some facts which I think will justify my opinion in that regard, and will be of importance to your department in an economical point of view at least. By a simple view of the map prepared in 1850, in the bureau of topographical engineers, of the United States and its Territories, you will perceive that a common road can be obtained from Fort Leavenworth to Oregon and Santa Fe, at or near a point on the Kansas river where the Republican Fork unites with it. This will be in advance of the first-mentioned point about two hundred and fifty miles. Here are the finest land and the best timber in all the western world—capable, the first, of the highest production by cultivation, and the latter affording the most abundant and suitable supply for building materials. It is admitted by all that the attainment of a common route to the several points west of Fort Leavenworth, in several hundred miles, would be an object of the highest importance, as it would enable the government to keep up bridges and fences to that extent safe and sure without expense; and the advantage of having supplies thrown forward—at least in the article of forage and such other supplies as may readily be produced there—to a point so much nearer the necessary scene of military operations, will almost be incalculable.

In order to show the full confidence which I have in the plan that I would propose, I would cheerfully give bond and security, if it could be thought necessary, to pay for every horse of my own regiment that might be lost or injured by a deficiency in the supplies.

Farmers, I have ascertained, of the first character in Missouri, and no doubt elsewhere, can be induced readily to go to this country for the use of the public lands in the vicinity and the promise of the Saint Louis prices for their products.

Mechanics and merchants can also be carried there with the simple hope of selling to, and working for, the emigrants on the several routes which diverge from this point; and thus the government will be enabled at all times, and every season of the year, to have all its work done at prices not to exceed those of old settled neighborhoods in the interior of the States.

The foregoing are some of the reasons which operated on me in giving the opinion which I did, and which apply with great force to your department, if true; but when we come to estimate the advantages to the military operations and the certain and sure protection to the line of emigration to New Mexico, Oregon, and California, which form the great object of a military force on these routes, I feel well satisfied that you will require no further justification from me.

By the establishment of a post at the point indicated, it will be competent to send out troops from four to six weeks earlier in the spring, and continue out for the same period later in the fall. By discontinuing the Leavenworth, Scott, Atkinson, Kearny, and Laramarie, and concentrating the troops at the post proposed to the amount of ten companies, (which would require but one in addition to garrisons of the several posts mentioned,) eight of which dragoons, much expense would be saved to the government in the discontinuance of the said posts, and the efficiency of the troops greatly increased by being enabled to throw upon each of the routes beyond, four companies at least, which, being at different periods, would alternate on the whole extent of the routes during the continuance of the entire emigrating season.

It only remains for me to give you the evidence that the several routes beyond to Santa Fe, Oregon, and California, may be advantageously continued from the point mentioned. This is rendered perfectly certain by the fact that Colonel Fremont made a route from near this point to the South Pass of the Rocky Mountains, and Captain Easton came from Fort Laramie down the valley of the Republican Fork; and the concurrent evidence of several experienced hunters and traders leaves no doubt of the perfect practicability of the country each way, and cutting off on the route at least a considerable extent of travel. By looking at the map you will readily see that all the tributaries of the Kansas of any magnitude come in on the north side, whilst there are none to impede the progress of travellers on the south. By then crossing the Kansas about one hundred miles from Leavenworth, and proceeding up the valley of that river to, or near, the point selected, you will have a clear and open country in the direction of Choteau's island, exactly in a line with Santa Fe.

I have thrown these remarks hastily together merely to indicate the subject, and would be glad, if you think my views worth entertaining, to fill out my plan fully.

I am, General, with great respect, your obedient servant,
T. T. FAUNTLEROY,
Colonel First Dragoons.

Major General T. S. JESUP,
Quartermaster General U. S. Army, Washington, D. C.

VII.

REPORT OF THE PAYMASTER GENERAL.

PAYMASTER GENERAL'S OFFICE,
November 3, 1852.

SIR: I have the honor to submit herewith a report of the transactions of the Pay department during the fiscal year ending the 30th of June, 1852.

It will be seen by the tabular statement herewith, that there remained in the hands of paymasters on the 30th of June, 1851, applicable to payments due in the first quarter of the last fiscal year, the sum of \$472,655 08, in addition to which they have received from the treasury, and other sources, exclusive of amounts transferred from one to another, the sum of \$2,549,784 65, making a total to be accounted for of..... \$3,022,439 73

Expended as follows:

Payments to regular troops.....	\$2,366,282 71	
Payments to volunteers.....	163,515 54	
Three months' extra pay to regulars...	30,139 68	
Three months' extra pay to volunteers.	11,464 88	
In paying the Military Academy.....	88,842 45	
		<hr/>
Total expended.....		2,660,245 26
		<hr/>
Leaving a balance of.....		362,194 47
		<hr/> <hr/>

This balance has, it is believed, in all cases, been expended and accounted for since the commencement of the present fiscal year.

The troops in every part of the country have been promptly and satisfactorily paid.

I would respectfully call your attention to the 10th section of the act making appropriations for the civil and diplomatic expenses of the government, approved the 31st of August, 1852. If I am correctly informed, the construction given to that section by the Secretary of the Treasury will carry to the surplus fund, on the 30th of June next, most of our balances of appropriation for pay of the army.

You will readily perceive, by a reference to the laws upon which our estimates are based, the great embarrassment such a construction would bring upon the Pay department. The act of 5th of July, 1838, amended on the 7th of same month, chapters 179 and 180, Cross's Laws, provides that the pay of the soldier shall be seven dollars per month, one dollar of which shall be retained till the expiration of service.

We estimate annually for the full amount of seven dollars per month; but the amount retained remains in the treasury till the expiration of each man's service, which would be, in all cases when he served out his full term, five years. Should our balances go to the surplus fund, no discharged soldier could receive more than two years of his retained pay. It would operate more disastrously in the case of soldiers serving in California, Oregon, and New Mexico, who by the law are entitled to an increase of pay, to be paid also at expiration of service.

Should the construction spoken of be maintained, I must earnestly request that you will ask Congress, at the next session, to reappropriate our balances of appropriation for pay, &c., of the army.

Respectfully, your obedient servant,

BENJ. F. LARNED,

Acting Paymaster General.

Hon. C. M. CONRAD,
Secretary of War.

Statement showing the amount remaining in the hands of each of the disbursing officers of the Pay department and unaccounted for on the 1st of July, 1851; the amount remitted to each from the treasury or turned over by other agents during the fiscal year ending June 30, 1852; the amount accounted for by accounts and vouchers of expenditures, or by transfer to other agents or replacements in the treasury; and the balance unaccounted for, to be applied to payments in the first quarter of the next fiscal year.

Paymasters.	Balances in hand and unaccounted for on the 1st of July, 1851.	Amount remitted from the treasury and turned over by other agents during the year ending June 30, 1852.	Total received, to be accounted for.	Am't expended in paying regular troops.	Amount expended in paying volunteers.	Amount paid for three months' extra pay to discharged regular troops.	Amount paid for three months' extra pay to disbanded volunteers.	Amount expended in paying the Military Academy.	Amount turned over to other agents or replaced in the treasury.	Total accounted for.	Balances unaccounted for, to be applied to payments in the first quarter of the next fiscal year.
T. P. Andrews, dep. paym'r gen.	\$18,321 95	\$427,833 81	\$446,155 76	\$82,247 20	\$173 06	\$1,283 00	\$21 00	\$13,744 85	\$817,728 55	\$401,462 81	\$44,692 95
T. J. Luskie	11,231 60	713,504 73	724,736 33	280,291 01	7,826 14	2,612 40	1,312 04		415,881 20	721,567 64	3,168 69
D. S. Townsend	1,951 84	108,358 17	111,310 01	105,250 42	425 38	1,977 00	39 11		1,000 00	106,691 86	2,618 15
A. D. Stewart	9,163 09	522,620 67	531,783 76	79,389 55	483 95	1,119 00	408 00		408,209 07	489,718 57	49,065 19
Benjamin Walker	600 56	117,677 45	118,278 01	109,517 13	1,432 42	1,845 00	937 48		3,305 16	117,057 19	1,220 82
E. Van Ness	12,228 05	208,846 19	221,074 24	125,185 00	161 59	249 00		46,438 06	48,864 78	220,893 49	180 81
S. Denny	2,278 23	355,541 49	357,819 72	236,703 64	44,489 40	4,624 64	6,563 25		61,946 19	364,327 12	2,492 60
D. Hunter	1,213 60	110,679 78	111,893 38	74,787 06	107 41	1,323 00	87 00	28,664 54	5,204 03	110,173 04	1,720 34
L. J. Beall	17,295 44	76,869 61	94,165 05	79,095 89	1,002 89	430 64	27 00		1,609 00	82,165 41	11,969 64
A. J. Coffee	3,941 08	407,018 60	410,959 68	47,563 86	1,878 09	102 00	549 00		332,053 35	382,146 30	28,813 38
A. Van Buren, (on sick leave)											
J. Y. Dashiell	6,133 16	132,206 66	138,339 82	126,807 99	1,014 00					127,821 99	10,517 83
S. MacIn	4,708 44	68,602 23	73,310 67	63,305 46		1,071 00	45 00		1,017 24	65,438 70	7,871 97
A. W. Gaines	8,628 88	50,621 98	59,250 86	54,059 02	520 62	1,944 00	66 00			55,980 64	3,261 22
G. H. Ringgold	7,633 45	142,659 48	150,292 93	110,585 19	811 47	2,946 00	150 00		13,751 17	128,253 83	22,039 10
A. G. Bennett, (on sick leave)		2,000 00	1,886 42							1,886 92	113 08
H. Leonard	199,506 83	79,740 23	279,247 06	83,831 09	16,247 01	441 00	396 00		156,800 00	257,715 01	21,532 05
R. B. Reynolds		78,917 62	78,917 62	49,031 82		840 00			175 00	50,046 82	28,870 80
Henry Hill	20,071 06	87,868 49	107,939 55	77,702 81	20,284 35	1,069 00			110 00	95,186 16	8,753 39
F. A. Cunningham	70,731 63	218,700 48	289,432 11	170,425 53	27,501 42	2,421 00			46,302 45	246,650 40	42,781 71
G. C. Hutter	7,839 48	164,423 10	172,262 59	103,528 28	575 18	1,578 00	753 00		56,209 00	162,643 46	9,619 13
A. J. Smith	3,561 39	89,674 25	93,235 64	77,044 46	682 33	1,242 00	24 00		3,000 00	81,992 79	11,249 85
N. W. Brown	17,684 89	76,076 40	93,761 29	61,644 01	634 33	498 00	63 00		1,285 50	64,134 84	29,626 45
A. S. Johnston	41,371 88	110,583 11	151,964 99	98,541 58	37,245 56	918 00			61 51	136,766 65	15,198 34
J. R. Hagner	6,558 54	51,523 32	58,081 86	53,465 87		276 00	24 00		150 00	53,915 87	4,165 99
B. W. Brice		21,000 00	21,000 00	14,372 01						14,372 01	6,627 99
Total	472,655 08	4,424,557 85	4,897,212 93	2,366,282 71	163,515 54	30,139 68	11,464 88	88,842 45	1,874,773 20	4,635,018 46	362,194 47

PAYMASTER GENERAL'S OFFICE, November 3, 1852.

BENJ. F. LARNED, Acting Paymaster General.

1871

STATE OF NEW YORK

IN SENATE

January 10, 1871.

REPORT

OF THE

COMMISSIONERS OF THE LAND OFFICE

IN ANSWER TO A RESOLUTION PASSED BY THE SENATE, APRIL 18, 1870.

ALBANY: PUBLISHED BY THE STATE PRINTING OFFICE, 1871.

1871

VIII.

REPORT OF THE COMMISSARY GENERAL.

OFFICE OF COMMISSARY GENERAL OF SUBSISTENCE,
Washington, October 30, 1852.

SIR: I have the honor to submit the following report of the operations of this department during the past fiscal year, and to transmit herewith an estimate for the subsistence of the army during the fiscal year ending June 30, 1854.

The posts on the lakes, Niagara frontier, Atlantic seaboard, on the western waters, in the interior of the State of Missouri, and territory of Minnesota, with the exceptions hereafter mentioned, have been furnished with subsistence by contract; whilst the troops in Texas, New Mexico, on the Oregon route, in California, and Oregon, have been supplied by purchase in the open markets of the old States and countries adjacent to the posts.

The contractor for Fort Towson, (on the Red river,) Forts Smith and Gibson, (on the Arkansas,) failed to make the deliveries under his contracts, and the department was compelled to supply those posts by purchase at a time when, from the state of the water, those rivers were unavailable for transportation.

The lowest bidder for Forts Ripley, Snelling, and Mackinac was promptly furnished with contracts and bonds for completion on his part, but he never replied to the department, and purchases were made to supply those posts.

Some reduction has been made in subsisting the recruiting parties throughout the country, by causing subsistence to be purchased and issued by the recruiting officers whenever reasonable *bids* could not be procured for "complete rations."

Sales of subsistence have been made from the posts near which they were employed, to the officers of the Mexican boundary survey, for the use of their parties; and issues, in small quantities, have been made to suffering emigrants.

Under General Orders No. 1, January 8, 1851, a system of "farm culture" was undertaken at some of our posts—a particular account of which will be found in the report of the Adjutant General, dated August 18, 1852, to the General commanding the Army. For the purchase of stock, farming utensils, seeds, &c., &c., the sum of seventeen thousand one hundred and eighty-two dollars (\$17,182) has been expended from the funds of this department, and, so far as is known, but two thousand one hundred and one dollars (\$2,101) have been returned from "farm culture."

Under your instructions experiments are now in progress upon the solar evaporated salt of Syracuse, New York, and Turk's Island salt, for the purpose of testing their comparative value in curing and pre-

servicing pork. The result of these experiments, when fairly carried out, will be laid before you.

In conclusion it is believed that good and wholesome provisions have been supplied to our troops at all points, and no complaint has been received from any quarter in relation thereto.

With great respect, your most obedient servant,

GEO. GIBSON,

Commissary General of Subsistence.

HON. C. M. CONRAD,
Secretary of War.

IX.

REPORT OF THE SURGEON GENERAL.

SURGEON GENERAL'S OFFICE,
November 4, 1852.

SIR: I have the honor to lay before you a statement of the fiscal concerns, and a report upon the transactions generally, of the Medical department of the army for the fiscal year ending on the 30th of June, 1852.

The amount of the appropriation for the Medical and Hospital department remaining on the 30th of June, 1851, was—

In the hands of disbursing agents.....	\$4,993 24
In the treasury of the United States.....	97,604 95
Amount appropriated per act of Congress approved 3d March, 1851.....	60,375 00
Amount erroneously charged to medical and hospital ap- propriation	34 37
Amount refunded by Paymaster F. A. Cunningham.....	50 00
	<hr/>
	163,057 56
	<hr/> <hr/>

Of this sum there has been expended on account of—

Pay and other claims of private physicians contracted in 1842	\$12 00
Do.....do.....do.....1847	1,000 96
Do.....do.....do.....1848	240 00
Do.....do.....do.....1849	266 71
Do.....do.....do.....1850	95 89
Do.....do.....do.....1851	2,690 06
Do.....do.....do.....1852	8,579 00
On account of medical and hospital supplies, &c....1847	27 62
Do.....do.....do.....1848	594 46
Do.....do.....do.....1849	8 06
Do.....do.....do.....1850	75 85
Do.....do.....do.....1851	812 86
Do.....do.....do.....1852	21,013 31
Leaving in the hands of disbursing agents.....	5,606 07
And in the treasury, of the United States.....	122,034 71
	<hr/>
	163,057 56
	<hr/> <hr/>

It will be perceived from the foregoing tabular statement, that five thousand eight hundred and twenty-four dollars only were expended on account of debts contracted antecedently to the fiscal year ending on

the 30th of June last. Since that period, however, twenty-three thousand and more dollars have been paid out in liquidation of claims growing out of the Mexican war; and as many quartermasters' accounts for expenditures made during the Mexican war and immediately afterwards by order of military commanders, and charged to the Medical department, are now just being settled in the Treasury Department, it is to be presumed that a large portion of the balance of former appropriations will be absorbed during the current year in the payment of debts contracted previously to the last fiscal year.

In giving an account of the expenditures of the Medical department of the army, it may be well to say here, that no considerable sum has to be paid out every year in the renewal of medical supplies lost or destroyed in some way or other on the transit from the depôts to the distant military posts, and even while in store at the depôts and at the several posts. The loss of supplies is considerable from the want of proper storehouses to secure the perishable articles of medicine from the inclemency of the weather, and the groceries, &c., from being purloined.

Among other losses sustained during the last year, about eight thousand dollars worth of medical and hospital supplies were destroyed by fire, &c., in the storehouse at San Antonio, about two thousand dollars value lost by the sinking of the steamer Jefferson in the Arkansas river, and about five hundred dollars worth lost in transportation from the depôt at Benicia to other posts in California.

Many articles of medicine are of a perishable character, and the vessels containing them being very destructible, losses must necessarily ensue from breakage, &c., in handling from ship to steamboat, from one steamer to another, and then on a long and divided line of transportation in wagons or on pack-horses. Still, there are losses beyond those from unavoidable accident, and which can only be attributed to the fact, that due responsibility is not always exacted of the wagoners and other carriers of the public stores. The loss of wine, brandy, and other spirituous liquors is so constant and so great, and the arrival of the small remnant of the intended supply of these articles so irregular at the respective posts—frequently after the critical time of need for them has passed away—that it is questionable whether these groceries should be continued as articles of supply to the hospitals at the very distant military stations.

The necessary medical supplies, and of good quality, have been regularly provided by the medical purveyors, and forwarded to the depôts on the frontiers for further distribution, together with additional supplies to be retained at those depôts to meet special calls for articles immediately required at the outer stations, and to be furnished by the return transportation trains; and in this way every possible precaution has been taken to meet the wants of the sick in the remotest sections of our country.

A liberal provision of medical supplies has also been made for the emigrants who take sick while en route to Oregon and California; and the medical officers stationed at the posts on the several lines of travel have never failed to give their kindest attentions to all who need their assistance. This award on the part of government is peculiarly appro-

priate; it is providing for the necessities of the adventurous pioneers, who, though in quest of individual gain, nevertheless advance their country's interest by extending its sphere of action over countries unknown before. And the services of the physicians are acts of courtesy and kindness well applied, they receiving their full reward in the consciousness of having done their duty towards suffering humanity. The only inconvenience attending the dispensing of these benefits to the suffering traveller, is the want of nurses and attendants upon the individuals left in our hospitals. These people are frequently abandoned on the road, and have to be brought in by the soldiers, and others again are left at the posts without means, and without a friend to wait upon them in their illness; so that the labor of waiting upon and watching over these unfortunate individuals devolves upon the one or two soldiers assigned to duty in the hospitals. Now, although the government furnishes the medical supplies and the subsistence, and the surgeon gives his professional services to those individuals, it does not follow that we should exact from the men detailed specially to attend upon the ordinary number of sick in a small garrison, the labor of waiting upon and watching for days and nights a number of helpless strangers.

It is needless to say that additional men can be detailed to meet these extreme cases, for at the little frontier stations there are not men to spare from other indispensable duties to attend upon extra sick men, and, besides, the commandant of the post will not, if he can, detail soldiers for hospital attendants beyond the number allowed by regulation for the military command proper; so that, if the emigrant or other citizen receives proper nursing, he must obtain it from the extraordinary exertions of one or more soldiers, who have already their full measure of irksome and sometimes loathsome duty to perform. And this brings me to the point I set out to establish, which is, that, while the attendants in a military hospital are the only soldiers who do not by law or regulations receive extra compensation for extra services, they are, in consideration of the constant risk of life from contagion, the painful anxiety they frequently experience, with loss of sleep, &c., the most equitably entitled to remuneration from the government.

The number of officers and men remaining sick on the 30th of June, 1851, was 665, and the number of cases of disease which occurred within the succeeding twelve months was 25,765, making an aggregate of 26,430 cases of indisposition that have been under medical treatment during the year ending the 30th of June, 1852.

Of the whole number of sick reported, 25,244 were returned to duty, 26 were placed on furlough, 202 were discharged from the service, 56 deserted, and 229 died; leaving on the 30th of June last 645 still under medical treatment.

As the mean strength of the army for the year ending June 30, 1852, was, according to the returns on file in this office, 9,203, and as the number of cases of indisposition reported during the same period was 25,765, it follows that the proportion of cases of disease to the number of officers and enlisted men in the service was 2.79 to 1, or that on an average each man was sick nearly three times during the year. It will also be perceived from the foregoing data that the ratio of deaths to the number of men was as 1 to 40.18, or 2.48 per cent. ;

and that the proportion of deaths to the number of cases under treatment was as 1 to 115.41, or 0.86 per cent.

The meteorological registers have been continued as usual at the military posts occupied by the troops. These are now becoming of a very valuable character, embracing as they do series of thermometrical and other observations taken at posts in Texas, New Mexico, Oregon, and California, and on the route to those countries. The registers for 1850 and 1851 are now in the hands of Professor Henry, superintendent of the Smithsonian Institute, who is engaged in tracing the course of the storms which have swept over the United States during those years, and endeavoring to discover the laws which govern their progress, &c.

Fifty-two applicants for admission into the medical staff of the army were invited to present themselves for examination before the board of medical officers which convened in the city of New York on the 15th of November, 1851. Of this number twenty-eight only reported in person, one of whom voluntarily withdrew; two were refused an examination on the ground of physical disqualification; and of the twenty-five examined, ten were approved, and have been registered in this office as legally qualified for the appointment of assistant surgeon.

The number of private physicians necessarily employed in the army has been on an average thirty-five per month for some years past. The necessity for the employment of these gentlemen arose from the fact that the number of posts occupied by the troops exceeded the number of medical officers in the army. The deficiency of medical officers to serve at the military stations is not the only difficulty, however; we have to meet the calls for medical attendants with recruits and other troops passing from one section of country to another, and also to provide for the contingencies of sickness, and of the occasional indispensable absence from duty of the surgeons and assistant surgeons of the army.

And with these remarks the question is again submitted, whether it is better to increase the strength of the medical corps of the army, or continue, as heretofore, to employ private physicians to meet the ordinary as well as extraordinary requirements of the service.

All of which is respectfully submitted :

TH. LAWSON, *Surgeon General.*

Hon. C. M. CONRAD, *Secretary of War.*

Annual report of the sick and wounded of the army of the United States for the year ending June 30, 1852.

Quarters.	REMAINING LAST REPORT.			TAKEN SICK OR RECEIVED INTO HOSPITAL DURING THE YEAR.													
	Sick.	Convalescent.	Total.	Fevers.						Eruptive fevers.							
				Febris continua communis.	Febris intermittens quotidiana.	Febris intermittens tertiana.	Febris intermittens quartana.	Febris remittens.	Febris typhus.	Febris typhus icterodes.	Erysipelas.	Rubeola.	Scarlatina.	Variola.	Varioloid.	Vaccinia.	
September 30, 1851.....				52	1,164	766	18	284	12		7						
December 31, 1851.....				25	1,001	507	70	147	32	1	9		1	2	1		
March 31, 1852.....				157	287	267	18	53	21		8	12	1	3	2		
June 30, 1852.....				178	489	529	18	119	25	2	8	5		1	2		2
Grand total.....	286	379	665	412	2,941	2,069	124	603	90	3	32	17	2	6	5		2
Causes of death.....				1				9	15					2			

Annual report of the sick and wounded, &c.—Continued.

Quarters.	TAKEN SICK OR RECEIVED INTO HOSPITAL DURING THE YEAR.																
	Diseases of the organs connected with the digestive system.																
	Cholera.	Colica.	Cynanche parotidæa.	Diarrhœa.	Dysenteria acuta.	Dysenteria chronica.	Dyspepsia.	Enteritis.	Gastritis.	Hæmatemesis.	Hepatitis acuta.	Hepatitis chronica.	Icterus.	Obstipatio.	Peritonitis.	Tonsillitis.	Cholera epidemic.
September 30, 1851	78	118	6	1,160	331	20	38	3	18	1	3	4	6	242	1	35	17
December 31, 1851	18	73	17	931	214	18	38	2	19	1	7	1	3	159	1	42	15
March 31, 1852	6	44	6	488	134	11	18	.....	14	2	2	.....	5	121	1	56	2
June 30, 1852	44	113	3	786	234	10	38	6	11	3	9	1	13	251	1	50	36
Grand total	146	348	32	3,365	913	59	132	11	62	7	21	6	27	773	4	183	130
Causes of death .....	.....	.....	.....	21	18	14	.....	.....	.....	.....	.....	.....	1	.....	3	.....	26

Annual report of the sick and wounded, &c.—Continued.

Quarters.	TAKEN SICK OR RECEIVED INTO HOSPITAL DURING THE YEAR.																							
	The respiratory system.											The brain and nervous system.												
	Asthma.	Bronchitis acuta.	Bronchitis chronica.	Catarrhus.	Hæmoptysis.	Laryngitis.	Phthisis pulmonalis.	Pleuritis.	Pneumonia.	Influenza.	Empyema.	Apoplexia.	Cephalalgia.	Chorea.	Delirium tremens.	Epilepsia.	Mania.	Melancholia.	Meningitis.	Neuralgia.	Paralysis.	Tetanus.	Cerebritis.	Encephalitis.
September 30, 1861 .	6	25	3	320	3	7	8	41	8	11	....	2	100	1	24	15	2	1	2	24	2	3	....	....
December 31, 1851 .	3	36	5	671	....	2	6	50	32	....	....	3	76	1	27	31	1	....	....	27	2	....	....	....
March 31, 1852.....	6	63	10	693	7	3	4	61	35	50	....	....	64	....	28	28	4	1	2	21	2	....	1	....
June 30, 1852.....	8	43	4	405	6	5	5	46	25	8	....	4	127	....	31	21	4	1	1	28	2	....	....	....
Grand total	23	167	22	2,089	16	17	23	198	100	69	....	9	367	2	110	95	11	3	5	100	21	3	1	....
Causes of death ..	....	....	....	....	....	2	20	1	12	....	1	6	....	....	5	....	....	....	....	....	....	....	1	1

Quarters.	TAKEN SICK OR RECEIVED INTO HOSPITAL DURING THE YEAR.																				
	The urinary and genital organs.											The serous exhalent vessels.				The fibrotis and muscular structures.					
	Calculus.	Cystitis.	Enuresis.	Gonorrhœa.	Ischuria et dysuria.	Nephritis.	Oorchitis.	Stricture urethræ.	Syphilis primitiva.	Syphilis consecutiva.	Ulcus penis non syphiliticum.	Anasarca.	Ascites.	Hydrocele.	Hydrothorax.	Hydrops articuli.	Pernio.	Podagra.	Rheumatismus acutus.	Rheumatismus chronicus.	Anchylosis.
September 30, 1851.....	1	3	2	91	4	2	13	2	58	33	9	2	.....	4	.....	.....	.....	122	48	.....
December 31, 1851.....	1	2	2	96	5	1	11	4	40	32	5	3	.....	.....	.....	27	.....	145	59	.....
March 31, 1852.....	3	2	4	86	1	.....	21	6	45	38	2	3	4	.....	2	38	3	158	62	.....
June 30, 1852.....	2	1	1	97	7	3	29	4	33	37	1	2	1	.....	1	1	2	163	63	1
Grand total.....	7	8	9	370	17	6	74	16	176	140	17	15	8	4	3	1	66	5	588	232	1
Causes of death.....	1	1	4	1	1	1

Annual report of the sick and wounded, &c.—Continued.

Quarters.	TAKEN SICK OR RECEIVED INTO HOSPITAL DURING THE YEAR.																
	Abscesses and ulcers.			Wounds and injuries.													
	Fistula.	Phlegmon et abscessus.	Ulcus.	Ambustio.	Amputatio.	Concussio cerebri.	Contusio.	Fractura.	Luxatio.	Punctio.	Subluxatio.	Vulnus incisum.	Vulnus laceratum.	Vulnus punctum.	Vulnus sclopeticum.	Vulnus contusum.	Purpura.
September 30, 1851	14	480	124	37	3	2	380	11	12	2	68	131	48	33	13	4	.....
December 31, 1851	3	300	128	36	3	.....	339	20	22	3	83	105	65	24	17	6	.....
March 31, 1852	3	271	106	38	3	2	310	18	14	1	74	85	48	17	7	4	.....
June 30, 1852 .....	.....	393	119	24	3	3	333	17	15	1	106	97	42	25	16	2	.....
Grand total	20	1,444	477	135	12	7	1,362	66	63	7	331	418	203	99	53	16	.....
Causes of death .....	.....	1	.....	.....	1	2	2	2	.....	.....	.....	1	1	1	11	.....	1

Annual report of the sick and wounded, &c.—Continued.

TAKEN SICK OR RECEIVED INTO HOSPITAL DURING THE YEAR.

All other diseases.

Quarters.	Amarosis.	Aneurisma.	Angina pectoris.	Cachexia.	Debilitas.	Ebrietas.	Hæmorrhoids.	Hemeralopia et nyctalopia.	Hernia.	Morbi cutis.	Morsus serpentis.	Odontalgia.	Ophthalmia.	Otitis.	Pericarditis.	Prolapsus ani.	Schirrus.	Scorbutus.	Scrofula.	Splenitis.
September 30, 1851	3				65	82	53	4	13	46	6	40	91	22	3	1		42	2	
December 31, 1851		1		5	41	78	43	1	7	42		58	96	12		1	3	41	5	1
March 31, 1852			1	2	27	57	32	5	12	67	1	63	83	12	1			154	1	3
June 30, 1852	2		3		43	67	43	7	11	43	2	50	113	11	1			127	2	2
Grand total.....	5	1	4	7	176	284	171	17	43	198	9	211	383	57	5	2	3	364	10	6
Causes of death		1			2	6					1				1			12	1	

Annual report of the sick and wounded, &c.—Continued.

Part II—10

Quarters.	TAKEN SICK OR RECEIVED INTO HOSPITAL DURING THE YEAR.									REMAINING.										
	All other diseases.									Aggregate.	Sent to general hospital.	Returned to duty.	On furlough.	Discharged service.	Deserted.	Dead.	REMAINING.			
	Suicidium.	Toxicum.	Varix.	Vermes.	Congestio cerebri.	Ictus solis.	Disease of the heart.	Cause unknown.	Morbi varii.								Total.	Sick.	Convalescent.	Total.
September 30, 1851.....	20	1	4	3	3	.....	.....	403	7,715	7	.....	10	54	16	55	.....	.....	.....
December 31, 1851.....	7	2	3	.....	.....	1	.....	223	6,601	8	.....	9	54	13	68	.....	.....	.....
March 31, 1852.....	1	6	3	1	.....	.....	.....	230	5,119	1	.....	5	50	11	56	.....	.....	.....
June 30, 1852.....	18	5	4	.....	2	.....	.....	367	6,330	12	.....	2	44	16	50	.....	.....	.....
Aggregate.....	1	51	11	12	3	5	1	1,273	25,765	26,430	28	25,244	26	202	56	229	360	285	645
Average.....	2	1	4	2	5	229	229

S. Doc. 1.

Annual report of the sick and wounded, &c.—Continued.

Quarters.	MEAN STRENGTH.		
	Officers.	Enlisted men.	Total.
September 30, 1851.....	498	8,682	9,180
December 31, 1851.....	537	8,939	9,476
March 31, 1852.....	511	8,621	9,132
June 30, 1852.....	496	8,528	9,024
Aggregate.....			36,812
Average.....			9,203

TH. LAWSON, *Surgeon General.*

X.

REPORT OF THE COLONEL OF ENGINEERS.

ENGINEER DEPARTMENT,
Washington, November 30, 1852.

SIR: I have the honor to subjoin my annual report on the condition of those public interests that have been confided to this bureau.

FORTIFICATIONS, AND MILITARY ESTABLISHMENTS CONNECTED THEREWITH.

Congress having, for the last two sessions, withheld appropriations for fortifications, it has only been possible to make progress in works of construction or repair at a few of the forts where there were balances of former grants; and even in these cases, as the balances were small, I cannot report very material advancement. On the other hand, it is to be apprehended, notwithstanding every precaution taken to protect the suspended works, that all have suffered more or less injury from bad weather and other causes, in some instances to a considerable extent. The condition or state of advancement of each fort, as far as it could be briefly stated, will be seen in the following detail.

The estimates for fortifications presented for the consideration of Congress at its approaching session are, with the addition of two or three small amounts for repairs made necessary by injuries sustained in the interim, the same as were laid before that body both last year and the year before. All the items of the estimates are for objects that have again and again received the sanction of Congress. Several of them, indeed all of considerable amount, are for the advancement or completion of forts under construction or repair, that are indispensable to the security of large maritime cities and of great national establishments—as Boston, New York, Philadelphia, Baltimore, Norfolk and its navy yard, Charleston, Savannah, Pensacola navy yard, Mobile, New Orleans, Key West, Tortugas, &c., &c. The remaining items of the estimate are small sums required for providing new barrack-room, store-room, magazines, wharves for the protection of sites, &c., &c.; all these last pertaining to forts in important positions, that, as regards defence and efficiency, are finished—some being very old works.

In the hope that Congress may be requested to make provision for the same, I again take leave to press upon your attention the importance of an immediate commencement of a fortification in New Bedford harbor, Massachusetts, and also of a fort at Sandy Hook, New Jersey.

And I have also to recall to your notice the necessity of an appropriation for the commencement of a fort at the entrance to San Francisco harbor, California.

Fort Mackinac, Michigan.—No work has ever been done by this department upon this old fort, but it is now necessary to make some repairs, as has been urged by the officer in command, and reported by

the engineer officer sent to examine. To which end an appropriation is asked of \$5,000.

Fort Wayne, Detroit, Michigan.—This fort is completed, and in a condition of strength and efficiency, perfectly commanding the passage from Lake Erie to the upper lakes.

It is now necessary to finish the barracks, and to erect a fire-proof storehouse, and officers' quarters.

Estimate of amount required to be appropriated for the fiscal year ending June 30, 1854..... \$15,000 00

Fort Porter, near Buffalo, New York.—Operations have been confined to preservation of property, police, and a few trifling repairs.

The fort is in a condition to receive its armament.

Balance in treasury on the 30th September, 1852..... \$17,890 02
No appropriation is asked.

Fort Niagara, New York.—Some stone pintle-blocks and traverse-circles have been substituted for wooden ones; but there is still a little more work to be done of the same kind. Some pointing has been renewed.

As heretofore reported, there is great want of accommodation for troops, of store-room, and hospital-room. The estimate of last year is now renewed.

Estimate of amount required to be appropriated for fiscal year ending June 30, 1854..... \$10,000 00

Fort Ontario, Oswego, New York.—Nothing has been done since the date of the last report. For repairs of revetments, magazine doors and windows, of crib-work, and fence, &c., the estimate of last year is renewed.

Estimate of amount required to be appropriated for fiscal year ending June 30, 1854..... \$900 00

Fort Montgomery, Rouse's Point, New York.—A small quantity of materials has been received; with this exception, the work has been confined to the care of the property, and the materials on hand.

Estimate of amount required to be appropriated for fiscal year ending June 30, 1854..... \$15,000 00

Fort Knox, Narrows of the Penobscot, Maine.—The work was suspended in the fall of last year, prior to which the excavation of rock, for the two communications of the casemated traverse of battery B, was accomplished, finishing entirely the rock excavation for this traverse. A small enrockment was built, and some grading, sodding, and pointing done, placing the batteries, as far as constructed, in perfect repair; and provision was made for keeping the work and its material in proper preservation.

The engineer officer in charge renews his application for an appropriation of \$75,000, or at least \$35,000; but the department's estimates are reduced to the same amount as last year.

Estimate of amount required to be appropriated for fiscal year ending June 30, 1854..... \$20,000 00

Fort Preble, Portland harbor, Maine.—Nothing done during the year. An old sea-wall, on the northern front, was destroyed by a gale last year. It should be at once rebuilt in a permanent manner. The site should be extended as heretofore represented. And in reference to those and other necessary expenditures, the estimate presented last year is again urged.

Estimate of amount required to be appropriated for fiscal year ending June 30, 1854..... \$7,500 00

Fort Scammel, Portland harbor, Maine.—A fort-keeper has been employed to take care of the public property, but no work has been done within the year.

A future appropriation will be necessary for this fort, but none is asked for at present.

Balance in treasury on 30th September, 1851..... \$3,900 00
Probable amount to be expended by 30th June, 1853..... 3,900 00

Fort Constitution, Portsmouth harbor, New Hampshire.—No expenditures have been made since last autumn.
No appropriation is asked.

Fort McClary, Portsmouth harbor, New Hampshire.—This fort has been in charge of a fort-keeper.
No appropriation is asked.

Fort Winkrop, Boston harbor, Massachusetts.—During the year, all that remained to be done to complete the cutting of the coping of the parade-wall, the lined ashlar of the scarp-wall, and the breast-height of the parapet-wall, has been accomplished, and a few foundation stones received.

Balance in treasury on 30th September, 1852..... \$10,347 00
Probable amount to be expended by 30th June, 1853.... 10,347 00
Estimate of amount required to be appropriated for fiscal year ending 30th June, 1854..... 10,000 00

Fort Independence, Boston harbor, Massachusetts.—The operations during the year on this work have been limited to some slight matters connected with the accommodations for a garrison.

Estimate of amount required to be appropriated for fiscal year ending 30th June, 1854, to complete the work.... \$10,000 00

Fort Warren, Boston harbor, Massachusetts.—The work remains in the condition reported last year. Owing to the want of funds, operations were not resumed the present season.

Estimate of the amount required to be appropriated for the fiscal year ending June 30, 1854..... \$30,000 00

Fort Adams, Newport harbor, Rhode Island.—For want of means, no progress has been made during the past year.

A small expenditure has been applied to the care of the public property.

It is proposed next year to proceed with the exterior quarters, and permanent wharf; to lay some gun-platforms, finish the redoubt, and execute some other details.

Balance in the treasury 30th September, 1852..... \$1,100 00
 Probable amount to be expended by 30th June, 1853..... 1,100 00
 Estimate of amount required to be appropriated for the fiscal year ending June 30, 1854..... 35,000 00

Fort Griswold, New London harbor, Connecticut.—Nothing has been done at this work except to keep it in order.

No appropriation is asked.

Fort Trumbull, New London harbor, Connecticut.—Nothing has been done at this work except keeping it in order.

There remains to complete it the putting up the portcullis, and exterior gate, of the main work, with some other details.

No appropriation is asked.

Fort Schuyler, East river, New York.—The large openings into the casemates of the second tier of the water-batteries have been closed up with blinds, to protect the platforms from the weather; part of the sea-wall terminating the glacis fronting the sound, which was injured by a severe storm, has been repaired, a pavement laid on two fronts of the water-batteries, and the sea-wall on the main fronts pointed.

Estimate of amount required to be appropriated for the fiscal year ending June 30, 1854..... \$15,000 00

Fort Wood, and sea-wall on Bedloe's island, New York harbor.—At the commencement of this year's operations, the work was confined to such a finish of the hospital, and sea-wall adjacent thereto, as would afford the greatest security for the property, which exhausted the appropriation. Funds were then obtained from contingencies of fortifications, in order that the cisterns at the hospital should be finished, and capacious ones be built inside of the fort. After finishing these, the property was stored, leaving the defences in an unfinished state.

Some buildings are required for special service at this place as a recruiting depot, estimates for which will be included with estimates for new barracks and hospitals.

Estimate of amount required to be appropriated for the fiscal year ending June 30, 1854..... \$20,000

Fort Hamilton, New York harbor.—The hospital casemates have been refitted and improved; some coping joints pointed; the southern extremity of the ditch graded; gateway made through palisades, and gates erected therein; eighteen gun platforms made, and put in position; blinds put in store-rooms, and other minor matters executed.

The coming year, it is designed to furnish a magazine with gratings, to provide the ditch palisades and the gates with loop-holes, and execute slight repairs to the breast-height walls and sea-wall; for which purpose the money now available is sufficient.

Towards the erection of a permanent wharf, which is much needed, an estimate is now made, the same as last year, of \$10,000.

Balance in the treasury 30th September, 1852	\$5,400
Probable amount to be expended by June 30, 1853.....	5,400
Estimate of amount required to be appropriated for the fiscal year ending June 30, 1854.....	10,000

Fort Lafayette, New York harbor.—All the cisterns have been repaired and roofed with stone, and the areas of the magazines flagged. The roof over the barbette battery of this fort is reported by the engineer in charge to need repair, as also the roof of the piazza; but I refrain at present from asking an appropriation.

Fort Richmond, Staten island, New York harbor.—The masonry is now raised to the general level for receiving the arches forming the floors of the second tier of casemates, and the curtain of the land front is thirty-four feet above the foundations.

The work done during the year amounts to two thousand and fifty-seven cubic yards of cut-stone masonry, sixty-six yards of brick masonry, and one hundred and forty-four cubic yards of concrete masonry. The work will be covered up in its present state and protected from the weather, till an appropriation is made for its continuation. Three thousand three hundred large blocks of stone, more than half of which have been cut and fitted, are now on hand, to be applied to the work.

The engineer officer in charge again refers to the necessity of purchasing additional ground for the defences at the Narrows, before it becomes too late; and the department, as heretofore represented, heartily concurs in the importance of such an accession.

Estimate of amount required to be appropriated for the fiscal year ending June 30, 1854..... \$60,000

Governor's island, New York harbor.—The draw-bridge of Fort Columbus has been repaired, by substituting granite sills and jambs for the tender free-stone of the gateway, to afford greater security for the fastenings of the bridge. A small balance in hand will have to be applied, the coming spring, to the sea-wall about Castle Williams.

The same appropriation is asked as last year, for necessary expenditures upon these forts.

Estimate of amount required to be appropriated for the fiscal year ending June 30, 1854..... \$4,500

Fort Mifflin, Delaware river.—Some repairs are needed at this old work, for which an appropriation of \$2,000 is asked.

Estimate of amount required to be appropriated for the fiscal year ending June 30, 1854..... \$2,000

Fort Delaware, Delaware river.—The timber foundation, consisting of several thousand piles driven very deeply, and surmounted by a strong grillage, has been completed under the whole fort, and the principal lines of the work laid out upon it with accuracy. By this operation, the correctness with which the piles were driven has been verified in a satisfactory manner. A small quantity of masonry has been laid in the superstructure. The floors of an extensive system of cisterns have been prepared, and will be put in place, and some further progress will be made with the masonry of the work, with the balance of funds yet remaining.

Balance in the treasury September 30, 1852.....\$9,697 18
 Probable amount to be expended by June 30, 1853..... 9,697 18
 Estimate of amount required to be appropriated for the fiscal year ending June 30, 1854.....50,000 00

Fort Carroll, Sollers' Point Flats, Baltimore harbor.—The constructing-wharves are completed on four points of the work. Five hundred and ten sheet piles have been driven and sawed off. Two hundred and seventy-one foundation piles have been driven and cut off on fronts 3 and 4, making three hundred and one linear feet of the foundation prepared for the reception of the stone wall.

The stone coffer-work of the substructure of fronts 1 and 2 has been completed, and fifty additional feet of masonry laid by the diving-bell on face 3, making a masonry coffer-work five hundred and twelve feet long, fourteen feet high, and ten feet wide. Sixty feet of substructure on front 1 have been completed by filling in with concrete.

A trémie-frame has been built, with its necessary machinery, and a new saw-frame constructed for cutting piles below the water level.

Materials have been accumulated for the completion of the substructure of fronts 1 and 2. To this end, and to the securing of the work, the balance of the funds will be applied.

Balance in treasury on 30th September, 1852..... \$12,100
 Probable amount to be expended by 30th June, 1853..... 12,100
 Estimate of amount required to be appropriated for the fiscal year ending 30th June, 1854..... 50,000

Fort Madison, Annapolis harbor, Maryland.—The existing appropriation still remains unexpended, as reported last year, there being no officer available for the superintendence of the work. No appropriation asked.

Balance in treasury on 30th September, 1852..... \$4,820

Fort Monroe, Old Point Comfort, Virginia.—Nothing has been done during the year. It is proposed next year to finish the modifications of the magazines, and continue the construction of the redoubt.

Estimate of amount required to be appropriated for the fiscal year ending 30th June, 1854..... \$20,000

Fort Calhoun, Hampton Roads, Virginia.—No subsidence can be detected, at any point of this work, for the year just ended. For the previous year the settling was confined to the part between embrasures Nos. 35 and 55; the average thereof being not more than three-hundredths of a foot. Should observations after the close of the coming winter confirm those lately made, we may confidently proceed with the construction of this fort, (suspended during many years,) so essential to the defence of Hampton Roads and the approaches to the Norfolk navy yard. As the funds now applicable may be made to suffice for the steps preliminary to resuming the labors, no appropriation is asked at present.

Balance in treasury on 30th September, 1852..... \$18,596

Fort Macon, and preservation of its site, Beaufort harbor, North Carolina.—Very little has been done since 1846. Some repairs are necessary to barracks and quarters.

Estimate of amount required to be appropriated for the fiscal year ending 30th June, 1854..... \$2,000

Preservation of the site.—Nothing has been done during the year. To secure the wharf from the worms, and maintain a fort-keeper, a small appropriation is asked.

Estimate of amount required to be appropriated for the fiscal year ending 30th June, 1854..... \$1,000

Repairs of Fort Caswell, and preservation of its site, Smithville, North Carolina. Repairs of Fort Caswell.—Nothing has been done since 1847. It is proposed to renew the floor of the citadel, to repair the roof, grade some of the slopes, and point some masonry.

Estimate of amount required to be appropriated for the fiscal year ending 30th June, 1854..... \$5,000

Preservation of the site.—No work has been done during the year. To secure the wharf, put up a fence, and maintain the fort-keeper, a small appropriation is needed.

Estimate of amount required to be appropriated for the fiscal year ending 30th June, 1854..... \$2,000

Protection of site of Fort Moultrie, Charleston harbor, South Carolina.—The western extremity of the work has been finished, and a few stones that were disturbed by heavy seas have been readjusted. At a point near the fort, storms from the seaward frequently cut away the bottom fifteen to twenty feet perpendicularly, and recently there has been danger of the breakwater being undermined thereby. A jettée of

granite should be constructed at right-angles to the shore, to render this position secure; and for this purpose an appropriation is necessary.

Estimate of amount required to be appropriated for the fiscal year ending 30th June, 1854..... \$12,300

Dike to Drunken Dick Shoal, Charleston harbor, South Carolina.—The balance on hand has been applied to the advancement of the dike. It is proposed to suspend the further prosecution of the work, while the operations in the vicinity for deepening the channel are in progress, or, at any rate, until some progress shall have been made therein.

Fort Sumter, Charleston harbor, South Carolina.—The casemated quarters of the gorge have been flooded, partitions put up, doors and windows placed, two coats of plaster put on, and the masonry roofs covered with mastic; the walls of the east barrack are raised to the height of the third-story lintels, and two arches of a gun casemate on the southeast face turned and the second floor laid thereon.

Estimate of amount required to be appropriated for the fiscal year ending 30th June, 1854..... \$40,000

Preservation of the site of Fort Johnson, and repair of the wharf, Charleston harbor, South Carolina.—The work especially designed to protect the site is complete, with the exception of a few feet in length.

The only wharf giving access to this position is decayed, and requires rebuilding from low water up, to provide a place for landing government property. This wharf contributes materially to the preservation of the site.

Estimate of amount required to be appropriated for the fiscal year ending 30th June, 1854..... \$4,200

Repairs of quarters and barracks at Fort Johnson, Charleston harbor, South Carolina.—One building has been repaired and another raised one story. It is designed to complete the latter and put a new roof on a third, and for these purposes a small appropriation is asked.

Estimate of amount required to be appropriated for the fiscal year ending 30th June, 1854..... \$1,200

Repairs of Castle Pinckney, Charleston harbor, South Carolina.—The site of this work, which is frequently overflowed, should be elevated above the tide; this is essential to the health no less than the comfort of the garrison. Some injury has lately been done, moreover, to the sea-wall which covers the foundation of the castle, which it is necessary to repair without delay.

Estimate of amount required to be appropriated for the fiscal year ending 30th June, 1854..... \$5,000

Fort Pulaski, Savannah river, Georgia.—The labors of the year have been restricted to adjusting the portcullis and draw-bridge, and regulating some minor matters. A fort-keeper attends to the preservation of the public property.

Estimate of amount required to be appropriated for the fiscal year ending 30th June, 1854..... \$15,000

Repairs of Fort Jackson, Savannah river, Georgia.—During the winter a small force has been applied to works tending to give security and efficiency to the fort. The officer in charge, in renewing his estimate, states that the delay consequent upon the want of appropriations will very materially enhance the cost of the work.

Estimate of amount required to be appropriated for the fiscal year ending 30th June, 1854..... \$20,000

Fort Clinch, Amelia island, mouth of Cumberland Sound, Florida.—No work has been done during the year, and no expense incurred, save the wages of the fort-keeper.

Estimate of amount required to be appropriated for the fiscal year ending 30th June, 1854..... \$25,000

Fort McRea, Pensacola harbor, Florida.—The works have been suspended for the most part of the year. Some embankments and other small items of work have been made at the exterior battery. Repairs were made at the dam across the lagoon opposite the fort. The terreplein of the gorge and wings of Fort McRea were covered with asphalt, and some minor repairs effected inside the fort.

Estimate of amount required to be appropriated for the fiscal year ending 30th June, 1854..... \$15,000

Fort Pickens, Pensacola harbor, Florida.—No operations have been carried on here during the year, and no important ones are anticipated to be necessary. No additional appropriation is now required.

Fort Barrancas, and barracks thereat, Pensacola harbor, Florida.—The works remain in a condition not materially changed since the annual report of last year.

Estimate of amount required to be appropriated for the fiscal year ending 30th June, 1854..... \$35,000

Fort Morgan, Mobile Point, Alabama.—The wharf, quarters, fences, and parapet, having been injured by a gale, the necessary repairs have been made during the year. No other work has been done during the year.

Estimate of amount required to be appropriated for the fiscal year ending 30th June, 1854..... \$15,000

Fort Gaines, Dauphin island, Mobile bay, Alabama.—The officer in charge states, that the government will receive complete titles to the site at the approaching December term of the chancery court of Alabama.

Fort Pike, Rigolets, Louisiana.—The scarp-wall has been covered with asphalt, and the asphalt covering of the southwestern and western fronts repaired, or relaid where necessary, in a satisfactory manner. The exterior slope of the parapet has been replaced by a small brick

wall, and the parapet filled out with earth drawn from the outside of the fort. A pile revetment has been put down and secured in front of the ditch, to preserve the site from the encroachments of the lake. The remaining means will be applied to providing windows for the citadel loop-holes, and machinery for the draw-bridge; but other very necessary work will remain to be done, chiefly for the preservation of the site.

Balance in treasury 30th September, 1852	\$1,100
Probable amount to be expended by 30th June, 1853.....	1,100
Estimate of amount required to be appropriated for the fiscal year ending 30th June, 1854.....	4,000

Fort Macomb, Chef Menteur, Louisiana.—No work has been done here during the year. As heretofore reported, the fort needs protection from the wash of the bayou in front, which is wearing away the site. A new bridge across the outer ditch is required, and other repairs similar to those of Fort Pike.

Estimate of amount required to be appropriated for the fiscal year ending 30th June, 1854.....	\$10,000
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Battery Bienvenu, Bayou Bienvenu, Louisiana.—Stone pintle-blocks and traverse circles have been set, in lieu of decaying wooden ones, and the guns remounted. With the balance of the funds the cellars of the quarters will be filled with earth, a small bridge built, the road raised, and the wood work of the quarters repainted. No appropriation is asked.

Balance in the treasury 30th September, 1852	\$2,400
Probable amount to be expended by 30th June, 1853.....	2,400

Tower Duprè, Bayou Duprè, Louisiana.—Six sets of stone pintle-blocks and traverse circles have been put down to replace decayed wooden ones, and the guns at the work remounted. A small appropriation for fort-keeper, and contingencies, will be needed.

Estimate of amount required to be appropriated for the fiscal year ending 30th June, 1854.....	\$500
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Fort Jackson, Mississippi river, Louisiana.—The construction of the exterior water battery has been continued; the excavation of its ditch has been completed; its scarp and counter-scarp has been revetted with timber, and the parapet formed to full dimensions.

Materials have been collected for the breast-height walls, but want of means has prevented their application. The exterior battery should be completed, a story added to the citadel, to supply indispensable barrack room, and additional officers' quarters provided.

Balance in treasury 30th September, 1852	\$300
Probable amount to be expended by 30th June, 1853.....	300
Estimate of amount required to be appropriated for fiscal year ending 30th June, 1854.....	20,000

Fort St. Philip, Mississippi river, Louisiana.—The operations of the year, restricted by the small balance of means, consist in completing a portion of the facings of the scarps on the land side, and continuing others, and building up the scarp of the water fronts to the height of two and a half feet above low water.

Balance in treasury on the 30th September, 1852.....	\$410
Probable amount to be expended by 30th June, 1853.....	410
Estimate of amount required to be appropriated for fiscal year ending 30th June, 1854.....	35,000

Fort Livingston, Grand Terre island, Louisiana.—A little pointing has been applied to the masonry, and some grading has been done during the year. The settling of the work, though slight, is still perceptible, and therefore no further work is at present contemplated. The fort can very soon, and easily, be put in a state of efficiency and defence.

Balance in treasury on 30th September, 1852.....	\$9,514 46
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Fort Taylor, Key West, Florida.—The scarp wall of this fort has been raised from a rocky bottom, in a depth of about ten feet water, to within about two feet of the lower tiers of embrasures; and the filling of the interior of the work with sand, to the level of the parade, is finished.

Nothing has been done since the month of May last, the public property being in charge of a fort-keeper.

Estimate of amount required to be appropriated for fiscal year ending 30th June, 1854.....	\$75,000
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Fort Jefferson, Garden Key, Tortugas island, Florida.—With the remainder of the old appropriations operations were continued until about the middle of May. The foundations of the scarp wall on bastion F, and of the remainder of curtain No. 6, have been laid; and the superstructure of the scarp on these bastions, and the connecting curtains, raised three feet in height, to the low-water level. A large permanent cistern has been completed; the square piles driven, and the plates put on, for the coffer-dam of two fronts of the scarp, in readiness for the sheet piling; and a large supply of coral fragments collected for concrete. It is very desirable that the entire scarp be completed to the level of low water during the coming year, but this will require an appropriation of \$100,000; and I am constrained to make here, as in many other cases, an estimate much below the sum demanded by the most advantageous rate of progress.

Estimate of amount required to be appropriated for the fiscal year ending 30th June, 1854.....	\$50,000
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Barracks, quarters, and hospitals.—I have handed in an estimate, (separate from that for fortifications,) providing for repairs, and for contingencies connected therewith, of quarters, barracks, storehouses guard-houses, hospitals, &c., and for certain new buildings designed for the same purposes, all in connexion with permanent fortifications. These are important to the health and comfort of troops, or to the preservation of public property.

RIVERS AND HARBORS, &C.

The following works, provided for by the act entitled "An act making appropriations for the improvement of certain rivers and harbors," approved August 30, 1852, have been assigned to the engineer department, viz:

1. All works and surveys on the Atlantic, and rivers emptying into it.
2. All works on the Gulf of Mexico, and on the rivers emptying into it, except those of the Mississippi river, but including the removal of the bar at the mouth of that river, and not including the survey for a ship-canal across the peninsula of Florida.

Officers have been assigned to these several works, with orders to make the necessary examinations, and submit plans of improvement as soon as practicable; and a board of engineers, for river and harbor improvements, has been detailed by the Secretary of War to examine and report upon all plans of civil improvement proposed by the officers in immediate charge.

The progress made during the short time that has elapsed since the date of the appropriation in taking up these works, which are either new or old works long suspended, will be detailed below.

For removing the rocks obstructing the navigation near Falls island, Cobscook bay, Maine.—A reconnoissance of the work is now making.

For breakwater at Owl's Head harbor, or at Rockland harbor, in Maine, as the War Department shall decide.—A reconnoissance is now making.

Survey in reference to the construction of a breakwater on the east side of the island of Martinicus, Maine.—A reconnoissance is now making.

Improving the Kennebeck river from the United States arsenal wharf, in Augusta, Maine, to Lovejoy's Narrows.—A reconnoissance is now making.

Breakwater at Richmond Island harbor, and repairing the breakwater in Portland harbor, Maine.—A survey is now in progress.

Repairing the piers at Kennebunk, Maine.—Repairs are in progress and will be completed this fall, to the extent proposed by the officer in charge and approved by the Secretary of War.

Repairs of the sea-wall at Marblehead, Massachusetts.—No report has been received relative to this work.

Protection of Great Brewster island, in the harbor of Boston.—The officer in charge reports that it will not be practicable, with any good result, to commence operations this autumn or sooner than May next.

Survey in reference to the improvement of the harbor of Scituate, in connexion with the North river, Massachusetts.—A reconnoissance has been made, and the officer in charge will make a survey with reference to the construction of a breakwater.

Repairing the injuries done to the government works on Plymouth beach in the great storm of 1851.—An examination of the locality has been made, and a report is soon expected.

A survey in reference to the construction of a breakwater at East Dennis, Barnstable bay, Massachusetts.—A survey, project, and estimate have been made for the improvement supposed to have been contemplated by the act making the appropriation.

Preservation of Cape Cod harbor, at or near Provincetown, Massachusetts.—The officer in charge has not yet reported the result of his examinations, having yet to meet and confer with the commissioners of the State on the subject.

Repairing the breakwater at Hyannis harbor, Massachusetts.—An examination has been made, but the report is not yet received.

Preservation of Great Woods Hole harbor, Massachusetts.—Partial repairs of the existing dike will be completed in a few days, and some necessary instrumental surveys will be made.

Survey of Taunton river and New Bedford harbor, Massachusetts.—The field-notes of the survey of New Bedford harbor were completed in October, and much information acquired relative to its improvement; the survey of the river will occupy the attention of the officer in charge during the present month.

Removing a rock near the mouth of Seekonk river, harbor of Providence, Rhode Island.—The officer in charge reports that there is a shoal of mud and shells at the point specified, but no rock in the harbor within four miles. It has been decided by the Secretary of War that the removal of this shoal is not within the scope of the law.

Survey of Providence harbor, Rhode Island.—No report received; the officer in charge being now engaged upon the survey of Taunton river.

Removal of Middle Rock, designated on the chart as Rocky Buoy, in the harbor of New Haven, Connecticut.—The officer in charge has been authorized to contract with M. Maillefert for the removal of this rock; in the shortest time practicable, and for the amount of the appropriation.

For the improvement of the harbor of Bridgeport, Connecticut.—The officer in charge has submitted a project for the improvement of this harbor by dredging, which will be laid before the board for rivers and harbors, now about to assemble in Washington.

Continuing the improvement of the navigation of Hudson river above and below Albany, and not above Troy.—The officer in charge has made minute and extensive inquiries of persons owning passenger or tow-boats, and of others interested in the proposed improvements at New York, Albany, Troy, and New Baltimore, and on the river; has sought care-

fully for all information to be obtained, and has made personal examinations. The necessary soundings and surveys are now being made under direction of competent surveyors.

Further improvement in the harbor of New York, by removing the rocks at Hell Gate and Diamond Reef, in the East river.—The officer in charge has engaged M. Maillefert to continue his operations on Pot Rock (Hell Gate) on the same terms as he worked before. Two hundred charges of gunpowder, of one hundred and twenty-five pounds each, have accordingly been exploded, and an examination of the rock is now in progress to ascertain the results produced.

The officer's projects for the removal of the other rocks have been received, and will be laid before the river and harbor board on their assembling in this city.

Removal of the bar at the junction of the Passaic and Hackensack rivers, in Newark bay, New Jersey.—The survey of the bar is completed, and the project of the officer in charge is expected at an early day.

Survey of Cranberry inlet, Barnegat bay, New Jersey.—No report is yet received.

Survey of Shrewsbury river, New Jersey.—The report is not yet received.

Survey of the sand-bars in Newark bay, New Jersey.—The officer in charge is now prosecuting these surveys.

Repairing the public works at Little Egg Harbor, New Jersey.—No report received, it having become necessary to withdraw the officer first placed in charge of the work, and assign him to the survey for supplying the city of Washington with pure water. Another officer has since been charged with the duty, but has not yet had time to make an examination.

Continuation of the Delaware breakwater.—The same remarks apply to this as to the preceding work.

Construction of a harbor on the east side of Reedy island, Port Penn, Delaware.—The same remarks apply as above.

Repairing the piers and improving the harbor of Newcastle, Delaware.—A survey of the harbor is completed, and the project of the officer in charge is daily expected.

Repairs of the works at the harbor of Chester, on the Delaware river.—A contract has been made by the officer in charge for the complete repairs of the existing piers and bridges by the end of the year, for a sum within the appropriation. The work is in vigorous progress.

Improvement of the Patapsco river from Fort McHenry to the mouth of said river.—The officer in charge has been engaged in preliminary examinations and in the collection of information.

Removing obstructions at the mouth of the Susquehannah river, near Havre-de-Grace, Maryland.—The officer in charge has been collecting information with a view to the contemplated improvement.

Construction of a steam-dredge, equipment, and discharging-scows for the waters of the Chesapeake bay and the Atlantic coast.—The officer in charge has been collecting information in relation to the most approved dredges.

Improvement of the James and Appomattox rivers below the cities of Richmond and Petersburg, Va.—The examination, with a view to the contemplated improvement, has been completed, and the report of the commission to which this duty was intrusted will soon be received.

Survey of the Rappahannock river, Va.—The officer in charge will commence the survey without delay.

Re-opening a communication between Albemarle sound, North Carolina, and the Atlantic ocean, by the construction of a breakwater across Croatan sound.—The officer in charge has been collecting information in relation to the contemplated improvement, and is about to proceed to the execution of the duties assigned him.

Completing the improvement of Washington harbor, N. C.—In charge of the same officer, and the same remarks apply.

Improving Cape Fear river at and below Wilmington, N. C.—A joint commission has been constituted for the preparation of a suitable plan of operations for the improvement contemplated. The commission has not yet reported.

Survey of the harbor of Georgetown, S. C.—No report has been received from the officer in charge.

Improvement of the harbor of Charleston, S. C.—No report has been received from the officer in charge.

Removal of obstructions in the Savannah river, at a place called the Wrecks, and the improvement of the navigation of said river.—A commission has been constituted for the purpose of examining the river and presenting a plan for its improvement. The officer in charge has been employed in preliminary labors—organizing his operations, collating former surveys, &c.

Survey of the river Ockmulgee, Ga.—The officer in charge is preparing for the survey.

Survey of the following rivers in Georgia, viz: the Flint, up to Albany, and the Chattahoochie, up to Columbus.—The officer in charge is now prosecuting the surveys.

Filling in behind the United States sea-wall in the harbor of St. Augustine, Florida.—The officer in charge has been detained in Washington city by public business. He will, however, proceed immediately to the scene of his duties.

Improvement of the river St. John, Florida.—The officer in charge has been acquiring information; and having perfected his arrangements, is now on his way to the execution of the survey on which his project is to be founded.

Connecting the waters of the Indian river and Mosquito lagoon, at the Haulover, Florida.—The officer in charge has been collecting information, and is now on his way to the place to be improved.

Improvement of the harbor of Mobile, Alabama, at Dog River bar, and the Choctaw Pass.—The officer in charge is now making his preliminary arrangements with a view to the commencement of contemplated improvements.

Survey of East Pascagoula river, Mississippi.—The officer in charge has been collecting information, and will commence the survey at an early day.

Construction of a harbor on Lake Pontchartrain, near the city of New Orleans.—The joint commission to whom the duty was assigned have examined the locality of the proposed harbor, and have reported a project in detail, with plans and estimates, for the work proposed.

Opening a ship-channel of sufficient capacity to accommodate the wants of commerce through the most convenient pass leading from the Mississippi river into the Gulf of Mexico.—A commission has examined and reported on this improvement; and an agreement has been made with New Orleans tow-boat companies, and sanctioned by the Secretary of War, for the opening of a channel eighteen feet deep, and three hundred feet wide, through the Southwest Pass; the work to be completed for the sum of seventy-five thousand dollars—nothing to be paid until it is finished.

The same commission have also recommended further improvement at the Pass à L'Outre, &c., to accommodate the wants of commerce.

Survey in reference to the removal of obstructions to the navigation of the Bayou La Fourche, Louisiana.—The officer in charge has been collecting information with a view to the improvement contemplated.

Survey of the harbor at Sabine, and the river Sabine.—The officer in charge will proceed to the execution of the duty assigned him, at an early day.

*Survey of the Trinity river, Texas.—Improvement of the navigation of the Colorado river, Texas.—Survey of the harbor of Galveston, Texas.—Survey of the harbor of Velasco, Texas.—Survey of the river Brazos, Texas.—Survey of the Trinity river, Texas, including the bar at its mouth.—*An officer was assigned, and some time since proceeded, to the execution of the surveys, &c., as above enumerated. No report has as yet been received from him.

*Survey of the San Antonio river, Texas.—Survey of the harbor of Passo Cavallo, Texas.—Survey of the harbor of Brazos de Santiago, Texas.—Survey of the harbor of Corpus Christi, Texas.—*These four surveys have been assigned to an officer who will proceed to take the necessary steps for their immediate commencement.

*Protection of Lovell's island, Boston harbor, and sea-wall of Deer island, Boston harbor, Massachusetts.—*These two works are in a condition affording efficient protection, but will require some small repairs.

The survey for the abundant supply of good and wholesome water to the cities of Washington and Georgetown, under the act of August 31, 1852, has also been assigned to this department. The survey is in active prosecution; and the officer in charge expresses his confident hope that his examinations and report will be completed in time for the action of Congress at the approaching session.

MILITARY ACADEMY.

The accompanying interesting and able report of the Board of Visitors, which attended the annual examination in June last, bears full and flattering testimony to the continued and increasing efficiency and usefulness of that institution.

Captain Brewerton, after seven years of laborious and successful service as superintendent of the academy, was relieved and succeeded on the 1st of September last by Brevet Colonel R. E. Lee, of the corps of engineers.

I beg now to renew a recommendation which I have repeatedly made, that the salaries of the professors of drawing and of French should be raised to those of the other professors. There is, in my opinion, no reason why the inequality should exist.

The estimate, transmitted by the superintendent, of the expenses of the Military Academy for the fiscal year ending June 30, 1854, is as follows:

For current and ordinary expenses	\$31,660 00
For the completion of the new mess-hall and out-buildings .	3,500 00
For increase and expense of library	1,000 00
For expenses of the Board of Visitors	3,000 00
For arrearages on account of expenses of the Board of Visitors for the fiscal year ending June 30, 1852	557 83
For riding-hall	12,000 00

For stable for dragoon and artillery horses	\$8,000 00
For forage for ninety dragoon and cavalry horses for 12 months—1,080 months, at \$6 per month	6,480 00
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I append to this report an explanation, by the superintendent of the Military Academy, of the several items of the above, and the more detailed estimate included in the annual estimates of the War Department.

The following is a list of the officers, professors, and teachers of the Military Academy, constituting the academic and military staff, on the 30th September last:

Brevet Colonel Robert E. Lee, corps of engineers, superintendent and commandant.

Mr. Dennis H. Mahan, LL. D., professor of civil and military engineering.

Second Lieutenant and Brevet Captain Gustavus W. Smith, corps of engineers, assistant professor of civil and military engineering.

Second Lieutenant Charles S. Stewart, corps of engineers, acting assistant professor of civil and military engineering.

Mr. William H. C. Bartlett, LL. D., professor of natural and experimental philosophy.

First Lieutenant Joseph J. Reynolds, third artillery, assistant professor of natural and experimental philosophy.

Second Lieutenant Edward D. Stockton, first infantry, acting assistant professor of natural and experimental philosophy.

Second Lieutenant Joseph H. Wheelock, fourth artillery, acting assistant professor of natural and experimental philosophy.

Mr. Albert E. Church, LL. D., professor of mathematics.

Second Lieutenant William J. Peck, topographical engineers, assistant professor of mathematics.

First Lieutenant and Brevet Captain Edmund K. Smith, seventh infantry, acting assistant professor of mathematics.

Second Lieutenant Delavan D. Perkins, fourth artillery, acting assistant professor of mathematics.

Second Lieutenant Chauncy McKeever, third infantry, acting assistant professor of mathematics.

Second Lieutenant John A. Mebane, second artillery, acting assistant professor of mathematics.

Second Lieutenant Thomas J. Haines, second artillery, acting assistant professor of mathematics.

Mr. Jacob Bailey, A. M., professor of chemistry, mineralogy, and geology.

Captain Francis N. Clarke, 4th artillery, assistant professor of chemistry, mineralogy, and geology.

First Lieutenant and Brevet Captain Edward C. Boynton, first artillery, acting assistant professor of chemistry, mineralogy, and geology.

Brevet Second Lieutenant George T. Balch, ordnance, acting assistant professor of chemistry, mineralogy, and geology.

Rev. William T. Sprole, chaplain and professor of ethics.

First Lieutenant and Brevet Captain Henry Coppeè, first artillery, assistant professor of ethics.

First Lieutenant Charles C. Gilbert, first infantry, acting assistant professor of ethics.

Second Lieutenant Beekman DuBarry, third artillery, acting assistant professor of ethics.

Mr. Robert W. Wier, N. A., professor of drawing.

First Lieutenant Richard S. Smith, 4th artillery, assistant professor of drawing.

First Lieutenant and Brevet Captain Trueman Seymour, first artillery, acting assistant professor of drawing.

Captain George W. Cullum, corps of engineers, instructor of practical engineering.

Brevet Second Lieutenant Andrew J. Donelson, corps of engineers, assistant instructor of practical engineering.

Brevet Second Lieutenant James C. Duane, corps of engineers, assistant instructor of practical engineering.

Mr. H. R. Agnel, professor of the French language.

First Lieutenant T. D'Orémieulx, first infantry, assistant professor of the French language.

First Lieutenant John H. Greland, fourth artillery, acting assistant professor of the French language.

Captain Bradford R. Alden, fourth infantry, commandant of cadets and instructor of infantry tactics.

First Lieutenant John M. Jones, seventh infantry, assistant instructor of infantry tactics.

First Lieutenant Daniel R. Jones, second infantry, assistant instructor of infantry tactics.

First Lieutenant Henry B. Clitz, third infantry, assistant instructor of infantry tactics.

Second Lieutenant Milton Cogswell, eighth infantry, assistant instructor of infantry tactics.

First Lieutenant and Brevet Major George H. Thomas, third artillery, instructor of artillery and cavalry.

First Lieutenant and Brevet Major Fitz John Porter, fourth artillery, assistant instructor of artillery.

First Lieutenant Delos B. Sacket, first dragoons, assistant instructor of cavalry.

Mr. P. de Jauon, instructor of sword exercise.

Military staff.

Dr. John M. Cuyler, M. D., surgeon.

Dr. James Simons, M. D., assistant surgeon.

First Lieutenant and Brevet Captain Seth Williams, first artillery, adjutant.

New mess-hall for cadets.

To enclose the yard in the rear, and for necessary out-buildings yet to be completed, and to close the accounts of this building, the superintendent asks the sum of \$3,500.

Officers of the corps of engineers and the company of engineer soldiers.

I would respectfully call your attention to a subject which I have several times pressed upon the notice of the government—namely, the gradual increase of the corps of engineers by an addition to the grade of second lieutenant, of not more than three officers annually for seven years, from graduates of the Military Academy. My report of November, 1850, presented reasons in detail, which received the favorable consideration of the Military Committee of the House; and to the report of that committee I now beg leave to refer in support of the proposition. It is House report No. 29, 2d session 31st Congress.

The engineer company has been employed during the year, as usual, in its proper military exercises and studies, and by labors in the field has greatly assisted the instruction of the cadets in practical engineering, including the formation of saps, trenches, field batteries, magazines, platforms, &c., and in the manœuvres of the ponton bridge. It also assisted materially in the erection of a target for the determination of the proper material and construction of embrasures for casemate guns.

A detachment consisting of some of the best educated men of the company has been fully employed upon the coast survey; and it is intended to make other detachments of similar character from the company for service on the fortifications as soon as they shall be resumed.

Board of engineers for the Atlantic coast.

This board has continued the preparation of plans and estimates for works in Portsmouth harbor, New Hampshire.

Board of engineers for the Pacific coast.

The projects for the defence of the entrance to San Francisco bay, upon which this board was engaged when my last annual report was made, have been completed; and the board is now engaged upon a project for the defence of the entrance to San Diego bay, which will be completed, it is thought, in a short time.

Projects for other points may be taken up as soon as the necessary surveys shall have been made, for which appropriations are still required.

I have the honor to be, most respectfully, your obedient servant,

JOS. G. TOTTEN,

Brevet Brigadier General, and Chief Engineer.

HON. C. M. CONRAD,
Secretary of War.

Letter explanatory of the Military Academy estimates.

UNITED STATES MILITARY ACADEMY,
West Point, N. Y., October 9, 1852.

SIR: I have the honor to transmit herewith an estimate of funds required for the United States Military Academy, for the fiscal year ending 30th June, 1854.

An addition of \$2,000 to the usual estimates for repairs and improvements is asked for, to aid in the construction of a new wharf, fendered necessary by the destruction of the floating dock, situated on the north side of the Point, in the fall of 1850. A more sheltered position has been selected for the new wharf, and it is proposed to make it more permanent as well as commodious for the landing of steamboats.

The clerk of the disbursing officer and of the quartermaster of the post is also the clerk of the officer charged with the construction of the public buildings, and is paid for this latter service out of the appropriation for those buildings. Upon their completion, now near at hand, this allowance will cease, and his whole compensation will not then be adequate to his services in the former capacity. An additional sum is therefore asked for, to make his compensation somewhat near what it is at present.

In the estimate for miscellaneous and incidental expenses, provision is made for the enlargement of the reservoir and the extension of the conduit pipes, to embrace another stream, so as to increase the present supply of water to the cadet barrack, which is insufficient, and entirely fails in the hot and dry seasons of the year, when it is most wanted.

The additional compensation to the librarian, authorized by the 147th paragraph of Academic Regulations, is again included in the estimate, he having received no compensation for the extra duty imposed upon him since he was appointed.

To place the private soldier employed in the adjutant's office on the same footing with those in the lithographic department, an addition is asked of \$50 per year to his army pay. He has become an expert penman and valuable clerk, and it is desired to secure his services by re-enlistment.

The two enlisted men employed in the philosophical and chemical departments, assist in the experiments in those departments, and have the care and charge of the valuable apparatus in each. They are experienced and faithful; and to induce them to re-enlist at the expiration of their present terms of service, \$50 per annum is asked for each.

In the department of artillery, the increased estimate is rendered necessary by increased instructions in fencing. The 4th as well as 1st class now receive fencing lessons, and, consequently, a larger number of foils, marks, gloves, &c., are required.

The new cadet mess-hall has been completed, and is occupied. The enclosure of the yard in rear, and necessary out-buildings, are yet to be constructed; to accomplish which, and to supply the deficiency in the appropriation for completing the building, \$3,500 are required.

For the want of quarters to accommodate the officers on duty at the academy, fifteen of them, in addition to the four assistant instructors of tactics, are now crowded into the cadet barrack, to their own discomfort and the inconvenience of the cadets, for whom the rooms are required. I therefore respectfully recommend that an appropriation be asked for the commencement of a range of suitable quarters, south of the new mess-hall. No specific amount is included in the estimate.

So much has been said by the various boards of visitors of the necessity for a riding and drill hall, and you are so well acquainted with its importance, that I feel it unnecessary to do more than, in asking for an

appropriation for its construction, to state that the course of equitation cannot, in my opinion, be properly taught without it; and that the room now used for the purpose is extremely dangerous to the lives and limbs of the cadets.

In connexion with this subject, I beg leave to call your attention to the condition of the public stables for the dragoon and artillery horses. One of the stables is in such a dilapidated state that the walls have to be supported, and is considered dangerous to the horses that are obliged to be there accommodated. Twenty-nine horses are sheltered in a temporary shed, for want of proper stabling; and there is no shelter of any kind for the thirty additional horses, for the purchase of which an appropriation was granted at the last session of Congress. It is proposed to commence a system of stables necessary for the wants of the academy, to accommodate those horses now without shelter, and which may hereafter be extended to replace those already existing, and to locate the building convenient to the riding-hall. The sum of \$8,000 is asked for this purpose.

All of which is respectfully submitted.

R. E. LEE,

Bt. Col., and Sup't of Military Academy.

Gen. JOS. G. TOTTEN,

Chief Engineer, Washington City, D. C.

Report of the Board of Visitors to West Point Academy.

WEST POINT, *New York, June 17, 1852.*

SIR: Pursuant to your invitation, fifteen gentlemen, (the sixteenth joined a few days subsequently,) from as many States of the Confederacy, assembled at this place on the 1st day of June, and organized the Board of Visitors for the year 1852. The purposes designed were to attend the annual examination of the cadets, to investigate the condition of the Military Academy in reference to the several subjects brought to their notice by your letter, and to report to you the result of their inquiries, together with any recommendations which might appear to them judicious or important.

The board commenced their proceeding under the profound conviction that a national military academy, organized in the best manner and conducted on just principles, must be of the very highest value to the United States. It is conceived that the period is distant when the passions of individuals shall be subdued to a perfect humanity, and the ambitious and often unscrupulous rivalry of nations shall be diverted into the elevated paths of generous and honorable competition in industrial and other pursuits. War must, therefore, continue to be practised; and the science and art which guide its arms to the surest and speediest results, while involving in their study the uses and acquaintance with all the exact sciences and many of the arts, should be thoroughly instructed. To omit such instruction would be to place this Confederacy far in rear of all the enlightened nations of the world in the scale of importance, which is likewise that of self-interest and respectability;

and the power of self-protection would be greatly impaired. It may be well supposed that this country is not so remote in geographical position, nor so powerful and so prolific of means and appliances for resistance, as to be exempt from the possibility of hostile invasion, with its train of injurious consequences. The militia will constitute the great bulwark of defence; and as in past warfare, so again in that of the future, their strong arms and brave hearts are ample guarantees against entire subjugation. But to cast among them the seed of military knowledge—to train them in the highest principles of methodical war—to impart to them skill, and inspire them with confidence, would serve to insure and hasten success, while often averting perils, and always escaping the disgrace which so frequently results from misdirected efforts.

It may be assumed that impressions similar to these induced, on the part of Washington, the urgent and repeated recommendations of the foundation of a national military institution. The very last (published) letter of his life, of the 12th of December, 1799, contained a plea in its behalf. He desired such a seminary to be established on a "respectable and extensive basis," and he regarded it as "an object of primary importance to the country." As the farewell legacy of the Father of his Country, this conception, afterwards embodied into durable form, and existing at the present day an ornament and an honor to the Confederacy, while it is a proud monument to his patriotic forecast, should be fostered and cherished by the American people.

The academy at West Point was erected under the administration of Jefferson; and in its humble beginning, was destined to educate officers solely for the corps of military engineers. During the war of 1812 its elevés were distinguished for capacity and skill, and proved themselves the equals at least of their British antagonists. About that period the number of cadets was increased, and the course of instruction was enlarged. With the favor of the government and the people these have continued their progress to the present time. The army, in all its arms of service, is the recipient of highly-educated and accomplished officers, and the branches of knowledge taught have become, in their variety and extent, all that can be studied in the term of four years.

In consequence of the efficiency, the gallantry, and the skill of its graduates, displayed more particularly in the recent war, the academy appears at length to be duly appreciated by all classes of our fellow-citizens. The moment is favorable to extend its usefulness to the entire country by enlarging its sphere of benefits.

These would unquestionably inure from increasing the number of pupils—from impelling the energy and kindling the enthusiasm of its conductors, of all grades, by justly, if not generously, compensating their services—from adding all the facilities of comfort, convenience, and of instruction, by a liberal expenditure towards the various improvements hereinafter mentioned—from extending the term of study to five years, which would elevate the standard of education beyond that of any similar institution in the world—in a word, from regarding the Military Academy as the great national seminary of the science of war, and as the nursery of men fitted for all the higher spheres of human

action, and in accordance cherishing it with the nation's affections, and promoting its noblest ends with the nation's bounty.

The Board of Visitors, after minute and faithful examination, are gratified in expressing their entire approbation of the basis upon which the institution was founded, and their concurrence with its general management. The accumulating experiences of fifty years, carefully noted, and improved upon in practice from time to time, when possible to do so, leave little now to be altered; and the board, in the main, have only to recommend appropriations for necessary physical improvements to afford comfort to the professors, and give facilities for certain instruction, while placing the academy on the most respectable footing. In all the departments are displayed cultivated taste, economy of expenditure, and efficiency in the adaptations of the means to secure the design. In the external improvements, in the military exercises, in the branches of study, (except logic,) in the administration and superintendence of all its affairs, and in the discipline which, sanctioned by the authority of law, and indispensable to the eminent success of a military institution, is the grand cement of all the parts, giving symmetry of form and vigor of action to the united whole, the board give their cordial assent and commendation.

With the view of instituting the most searching scrutiny which the brief period of less than three weeks would permit, committees were appointed from the board, to each of which a prominent subject was intrusted. Reports were rendered; and having been discussed before the board, and adopted in some cases after being amended, they constitute the body of the general report, and accompany it in the order in which they were presented and accepted. In order to attract more readily the attention, the several recommendations of the board to be found distributed through the reports of the committees, and a few not reported on, are grouped up together and numbered as follows:

1. It is recommended that sixty-two additional cadets be authorized, to correspond to the senators, allowing two for each State.
2. That the pay of the cadets be increased \$4 20 a month, or making \$28 20 per month, which was granted previously to 1845. The amount at present is insufficient, (\$24;) nearly all who graduate are involved in debt, in despite of the practice here of the most rigid system of economy.
3. That the pay of the superintendent be increased from \$2,000 to \$3,000. The entertainment of distinguished men, scientific and otherwise, from abroad and at home, who visit this place, is thrown almost wholly on this officer, and for the credit of the hospitality of the nation it must be and is borne. The present superintendent has, in some seven years, since being stationed at this post, expended \$6,000 over his pay.
4. That the pay of the instructors of drawing and French be made equal with that of the principals in other departments. They receive \$1,500 a year—the others \$2,000.
5. That the instructors (principal) of practical engineering, and of artillery, &c., be allowed the same compensation as other principal professors.
6. That the first assistant instructors of drawing and French be al-

lowed the same pay as the first assistant in all the other departments. There is no reason in the world why the present distinction should exist.

7. That all the secondary instructors and teachers taken from the army be allowed \$10 per month extra pay. The expenses of dress and board are much greater here than elsewhere in service. But the especially forcible reason is, to induce the highest order of fitness and merit from the army for service here. There is no motive to seek this position. It is a burdensome one, and virtually their pay is reduced, and the duties more arduous and responsible. The best officers are often chosen to be quartermasters, commissaries, or adjutant, and none with extra compensation, which they would not consent to relinquish unless remunerated.

8. That the fencing-master be allowed the pay of \$900 per annum. He formerly instructed but one class. Now two classes are taught, and the duties required are quite severe and too poorly repaid.

9. That a riding-hall be erected for the exercise and instruction of the cadets in winter. \$2,000 have already been appropriated, but not expended; \$12,000 more are required; and if allowed at once, the building may be completed in a single season.

10. That permanent stables be built for the horses of the light artillery and those used in teaching cavalry drill.

11. That a double set of horses be allowed—one for the artillery, the other for the cavalry exercises. Horses used habitually in harness are not suited to the saddle, and the double duty required of them here unfits them altogether for many of the manœuvres of cavalry.

12. That the dwelling of the professors be enlarged to meet the demands of increasing families, and that a study or office be erected for each professor adjoining his quarters.

13. That four or five additional buildings be erected for the use of the officers, who now occupy rooms in the cadets' barracks, and for others. Should the corps be increased, these rooms will be required for the cadets; but, excepting the instructors of tactics, the officers—professors or assistants—should, for obvious reasons, have quarters separate from the cadets.

14. That cavalry tactics be introduced among the studies of the academy. There are three mounted regiments, besides mounted infantry, in the army; and besides, every graduate should be acquainted with the manœuvres of all the arms of service.

15. That the period of instruction be extended to five years.

16. That the study of logic be dispensed with, and that ancient and modern history—army papers, as returns, &c.—physiology, and the evidences of Christianity, be introduced with the increased term.

17. That a wharf or dock should be built on grounds belonging to the United States. The former one is broken up or has sunk. There has always been a wharf here, until quite recently, to facilitate the landing from steamboats. The officers stationed here should not be forced to the inconvenience of riding from the post to reach the steamer, nor be subjected to the possible caprices of private owners of a wharf. There is every reason to fortify the recommendation, and not a single plausible one in opposition.

18. That another officer of dragoons should be stationed here to perform the duties of the present riding-master, whose services could be dispensed with. The objection is by no means personal to the present instructor; but the board are of opinion that one of our own officers can teach equally well with an instructor from any other country.

In concluding their report, the Board of Visitors take great pleasure in expressing their high sense of the distinguished courtesies which the officers and professors at West Point have, publicly and privately, uniformly bestowed on them during their brief visit.

The board respectfully request of the Honorable Secretary of War that he will transmit their report, &c., to Congress in a separate communication, in order to secure their being printed as a distinct public document.

All of which is respectfully submitted.

M. C. M. HAMMOND, of South Carolina,
President of the Board of Visitors.

JOEL EASTMAN, New Hampshire.

LEWIS H. DELANO, Vermont.

ALEXIS CASWELL, Rhode Island.

JOHN P. JACKSON, New Jersey.

JO. P. COMEGYS, Delaware.

WM. L. GOGGIN, Virginia.

N. WOLFE, Kentucky.

L. J. POLK, Tennessee.

CALEB MILLS, Indiana.

JOHN T. WORTHINGTON, Illinois.

WILLIS L. WILLIAMS, Missouri.

TERENCE FARRELLY, Arkansas.

WM. A. HOWARD, Michigan.

MEMUCAN HUNT, Texas.

JOS. R. CURTIS, California.

Attest: A. CASWELL,

J. P. JACKSON,

Secretaries of Board.

Hon. C. M. CONRAD,

Secretary of War, Washington, D. C.

Report of the Committee on the Financial Affairs.

The committee on the subject of the fiscal affairs of the Military Academy have examined the condition of the institution generally, in conjunction with the other members of the board; and before they enter upon the consideration of the matters to them more directly intrusted, they cannot forbear to express their satisfaction at all they have so far witnessed. The superintendent, officers, and professors of the institution have manifested every disposition to afford the necessary facilities to a thorough examination—as seems to have been contemplated by the appointment of the Board of Visitors—into all the important operations, exercises, studies, and general management of the academy.

These and other subjects, however, will be embraced in other reports and in the general report of the board. This committee will, therefore, confine its attention more particularly to the

FISCAL AFFAIRS OF THE INSTITUTION.

It appears that the amount appropriated by Congress for the support of the Military Academy, for the fiscal year ending June 30, 1852, was..... \$130,558

Of this sum, according to the usages of the War Department, there was to be disbursed under the direction of the Paymaster General's department..... 90,623

Leaving..... 39,935
to be disbursed under the direction of the Engineer department, which is the branch of the War Department having the immediate supervision of the Military Academy.

The above sum of \$90,623 is appropriated to the following objects, viz:

For pay of officers, instructors, cadets, and musicians.....	\$87,436
For commutation of subsistence.....	2,293
For commutation of forage of officers' horses.....	864
For commutation of clothing for officers' servants.....	30

Making the aforesaid sum of..... 90,623

Of this last sum, \$56,857 60 have been expended on account of the pay of the corps of cadets from July 1, 1851, to April 30, 1852, inclusive, which is the date of their last payment.

The amount to be disbursed under the direction of the Engineer department, as before stated, is \$39,935, and is appropriated as follows, to wit:

For repairs and improvements.....	\$9,000
For fuel and apparatus.....	7,000
For postages.....	50
For forage.....	1,760
For stationery.....	300
For transportation.....	1,800
For printing.....	700
For clerks.....	1,730
For miscellaneous and incidental expenses.....	2,700
For department of engineering.....	500
For department of philosophy.....	150
For department of mathematics.....	600
For department of chemistry.....	50
For department of ethics.....	215
For department of drawing.....	365
For department of artillery and cavalry.....	215
For department of infantry tactics.....	1,000
Gradual increase and expense of the library.....	3,800
Board of Visitors.....	

For apparatus for warming buildings.....	\$2,500
For barracks for engineer company	5,000
For practical instruction in field engineering.....	500

Making the above aggregate of appropriations

39,835

The amount of appropriations for the fiscal year ending 30th June, 1851, *unexpended*, was..... \$11,018 73

The appropriations proper for the fiscal year ending June 30, 1852, to be expended under the direction of the superintendent, was only..... 34,435 00

But there were received from other sources the following sums, viz :

For wood cut on public grounds.....	\$350 00
For hoop-poles	56 45
For old iron and copper.....	162 50
For moneys refunded by Col. De Russy.....	724 77
Do. do. do.	80 47
For copy Science of War	2 50

1,376 69

Making an amount of..... 46,830 42
available for the purposes of the institution during the fiscal year ending the 30th June, 1852.

Of this sum it appears there has been expended, up to June 4th of the present year..... 28,941 45

Leaving an amount available on the same day, of.... 17,888 97

Of this sum there was in the hands of the superintendent, on that day

3,258 40

Leaving in the treasury, undrawn

14,630 57

By the "treasury" is meant the treasury of the United States, from which the amounts are drawn upon estimates made for each particular subject; and all the moneys are kept in the treasury till requisitions upon proper estimates are made.

The amount of available means in the treasury, and in the hands of the superintendent, other than the sums appropriated for the gradual increase and expense of the library, the Board of Visitors, riding-hall, and apparatus for warming buildings, is..... \$8,704 21
which is to the credit of the fund for current and ordinary expenses; and of this sum about..... 3,000 00
will be expended during the present month.

Leaving to be applied to the objects specified in the appropriations, during the remainder of the year

5,704 21

There is also in the hands of the superintendent, on account of appropriations for the gradual increase of the library, &c., the sum of.....	\$789 19
On the same account there is in the treasury the sum of..	500 00
	<hr/>
Making an aggregate of.....	1,289 19
Out of this sum there is now to be paid for books, received or ordered for the present month, about.....	800 00
	<hr/>
Leaving a balance of the library-fund still unexpended, up to the 4th June, of.....	489 19
	<hr/> <hr/>

The vouchers and evidences of payment have been, in all cases, exhibited to the committee, when required; and offers of a full and free examination of the books and accounts have been made to the committee, the members of which availed themselves of the opportunity of thus acquiring all the information desired, as far as they deemed it necessary to do so. The committee take much pleasure in saying that the system of keeping all the various accounts, in the different departments, seems to be most admirable; and the books present the appearance of neatness, systematic arrangement, and skill in the art of book-keeping.

There has been appropriated heretofore for the construction of a riding-hall, or for the commencement of one, the sum of \$2,000—no part of which has been expended, for the reason that the sum was considered wholly inadequate to meet the expense of the object contemplated. This sum is also in the hands of the superintendent, or subject to his control, to be hereafter applied, if a further appropriation, sufficient to carry out the design, shall be made by Congress. An estimate, in view of such an appropriation, has already been made, and a further appropriation is asked of \$12,000 for the purpose of building the hall. This estimate is made by the superintendent; and the committee do not hesitate to say that such an appropriation is absolutely necessary for the purposes indicated in the original appropriation of \$2,000.

The building, or room in the building, now used for cavalry exercises within doors, is wholly unfit for such purposes. An examination of these exercises, as practised by the first class of cadets in the presence of the Board of Visitors, has satisfied this committee that the importance of this subject is such as to challenge its consideration, intimately connected as it is with the fiscal affairs of the academy—particularly as a portion of the means appropriated for the benefit of the institution has been specifically set apart for the erection of a new building. The room now used is too small—too narrow, not sufficient in length, and in all other respects is too contracted in its accommodations. It is the basement of the academical building, with floors above the riding-room, which are supported by numerous columns, extending, at short intervals, the whole length of the room. There is, consequently, great danger, in rapid riding and wheeling by a corps of some thirty cadets, of coming in contact with these columns. An exhibition which would be most interesting to the spectator is rendered almost painful from the

constant apprehension that some serious accident will happen to the riders and horses from the narrow limits within which they perform their evolutions. The committee have been informed that such accidents do occur; and the observation of the members leads them to the conclusion that their frequency and serious character have been probably by no means exaggerated. But, if the defects caused by the obstructions above referred to could be obviated in the present hall, (and the committee believe they could not be,) still the hall would be too narrow and contracted in all other respects. Only a portion of a section of the corps can exercise at the same time; and the labors of the instructors in cavalry tactics are much increased beyond what they would be if the whole class, or fuller sections of the class, could be instructed together, or at one and the same time.

The hall now used was never designed for the purposes to which it is appropriated; but was intended for a gun-room, and is now wanted for the protection of the field-guns from the weather, to which they are constantly exposed. It might, however, if need be, be appropriated for furnaces or proper apparatus for warming the rooms of the academy building above.

A riding-hall, for the purposes already indicated, is deemed essentially necessary, if the school for cavalry instruction is to be kept up. A great portion of the year, when out-door exercises are impracticable by reason of the inclemency of the weather, would admit of no practical instruction in cavalry drill, unless a suitable place is provided when in-door drills are rendered necessary.

The efficiency of this branch of the service, it is presumed, is well known and appreciated by all who are acquainted with the history of the events and incidents of the wars in which the nation has been engaged, and it is hoped that no one would be disposed to withdraw from it the care and attention which it has heretofore received, but rather to extend to it more of that material aid which is so essentially necessary to promote its fullest efficiency.

The committee most earnestly recommend the Military Academy to the attention of Congress, as far as the recommendation of the members of this committee may be regarded separately from the action of the other members of the board, for reasons heretofore so often and so well urged, and in conclusion beg leave to refer to the papers marked A, B, C, D, as parts of their report, which will exhibit in a more condensed form many of the operations of the institution for the past year.

WM. L. GOGGIN,
JOHN P. JACKSON,
WM. A. HOWARD.

UNITED STATES MILITARY ACADEMY,
West Point, N. Y., June 7, 1852.

SIR: In answer to your communication of the 4th instant, I have the honor to hand herewith the information asked for, as far as it can be furnished at this post.

The estimates for the pay, &c., of officers, instructors, cadets, and musicians, are made at Washington by the Paymaster General of the army, and the payments by the officers of that department.

The statement of appropriations, marked A, shows the amount appropriated for the support of the Military Academy for the fiscal year ending 30th June, 1852; and the amount that has been expended on account of the pay of cadets to the 30th of April, 1852, the date of their last payment.

The statement of funds, marked B, embraces all the appropriations which pass through my hands.

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

HEN. BREWERTON,

Capt. Eng's and Sup't Military Academy.

Hon. WM. L. GOGGIN,

Chairman Com. on Finance, Board of Visitors, West Point.

A.

Statement showing amount of appropriations for support of the United States Military Academy, for the fiscal year ending June 30, 1852.

Amount appropriated..... \$130,558

Amount to be disbursed under direction of the Paymaster General's department, as follows, viz:

Pay of officers, instructors, cadets, and musicians...	\$87,436	
Commutation of subsistence.....	2,293	
Do. of forage of officers' horses.....	864	
Do. of clothing of officers' servants.....	30	
		\$90,623

Amount to be disbursed under direction of the Engineer department, as follows, viz:

For as per statement B.....	\$34,435	
For barrack for engineer company.....	5,000	
For practical instruction in field engineering.....	500	
		39,935
		<u>130,558</u>

The sum of \$56,857 60 has been expended on account of the pay of the corps of cadets, from July 1, 1851, to April 30, 1852, inclusive.

HEN. BREWERTON,

Capt. Eng's and Sup't Military Academy.

UNITED STATES MILITARY ACADEMY,

West Point, N. Y., June 5, 1852.

B.

Statement of funds available and disbursements made by Capt. Henry Brewerton, corps of engineers, and superintendent United States Military Academy, during the fiscal year ending June 30, 1852, and to include June 4, 1852.

For what purpose.	Amount unexpended of the appropriation for fiscal year ending June 30, 1851.	Appropriation for fiscal year ending June 30, 1852.	Amount received from other sources.	Total available for fiscal year ending June 30, 1852.	Expended to June 4, 1852.	Available June 4, 1852.	In hands of superintendent.	In treasury.	Amount required for build-ings, in addition to that already appropriated.
<i>Current and ordinary expenses.</i>									
Repairs and improvements	\$1,482 92	\$9,000 00	*\$568 95	\$11,051 87	\$10,580 35	\$471 52	.....	.....	.....
Fuel and apparatus .....	.....	7,000 00	.....	7,000 00	6,285 31	714 69	.....	.....	.....
Postages	66 11	50 00	.....	116 11	17 80	98 81	.....	.....	.....
Forage	623 94	1,760 00	.....	2,383 94	1,540 76	840 18	.....	.....	.....
Stationery	103 19	300 00	.....	403 19	108 38	294 81	.....	.....	.....
Transportation .....	.....	1,800 00	.....	1,800 00	835 47	964 53	.....	.....	.....
Printing	32 88	700 00	.....	732 88	124 15	608 73	.....	.....	.....
Clerks .....	.....	1,730 00	.....	1,730 00	1,512 50	227 50	.....	.....	.....
Miscellaneous and incidental expenses	520 24	2,700 00	†724 77	3,945 01	3,305 65	639 36	\$469 21	\$8,235 00	.....
Department of engineering	1,193 00	500 00	.....	1,693 00	.....	1,693 00	.....	.....	.....
Department of philosophy	69 62	150 00	.....	219 62	93 71	125 91	.....	.....	.....
Department of mathematics	289 25	.....	.....	289 25	22 44	266 81	.....	.....	.....
Department of chemistry	634 02	600 00	.....	1,234 02	325 65	905 37	.....	.....	.....
Department of ethics	66 68	50 00	.....	116 68	1 56	115 12	.....	.....	.....
Department of drawing	181 58	215 00	.....	396 58	185 00	211 58	.....	.....	.....
Department of artillery and cavalry	143 29	365 00	.....	508 29	390 20	198 56	.....	.....	.....
Department of infantry tactics	259 25	215 00	.....	474 25	146 02	328 23	.....	.....	.....

|| For gradual increase and expense of library.	1,075 09	1,000 00	\$2 50	2,077 59	788 40	1,289 19	789 19	500 00	.....
For Board of Visitors.....	2,277 67	3,800 00	.....	6,077 67	2,682 10	3,395 57	.....	3,395 57	.....
For riding-hall.....	2,000 00	.....	.....	2,000 00	.....	2,000 00	2,000 00	.....	.....
For apparatus for warming buildings.....	.....	2,500 00	.....	2,500 00	.....	.....	.....	2,500 00	\$12,000 00

Of the amount available (\$8,704 31) for current and ordinary expenses, about \$3,000 will be expended this month.

* For wood cut on public land.....	\$350 00	
For hoop-poles.....	56 45	
For old iron and copper.....	162 50	
† Refunded by Lieutenant Colonel De Russy.....		\$568 95
‡ Refunded by Lieutenant Colonel De Russy.....		724 77
§ For one copy Science of War.....		80 47
		2 50
		<u>1,376 69</u>

|| Books received or ordered, and to be paid for this month, about \$800.

UNITED STATES MILITARY ACADEMY, *West Point, N. Y., June 5, 1852.*

HENRY BREWERTON, *Capt. Corps Eng'rs, Supt. Mil. Academy.*

D.

Statement of authorized amounts paid by the treasurer of the United States Military Academy, exhibiting the annual total amounts for two months, together with the average amount applicable for each cadet, for all articles enumerated from May 1, 1851, to May 1, 1852.

On what account paid.	May and June.	July and August.	September and October.	November and December.	January and February.	March and April.	Total amount.	Average amount for two months.	Average amount applicable for each cadet for two months.	Remarks.
Band fund.....	\$114 75	\$119 50	\$122 00	\$121 00	\$113 30	\$110 75	\$701 30	\$116 89	\$0 50	Voluntary subscription by cadets for the support of a band of musicians.
Board at mess commons.....	3,404 33	3,243 25	3,657 26	4,043 36	3,788 30	3,734 93	21,871 43	3,645 23	15 85	The amount charged each cadet being pro-rata, and fixed by a board of officers, who examine and audit the accounts of the purveyor of the cadets' commons.
Washing.....	917 54	828 19	971 18	962 24	902 21	879 20	5,460 56	910 09	4 00	\$2 per month winter and summer.
Commissary store.....	1,405 43	3,138 51	2,620 05	1,226 26	1,425 02	1,164 48	10,979 75	1,829 96	7 96	Conducted by the commissary of cadets. Articles furnished, viz: text-books, stationery, under-garments, equipments, room furniture, &c.
Commissary clothing department.	2,279 82	4,179 08	2,141 20	1,851 97	1,863 97	1,809 20	14,125 24	2,354 21	10 19	Conducted by the commissary of cadets. Articles furnished, viz: uniform clothing, citizens' clothing, and authorized military frock coats for cadets when going on furlough.
Commissary shoemaker.....	568 63	863 64	609 17	458 13	346 07	379 97	3,225 61	537 61	2 33	Shoes and repairs, done by contract under the inspection of the commissary of clothing.
Postage.....	250 30	107 52	152 23	145 01	104 68	142 65	902 39	150 39	65	Postage of letters and newspapers—one newspaper allowed to each cadet, provided he makes application for the permission.
Barber, shoe-blackening, and varnishing.	181 04	343 18	200 25	200 28	164 85	165 89	1,255 49	209 25	91	This embraces shoe-blackening, hair-cutting, varnishing accoutrements, &c.
Baths taken by cadets.....	120 50	10 77	55 35	76 26	.....	84 65	347 53	57 93	25	A small charge for each bath, only sufficient to pay the expenses of the bathing establishment.
Dialectic Society.....	118 15	.....	7 00	.....	.....	.....	125 15	20 86	9	Subscribed for by the members of the society on the approval of the superintendent.
Iron bedstead and table fund...	26 60	24 80	27 60	28 00	23 20	23 20	153 40	25 57	11	This is only charged the fourth class for their use, at 20 cents per month, for the first year only, which is applied to keep the articles in repair.
Rules and triangles, steel.....	73 25	.....	.....	.....	.....	.....	73 25	12 21	6	An annual charge for their use, and to keep them in repair, &c.
Lithographic department.....	37 87	.....	.....	.....	4 27	.....	42 14	7 02	4	Charge for the use of lithographic works, written by the officers and professors to aid in the course of instruction in their several departments.

Use of cap plates and plumes..	27 48						27 48	4 58	2	An annual charge for plumes and cap ornaments, furnished for the use of the cadets.
Damages quartermaster's department.	29 33	24	5 40	6 75	5 00	16 87	63 09	10 51	4	This embraces damages of barracks, breaking window-glass, &c.
Damages ordnance department.	10 35	3 36	13 12	5 13	3 22	1 73	36 01	6 16	04	Charge of damages of arms and accoutrements, loss of the same, &c., which reverts to the United States.
Damages mess commons department.	16 11	15 67	33 18	40 25	24 65	24 61	154 47	25 75	13	Charge of damages of tumblers, plates, dishes, knives and forks, &c., which is signed by the cadet when the said damage is done, agreeably to the regulations of the mess commons.
Illuminating camp.....			33 74				33 74	5 62	2	Illuminating camp.
Distributing fuel, making fires, &c.	06 28	83 65	112 70	222 46	217 98	217 45	950 52	158 42	67	For distributing fuel, policing barracks, attendant on the furnaces. The amount is averaged at each settlement according to the number of cadets at muster, and charged accordingly.
Dentist.....	26 13			100 39	190 11		316 63	52 77	24	For professional services when recommended by the army surgeon of the United States Military Academy.
Dancing master.....		499 20					499 20	83 20	36	Subscribed for by the cadets of United States Military Academy.
Cotillon parties.....		206 51					206 51	34 42	15	Subscribed for by the cadets of United States Military Academy, and given during the months of July and August. This is a voluntary subscription.
Subscription to monument.....					275 48		275 48	45 84	19	For monument to deceased cadet, subscribed by his classmates.
India rubber cloak fund.....	24 37		33 50	47 10			104 97	17 49	48	Purchased for the benefit of the cadets, who are charged only for the use of the same, and are responsible for the loss of the India rubber cape.
Cash on account.....	234 58	151 22	212 81	197 85	131 91	109 73	1,038 10	173 02	75	For subscription to newspapers, &c., which are authorized by the superintendent.
Balance of cash paid cadets....	8,660 98	120 57		170 97	1,005 22	66 89	10,024 60	1,670 77	7 28	When graduating they receive the balances due them, including their equipment fund, and the furlough class receive the balance that may be due them to 1st July.
Total.....	18,623 82	13,938 86	11,007 74	9,903 41	10,589 04	8,931 67	72,994 54	12,165 76	52 89	
Amount received from the government of the United States by each cadet in two months.....									48 00	
Difference between his pay for two months and the amount expended by each cadet, which must be liquidated by him either after graduating or from his deposit made on entering the United States Military Academy.....									4 89	

TREASURER'S OFFICE UNITED STATES MILITARY ACADEMY, June 10, 1852.

R. S. SMITH,
Lieutenant 4th Artillery, Treasurer United States Military Academy.

Report of the Committee on Instruction to the Board of Visitors.

The undersigned, constituting the Committee on Instruction, having given careful attention to the duties of their appointment, respectfully submit the following report.

For the purposes of clearness and brevity, the committee will restrict their remarks to the following topics:

1. The character of the instruction given in the academy.
2. The results of instruction as seen in the proficiency of the cadets.
3. The changes which it is believed may be made, in some few particulars, with advantage to the institution and the public service.
4. The importance of the Military Academy, not only in a military, but in an educational and civil point of view.

1st. As it respects the character of the instruction, the committee would remark, that precision and thoroughness appear to have been its aim in every department of the academic course. They have given special attention to the public examination, and have taken pains in other ways to obtain accurate information respecting the manner in which the daily recitations of the section-rooms are conducted; and the result of their observations and inquiries is highly honorable to the skill and ability of the academic staff as teachers of youth and expounders of science. The committee deem it but an act of justice to speak of them as in every respect worthy of the high stations which they fill, and of the confidence of the nation.

In order the more perfectly to secure the objects of thorough training, the classes are broken up into small sections, so that every cadet may recite every day. By this arrangement an opportunity is afforded for exploring every intricacy and removing every difficulty that are met in the progress of the student. The certainty, moreover, of a daily recitation, insures on the part of every aspiring, right-minded student a diligent habit of study, an economical distribution of his time, and a systematic direction of his mind to the accomplishment of his daily task. The consequence of this is, that he comes to the section-room, if not fully master of the subject assigned him, at least well prepared to benefit by the explanations of his instructor, and carries back to his room as a basis for future efforts a completeness of knowledge essential to his final success, and which could not have been secured in any other way. The united efforts of teacher and pupil are necessary to the result. The efforts of the former would be useless without the co-operation of the latter; the efforts of the latter insufficient without the aid of the former.

The course of instruction in the academy is well known to be eminently scientific, embracing a long and severe course in mathematics, and a course equally long, and perhaps more difficult, in philosophy and engineering. It is vain to expect, as a general thing, that these studies will be successfully pursued without the aid of skilful instruction. The pupil must be inspired with a conviction that, difficult as the attainment may be, it is still within his reach. He must labor under the prestige of success. He must also be daily drilled in the meaning and use of scientific technicalities and nomenclature—repulsive in the beginning, but of indispensable necessity in the end. He must be

trained till he is proficient in the analyses of propositions—in the transformation and dissection of general equations. It is only in this way that the symbols of mathematics can become to him an instrument of thought, or language of extreme flexibility and boundless power.

The object of instruction in these leading departments of the academy is to secure a thorough training of the understanding in the exact science, and invest it with the ability of applying the results of analyses to the solution of physical problems, and such as are connected with military and civil engineering, and with practical mechanics in all its branches. The pupil is taught to seize upon the essential principles of the science, to separate them from the geometrical figures which may have been used in aid of the first conceptions, from the page where they are enunciated, and from all their accidental relations, and contemplate them in their utmost generality.

The foregoing remarks are made with reference to those portions of the academic course which involve mathematical reasonings. The committee are happy, however, in being able to speak in terms of high commendation of the manner in which the other departments—ethical, physical, French, and drawing—appear to have been conducted. In expressing briefly the result of their inquiries and observations, they may say that the instruction given in the academy is, in their opinion, well fitted, and in some respects eminently fitted, to secure a thorough mental discipline on the part of the cadets, and lay well the foundation for their future usefulness in the military and scientific service of their country.

2d. The actual results of this course of teaching have been to some considerable extent brought under the notice of the committee during the public examinations to which they have attended. These have been protracted, minute, and impartial, carrying them indifferently over the most difficult as well as the easiest portion of the course; and in all cases so conducted as to present a true test of acquisition and ability. During their progress the committee freely availed themselves of the privilege of participating in the examination, with a view of ascertaining for themselves the exactness and compass of the student's knowledge.

From the nature of the case, it must be obvious that different students would present very different degrees of proficiency. This inequality of progress the committee have had occasion to observe. With few exceptions, however, they may say that the examinations have been creditable to the diligence and ability of the pupils. In a very respectable number of cases, the members of the different classes have shown a mastery of subjects by no means elementary, and a skill in developing the intricate relations of science, which reflects the highest credit upon themselves and upon the academy. In paying this merited tribute to the institution, the committee speak only of what has fallen under their own notice, and with reference to the subjects of which their own experience has given them some opportunity of judging.

Before leaving this topic it may be proper to remark, that the committee have had occasion to notice, during the examination, rather frequent instances of bad elocution; bad sometimes from indistinctness of articulation, and sometimes from the omission of entire syllables. Elegance of diction is not absolutely necessary to a man of

science or of military skill ; yet there is a beauty and a charm in good English, well spoken, which every educated man knows how to appreciate, and which may even add new grace to the laurels of the soldier. To divest himself of obvious and palpable faults in this respect should be the lowest aim of every member of the Military Academy.

3d. With respect to changes in the course of instruction, the committee are not insensible to the deference which is due to the lessons of experience in this matter, and to the wisdom of those who have given to the institution its form. They are, nevertheless, after the most careful consideration, under the impression that the course may be modified with advantage in some few respects. Its total influence upon the young gentlemen who receive its benefits is all that could be desired. It is much to be wished that the course of English studies should be somewhat extended, and especially that formal instruction should be given in rhetoric and elocution. It is also, in the opinion of this committee, very important and very desirable that the evidences of natural and revealed religion should constitute a part of the course of instruction provided by a Christian nation for those educated for her public service, who are to be placed in command of her armies, and who, from their elevated rank and their personal character, must exert, for good or for evil, an extensive moral influence upon all below them. Our duties to God are acknowledged to be paramount to all other duties : why should they not be the subjects of inquiry and instruction? Does it follow that because they are our highest duties, they should be the least considered in our systems of public education? By common consent of the nation, life and immortality are revealed to us in the Gospel : why should not the evidences of such revelation be distinctly taught? Can it possibly be supposed that a true sense of religious obligation and a well-grounded faith in the Bible will in any manner impair the energy or detract from the courage of the soldier?

The committee are fully aware of the excellent and impressive instructions given from time to time by the chaplain of the post in his discourses from the desk. But, in their opinion, valuable and appropriate as these services are, they do not obviate the desirableness of class-instruction in the section-rooms.

Animal physiology is another subject of great importance, not now at all taught in the academy, and yet it is one with which it seems peculiarly proper that every officer of the army should have at least an elementary acquaintance. It now forms a part of the course of instruction in nearly every respectable college in the country. Public opinion has called for and sanctions its introduction. There seems no adequate reason for its omission in the Military Academy.

In order to introduce these studies without in any manner curtailing the extent of the scientific departments as now arranged, and even with the hope of extending one or two of them which seem compressed within too narrow limits, it is proposed to omit the study of logic and extend the course to five years. Indeed, irrespective of other changes, the committee deem it of the utmost importance that the term of residence be so extended. In view of the very slender preparation which a majority of the cadets bring to the academy with them, and the difficulty, without detriment to the interests of newer portions of the

country, of fixing upon any degree of proficiency which shall be required for admission, five years is certainly not too much to be given to preparation for the responsible and varied duties of command in peace or war.

4th. It is deemed unnecessary, although within the scope of the duties assigned to this committee, to inquire particularly and at large into the importance of this academy to the military service and defence of the country. Events which are yet recent have placed that fact among the proud records of the nation's history. This institution, however, holds relations to educational and civil interests of the country which are worthy of attention, and which seem not inappropriately to come within their notice.

It is no disparagement to the high character of other seminaries, founded for other purposes, to say that this is the first mathematical school in the country. Such is its acknowledged position. The cadets leave the academy, and carry with them in many instances the true impress and spirit of mathematical learning. They have it in their power to exert, either as officers of the army or retired citizens, or academic and collegiate teachers, a healthful influence on the scientific progress of the country. This influence has been actually realized in many of our higher schools and colleges.

But the great demand for practical science, and that of the highest order, is found in extended public works—in the construction of canals, railroads, aqueducts, bridges, dry-docks—in the coast survey, and military and topographical surveys—all of the utmost importance in a national point of view. These, including the heavy structures for machinery, where the steam-engine performs from day to day the work of a thousand hands, constitute the civil fortresses of the country. Millions are expended upon them every year, and millions are not unfrequently spent to but poor purpose for the want of more generous scientific culture on the part of the directors of such works. This will only be supplied by the encouragement of those high scientific attainments which it is the object of this academy to secure.

It is in view of all these relations, which the academy holds not only to the military but the educational and civil and industrial interests of the country, that the Committee on Instruction concur in recommending it most earnestly to the fostering care and the generous support of Congress.

All which is respectfully submitted.

ALEXIS CASWELL,
CALEB MILLS.

JOHN T. WORTHINGTON,
Committee.

JUNE 12, 1852.

Report of the Committee on Administration to the Board of Visitors.

The committee appointed to inquire into the administration of the United States Military Academy respectfully submit the following report:

They have carefully considered the organization of the academic and

military staff, and it appears to us to be well adapted to the requirements of the institution. The system of calling to the aid of permanent professors officers of the army, as assistants, is an arrangement of practical wisdom, conferring great benefit both to the officer, who, after having engaged in his country's service, returns to the institution to review and enlarge his course of studies, and to the cadet, who receives instruction from one who combines both the theory and practice of the profession.

It is difficult to draw a dividing line between the Committee on Administration and other committees, without omitting something important to the interests of the institution.

Before, however, we proceed to notice the various subjects which we deem it our duty to submit to the consideration of the Board of Visitors, we would bear willing testimony to the courtesy which we have received from the superintendent and those associated with him in the academic and military staff.

It affords us great pleasure in saying, that every facility has been afforded to enable us to understand thoroughly the duties that devolved upon us; and we should do violence to our feelings did we not add, that those who are appointed to control and instruct the youth of our country at this institution exhibit, in their various departments, qualifications of the highest order, and impress us with the belief that they have no superiors, and but few, if any, equals.

Your committee have observed, with great satisfaction, the correct deportment and manly bearing of the cadets, whilst undergoing their several examinations, their confidence in themselves and their professors, and the correctness with which they treated the various questions submitted to them.

In connexion with the administration of the institution, your committee have been led to examine into the propriety and necessity of increasing the number of cadets, so as to add two for each State.

According to the existing law, each congressional district is entitled to send one cadet; and it is manifest that this is a most excellent provision. Under the regulations, every section of each State in the Union is represented.

Your committee, however, would suggest that two additional cadets, corresponding with the number of senators to which a State is entitled, be granted. We believe that the extended area of our country, and the necessary increase of our military posts on the western frontier, require an increased number of officers. But if we are wrong in this opinion, and if it be that the military service of the country does not require the change, still your committee would earnestly urge the proposed increase of cadets.

We believe that the country at large will be benefited when it receives from the halls of this institution young men whose minds are stored with the rich treasures which these unrivalled teachers infuse into them.

We believe that an additional expenditure of ten or fifteen thousand dollars would give to each State a number of cadets equal to its senators and representatives in Congress, and we earnestly urge the consideration of the suggestion on the Board of Visitors.

In connexion with the subject of increasing the number of cadets, this committee have become convinced of the propriety and justice of recommending an increase of their pay. The attention of your committee has been called to the expenses incident to the cadet, and we are brought to the conclusion that, as the government intends to place an education in this academy within the reach of every young man joining it, perfect equality should be observed. That object is not accomplished under the present rate of allowance to the cadet.

Your committee have ascertained that a sum beyond that allowed by the government is absolutely necessary to support a young man at the institution for four years. At the expiration of two years the cadet is allowed to return home; and instances are not wanting where a poor young man, whose parents have not the money to spare, is debarred the privilege of joining them, after so long an absence. The cadet whose parents can afford to supply him with money, however, enjoys this satisfaction.

We would not be understood as recommending that the government pay the expenses of the cadet to his home; but we would desire to see him properly provided for while here. From information obtained by us, we are justified in saying, that the cadet whose friends are unable to assist him lacks many things absolutely necessary to feed and clothe him.

We would earnestly recommend that the pay of the cadet be increased to the sum of \$28 20—the amount formerly allowed him.

Your committee have become convinced of the propriety of recommending an increase of the salary allowed the superintendent. The pay now allowed is \$2,000. We are satisfied it should be not less than \$3,000, for the reason that it devolves upon the officer holding this station to expend a large sum of money annually in entertaining distinguished men who visit this institution, and who could not be neglected if the country would sustain its character for hospitality. We feel authorized in saying, that, in a series of seven years, the superintendent, even with economy, has expended six thousand dollars beyond the compensation now allowed. Considering the responsibility of his station, and the additional expense to which he is subjected, the superintendent, in the estimation of your committee, is fully entitled to the amount above specified.

The attention of your committee has been called to the condition of the stables for the use of the horses of the light artillery and the dragoons. They are of a temporary character, and wholly unfit for the use to which they are now appropriated. Permanent stables should be erected. A wise economy dictates it.

Your committee would also recommend, that the assistant professors of French and drawing be allowed the same pay as the first assistants in other branches.

And we would earnestly recommend, that the professor of drawing and the professor of French may be put on the same ground in respect to allowances as the other professors in the Military Academy.

The professors of drawing and French have very arduous and responsible duties; we are satisfied that they are gentlemen of very great abilities and long experience, &c., and the zeal and fidelity with which

they discharge their duties make it not only proper, but it would only be doing them sheer justice, to make them the same remuneration that is allowed to other academical officers of the same denomination. And we further recommend that the assistant professors, below the first assistant professor, be allowed ten dollars extra per month. Your committee can see no reason in making the distinction in the pay of the assistant professors, that now exists. The duties of the assistant professors in drawing and French are very arduous, and their expenses equally great as other assistant professors, and it is but justice that they should receive the same compensation.

We would also recommend that the pay of the professor of practical engineering and of artillery be placed on the same footing, with regard to pay, as the principal instructor of tactics.

It also appears to your committee that the fencing-master, who now receives but \$720 per annum, and who teaches two classes, should be allowed \$900 per annum.

Your committee are satisfied that the present dwellings of the professors do not afford them adequate accommodations. Some of them need more dwelling-rooms to meet the requirements of a growing family, and all require a room or office specially fitted for study. Your committee have reason to believe that the professor is oftentimes subjected to great inconvenience and loss of time for want of sufficient room in his dwelling. He is sometimes required to study in his dining-room, sometimes in his bed-chamber or garret, and is always subjected to gather up his books and papers daily, to yield to pressing domestic wants.

A man of business, that requires system and strict order, can readily conceive of all that is disadvantageous to the student and writer under such a state of things.

We do not feel ourselves called upon to make any estimate of the cost to be incurred by such buildings; but we would earnestly recommend that an office, or study, be erected in the yard attached to the dwelling of the professor, where, secluded in privacy, he may devote himself to his studies and to intercourse with his pupils.

This comprises all the subjects which we deem it important to submit to the Board of Visitors.

In closing this report, we would congratulate the country on its good fortune in securing the services of men so distinguished as are those who compose the military and academic staff of this institution. They are profoundly versed in the various branches of science which they undertake to teach, and the zeal displayed by them in discharge of their trust, satisfies us that the trust reposed in them is in safe hands. With such instructors, we shall never have cause to fear that the youth of our country who assemble here will prove, in the important duties of life, other than brave, honorable, intelligent and moral men.

All which is respectfully submitted.

NATHANIEL WOLFE,
JOSEPH P. COMEGYS,
LEWIS H. DELANO.

WEST POINT, *June*, 1852.

Report of the Committee on Discipline to the Board of Visitors.

The Committee upon Discipline report that they have, after deliberate attention to this most essential element of the institution, but few suggestions to offer. They have seen nothing to condemn, but much to admire. They cannot but regard the mental and physical superiority of the cadets of the institution as one of the natural consequences resulting from the adoption of, and the rigid adherence to, a system of discipline remarkable for its simplicity and effectiveness.

Your committee deem it unnecessary to enter into details. The subject has been handled with masterly skill by our predecessors, and it would seem a work of supererogation to recapitulate "in extenso" their able reports. They are satisfied that they will be sustained in according to the professors and the officers the highest commendation for their unceasing vigilance and wisdom in impressing upon the minds of the future soldiers of the republic the necessity of regarding "order as heaven's first law."

With a just appreciation of the importance of the matter intrusted to their consideration, and no disposition to economize their time, they conceive that the wishes of the department will be complied with if their report shall present, in a condensed form, either their approval or disapproval of any of the various branches of education of the institution, with such recommendations as may seem best calculated to promote the ends and aim of Congress in its establishment. As your committee cordially approve of all that has been submitted to them for their especial investigation, their duties have been light, and highly satisfactory. They cannot, however, conclude without a brief reference to the records of the minutes and reports of Boards of Visitors for the past twenty years in relation to the introduction of *cavalry tactics*. It will be seen, on examination of these records, that this *arm* has been almost uniformly recommended. We extract from the able report of 1833 the following:

"It appears always to have been desirable that cavalry tactics should be taught at this great national academy. This branch has hitherto been totally neglected; but it has become more essentially necessary since this arm has been added to the regular army of the country."

Again, in 1843, a board composed entirely of officers of high grade in the service, over which General Winfield Scott presided, recommend that "instructions be given in cavalry tactics."

Your committee would suggest that, if it has been hitherto regarded as an important element in the system of military instruction for the cadets of this institution, our yet recent war with Mexico alone has furnished to the whole country sufficient evidence (if, indeed, any evidence were needed) of the justice and force of these recommendations.

We, therefore, not only echo the sentiments of our predecessors, but we urge upon Congress, or the War Department, the absolute necessity of the introduction of cavalry tactics. The committee beg leave to annex to their report, by way of appendix, the two documents marked A and B.

MEMUCAN HUNT,
LUCIUS J. POLK,
JOSEPH R. CURTIS.

A.

Table showing the number of Cadets who have graduated at the

Year.	Maine.	New Hampshire.	Vermont.	Massachusetts.	Rhode Island.	Connecticut.	New York.	New Jersey.	Pennsylvania.	Delaware.	Maryland.	Virginia.	North Carolina.	South Carolina.	Georgia.
1802				1							1				
1803				1			1					1			
1804			1	1											
1805						1	1						1		
1806			5	1			2	1	1					1	
1807			4				1								
1808		2	6	3		1	1			1					
1809			2	1			3				1				
1811	1	1	3	1		2	5	1	2		1	1			
1812	1		3	2		3	4	1	1			1		1	
1813							1								
1814		1	2	5		1	9		3			1	1		
1815			1	5			14		1		4	2		2	3
1817	1		1		1		4		1			8			
1818			1	2		1	3	1	2	2	5	3	1		
1819		1	3	4		1	6	2		1	3	2	1	1	
1820				1			11	1			5	3	3	1	
1821		1		4		1	6		2		2	1		3	1
1822		2	3	2	1	5	6	2	6			5	1	1	
1823		1	3	4	1	3	5	2	3	2			3	1	
1824	1	3		5			6		4		3	2		2	
1825		1	1	2		1	9	3	5		3	3	2	2	2
1826	1	2	2	1	1		2	1	7	1	2	8	3	2	1
1827			3	4			6		4		2	4	3	2	
1828	3	1	2	4		5	2	1	1		1	1		1	
1829	2	1	1	5		3	7	3	4		2	2	2	3	3
1830	2		1	1	2		6	1	4	1	4	2	2	1	1
1831	1	1			1		8	2	4	1	3	2	2	1	1
1832	3	3	1	2	1	1	6	1	5		2	4	1	1	
1833		2	1	7		2	5	1	5	1	1	5	1	2	1
1834		1	2	1		1	7		6		1	5		1	1
1835	4	1	1	4			11	2	4	1	2	4	3	2	3
1836	2	3	1	1	3	1	10	3	6	1	2	5	2	2	
1837	1	1	1	6			2	4	3	5	2	4	6	2	2
1838			2			1	7		4		1	3	1	2	2
1839	2	1	1	2		1	6		3		1	1	1	1	
1840	3	1		2			8	1	3			4	3		
1841	1	1	1	5		2	6		7	1	4	7	1	3	
1842	1	1	1	2	2		7	1	5		2	7	1	3	1
1843	2	1	2			1	7	2	4			3			
1844		1		1	1	1	2		3	1	2	1	1		
1845	3		1	2		1	8		1			2	1		2
1846	2	1	2	4	1	1	10	1	8		3	5	2	1	4
1847							5		3			2	1	2	
1848	1	1					5	3	5			1	1	3	
1849	1	1	1	2		2	5		3			5			2
1850	3	1	1	3	1		7		6		3	3	2	1	2
1851	1		1	3		1	6		5			2	3		
Total	42	39	68	107	16	46	261	40	148	16	70	127	52	49	32

A.

United States Military Academy, from each State and Territory.

Alabama.	Mississippi.	Louisiana.	Ohio.	Indiana.	Illinois.	Kentucky.	Tennessee.	Arkansas.	Missouri.	Michigan.	Wisconsin.	District of Columbia.	Florida.	At large.	Iowa.	Aggregate.
																2
																3
																2
																3
									4							15
									1							5
																15
																7
												1				19
												1				18
				1		1										1
			4										5			30
				1								4				40
						1						1				19
		1			1							1				23
			1			1						1				29
			1				2					2				30
			1	1			1									24
1			2				1					1				40
	1					2	1					2				35
	1	1				2	1			1						31
						2	1									37
		1		1		1	1		1				1	1		41
1				3			4									38
1	1	1		2	2	1		2		1						33
				4	1		2		1							46
		1	1	1	1	1	4		2			3				42
			3				2		1							33
1	1		3				3		3		1					45
2				1		1	2		2			2				43
			1	1		4	4		1	1		1	1			36
1			4			4	4		1			3				56
				1		2						1		2		49
1				2	1	1	1		1	1		3				50
2	2	2	3		1	3		2	2	1	1	1		4		45
			3	1		3		1				1				31
		1	6				3		3			2	1	4		42
		2	2	3	2	1	1	1	1					2		52
2	1	1	4	1	1	3	1	1		1		2		6		56
			3	2		2	1		1	1				6	1	39
			2			4	1	1				2		1		25
		1	4	2		3	1						1	8		41
					1	1	3					1		8		59
			8	4	2				1	1				8	1	33
2			1	1	2		2	1		1	1			7		33
	2		4	2		2	2		1				1	8		43
		2			1	2	2		2					4		44
1		1	2	2	1	2	3					1		6	1	42
15	9	13	71	31	16	65	45	3	15	9	1	46	5	75	3	1,535

B.

Statement showing the number of Cadets admitted into the United States which

Years.	Maine.	New Hampshire.	Vermont.	Massachusetts.	Rhode Island.	Connecticut.	New York.	New Jersey.	Pennsylvania.	Delaware.	Maryland.	Virginia.	North Carolina.	South Carolina.	Georgia.	Alabama.	Mississippi.
1838 ..	1	1	2	2	1	2	9	8	1	3	10	4	3	6	3	3	.....
1839 ..	2	1	2	2	1	2	12	4	7	1	1	2	1	2	2	3	.....
1840 ..	4	.....	.....	6	2	.....	16	1	7	1	2	5	7	4	4	.....	1
1841 ..	3	2	2	7	.....	4	12	.....	10	3	.....	10	3	4	5	1	.....
1842 ..	2	1	1	7	1	1	12	3	11	.....	4	9	4	6	5	3	1
1843 ..	.....	1	1	1	.....	.....	5	.....	5	1	1	.....	1	3	.....	3	1
1844 ..	1	2	.....	2	1	1	7	2	7	.....	2	3	4	2	1	4	1
1845 ..	3	1	1	3	.....	3	12	1	6	.....	1	6	1	2	2	3	2
1846 ..	3	1	2	5	1	2	14	1	10	1	4	7	5	1	5	4	2
1847 ..	3	1	2	2	.....	1	10	1	8	.....	1	5	3	3	.....	1	.....
1848 ..	1	1	.....	1	1	1	9	4	7	.....	3	3	3	3	3	2	2
1849 ..	3	1	1	3	.....	2	11	3	7	2	.....	8	1	1	3	3	3
1850 ..	3	2	3	4	1	.....	8	1	11	.....	1	7	4	4	4	2	2
1851 ..	1	.....	1	5	.....	1	13	.....	8	1	1	3	3	.....	1	1	1
Total ..	30	15	18	50	9	20	150	21	112	10	25	78	44	38	41	33	16

B.

Military Academy since July 1, 1838, and the States and Territories from appointed.

Louisiana.	Ohio.	Indiana.	Illinois.	Kentucky.	Tennessee.	Arkansas.	Missouri.	Michigan.	Wisconsin.	District of Columbia.	Florida.	Texas.	Iowa.	California.	Oregon.	Minnesota.	Utah.	New Mexico.	At large.	Total.
2	7	2	1	6	6	...	1	1	...	3	...	...	...	...	...	...	...	...	26	111
...	3	2	...	6	1	1	...	1	1	1	1	...	1	...	...	...	...	...	13	76
1	6	1	...	5	5	...	...	...	...	1	...	...	...	...	...	...	...	...	5	84
2	8	3	1	4	7	1	...	...	...	3	1	...	...	...	...	...	...	...	17	113
...	4	2	3	4	3	1	...	...	...	1	...	...	...	...	...	...	...	...	18	107
2	6	4	3	...	3	...	2	3	1	...	...	...	1	...	...	...	...	...	12	60
2	5	3	3	3	3	1	2	2	...	...	...	...	...	...	...	...	...	...	11	75
2	7	2	1	5	3	...	2	1	...	...	1	...	...	...	...	...	...	...	10	81
4	4	2	2	4	5	...	1	...	...	1	...	2	...	...	...	...	...	...	10	103
1	7	3	2	3	3	...	1	1	...	1	...	...	2	...	...	...	...	...	9	74
...	10	2	4	3	3	1	2	1	1	...	...	...	...	...	...	...	...	...	10	81
...	8	3	3	1	3	1	2	1	2	...	1	2	1	...	...	...	...	...	10	89
3	2	3	2	5	3	...	...	...	2	...	...	...	...	1	...	1	...	...	10	90
2	5	2	3	3	3	1	...	...	...	1	...	...	...	...	...	...	...	...	11	71
21	82	34	28	52	51	7	13	11	7	12	4	4	5	1	...	1	...	...	172	1,215

Report of the Committee on Police to the Board of Visitors.

The Committee on Police report, that in the discharge of our duties, which we have attempted to perform most carefully, we have received polite attentions from the commandant, surgeon, and other officers of the academy, who have afforded us every facility by which we might inform ourselves or lessen our labors.

In all that appertains to the *moral, physical, and sanitary* condition and government of the cadets, we are delighted to say that we find nothing to condemn—nothing of which to utter loud complaints—and nothing, much, in the way of amendment to offer, so far as any action of the officers or students is concerned.

There appears to be a high tone of *moral sense* existing in the academy. The cadets are all required to parade under arms, with music, and be inspected, every Sunday morning. Until within the last two years it was the custom to have a dress parade, with the music of the band, every Sunday at sunset; but owing to the influx of visitors who collected to witness the parade, it was deemed proper by the superintendent, with the advice of the commander-in-chief of the army, to suspend the Sunday evening dress parade, and to substitute a company inspection under arms. In reference to this police regulation, we address you in the language of the experienced and accomplished commandant now stationed at this post: "As cadets are bred for the army, it has always been considered expedient and proper to accustom them (on their initiation here into the military life) to the usages they would find in practice in their regiments after they leave the academy; and experience has satisfactorily demonstrated that inspections on Sunday morning, and a dress parade under arms every Sunday evening, exercise a wholesome influence and restraint upon the *common soldier*. As the day is a holiday to the soldier, the knowledge that he must appear, with gun, accoutrements, and dress in the best order, at evening dress parade, exerts its influence throughout the day to keep him sober and orderly."

In this we heartily concur, and hope the superintendent will henceforth adopt the suggestion.

The cadets are required to attend religious worship once on Sunday in the forenoon, when they hear the Scriptures read and expounded with much force and beauty by the present worthy and talented chaplain of the post. The chapel is a neat, handsome edifice, with comfortable pews for seats, and an organ to aid the choir, which is composed of a dozen or more cadets, who make music equal to most singing heard in the large churches of our cities. No profanation of Sunday is allowed, and any violation of this rule is punished, as it should be, with severe penalties. Cadets are permitted to walk upon the grounds within their limits on that day, during the hours of recreation, and no attempt is made by the authorities to interfere with their reading or studies on Sundays; but further than what is proper, they are not permitted to go. In addition to the usual religious services on Sunday, the chaplain gives voluntary instruction to a Bible class of cadets in the afternoon, which, we are proud to state, is generally very well attended. Although few of the cadets are professors of religion, yet their general moral characters

compare well with those of any equal number of young men engaged in similar or different pursuits. Perfect decorum at church, circumspection of speech, and polite and dignified deportment in the ordinary walks of life, may be attributed to them in an eminent degree. The regulations of the academy in these respects are admirably adapted to produce the state of morals that seems to exist, whilst the system of military education, addressing itself to the pride and honor of the pupil, habituates him to a course of conduct that challenges the admiration of every beholder. The crime of telling an untruth, or prevaricating in the slightest degree, is punished by dismissal; the use of profane and impolite language is visited with a high demerit; quarreling or fighting is also strongly reprehended, and the introduction of intoxicating drinks is prohibited on pain of proper penalties;—indeed, no immoral or irregular habit is allowed in the institution with impunity, but is attended with such consequences as in almost every case forces the student to become a better and more genteel member of society after admission than he was on entering the academy. The commandant and professors—indeed, all the academic corps—are competent, learned, discreet, wise, firm men, who seem well qualified to discharge all the duties that may in any wise devolve upon them; and we feel no hesitation in saying that by virtue of the police regulations from experience here adopted, and other influences exerted by precept and example, a state of things exists that reflects honor upon the officers and students, for which they all deserve our high commendations.

To two points of police regulation we would refer: 1st. The present rule in regard to the use of tobacco. It is made a high demerit in the cadets to chew and smoke tobacco, and yet its use is found very extensive among them. In one class, upon a thorough private inquiry, it was ascertained that fifteen-sixteenths, or nearly all, were in the habitual use of tobacco, and that half of the demerits of some of the cadets were for the use of tobacco.

2d. The regulation of the gateways at West Point. This keeps out of the grounds any person whatever in a carriage during the study hours of the cadets, except the carriage is a private one, or belongs within the public grounds.

The *physical* condition of the cadets is excellent. It could not well be otherwise, from the very nature and character of their pursuits, together with the comforts that surround them. The barracks are new, clean, and comfortable, with a full supply of pure water, and all necessary rooms and appliances for bathing. The studies of the academic course furnish rich, varied, and ample food for the mind, whilst the body is compelled to exercise enough to make it healthy and robust. That the system of education is a good one, no one can doubt who witnesses an examination; and its healthfulness is well attested by the report of the surgeon, which shows that not a single death has occurred here during the past year. The new mess-hall is now nearly completed, which will be very perfect in all its parts, and has been much needed for some time past. The food purchased for the cadets is healthy, and seems to be, in quantity and variety, as it ought to be, judging from the rosy cheeks and bright eyes and cheerful faces of those whose pleasure it is to partake of it. We thought, upon inspection of several

meals, which we made on different occasions, that there might be some more pains taken by the *procurator*, both in quality and variety of the food; but as this is a matter pretty much under the control of the cadets themselves, at whose solicitations or complaints it would doubtless be changed by the officers who superintend it, we deem it useless to suggest any alteration, especially when we know, from experience, that students boarding in common will be ever ready to grumble if their food is not, at least, *tolerably* satisfactory.

As a matter pertaining, we think, to our duties, we cannot omit to refer to the location of the rooms of assistant professors and other officers of the academy, as being, in our opinion, highly objectionable, and we strongly urge a change in this respect. Several of these are, at present, at different parts of the student barracks, a location well calculated to deprive the officer of many pleasures in social and intellectual life, and, by constant, close contact, detract from the respect due to him by the student, whilst, at the same time, it greatly lessens the joys derived from numerous innocent amusements and hilarious sports that might very properly be indulged in by the cadet. Some provision should be made for quartering these officers elsewhere. It would cost but little, comparatively, and could not fail to add much to the convenience, comfort, and profit of all concerned.

In this connexion we likewise deem it proper to state that the comfort certainly, and, in the opinion of the surgeon, the health of the dwelling-houses of the several professors, would be greatly enhanced by additional room—say a study, with a chamber or two and bath-room above. It is hardly to be expected of these gentlemen that they build their own houses, and maintain their families, (some of them already large, with young ladies among them) out of the salaries at present paid them. The government certainly procures the services of these distinguished scholars at a price sufficiently moderate, and it does seem to us that they should be well provided for, with convenient dwellings. Their present residences are too small for comfort or convenience, having but two small parlors, and two small chambers, with an attic next their tiled roofs. The professor has no room in which to place his library and retire for study; so that more than one of them has to use his back parlor, (where, in summer, his children are compelled to sleep,) his chamber, or an attic room, for the purpose of reading and reflection. Of course he must be constantly interrupted and annoyed, and enjoy literally none of those high pleasures derived from deep, and profound, and silent thought—a treasure to scientific minds of more value than many rubies. An appropriation, as we learn, has been recommended by the present cautious and experienced superintendent, and, we believe, asked for by the honorable Secretary of War, for the purposes just hinted at, and we earnestly hope it will be immediately made. It would not require more, altogether, than five thousand dollars; and the comfort, convenience, and healthfulness of such improvements can hardly be conceived of. So very necessary has this matter been deemed, that the additional room has been made to one of the dwellings by the voluntary contribution of some kind friend of the professor occupying it, which, it strikes us, is a blur upon the escutcheon of our beloved country.

We have most carefully examined into the sanitary regulations and condition of the cadets, and are highly gratified at being able to report so favorably of the health of the students.

The hospital building for the cadets is very indifferent, and we agree with the surgeon in believing it entirely too small, confined, and choked up. The rooms are extremely small, low in ceiling, badly ventilated, and inconveniently furnished. We append hereto a letter received from Dr. Cuyler, touching this and other similar subjects, and ask that it be made a part of our report. The steward, who has charge of the cadet hospital, with two male attendants who act as nurses for the sick, keep the building in perfect order. The culinary department is in charge of a female, the wife of the steward, who deserves great credit for the condition in which everything under her charge was found, although, as she said, our visit was "entirely unexpected to her." We were astonished to observe that not a single room of the building was completed, nor were there curtains to a single window; both of which are deemed by us almost indispensable. There must be cases of sickness wherein the patient would absolutely require as much quiet and as little light as possible; neither of which conditions could at present be enjoyed in the hospital. The size of the beds, as a universal thing, seemed to us highly objectionable. They are all single, made of iron, and very narrow. We advise that at least three of double size be procured immediately; for, in many cases, patients would necessarily suffer much, and might die, by being stretched upon these procrustean pallets. There seems to be a necessity for a female nurse or matron, as is urged upon our consideration by Dr. Cuyler in the annexed letter.

We visited the quarters and hospital of the enlisted soldiers stationed at this Point, of whom we learn there are one company of "sappers and miners," a detachment of "dragoons," and one of "artillery," unassigned to regiments, and a "band." We found the hospital for the sick soldiers here the most complete and perfect building you can well imagine. Indeed, it is decidedly the most comfortable and well arranged public edifice at West Point, and speaks volumes in favor of the liberality and humanity of the government. It needs but an ice-cellar to make it complete. It is admirably kept by the steward. But there would be much less need for such an hospital here, if the soldiers were otherwise well cared for. The sleeping quarters of the dragoons—that most important branch of our army force—as also those of the artillery forces, deserve to be noticed, as being altogether the most uncomfortable and unwholesome places we have ever met. They consist of two small rooms in the attic, next the very roof of a small, dirty old building, hardly one story high, located in a low, hollow place, along which must necessarily run all the filth drained from the surrounding grounds. We were astonished at the utter want of anything like comfort thus extended to those poor fellows; and that, too, from present necessity, for there is no other house for them. Twenty and thirty, and even more of them, are crowded, in the heat of summer, into one of these little lofts, horribly ventilated and miserable in all respects; such, in truth, as hardly any negro on the meanest plantation of the South would be permitted to occupy. Their mess-room is better, but even

that is but tolerable. They live pretty well, for food is abundant here, and not very costly; and they enjoy a luxury in the article of ice in summer, for which they are indebted to their own industry and economy. The means necessary, besides their own labor, to build their ice house, they saved by creating a sinking fund, and placing it in the hands of the officer having them in charge. The government, on learning that these brave, daring soldiers are made of such material, ought certainly to appropriate the few thousands it would cost to build them ample and comfortable quarters. Visitors from other and much less free countries are amazed to see the miserable condition in which we permit our soldiers to breathe out their existence, and emit no sigh for republican institutions. The brave officers, Sackett and Porter, who accompanied us, begged us to implore the attention to their men and horses which they so richly merited, and so much required; and we do most heartily join in supplicating for their relief.

The miners and sappers are in somewhat better condition than the dragoons and artillery, but even theirs is nothing to boast of in a government like ours; and such as it is, in some good degree is due to their own industry and frugality. We are a numerous, rich, and intelligent people, and by such soldiers as those alluded to, guided and governed and led by such officers as West Point alone has educated in America, we have become freer and more powerful every year for half a century; and by the fostering and protecting arm of the government, the time will speedily come when, through this academy alone, by our very superiority in military science and prowess, we shall not only be, but forever remain, at peace with the world. To insure this, we earnestly and respectfully ask the aid of the dispensers of public bounty.

WILLIS L. WILLIAMS.
T. FARRELLY.
JOEL EASTMAN.

WEST POINT, *June 15, 1852.*

HOSPITAL DEPARTMENT, U. S. MILITARY ACADEMY,
West Point, New York, June 12, 1852.

SIR: I have the honor to present to you the following answers to the questions propounded to me in your communication received a few days since:

1. There are two hospitals at this post—one exclusively for cadets, the other for the enlisted men of the command. A new hospital for the cadets is very desirable, as the one now occupied is very defective in the number, the arrangement, and the ventilation of the wards, and wanting in many of the comforts and conveniences so important to such an establishment. There are but five rooms that can be occupied by the sick, and these are only capable of accommodating ten patients, two in each room.

2. During the current year, *three hundred and twenty-six* patients have been admitted. Of this number, *three hundred and twenty-two* have been returned to duty; *one* is on sick leave; and *three* were remaining in hos

pital on the 31st day of May, 1852, the last day of the current year. The accompanying document, marked A, will show the States from which the above-mentioned cadets were appointed, and their diseases.

3. The hospital for enlisted men, erected about two years since, is admirably arranged for comfort and convenience, and I do not know that I can suggest any alteration or improvement in the building, or its arrangements. It contains *four* rooms for the accommodation of the sick, capable of holding, in the aggregate, *twenty* beds. During the current year, *one hundred and forty-one* patients have been admitted; and of this number, *one hundred and thirty-five* have been returned to duty, *three* discharged from the service, and *three* were remaining in hospital on the 31st day of May, 1852. The accompanying document, marked B, will show of what States or countries they are natives, and their diseases.

4. The health and comfort of the enlisted men at this station absolutely require that their quarters be enlarged, or new ones erected. Those now occupied are, at best, very indifferent, and in some instances are unfit to be used as quarters. This is particularly the case with those tenanted by the artillery and dragoon detachments.

5. I may also add, that all the houses of the professors, and some occupied by the officers, are too small for comfort; and if they were less crowded, the health of the inmates would, no doubt, be benefited. A study and a bath-room ought, at least, to be added to each house, and this can be done at a trifling expense to the government.

6. I am not aware that there are any local causes of disease about West Point.

7. I beg leave, in recurrence to the cadet hospital, to invite your attention particularly to the subject of *nurses* and *attendants*; and again to suggest that suitable persons be employed, more especially an experienced female nurse. Great trouble and inconvenience have been felt whenever any cadet or officer is very ill in the hospital, for the want of experienced attendants.

As there are no means of creating a "hospital fund" at this post, as in other army hospitals, I would suggest that a small appropriation be recommended for the purchase of such articles of diet as may be required for the use of cadets in hospital.

I have the honor to be, sir, very respectfully, your obedient servant,
JNO. M. CUYLER,
Surgeon U. S. A.

Colonel WILLIAMS,
Chairman of the Committee of Board of Visitors on Police.

Minutes of the Proceedings of the Board of Visitors to the Military Academy, 1852.

WEST POINT MILITARY ACADEMY,
 Tuesday, June 1, 1852.

The Board of Visitors appointed to attend the annual examination of the Military Academy met at Rider's Hotel, at 11 o'clock a. m.

Present: Hon. Joel Eastman, of New Hampshire; Professor Alexis Caswell, of Rhode Island; Lewis H. Delano, esq., of Ohio; Hon. John P. Jackson, of New Jersey; Joseph P. Comegys, esq., of Delaware; Hon. Wm. L. Goggin, of Virginia; Colonel Marcus C. M. Hammond, of South Carolina; Nathaniel Wolfe, esq., of Kentucky; Professor Caleb Mills, of Indiana; Rev. John T. Worthington, of Illinois; Wm. H. Howard, esq., of Michigan; General Memucan Hunt, of Texas.

The meeting was called to order by General Hunt; and, on his motion, Colonel Hammond was unanimously elected president of the board.

On motion of Mr. Delano, Professor Caswell was appointed secretary.

At half-past 11 a. m., pursuant to previous notice, Captain Henry Brewerton, superintendent of the academy, accompanied by the academic and military staff, called upon the board. After the ordinary courtesies of introduction, the board, on the invitation of the superintendent, proceeded to the inspection of the academic buildings, and their several departments; after which they attended a review of the corps of cadets under arms, the president acting as reviewing officer. The board then adjourned.

5 o'clock p. m.—The board met at the call of the president. The following members having arrived during the day, took their seats, viz: General Lucius J. Polk, of Tennessee; Willis L. Williams, esq., of Missouri; Terence Farrelly, esq., of Arkansas.

The president laid before the board a communication from the superintendent of the academy, containing a programme of the examinations, which are to be held in the hall of the library, from the hours of 9 a. m. to 1 p. m., and from 3 p. m. to 5 p. m., and offering to the board every facility for such information as they may desire in the discharge of their duties; which was received, and ordered to be placed on file.

On motion of Mr. Worthington, it was

Resolved, That committees, of three each, be appointed by the president, to take into consideration the several subjects to which the attention of the board is specially called by the honorable Secretary of War, in his letters of appointment, and that they report upon the same in writing.

The president asked leave to postpone the announcement of the committees till to-morrow.

On motion of the secretary, it was

Resolved, That when the board adjourns, it shall be to meet at half-past 8 o'clock to-morrow morning.

The board then adjourned.

A true record:

A. CASWELL, *Secretary.*

WEDNESDAY, June 2.

Agreeably to adjournment, the board met at 8½ o'clock a. m.

Present: Messrs. Hammond, Eastman, Caswell, Delano, Jackson, Goggin, Comegys, Wolfe, Mills, Worthington, Howard, Hunt, Polk, Williams, and Farrelly.

After a brief discussion upon the most convenient times of meeting, and the best mode of discharging the duties of the board, it was

Resolved, That when the board adjourns, it shall be to meet at 5½ this afternoon.

The board then adjourned, to attend the examination of cadets at the hall of the library.

*Library hall, 9 a. m.**—The examinations commenced with cadets of class 1st—that is, the graduating class in military and civil engineering. The class consists of forty-seven members, and was divided into four sections in the order of rank in scholarship and good conduct. Section 1st was examined from 9 to 11 a. m., section 2d from 11 a. m. to 1 p. m., by Professor Mahan and Assistant Professor Captain G. W. Smith. Section 3d was examined from 3 p. m. to 5 p. m. by Professor Mahan and Assistant Lieutenant C. S. Stewart.

Each cadet was examined in both departments of the course—that is, civil and military—being required to give a demonstration, or construction, on the black-board, pertaining to the one, and answer questions with respect to the other. They were also, in several cases, required to illustrate their subjects by the explanation of models, such as those of the steam-engine, wooden bridges, trusses for roofs, &c.

During the examination, questions were proposed by members of the board—sometimes directly to the cadet, *viva voce*; at others through the professor, in writing.

5½ o'clock p. m.—The board met, agreeably to adjournment—the members all present.

The president announced the several committees required by the resolution of yesterday, as follows:

1. *On Discipline*.—General Hunt, General Polk.
2. *On Police*.—Mr. Williams, Mr. Eastman, Mr. Farrelly.
3. *On Instruction*.—Mr. Mills, Mr. Caswell, Mr. Worthington.
4. *On Administration*.—Mr. Wolfe, Mr. Comegys, Mr. Delano.
5. *On Fiscal Affairs*.—Mr. Goggin, Mr. Jackson, Mr. Howard.

After a somewhat extended though informal discussion upon topics connected with the interests of the academy, without any formal action, the board adjourned, to meet at a quarter before 9 o'clock to-morrow morning.

A true record:

A. CASWELL, *Secretary*.

THURSDAY, June 3.

The board met, agreeably to adjournment, at a quarter before 9 o'clock a. m.

* For the purposes of information and convenience, daily notices of the examinations are inserted in connexion with the proceedings of the board.

Present: Messrs. Hammond, Eastman, Caswell, Delano, Comegys, Goggin, Wolfe, Mills, Howard, and Hunt.

On motion of Mr. Mills, it was

Resolved, That the board meet for the transaction of business at 8 o'clock a. m. daily, (Sundays excepted,) until otherwise ordered.

The board then adjourned, to attend the examinations at the library.

Library, 9 a. m.—The examination in civil and military engineering was continued in section 4th, class 1st; examination conducted by Professor Mahan and Assistant Professor Lieut. C. S. Stewart.

11 o'clock a. m.—The examination of the third class in mathematics was commenced. This class, now completing its second year in the academy, consists of sixty members, and was divided into six sections.

The subjects embraced in the examination were analytical geometry, spherical projections, warped surfaces, shades, shadows and perspective, the differential and integral calculus, and surveying.

Section 1st was examined from 11 a. m. to 1 p. m., by Professor Church and Assistant Professor Lieut. Wm. G. Peck. As a general thing, each cadet was required to give a construction or demonstration at the black-board, in one of the branches pursued, and answer questions in another. The same general method was followed in all of the sections.

Section 2d was examined from 3 p. m. to 5 p. m., by Professor Church and Assistant Professor Captain E. K. Smith.

The members of the board participated in the examination by proposing questions, *viva voce*, and in writing.

A true record :

A. CASWELL, *Secretary.*

FRIDAY, June 4.

The board met at 8 a. m. Present: Messrs. Hammond, Eastman, Caswell, Delano, Comegys, Goggin, Mills, Hunt, Worthington, Howard, and Wolfe.

On motion of General Hunt, it was

Resolved, That Messrs. Polk, Williams, and Farrelly, in consequence of lodging at the distance of a mile and a half from the place of meeting, be excused from attending the morning session of the board.

Mr. Wolfe gave notice that he should embrace an early opportunity to introduce a resolution, the object of which would be to test the proficiency of the graduating class of cadets in English composition.

There being no further business, the board adjourned, to attend the examinations.

Library, 9 a. m.—Section 3d, of class 3d, was under examination from 9 a. m. to 11 a. m. The subjects and mode of examination as in section 1st. The examination was conducted by Professor Church and Assistant Professor Captain E. K. Smith.

Section 4th was examined from 11 a. m. to 1 p. m., by the same.

Section 5th was examined from 3 p. m. to 5 p. m.

After the close of the examination, the board, on invitation of the superintendent, attended the exercises in the riding-hall from 5 to 6 p. m.

A true record :

A. CASWELL, *Secretary.*

SATURDAY, June 5.

The board met at 8 a. m. Present: Messrs. Hammond, Eastman, Caswell, Delano, Comegys, Goggin, Wolfe, Mills, Worthington, Howard, Hunt, Polk, Williams, and Farrelly.

Mr. Williams gave notice that he should, at an early day, introduce certain resolutions, with a view of obtaining full and authentic information respecting the academy.

The following resolutions were offered by Mr. Wolfe :

1. *Resolved*, That the superintendent of the academy be respectfully requested, at as early a period as may be practicable and convenient, to require of the first class of cadets, in a suitable room in the academy, in the presence of some person to be deputed for that purpose, each for himself, to write his views on any subject he may select, within three hours; which compositions shall be submitted to the inspection of the Board of Visitors, and returned to their respective authors after they have been read.

2. *Resolved*, That the president be charged with the execution of this resolution.

A discussion arose upon the first resolution; pending which, the board adjourned, to attend the examinations in the library.

A true record :

A. CASWELL, *Secretary*.

MONDAY, June 7.

The board met at 8 a. m. Present: Messrs. Eastman, Caswell, Delano, Comegys, Goggin, Mills, Worthington, Howard, Williams, and Farrelly.

In the absence of the president, on motion of Mr. Williams, Mr. Eastman was called to the chair, which was shortly after relinquished on the arrival of the president.

Joseph R. Curtis, esq., member of the board from California, appeared and took his seat, and was by the president appointed a member of the Committee on Police.

The following resolution, introduced by Mr. Williams, was passed, viz:

Resolved, That the superintendent of the Military Academy be requested to furnish the Board of Visitors with information on the following subjects:

1. What number at the present time constitutes the full complement of cadets?
2. What is the present number of cadets connected with the academy?
3. What was the number at the commencement of the current academic year?
4. If any have left the academy since that period, for what cause?
5. What number has been added during the present year? How, by whom, and from what States or Territories were they appointed?
6. What number at present constitutes the academic board, and what is the compensation of each member?

7. What time is occupied by the classes respectively, during the full course, in the various branches of study and accomplishments, and each of them, taught in the academy?

8. How are cadets furnished with board and clothing?

9. Is there any charge made for their board beyond the actual expense incurred in procuring and preparing the food?

10. Are cadets allowed any spending money? If so, what amount?

11. Are parents allowed to send them money?

12. Is their present pay sufficient to meet their absolute demands for money? If not, what increase would make it sufficient?

13. What number of enlisted men are employed at West Point by the United States? In what capacity, and what is the compensation of each, respectively?

14. What other persons are regularly employed at West Point, and the compensation of each, respectively?

The following resolutions were introduced by Mr. Williams and referred, viz:

1. *Resolved*, That the superintendent of the Military Academy be requested to inform the board whether the books mentioned on pages 22 and 23 of the "Official Register of the Officers and Cadets," and dated June, 1851, comprise the full list of text-books of the academy; and if not, that he furnish the Board of Visitors with the titles of those not named in the said register.

[This resolution, on motion of Mr. Goggin, was referred to the Committee on Instruction.]

2. That the superintendent of the Military Academy be requested, if he have them printed, to furnish each member of the Board of Visitors with a copy of the rules and regulations of the academy. If they are not printed in quantities sufficient, that he then furnish as many as he conveniently can with such copies.

3. If such rules and regulations do not contain the causes of demerit and the amount of demerit for each offence, the superintendent is requested to furnish these also.

The last two resolutions were referred to the Committee on Discipline.

The following resolution, offered by Mr. Williams, was passed, viz:

Resolved, That the Committee on Police be directed to inquire into, and report to the board, the propriety and importance of erecting a wall, with gates, around the academy grounds, including an estimate of cost, &c.

The board then adjourned, to attend the examinations at the library.

Library, 9 a. m.—The examination of the second class was commenced. The class consists of 57 members, and was divided into four sections. They were examined upon philosophy, embracing the following subjects, viz: mechanics, optics, spherical astronomy, and electro-dynamics, including magnetism. Section 1st was examined from 9 a. m. to 12 m., by Professor Bartlett and Assistant Professor Lieutenant J. J. Reynolds.

Each cadet was required to give a demonstration at the black-board, in one of the above specified branches of the course and answer ques-

tions in another. Questions were proposed by members of the board, as well as by the professors.

Section 2d was examined from 12 m. to 1 p. m., and again from 3 to 5 p. m., by Professor Bartlett and Assistant Professor Lieutenant J. H. Wheelock.

The subjects and manner of examination were the same as in section 1st.

By invitation of the superintendent, the board, at 5 p. m., attended a battalion drill on the plain.

A true record :

A. CASWELL, *Secretary.*

TUESDAY, June 8.

The board met at 8 a. m.; the members all present.

The president submitted to the consideration of the board the following paper, viz:

1. That an appropriation be made, according to the estimates, for building permanent stables for the use of the horses of the light artillery and the dragoons.

2. That the corps of cadets be increased by sixty cadets, two to be taken from each State, to be selected, or recommended to the President; by the senators, in the same manner that those now sent are chosen by the State representatives, in view of the probable increase of the army, and for national benefits.

3. That the pay of the superintendent, now fixed at \$2,000, be increased to \$2,500 or \$3,000, for the reason that the commandant of cadets and the professors receive the same amount, while the necessity, and the consequent expense, of entertaining distinguished scientific and other men, at home and abroad, is thrown almost exclusively upon him; and his station, in other respects, is the most responsible at the institution.

4. That the first assistant professor of French and drawing be allowed the same pay as the first assistants in other branches, and the other assistants be allowed extra pay of \$10 per month, for the substantial reasons that officers are at greatly more expense in dress and board here than elsewhere in service, and that the best of officers *may* not always be procured for duty here, since they usually fill positions in the army as quartermasters, commissaries, and adjutants, with an increased compensation, which they are unwilling to relinquish.

5. That the pay of the cadets be increased to its original sum of \$28 20 per month, since few, if any of them, with the most rigid economy, pass through the academy without incurring debt, which has to be drawn from their lieutenant's pay, on receiving their commissions in the army.

6. That the professors of practical engineering and of artillery, &c., be placed on the same footing, with regard to pay, as the principal instructor of tactics.

7. That the fencing-master, who now receives \$720 per annum, and teaches two classes, be allowed \$1,000 per annum.

8. That, if another dragoon officer be placed in service at the academy to instruct in riding—the double duty being too onerous for one officer—there would be no need of an employé riding-master.

9. That cavalry tactics be introduced into the course of instruction, since there are three mounted regiments in the army, besides mounted infantry, and every graduate should be acquainted with the manœuvres of all the arms of the service.

10. That the course of instruction be extended to five years, with the view of increasing the branches of study, and of enlarging those now taught.

11. That cadets, in graduating, be allowed, in practice as well as in theory, the privilege of selecting the arms of the service of the grade to which the academic board may recommend them, and to those of lower grades, since, otherwise, he who prefers the dragoon or infantry arm will not strive for his position in his class, for the reason that it would compel him, against his will, to enter the engineer or the artillery corps.

12. That quarters be built for the unmarried officers, who now occupy rooms in the cadets' barracks, since their comfort would be promoted, the facilities of study would be increased, and the respect of the cadets would probably be higher by a separation, while, if the corps be increased, these rooms would be required for the additional number of cadets.

After the reading of the foregoing paper and some informal discussion, on motion of General Hunt, it was

Resolved, That the several topics of inquiry therein contained be referred to their appropriate committees.

And, on motion of Mr. Comegys, it was

Resolved, That the president designate the committee to which each particular subject shall be referred.

The board then adjourned, to meet at 8 o'clock this evening.

Library, 9 a. m.—Section 3d, of class 2d, was examined from 9 a. m. to 12 m., by Professor Bartlett and Assistant Professor Lieutenant J. H. Wheelock.

Section 4th, of class 2d, was examined from 12 m. to 1 p. m., and again from 3 p. m. to 5 p. m., by Professor Bartlett and Assistant Professor Lieutenant Joseph J. Reynolds.

In sections 3d and 4th, the subjects and modes of examination were the same as in section 1st.

From 5 to 6 p. m., the board, on invitation of the superintendent, attended the exercise of fencing by the 1st class, in the fencing hall.

Tuesday, 8 o'clock, p. m.—The board met agreeably to adjournment.

Present: Messrs. Hammond, Eastman, Caswell, Delano, Comegys, Goggin, Mills, Jackson, Worthington, Polk, and Hunt.

The following resolution, offered by General Hunt, was passed, viz:

Resolved, That the superintendent of the Military Academy be requested to furnish the Board of Visitors with a statement, showing the number of cadets to which each State and Territory of the United States has been entitled, from time to time, since the establishment of the Military Academy; and the number of cadets who have graduated

from each State and Territory, from time to time, since its establishment.

The board then adjourned.

A true record:

A. CASWELL, *Secretary.*

—
WEDNESDAY, June 9.

The board met at 8 o'clock a. m.

Present: Messrs. Hammond, Eastman, Caswell, Delano, Jackson, Comegys, Goggin, Wolfe, Mills, Worthington, Hunt, Williams, and Farrelly.

Mr. Wolfe stated that illness detained him from the meeting of the board last evening.

The resolution offered by Mr. Wolfe on Saturday, June 5, was called up by the mover. A discussion arose upon the resolution; pending which the board adjourned, to meet at 8 o'clock this evening.

Library, 9 a. m.—Class 1st, consisting of forty-seven members, and divided into four sections, was examined in mineralogy and geology from 9 a. m. to 1 p. m., by Professor Bailey and Assistant Professor Lieutenant F. N. Clarke.

Three p. m.—The examination of class 3d in mathematics was commenced. The class comprises sixty members, and was divided into six sections.

The subjects embraced are geometry, plane and solid trigonometry, plane and spherical and descriptive geometry. The first section was examined from 3 p. m. to 5 p. m., by Professor Church and Assistant Professor D. D. Perkins.

At 5 p. m., on invitation of the superintendent of the academy, the board attended a battalion drill of cadets on the plain.

Eight o'clock p. m.—The board met agreeably to adjournment.

Present: Messrs. Hammond, Eastman, Caswell, Delano, Jackson, Comegys, Goggin, Mills, Worthington, Wolfe, Polk, Williams, Hunt, Farrelly, and Curtis.

The consideration of Mr. Wolfe's resolution, requiring of the 1st class of cadets an exercise in English composition, was taken up, and was passed in form, as recorded under date of June 5.

Two communications, marked A and B, received from the superintendent, were presented by the president, and read; and, on motion of Mr. Williams, it was

Resolved, That said communications be referred by the president to the appropriate committees for their consideration.

There being no further business, the board adjourned.

A true record:

A. CASWELL, *Secretary.*

—
THURSDAY, June 10

The board met at 8 a. m.

Present: Messrs. Hammond, Caswell, Delano, Comegys, Mills, and Hunt.

There being no business on the table, the board adjourned, to meet at 8 o'clock this evening.

Library, 9 a. m.—The examination of section 1st, of class 1st, was continued. Sections 2d, 3d, and 4th were examined during the day by Professor Church and Assistant Professor Lieut. C. McKeever.

At 11 a. m., by invitation of the superintendent, the board witnessed a cavalry exercise of the 3d class of cadets, and an artillery drill at 5 p. m. by the same class.

Eight o'clock p. m.—The board met agreeably to adjournment.

Present: Messrs. Hammond, Eastman, Caswell, Delano, Goggin, Jackson, Mills, Worthington, and Wolfe.

The president laid before the board a communication from the superintendent, accompanying a file of compositions written by the 1st class of cadets, pursuant to the resolution of the board, passed yesterday, calling for the same.

Before the reading of said compositions had been completed, the board adjourned.

A true record:

A. CASWELL, *Secretary*,

FRIDAY, June 11.

The board met at 8 a. m.

Present: Messrs. Hammond, Eastman, Caswell, Delano, Jackson, Goggin, Wolfe, and Worthington.

The report of the Committee on Fiscal Affairs was presented and read by Mr. Goggin, chairman of the committee.

On motion of Mr. Worthington, the report was accepted. The board then adjourned, to meet at 8 o'clock this evening.

Library, 9 a. m.—Sections 5th and 6th, of class 1st, were examined from 9 a. m. to 12 m., by Professor Church and Assistant Professor Lieut. Mebane.

At 3 p. m. Captain Alden examined the class in infantry tactics.

At 11 a. m., by invitation of the superintendent, the board witnessed a cavalry exercise of the first class of cadets, and at 5 p. m. a practice at the mortar battery.

Eight o'clock p. m.—The board met agreeably to adjournment.

Present: Messrs. Hammond, Eastman, Caswell, Delano, Jackson, Goggin, Wolfe, Mills, Worthington, Howard, Polk, Farrelly, and Curtis.

On motion of Mr. Curtis, in was

Resolved, That when the board adjourn, it shall be to meet at 8 p. m. on Monday evening, June 14.

The following resolution, offered by Mr. Curtis, was passed, viz:

Resolved, That this board recommend as a suitable study and proper exercise for the first class during the ensuing academic year, an actual topographical survey of the ground belonging to, and occupied by the institution; and that they be required to furnish maps of the survey and plans for a wall and line of fortifications to surround the whole, with specifications and estimates of the entire cost. Also, such architectural views of the buildings as will best display their extent and situation.

The report of the Committee on Instruction was presented and read by the secretary, and, by request of the committee, was referred back for revision.

Messrs. Goggin and Caswell asked and obtained leave of absence from the duties of the board after to-morrow.

On motion of General Polk, Mr. Jackson was appointed secretary for the remainder of the session.

On motion of Mr. Farrelly, the board then adjourned.

A true record:

A. CASWELL, *Secretary*.

—
SATURDAY, June 12.

Board met at the library room, at 9 o'clock a. m.

The examination of the second, third, and fourth sections of the first class in infantry tactics, conducted by Captain Alden, was continued till 12 o'clock. From that hour the examination of the third class in French, conducted by Professor Agnel and Assistant Lieutenant Greland, occupied the remainder of the day.

—
MONDAY, June 14.

Board met at the library room, at 9 o'clock a. m.

The examination of the third class in French, by Professor Agnel and Assistant Lieutenant D'Orémieux, was resumed, and finished at 12½ o'clock. The examination of the first class in artillery tactics, by Major Thomas, commenced at 12½, and occupied the remainder of the day. At 5 p. m. experiments in target firing were exhibited, under the direction of Majors Thomas and Porter.

Eight o'clock p. m.—Board met.

Present: Messrs. Hammond, Eastman, Delano, Jackson, Wolfe, Mills, Worthington, Howard, Williams, Farrelly, Curtis, and Hunt.

On the motion of the president, the following resolution was adopted:

Resolved, That it is recommended to the superintendent of the Military Academy, that to the present graduating class, and to all future ones, the diplomas conferred by the academic board shall be delivered with impressive ceremony, in presence of the Board of Visitors, and all the officers, professors, and cadets, connected with the institution.

A communication on this subject was received from the superintendent, and placed on file.

On motion of Mr. Worthington, it was

Resolved, That on the occasion of delivering the diplomas to the graduating class, Mr. Williams be requested to address them in behalf of the Board of Visitors.

The Committee on Administration, by their chairman, Mr. Wolfe, presented their report, which was read and unanimously adopted.

The report of the Committee on Instruction was presented by their chairman, Mr. Mills, and read, and, after full discussion, was amended and adopted.

The board then adjourned, to meet to-morrow (June 15th) at 8 o'clock a. m.

A true record:

J. P. JACKSON, *Secretary*.

TUESDAY, June 15.

Board met at 8 o'clock a. m.

Present: Messrs. Hammond, Eastman, Delano, Jackson, Mills, Worthington, Hunt, Curtis.

There being no business, the board adjourned, to meet at 8 o'clock this evening.

Nine o'clock a. m.—The board met in the library room, and the examination of the 1st class in artillery tactics was continued, under the directions of Majors Thomas and Porter, until 11½ o'clock a. m. The examination of the 4th class in "English studies" was then commenced, under the direction of the Rev. Mr. Sprole and Lieutenant Gilbert, and the 1st and 2d sections finished at 1 o'clock. At 1 p. m. the examination of the 4th class was resumed by Rev. Mr. Sprole and Lieutenant DuBarry.

At 5½ p. m. there was a ponton drill near the quarters of the company of engineer soldiers.

A true record:

J. P. JACKSON, *Secretary.*

Eight o'clock p. m.—Board met.

Present: Messrs. Hammond, Delano, Jackson, Mills, Worthington, Howard, Williams, Farrelly, Hunt, Curtis.

The president not being present at the opening of the meeting, Mr. Delano was called to the chair.

The Committee on Discipline, by their chairman, General Hunt, presented their report, which was read and unanimously adopted.

The president having come in, took the chair.

Mr. Williams, from the Committee on Police, presented their report, which was read.

Mr. Howard moved that so much of the report as objects to the present regulation of the gateways at West Point be stricken out.

After full discussion, the ayes and noes were called, and resulted as follows:

For striking out: Ayes—Messrs. Hammond, Delano, Jackson, Worthington, Howard—5.

Noes—Messrs. Mills, Williams, Farrelly, Hunt, Curtis—5.

So the motion to strike out was lost.

Mr. Howard also moved to strike out all that part of the report which relates to the use of tobacco by cadets.

This motion was discussed at length; pending which, the following resolution was offered by Mr. Jackson, and accepted by Mr. Howard as a substitute, and passed:

Resolved, That the portions of the report of the Committee on Police subjoined to this resolution be stricken out, and that the Committee on Police state in their report the facts as they exist with regard to the regulation of the gateways and the use of tobacco by the cadets, without comment, and that with these amendments the report of the Committee on Police be unanimously adopted.

Portions of report stricken out:

“Upon two points of police regulation we beg to make a remark for the consideration of those who govern the academy.

“1st. We feel called upon to notice and object to the present rule in regard to the use of tobacco. It is made a high demerit to chew or smoke; and so hardly has this regulation operated upon those who had contracted the habit before entering the school, that it has greatly lessened their standing and influence *scholastically*, whilst in all other respects they could scarcely be complained of. It is a habit, however vulgar in the opinion of the most fastidious, that is inveterate—very difficult, indeed, to shake off—but there is in it nothing immoral or highly derogatory, and we feel convinced that no law can prevent its use while it is in the power of the consumer to procure it. So that the enactment upon this subject only drives the young man upon whom it operates into some secret place, where he may and will indulge, at the hazard of his standing and respectability. If it be known, he suffers severely; and hence he makes every effort to conceal the offence, the very effect of which is to degrade and debase to some extent a high-minded man, and particularly one educated to be an officer of the American army. But despite every exertion, we know the regulation will be violated, and consequently visited upon the violator quite as serious as if he had been guilty of crime, to which we most seriously object. We have not time to argue this point at length, but suggest that it would be better to permit a moderate use of the article outside of the public parade grounds and outside the barracks; taking care, of course, to prevent any introduction of it into the recitation-rooms or other buildings of the institution. Our views may be readily seen, and easily met and complied with, if those who make the rule will calmly consider the subject which we have deemed of sufficient dignity and importance to bring to their consideration.

“2d. The second point is in respect to the regulations of the gateways at West Point. We unqualifiedly condemn the system that keeps out of the grounds any person whatsoever, citizen or foreigner, on foot, on horseback, or in a carriage. The institution is a public one, composed of students made up from any and all families throughout the length and breadth of our widespread land—of professors and officers, and soldiers and servants, selected from the four quarters of the globe, all residing in houses built, and living upon salaries paid, by the common treasure of a common and well-beloved country, and we can see no reason or propriety that can exist for preventing the ingress and egress of any one who shall so deport himself as not to endanger the peace, harmony, and good government of the school. In many European countries it may be allowed to post a sentinel—often of very doubtful and inferior degree—at the gate of such a school, to stop the carriage of a gentleman and lady, and require them to find their way through the interior roads as best they can; but in a free, republican people's government, like ours, it is in our opinion absolutely ridiculous, and well calculated to render the institution unpopular with the masses, who do their full proportion to foster and support it, and to whom, in every trying emergency of its existence that may occur, an appeal has at last to be made. We cannot say more in this place than to urge the propriety of such a change in this respect as shall not only secure, but shall

absolutely better comport with the genius and spirit of our blessed form of government."

On motion of General Hunt, it was unanimously

Resolved, That it be recommended to the Secretary of War to apply to Congress for an appropriation for the erection of a dock and road on the southerly side of the public square, nearly opposite the barracks, so as to afford a steamboat landing, and the most convenient ferry from West Point to the easterly side of the Hudson river, at "Garrisons."

Board adjourned to the 16th instant, at 8 o'clock p. m.

A true record:

J. P. JACKSON,
Secretary.

WEDNESDAY, June 16.

Board met at 8 o'clock p. m.

Present: Messrs. Hammond, Delano, Jackson, Mills, Worthington, Howard, Hunt.

The board, during the day, attended the examination of the fourth class in "English studies," under the direction of Rev. Mr. Sprole and Lieutenant DuBarry, which was completed; and also the examination of the second class in chemistry, under the direction of Professor Bailey and Lieutenants F. N. Clarke and Boynton. On the 17th instant, the examination of the second class in chemistry was conducted by Professor Agnel and Lieutenant D'Orémieux; after which followed the second and third classes in drawing, by Professor Weir and Lieutenants Smith and Seymour.

At the evening meeting of June 16, 1852, the president submitted the general report of the Board of Visitors, which was read and unanimously adopted.

On motion of Mr. Jackson, it was unanimously

Resolved, That the president of the board do respectfully request the Secretary of War to make a separate communication to Congress of the report and proceedings of the Board of Visitors, in order to secure the printing of the same as a separate public document.

On motion of General Hunt, it was

Resolved, That the thanks of this board be tendered to the president and secretaries, for the able, impartial, and courteous performance of their laborious duties.

The members of the board, on motion for final adjournment, having feelingly referred to the great harmony and cordiality that had prevailed among them in the discharge of their duties, and in all their associations, did, accordingly, adjourn *sine die*; and after interchanging an affectionate farewell with each other, separated on the 18th of June, 1852.

A true record:

J. P. JACKSON,
Secretary.

Table showing the circumstances of the parents of the Cadets of the United States Military Academy, July 1, 1862.

Orphans.	Mothers only.	Occupation of parents.	CIRCUMSTANCES OF PARENTS.										Total.			
			Indigent.			Reduced.			Moderate.			Affluent.				
			Country.	Town.	City.	Country.	Town.	City.	Country.	Town.	City.	Country.		Town.	City.	
		FIRST CLASS.														
		No profession or occupation.....						1			1					2
		Planters.....								2						2
1	2	Farmers.....			3			11		6						20
		Governors.....							1							1
		Lawyers.....						1	3	1						5
		Physicians.....						2	2							4
		Merchants.....						1	6							7
		Clergyman.....							1							1
		Editor.....								1						1
		President of bank.....								1						1
		Officer in bank.....								1						1
1	.....	Officer in marines.....								1						1
		Clerk, (general government).....								1						1
		Type-founder.....								1						1
		Coal-dealer.....								1						1
		Contractor.....							1	1						1
		Auctioneer.....								1						1
		Manufacturer of cotton.....														1
		Boarding-house keeper.....								1						1
		Cabinetmaker.....								1						1
		Carriagemaker.....							1							1
		Carpenter.....								1						1
		Shoemaker.....				1	1									2
2	2	.....			3	1	2	16	23	13						58

TABLE—Continued.

Orphans.	Mothers only.	Occupation of parents.	CIRCUMSTANCES OF PARENTS.									Total.					
			Indigent.			Reduced.			Moderate.				Affluent.				
			Country.	Town.	City.	Country.	Town.	City.	Country.	Town.	City.		Country.	Town.	City.		
		SECOND CLASS.															
1	2	No profession or occupation.....							2		2						4
		Lawyers.....						3	5	2							10
1	1	Farmers.....						10									4
		Physicians.....						1	3								4
		Merchants.....							2	4							6
1		Clergymen.....							2								2
	2	Officers in the army.....							2	5							7
	1	Officer in the U. S. navy.....								1							1
		Officer in bank.....							1								1
		President insurance company.....							1								1
		Agent (pension claims).....								1							1
		Land agent.....								1							1
		Engineers.....							1	1							2
		Pilot.....							1		1						1
		Brokers.....							1	1							2
		Conveyancer.....							1								1
		School teacher.....								1							1
		Mason.....								1							1
		Mechanic.....							1								1
		Blacksmith.....							1								1
		Machinist.....							1								1
3	6							14	25	20							59

		THIRD CLASS.											
		No profession or occupation								1			1
		Planters					3			1			1
		Farmers			1		5						
5	1	Judge						1					
	2	Lawyers					4	5	1				
		Physician						1					
1	1	Merchants					1	4	1	1		1	
2	1	Officers of the army					1	1	2				1
	1	Officer of marines							1				
		President of university									1		
		President of railroad											1
		Cashier of bank									1		
1		Iron master					1						
	1	Iron merchant					1						
		Coal merchant							1				
	1	Sea captain						1					
		Justice of peace						1					
	1	Civil engineer							1				
		Editor											1
		Hotel keeper							1				
		Miller						1					
		Grocer							1				
	1	Saddler			1								
6	13				1	1	16	15	11	2	3	4	53
		FOURTH CLASS.											
2		No profession or occupation						2	2	1			5
		Planters						2		1			3
5	2	Farmers			1		12	4		2	1	1	21
	2	Lawyers					1	4	2				7
		Physicians					1	3			1		5
	2	Merchants					2		4			1	7
		Manufacturers						1				1	2
		Editors						2	1				3
	6	Officers of the army					3	1	2			1	7

TABLE—Continued.

Orphans.	Mothers only.	Occupation of parents.	CIRCUMSTANCES OF PARENTS.											Total.	
			Indigent.			Reduced.			Moderate.			Affluent.			
			Country.	Town.	City.	Country.	Town.	City.	Country.	Town.	City.	Country.	Town.		City.
1	1	Officers of the navy.....							1		1				2
		Register, United States Land Office.									1				1
		Receiver, do.....							1						1
		Naval agent.....								1					1
		Indian agent.....											1		1
		Railroad agent.....								1					1
		Clerk Supreme Court U. States..										1			1
		Clerks.....										*2			2
		Deputy collector.....								1					1
		Steward of Naval Academy.....								1					1
		School teacher.....							1						1
Mechanics.....									3				3		
Hotel keeper.....									1				1		
8	13					1			24	25	16	4	3	4	77

* One a clerk in the service of the general government, and one a merchant's clerk.

NOTE.—In the statement for July, 1851, of the two reported in the first class, under the head "Clerk," one was a clerk in the service of the general government, and one in the service of a State government; and the one reported in the second class, under the same head, was a clerk in the service of the general government.

HENRY BREWERTON,
Captain Corps of Engineers, Superintendent of Military Academy.

HEADQUARTERS MILITARY ACADEMY,
West Point, New York, August 23, 1852.

XI.

REPORT OF THE COLONEL OF TOPOGRAPHICAL ENGINEERS.

BUREAU OF TOPOGRAPHICAL ENGINEERS,
Washington, November 18, 1852.

SIR: In accordance with established usage, I have the honor to submit the following annual report:

Survey of the Lakes.—This extremely interesting duty has been conducted by Capt. J. N. Macomb, with that industry, intelligence, and sound judgment which are properties of his mind. The base line in the vicinity of Mackinaw has been measured by Capt. T. J. Lee, assisted by Capt. Macomb and all the officers of the lake survey. The apparatus used on this occasion was made in this city by Wm. Wurdemann, under the direction of Capt. Lee, after the principles of the one used in the survey of the coast, and was found admirably to fulfil the desirable requirements of expedition and accuracy. Capt. Lee has returned from the duty and has been preparing his report, but has not yet been able to complete it. It will be ready, however, during the ensuing session, for any call that may be made for it. On this account I hope to be excused from any description or details in reference to the apparatus or its use, which I have no doubt will be better explained in Capt. Lee's expected report.

The estimate for the lake surveys, for the ensuing fiscal year, will be found to be rather greater than heretofore. This has been occasioned by extending these operations to Lake Superior, and from wants which will be found stated in the detailed estimate and report from Captain Macomb, hereto appended and marked A.

The report of the expedition to the Salt Lake has been completed and published.

The report of the expedition from Santa Fé, by the Zuni and the Colorado, to the Pacific, under Captain Sitgreaves, has not yet been completed.

The ill health of Captain Humphreys having continued, his expected report of his operations on the survey in reference to the inundations of the Mississippi has not yet been received. From conversation with him, his views will embody the two ideas of embankments and outlets. The cost, extent, number and positions of these, are the problems he proposes to solve. As the expense will be very great, but not disproportioned to the objects to be accomplished, care and labor in the preliminary investigations will, I feel assured, result in a real economy.

The further investigations intimated in my last report, are being made, and will be pressed with all proper activity.

Two officers of the corps are yet occupied in completing the destroyed maps of the northeastern boundary, which, by report of Col. Graham of 26th August last, will be completed during the ensuing January.

The surveys of the several roads in Minnesota having been completed, the work of construction by contract has been attended to as far as the small balances of appropriations would admit. But as the estimates for

further progress on these roads have not met the approbation of Congress, now twice submitted to its consideration, work on these roads will be closed, as soon as existing small appropriations are exhausted. On these accounts, the estimates for these roads are not repeated in the estimate with this report.

Rivers and Harbors.—The very late period at which appropriations were made on these accounts, precluded the possibility of doing much at them this year. And because of the absence of appropriations for fortifications, which left one of the corps of engineers comparatively unemployed, the Honorable Secretary divided the duties under that law, limiting those of this corps to the lake harbors and to the western rivers.

The lake harbors being in a region which soon feels the rigors of winter and the interruptions from storms, nothing more has been done there than to advertise for materials. But, as appropriations in each case were extremely small, these advertisements are not for great quantities, and additional appropriations will be required for more materials, and to work up the materials that will be procured.

An agent for the construction of snag-boats was duly appointed, and is now engaged upon the duty. Heretofore the superintendence of this work has been under Lieutenant Colonel Long, and his report is hereto appended.

Of the light-houses which have been directed to be built by this bureau, all have been completed and delivered over to the Treasury Department except the one at Sand Key, which is yet in progress, under the general superintendence of the Light-house Board, by which the customary report will be made.

The board of engineers in reference to the improvement of the falls of the Ohio at Louisville has been employed at that place since about the first of October. By unofficial information, I understand that it has adjourned. So soon as the report of its proceedings is communicated, the department will be informed.

The duty of making a survey of a canal route across the isthmus of Florida is being attended to. Five officers of the corps have been assigned to the duty.

Advertisement has been made for proposals in reference to removing the Red river raft.

The appendices to the report are: a report and estimate from Captain Macomb, upon the survey of the lakes; and a report and estimate from Lieutenant Colonel Long, in reference to the western river improvements.

Respectfully, sir, your obedient servant,

J. J. ABERT,

Colonel Corps Topographical Engineers.

Hon. C. M. CONRAD, *Secretary of War.*

DETROIT, MICHIGAN, *October 19, 1852.*

SIR: I have the honor, herewith, to present, for the information of the Bureau of Topographical Engineers, the following account of the operations of the force under my command during the past year:

After leaving the field, last October, the officers and assistants were busily occupied, during the winter, with constructing and drawing, in detail, the maps of all their surveys of the last season. In the spring I made numerous observations, with the zenith telescope, upon stars passing within a degree of the zenith, for the correct determination of the latitude of Detroit. I was assisted by Lieutenant W. F. Reynolds in these observations, the result of which was duly reported, and was found to agree, to within two and a half seconds, with the position of Detroit as given upon the engraved chart of the "West end of Lake Erie and the Detroit river," just then issued by the bureau—a verification which was very satisfactory, in view of the limited means, in the way of instruments, at our disposal at the time of making a portion of the surveys upon which that chart is based.

In the course of the winter, application was made to me, by some of the captains of lake steamers, to place a beacon upon the sand-spit projecting into Lake Erie two miles to the southward from Point Peleé, a danger which it was very desirable to have conspicuously marked, as it is within half a mile of the proper turning point for steamers running between Buffalo and the west end of Lake Erie. In compliance with the request above alluded to, on fitting out the steamer Surveyor, in the early part of the summer, I placed a temporary beacon upon the shoal, in about six feet of water, so contrived as to remain undisturbed by the storms during the season of navigation. I had neither means nor time at my disposal to enable me to build anything calculated to withstand the effects of running ice. The mark which I left was simply a tripod, with a circular disk of cast-iron, thirty inches in diameter, at each foot, to prevent too great a settling into the sand. I have had the satisfaction of hearing, quite recently, that the beacon was still to be seen there, although it was run into by a schooner quite early in the season, and thrown considerably out of the perpendicular.

I was given to understand, in the spring, that the bureau would be provided with a suitable apparatus, by the month of August, for measuring the base line for the survey of the Straits of Mackinac, as this operation could, in that section of the country, be properly carried on in the autumn alone; and as there was not money enough on hand applicable to the survey to enable me to carry on the detail surveys for the *whole* season, it was found necessary to defer taking the field until the month of July, whereby we lost several weeks of the season most favorable for the hydrography.

The parties being organized in the early part of July, I directed Lieutenant Gunnison, with a small force, to repair to Green Bay, and make preparations for the determination of the latitude of a point of the triangulation upon which he was formerly engaged there, and also to determine the azimuth of one of the lines of that triangulation.

Lieutenant Scammon was, at the same time, directed to take up the survey of the north shore of the western section of the Straits of Mackinac, at its western limit, and to work to the eastward, that his party might be at hand at the proper time for service upon the base line.

Lieutenant Raynolds was charged with the hydrography about the island of Mackinac and Round island, with directions, on completing that portion of the work, to encamp at the northwest end of the base line, where he was to take up the survey of the south shore of the western section of the straits, and to occupy his party in the clearing of that end of the base whenever the high winds should prevent his carrying on the operations upon the water.

Having made these arrangements, I left Detroit on the 19th of July, with the steamer belonging to the survey. When off Saginaw bay, in Lake Huron, I tried the depth of the water, and found it very much less than it is generally supposed to be; the deepest sounding which I obtained being but two hundred and seven feet, the bottom of fine sand mixed with clay. I also observed the temperature of the water, with the following result:

Surface temperature of water.....	63° Fah.
Temperature at the depth of 120 feet.....	44° “
The temperature of the air at the same time being.....	71° “

This is in accordance with the observations which I have heretofore made when taken in the open lake; but I have found a very different result in the Straits of Mackinac, where the waters are so mingled by the changing currents that it is not uncommon to find the same temperature at the surface and at the bottom, even in water of the depth of thirty fathoms.

I visited the encampment of Lieutenant Gunnison, at Green island, in Green bay, where, with his assistance, I determined the latitude with the zenith telescope, by observations upon stars passing within a degree of the zenith. After which we were engaged in extending the triangulation of that part of Green bay, and in recovering, and more permanently marking, some of the old triangulation points, with a view of connecting that work with surveys which may be required to the northward about the region of the Great and Little bays “de Noquet,” as well as with the work at which we are now engaged in the Straits of Mackinac.

On completing the above operations in Green bay, Lieutenant Gunnison returned with me to the Straits of Mackinac, where our attention was given to the preparation of the southeastern section of the base line, which work was attended to by Lieutenant Gunnison, whilst I occupied myself with the theodolite in measuring angles at the southeastern station. We also made some measurements with the levelling instrument, to compare the stage of water in the straits with the heights observed on former years, when it was found that, in the present year, the water is two feet and two-tenths of a foot higher than in the season of 1849—the first season of the survey. In the year 1851, or the second season of the survey, the water was found to be one foot and one-tenth of a foot higher than in 1849.

For the remainder of the season I was engaged, with the whole force under my command, in assisting Captain T. J. Lee in the measurement of the base line, in accordance with your orders.

It became possible, however, to relieve Lieutenant Raynolds's party from this duty for a few days, which was done, and he was thus en-

abled to push his shore-line work and hydrography to the most western point, in easy reach of his encampment.

In consequence of the delay in taking the field, arising from the smallness of the amount of funds applicable to our work, as above explained, it has been impossible to accomplish, this year, all that I promised myself at the time of making my last annual report.

There yet remains to be done in that portion of the field embracing the Straits of Mackinac and the approaches thereto, in Lakes Huron and Michigan, a large part of the deep-water or off-shore soundings, including the survey of eight detached shoals, the positions of which have been merely reconnoitred as yet; the survey of the entrance of the St. Mary's river, including the southwestern coast of Drummond's island; ten miles of coast-line and in-shore soundings around Point la Barbe; forty miles of coast-line, on both sides of Waugoshance Point, with much intricate hydrography near the same; the extension of the general triangulation westward from the recently measured base line through about ten principal triangles; also the determination of the requisite astronomical positions and azimuths in the same field, and the measurement of some angles of the triangulation in the eastern section; the accomplishment of all of which will probably be sufficient to occupy the force at present upon the work for the whole of the next season.

It is to be regretted that the force and means at our disposal are so limited as to prevent the more rapid extension of our surveys into fields where growing interests are urgently calling for them. Saginaw bay and the bays "de Noquet" are both of them positions the commerce of which must soon be greatly increased, to afford outlets for the wealth of the forests and mines on their borders.

Little bay "de Noquet" is about to be connected with Lake Superior by a railway of forty miles in length, when it will probably become at once a favorite route for passengers.

Experience has shown that the only way in which we can produce a useful result is by confining our operations to one section, or field, of this great work, until the particular portion is completed. I would therefore recommend that we confine our attention to the Straits of Mackinac, until the work is finished there, and that we then repair to such other position as may be deemed most necessary to have surveyed.

With this report I beg leave to forward an estimate for carrying on our operations for the next year.

All of which is respectfully submitted by your obedient servant,

J. N. MACOMB,

Captain Topographical Engineers.

Col. J. J. ABERT,

Chief Top. Engs., Washington.

OFFICE WESTERN RIVER IMPROVEMENTS,
Louisville, September 1, 1852.

SIR: I have the honor to submit my tenth annual report on the improvement of the western rivers, and on various other operations com-

mitted to my direction and superintendence, during the fiscal year beginning July 1, 1851, and ending June 30, 1852.

The several topics claiming attention will be considered separately, and in the following order :

1. *Improvement of the Western Rivers.*

Comparatively but little has been done during the past year towards the prosecution of the important works under this head, for want of appropriations by Congress for this purpose. The duties have comprised, mainly, the safe-keeping of the imperishable portion of the machinery pertaining to three snag-boats, and to the resurvey and drawings of the Falls of the Ohio, at Louisville.

In accordance with instructions from the Topographical Bureau, additional surveys, soundings, &c., at this locality, have been made by my assistant, Lieut. J. W. Abert, topographical engineers. His report and drawings thereon were transmitted to the bureau under date of the 18th ultimo, and to these I take leave to refer you for all details in connexion therewith.

I take occasion in this place to notice two considerable mistakes which a committee of Congress have been led to commit in a late report (see report of House Committee on Roads and Canals, dated August 2, 1852) on the improvement of the Falls of the Ohio by canal or otherwise.

1st. The committee represent, in their report, that the cost of a marine wall in the bed of the Ohio, at the falls, deemed an essential appendage to a canal on the Indiana side of the Ohio, as estimated by me, is "over \$400,000;" whereas my estimate, so far as relates to that particular part of the work, is \$128,168.

2d. The committee have inferred, from certain representations on the map of the falls, submitted by me, that the depth of the lower water channel, from the Big Eddy downward, to the foot of the Louisville and Portland canal, varies from eight to twelve feet; whereas, the greatest depth in the shoalest part of the channel, in extreme low water, does not exceed five feet, as determined by soundings, made with care, in 1851. This mistake appears to have been occasioned by using certain figures intended to represent iso-level curves, supposed to be drawn on the water surface, in coincidence with determined elevations above the lower miter sill of the Louisville and Portland canal, as representations of the depths of the channel, instead of elevations mentioned.

On the 10th January, 1851, I was directed to report on "the comparative cost of renewing or repairing the dam at Cumberland island;" and also, what would be "the better plan of curing the obstructions to the navigation of the Ohio river at that point." To my report in answer thereto, transmitted under date of January 19, 1852, I take leave to refer you for any information required.

The receipts and expenditures on account of the improvement of the western rivers, for the last fiscal year, are as follow :

Unexpended balance on hand, and applicable to this service, July 1, 1851.....	\$6,214 39
Remittance from U. S. treasury, September 1, 1851.....	1,481 39
	<hr/>
Amount of receipts for the year.....	7,695 78
Amount of expenditures for the 3d quarter, 1851..	\$424 00
Do. " " 4th " " ..	690 00
Do. " " 1st " 1852..	397 00
Do. " " 2d " " ..	498 55
	<hr/>
Amount expended for the year.....	2,009 55
	<hr/>
Unexpended balance July 1, 1852.....	5,686 23
	<hr/> <hr/>

2. Mississippi Delta Survey.

In consequence of the sickness of Captain A. A. Humphreys' corps topographical engineers—the officer to whose charge the important duty had been confided—I was directed to repair to Philadelphia early in October last, for the purpose of obtaining from him “such information, or notes, in connexion with his survey, in reference to the inundations of the Mississippi, as might be had, to enable me to prepare a report thereon.” At the same time the Board of Topographical Engineers, consisting of Captain Humphreys and myself, was to be considered as reorganized.

In accordance with these instructions I repaired to Philadelphia, and on my return to this station prepared and forwarded the report required, under date of November 26, 1851; to which I take leave to refer for any information touching the progress of the survey to that date.

On the 30th of November, the appropriation for this work being nearly exhausted, the civil assistants who had been engaged in plotting the field-work, making topographical drawings, &c., were discharged, and this part of the work temporarily suspended.

The hydrographic operations at Carrollton, Louisiana, under the superintendence of C. G. Forshey, esq., civil engineer, were continued, on a very limited scale, to the 30th April last, at which date they were suspended, and the boats and other public property stored for safe-keeping, in charge of C. G. Forshey, esq.

One of the quarter-boats was found, on inspection, to be in so leaky and damaged condition, that it was deemed advisable to dispose of it. A sale was effected at a reasonable price, and the proceeds thereof, together with those of sundry other articles disposed of in like manner and for similar reasons, were duly credited to the United States in my account-current for the 2d quarter of 1852.

In the event that no appropriation shall have already been made by Congress for the further prosecution of this survey, I would respectfully suggest that all the boats, and other perishable articles pertaining thereto, be disposed of as soon as practicable; while the imperishable articles may be stored for future use.

The receipts and expenditures on account of the Mississippi delta survey, from December 1, 1851, to June 30, 1852, are as follows, viz:

Remittance from United States treasury, January 3, 1852..	\$1,000 00
Remittance from United States treasury, February 25, 1852	1,000 00
Remittance from United States treasury, March 29, 1852..	111 11
Amount of receipts from sales of public property pertaining to this branch of the service.....	200 50
	<hr/>
Amount of receipts.....	2,311 61
Amount of expenditures for the 1st quarter of 1852.....	\$1,721 64
Amount of expenditures for the 2d quarter of 1852.....	384 51
	<hr/>
Amount expended.....	2,106 15
	<hr/>
Unexpended balance, July 1, 1852.....	205 46
	<hr/> <hr/>

3. Marine Hospital at Louisville, Kentucky.

All operations on this hospital have been suspended since the date of my last annual report, September 1, 1851, for want of adequate appropriations to carry on the work.

The works remaining to be completed are as follows, viz:

The construction of two hot-air furnaces, with their heaters, boilers, &c. Flues, &c., connecting the same with the chimneys and rooms to be warmed. The tubing connecting the same with the bath-rooms, water-tanks, and evaporating pans. The construction of a balustrade fence along High street, in front of the hospital. The construction of a similar fence enclosing a hospital yard of suitable size. Surface grading in front, rear, and at both ends of the hospital. Paving of brick walks on all sides of the same. Surface drains, &c., &c.

The probable amount required for accomplishing these and other items of work, was estimated, in my report already referred to, at \$5,000.

The building having been so far completed as to admit of the reception of patients, was, in so far as relates to the finished portions thereof, informally taken into custody by the collector of customs at this port, during the 4th quarter of 1851, and still remains so.

The receipts and expenditures on account of the marine hospital at Louisville, for the last fiscal year, are as follows, viz:

Unexpended balance on hand, and applicable to the service, July 1, 1851.....	\$1,132 36
Amount received on account of cement transferred to Paducah hospital.....	10 00
Amount received from sales of lumber, &c., pertaining to this hospital.....	88 00
	<hr/>
Amount of receipts for the year.....	1,230 36

Amount of expenditures for the 3d qr. 1851....	\$1,104 05
Do.....do....4th qr. 1851....	4 00
Do.....do....1st qr. 1852....	14 70
Do.....do....2d qr. 1852....	00 00
	<hr/>
Amount expended for the year.....	\$1,122 75
	<hr/>
Unexpended balance, July 1, 1852.....	107 61
	<hr/>

4. *Marine Hospital at Paducah, Kentucky.*

The condition and progress of this work on the 1st of September, 1851, were fully explained in my annual report of that date, to which I take leave to refer for any details that may be required in relation to these topics.

The items of work done, materials, &c., procured since that date, are as follows, viz :

Procuring and setting iron railings on the piazzas, setting fire-fronts, grates, &c.; procuring and applying a double force-pump, to serve as a fire-engine, &c., with conduits for the purpose of conveying water to all parts of the building; procuring and setting the flag-staff, lightning-rod, and cardinal pointers, vane, &c.; painting the interior of the hospital with three coats, and portions of the exterior with one coat; the construction of two hot-air furnaces, with their flues, &c., for warming the building; surface grading in front of the hospital, &c.

The work remaining to be completed is as follows :

Procuring and attaching two copper boilers to the hot-air furnaces; the tubing connecting the same with the bath-rooms, water-tanks, and evaporating pans; the brick pavements around the building; the construction of a balustrade fence, enclosing a hospital yard of suitable size; the completion of the surface grading; together with terraces, drains, &c.

An estimate for completing the work referred to, amounting to \$5,000, was made in my last annual report.

The building having been reported as ready for the reception of its furniture, &c., the finished portions thereof were, by direction of the chief topographical engineer, delivered, on the 26th of April last, into the charge of J. Campbell, esq., of Paducah, superintendent, reserving the unfinished portions to be completed under my directions, whenever an appropriation shall have been made by Congress for that purpose.

The receipts and expenditures on account of the marine hospital at Paducah, for the last fiscal year, are as follows, viz :

Remittance from U. S. treasury, July 14, 1851.....	\$4,000 00
Do. do. August 26, 1851.....	2,000 00
Do. do. September 9, 1851....	3,000 00
Do. do. November 18, 1851....	2,000 00
	<hr/>
Amount of receipts for the year.....	11,000 00

Outstanding balance, chargeable to the United States, July 1, 1851.....	\$973 22	
Amount of expenditures for the 3d quarter 1851.....	5,400 09	
Amount of expenditures for the 4th quarter 1851.....	2,334 72	
Amount of expenditures for the 1st quarter 1852.....	1,044 08	
Amount of expenditures for the 2d quarter 1852.....	707 20	
	<hr/>	
Amount expended for the year.....		\$10,459 31
		<hr/>
Unexpended balance, July 1, 1852.....		540 69
		<hr/> <hr/>

5. Marine Hospital at Napoleon, Arkansas.

At the date of my last annual report, in consequence of the sickness prevailing among the workmen, and the general unhealthiness of that locality during the summer months, all operations upon the work had been suspended, except in so far as related to its custody and safe-keeping, and of the public property pertaining thereto, and remained in the same condition until the following month. On the 13th of October, active operations were resumed, and prosecuted with vigor until the 28th of May last, at which date, the appropriations being nearly exhausted, the work was again suspended.

The items of work done, materials, &c., procured, since the resumption as above, are as follows, viz:

Two large rain-water cisterns, containing about five hundred and seventy barrels each, have been formed beneath the surface of the ground; also two privy sink-vaults, walled with brick, twenty feet deep, and connected with the privies by under-ground brick drains. The entire cellar of the hospital has been paved and grouted. The brick walls around the building have been laid. Four tanks of iron, containing more than two thousand gallons each, have been prepared and placed beneath and contiguous to the roof; together with the lead-pipes and other plumber's work connecting the same with the cisterns, wash-stands, water-closets, &c. The exterior of the building has been pointed with hydraulic cement. The iron railings and iron door-steps have been procured, and appropriately set. The plaster grounds have been applied, and the entire building plastered. The hot-air and ventilating registers have been procured and set. All the floors have been laid, and the stair-cases, with their balustrades, &c., have been completed throughout the entire building. The interior and architrave-finish, and the hanging of the doors, windows, &c., have been partially completed. The fire-fronts, grates, &c., have been procured and set. The brick hearths have been laid; a double-acting force-pump has been procured and applied, together with its conduits, and connecting it with the cisterns and all parts of the building. The flag-staff, lightning-rod, vane, &c., together with the locks, hinges, &c., requisite for the comple-

tion of the building, and the probable quantity of white-lead, oil, &c., required for painting the exterior and interior of the building, have all been procured and delivered. The terrace in front, rear, and at the ends of the building, has been enlarged, together with various other items of work that need not here be enumerated.

The work remaining to be done, and for which the appropriation called for in my last annual report, viz: \$6,000, is deemed sufficient, is as follows, viz:

Completing the interior and architrave-finish, including the hanging of the doors, windows, &c.; ceiling two piazzas with pine ceiling-boards; setting the flag-staff, lightning-rod, &c.; painting the interior and exterior of the building with three coats each; preparing and arranging proper bathing-rooms; completing the grading and terracing around the building, together with the necessary drains; constructing a balustrade fence in front of the hospital and around the hospital yard, &c., &c.

The original intention of placing the bath-rooms and heating-furnaces in the cellars of this hospital has been entirely frustrated, by reason of the impracticability of excluding the water of high freshets from the sub-basement story. Accordingly, arrangements have been made for preparing bath-rooms on the ground-floor, contiguous to the wash-room, while it is expected that the furnaces must unavoidably be dispensed with, for want of suitable spaces for their introduction. No very serious inconvenience is likely to result from this omission, however, for the chimneys all draw well; and the wash-room may be arranged in such a manner as to furnish requisite facilities for heating the water occasionally required for the purposes of a warm bath.

Although a considerable reduction in the cost of the building will accrue on these accounts, yet the hindrances to its progress, occasioned by the peculiarities of the place, will be likely to enhance the expenditures on other parts of the work remaining to be done, to the full extent of the appropriation that has been called for.

The receipts and expenditures on account of the marine hospital at Napoleon, for the last fiscal year, are as follows, viz:

Unexpended balance on hand and applicable to this service		
July 1, 1851.....		\$2,269 55
Remittance from U. S. treasury, September 29, 1851...		5,000 00
Do. do. do. January 1, 1852.....		3,000 00
Do. do. do. March 17, 1852.....		4,000 00
		<hr/>
Amount of receipts for the year.....		14,269 55
Amount of expenditures for the 3d quarter, 1851, \$521 05		
Do. do 4th do. 1851, 7,661 78		
Do. do. 1st do. 1852, 4,511 15		
Do. do. 2d do. 1852, 1,384 51		
		<hr/>
Amount expended for the year.....		14,078 49
		<hr/>
Unexpended balance, July 1, 1852.....		191 06
		<hr/> <hr/>

6. *Marine Hospital at Natchez, Mississippi.*

My annual report of September 1, 1851, heretofore cited, explains the condition and progress of the work, in furtherance of the construction of this hospital, at that date; since which time, much of the work therein reported as in progress has been completed.

The work done from that date to the present time is as follows, viz :

The interior and architrave-finish, including the hanging of the doors, windows, &c., has been completed. The stair-cases of the entire building, with their balustrades, have all been completed. The iron water-tanks have been placed in their positions, beneath and contiguous to the roof, and the lead pipes and other plumber's work, connecting the same with the cisterns, wash-stands, water-closets, &c., have been procured and applied. The plastering of the entire building has been finished. The painting of the interior of the building with three coats has been completed. The grates, fire-fronts, &c., have been set. The flag-staff, lightning-rod, vane, &c., have been procured and set. The iron railing for the piazzas has been procured and applied. The grading around the building has been partially done, &c.

The items of work remaining to be completed are as follows, viz :

Procuring and applying a double-acting force-pump, to serve as a fire-engine, &c., with conduits for the purpose of conveying water to all parts of the building; the construction of two hot-air furnaces, with their heaters, boilers, tubing, and other connexions with the water-tanks, bath-rooms, &c.; the grading around the building; the brick pavements for walks, avenues, steps and drains, in connexion with the terraces; the construction of a balustrade fence in front of the hospital and around the hospital yard; the fencing of a portion of the hospital lot, &c.; all of which still remain to be completed, whenever the amount called for in my annual report, viz : \$5,000, shall have been appropriated by Congress for that purpose.

In accordance with instructions from the chief topographical engineer, the finished portions of the hospital building were, on the 19th of June last, delivered into the charge of C. R. Railey, esq., collector of customs at the port of Natchez, reserving the unfinished portions thereof to be completed under my directions.

The receipts and expenditures on account of the marine hospital at Natchez, during the last fiscal year, are as follows:

Remittance from United States treasury, July 14, 1851..	\$6,000 00
Do do do August 26, 1851	4,000 00
Do do do Sept'r 29, 1851	3,000 00
Do do do Nov'r 18, 1851	5,000 00
Do do do Dec'r 15, 1851	2,000 00
Amount received on account of lumber, transferred from this hospital to the hospital at Napoleon, Arkansas.....	21 00
Amount of receipts for the year.....	20,021 00

Outstanding balance, chargeable to the United States, July 1, 1851.....	\$6,686 51
Amount of expenditures for the third quarter of 1851.....	7,024 62
Amount of expenditures for the fourth quarter of 1851.....	4,300 26
Amount of expenditures for the first quarter of 1852.....	1,696 99
Amount of expenditures for the second quarter of 1852.....	217 00
	<hr/>
Amount expended for the year.....	\$19,925 38
	<hr/>
Unexpended balance, July 1, 1852.....	95 62
	<hr/> <hr/>

The duties likely to occupy my attention, and that of my assistants, from and after the close of the last fiscal year, comprise the safe-keeping of the public property pertaining to the improvement of the western rivers and to the survey of the Mississippi delta, the completion of the drawings relative to the survey of the Falls of the Ohio at Louisville, Kentucky, together with the construction and outfit of boats, &c., for the prosecution of the snag business expected to be authorized and resumed in conformity to anticipated appropriations by the present Congress for the improvement of the western rivers.

To these several duties must be added the superintendence of the works necessary to the completion of the several hospitals now in progress under my direction, whenever the appropriations shall have been made by Congress for that purpose.

In conclusion, it becomes my duty to submit an estimate of the sums required for the prosecution of the various works committed to my charge within the next fiscal year, beginning on the first of July, 1853, and ending on the 30th June, 1854, which is briefly as follows, viz:

Amount required for the prosecution of the snag business on the Ohio, Mississippi, Missouri, and Arkansas rivers, during the next fiscal year.....	\$200,000 00
Amount required for the prosecution of the surveys of the Mississippi delta.....	50,000 00

For information in regard to the item last mentioned, I beg leave to refer to my report and estimate touching this service, dated November 26, 1851, as before stated.

Respectfully submitted.

S. H. LONG,

*Lieut. Col. Topographical Engineers,
Supt. Western River Improvements, &c.*

Col. J. J. ABERT, *Chief Topographical Engineer.*

The following table compares the United States and the United Kingdom in 1911. The figures are given in millions of dollars. The figures for the United States are given in the left column and the figures for the United Kingdom are given in the right column. The figures are given in the following order: Total population, Total area, Total population per square mile, Total area per square mile, Total population per square mile of land, Total area per square mile of land, Total population per square mile of water, Total area per square mile of water, Total population per square mile of land and water, Total area per square mile of land and water, Total population per square mile of land and water, Total area per square mile of land and water.

Item	United States	United Kingdom
Total population	100,000,000	45,000,000
Total area	3,700,000	94,000
Total population per square mile	27	478
Total area per square mile	100	100
Total population per square mile of land	100	100
Total area per square mile of land	100	100
Total population per square mile of water	100	100
Total area per square mile of water	100	100
Total population per square mile of land and water	100	100
Total area per square mile of land and water	100	100

The following table compares the United States and the United Kingdom in 1911. The figures are given in millions of dollars. The figures for the United States are given in the left column and the figures for the United Kingdom are given in the right column. The figures are given in the following order: Total population, Total area, Total population per square mile, Total area per square mile, Total population per square mile of land, Total area per square mile of land, Total population per square mile of water, Total area per square mile of water, Total population per square mile of land and water, Total area per square mile of land and water, Total population per square mile of land and water, Total area per square mile of land and water.

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Total population per square mile of water	100	100
Total area per square mile of water	100	100
Total population per square mile of land and water	100	100
Total area per square mile of land and water	100	100

XII.

REPORT OF THE COLONEL OF ORDNANCE.

ORDNANCE OFFICE,

Washington, November 2, 1852.

SIR: I have the honor to submit the following report of the principal operations of the Ordnance department during the last fiscal year, with such remarks and suggestions as the affairs of the department appear to call for.

FISCAL AFFAIRS.

Amount, as per last year's report, undrawn from the treasury on the 1st July, 1851.....	\$710,128 81
In the hands of disbursing officers at the same date....	110,181 76
Amount of appropriations for the fiscal year 1851-'2, including the fixed annual appropriation for arming and equipping the militia.....	982,186 00
Received during the year from damages to arms in the hands of troops, chargeable to them, and from all other sources not before mentioned.....	113,397 51
Total.....	1,915,894 08
Amount of expenditures during the year.....	\$1,241,982 48
In hands of disbursing officers 30th June, 1852.....	97,019 54
Remaining in treasury undrawn, same date.....	576,892 06
Total.....	1,915,894 08

The accounts of all the disbursing officers of the department have been regularly rendered, examined, and transmitted to the proper accounting officer of the treasury for settlement. The estimates for the next fiscal year have been carefully prepared, and include only objects of primary importance, fully explained in the remarks appended.

ARMAMENT OF FORTIFICATIONS.

There was no appropriation made for this object for the fiscal year ended June 30, 1852. The operations of the department under this head were, therefore, limited to the means furnished by unexpended balances of former appropriations. Those means have been applied to repairing and keeping in good order the armament at the forts; to furnishing the regular supplies of ammunition; to paying for heavy cannon, shot, and carriage timber, delivered on previous orders, and to the manufacture of seacoast and garrison carriages at the arsenals, so far as the seasoned timber on hand, and the available means for employing workmen, would permit. The principal articles procured by purchase and fabrication at the arsenals are as follows, viz:

- 32 32-pounder guns.
- 28 32-pounder barbette carriages, complete.
- 8 24-pounder barbette carriages, complete.
- 11 24-pounder howitzer carriages, for flank defence.
- 1 8-inch columbiad barbette carriage.
- 1 10-inch columbiad carriage.
- 30 32-pounder barbette top carriages.
- 16 24-pounder top carriages, for flank defence.
- 41 32-pounder casemate upper carriages.
- 1 18-pounder barbette chassis.
- 1 pent-house.
- 20,977 32-pounder shot.
- 30,928 cubic feet of timber for seacoast carriages.

The expenditures from the appropriation for armament of fortifications during the year, amount to \$77,999 74.

In my last annual report I remarked on an erroneous idea apparently entertained by those not conversant with the subject, that the operations of the Ordnance department, under this head, were so intimately connected with the system of fortifications, that a discontinuance or abridgment of the system affected in a similar degree the necessity of providing the means estimated for under the designation of "armament of fortifications." As this idea seems to have influenced the provision last made for this object, I fear the matter is still misunderstood, and therefore take occasion to repeat here that portion of my last report relating to it, as I have also done, in substance, in the remarks on that item of the estimate: "Although the designation of this appropriation seems to connect it entirely with the system of fortifications, and the work under it has been carried on in reference to that system, it is by no means dependent on it; and the providing of heavy artillery, with its appropriate carriages, ammunition, and equipments, will not be the less necessary for the defence of our harbors and seacoast, even if the system of fortifications should not be prosecuted to completion. On the contrary, if permanent fortifications should be dispensed with, resort must be had to temporary batteries thrown up, as occasion may require, to guard and protect the approaches to our cities on the seaboard, unless it be determined—which is not to be supposed—to leave all points open to attack, and make no preparation for protection or defence. These batteries will require the same kind of armament as it is intended to provide from the appropriation for 'armament of fortifications,' and to a far greater amount, without being as affective for attack or defence. Whatever substitute it may turn out to be the policy of the government to make for the system of fortifications (and no substitute will, in my judgment, answer the same purpose,) the use of artillery certainly cannot be dispensed with; and so far as the quantity of artillery is concerned, less will certainly be requisite with permanent fortifications than without them. It does not, therefore, follow, as seems to have been supposed, that because no means are provided for carrying on the system of fortifications, it is useless to appropriate for the armament; but the reverse is true—the fewer the points that are fortified, the greater the need of armament. Although neither forts nor guns may ever be brought into actual use

in war, it by no means follows that it is therefore useless to provide them, or that expenditures on such account are wasteful: although they may never *repel* an attack, they may prevent one."

In this connexion I desire to call attention to the subject of a national armory for the fabrication of cannon and projectiles. This subject has heretofore been one of repeated inquiry, and is of acknowledged importance. The beneficial results in the manufacture of small-arms, which have been derived from the national armories established for that purpose, leave no doubt as to the expediency of a similar national establishment for the fabrication of cannon. The question has been so fully investigated, and elaborately discussed, in Congressional and Executive reports, as to leave its warmest advocate nothing more to do than to refer to the facts and arguments in favor of the measure, therein adduced. But, while the expediency, if not the absolute necessity of the measure, seems to have been generally conceded, no definite action has been taken for its accomplishment. I recommend it to your notice and attention as a measure of great importance, and with the hope that it may meet your approbation, and secure your aid towards its speedy execution.

ORDNANCE, ORDNANCE STORES, AND SUPPLIES.

The expenditures from this appropriation, during the year, amount to \$180,711 38. They have been applied to the objects for which the appropriation was made, viz: the preparation and furnishing of ordnance supplies to the United States troops; the alteration of flint-lock arms to percussion; experiments with artillery and small-arms; and repairs of field and siege batteries. The principal articles procured by purchase, and fabrication at the arsenals, are the following, viz:

- 2 10-inch columbiads, experimental.
- 2 8-inch columbiads, experimental.
- 18 6-pounder carriages, with implements and equipments complete.
- 35 caissons, with tools and spare parts.
- 1,500 percussion rifles, with appendages.
- 1,000 percussion pistols, with appendages.
- 510 cavalry sabres.
- 584 foot officers' swords.
- 150 field officers' swords.
- 1,008 infantry cartridge boxes.
- 7,500 infantry cartridge-box belts.
- 1,866 gun-slings.
- 3,366 cap-pouches.
- 10,650 waist-belts.
- 10,814 bayonet scabbards, with frogs.
- 1,949 cavalry sabre belts.
- 2,700 carbine slings.
- 2,250 carbine swivels.
- 198 pairs of holsters.
- 1,484 sabre-knots.
- 412 artillery sword belts.
- 820 sword shoulder belts.

- 2,000 sword-plates.
- 22 8-inch cannon balls.
- 42 24-pounder conical shells.
- 2,207 stands of field artillery ammunition.
- 89,080 cartridges for small-arms.
- 2,000 friction primers.
- 72,500 percussion caps—small size.

The number of flint-lock arms altered to percussion, during the year, is 25,274, of which there were 20,545 muskets, 3,813 rifles, and 506 pistols. The arms, ammunition, and other ordnance supplies, furnished to the United States troops during the year ended 30th June, 1852, are shown in the statement hereto annexed, marked C.

Experimental firing, to test, practically, the classification of iron cannon, as heretofore made according to the relative tenacity and density of samples of the metal, and also to test the advantages of different methods of casting, has been commenced. Sufficient progress has not been made to authorize definite and reliable conclusions, but the experiments to that end are going on.

There have been also many experiments with small-arms of novel construction, represented to possess great advantages over those in use. These arms, while exhibiting much mechanical ingenuity on the part of their inventors, have not been found to possess the requisite qualities for military weapons to be used by troops. The general objects of these inventors have been to increase, first, the rapidity of fire; and secondly, the range and accuracy of small-arms. While the first may well be regarded of doubtful utility, and even of positive injury, without a degree of coolness in the ranks and a strictness of discipline not often to be met with, and never to be calculated on, there can be no doubt of the great importance of the latter object. The French arm, "à la tige," and Sharp's method of loading at the breech, appear to promise better success, in effecting this object, than any other methods which have been suggested. Accordingly, the necessary experiments have been ordered, and are in progress, to fix the details of altering the musket and cavalry carbine on the "tige" system, with the intention, that when they are properly arranged, some arms of each kind be altered and placed in the hands of troops for trial. Some of Sharp's arms have also been ordered for a similar trial. This practical test, of actual use by troops in service, is the only reliable one, and no arm should be adopted for government use until it has been proved by a full and complete trial in this way.

A new fuze for spherical case-shot has been tried at the Washington and Fort Monroe arsenals, and the results of these trials indicate a superiority of this kind of fuze, for such projectiles, over that now in use. The perfection of this description of shot is important to enable field artillery to contend successfully with small-arms of long range; and with a view to this end, I have directed some of the shot prepared with the new fuzes to be issued to the artillery for trial and practice.

ARMING AND EQUIPPING THE MILITIA.

Statement A, hereto annexed, shows the apportionment of arms to the militia under the law of 1808. That apportionment is made an-

nally, according to the number of effective militia in each State or Territory, as far as it can be ascertained, from the latest militia returns made to the Adjutant General of the army. From some of the States no returns have been received, and from others none for many years back. The requisite data, for apportioning the arms as the law contemplates, being thus defective, the issues cannot be made in just proportion to the existing militia force. The defect can only be remedied by regularity and uniformity in the returns, or by changing the prescribed rule for the apportionment. Experience fully shows that the former is not to be expected, and I therefore repeat my former recommendation that the law be so modified as to make the distribution of arms and equipments according to population by the latest census, or according to representation in Congress. I also repeat the suggestion in regard to a special provision for supplying arms to the new States, which have not participated in the issues heretofore made under the law of 1808.

The expenditures during the year from the appropriation for arming and equipping the militia amount to \$263,586 68.

The principal articles obtained on this account, by purchase and fabrication at the arsenals, are as follows, viz:

- 10 6-pounder bronze guns.
- 3 12-pounder bronze howitzers.
- 24 6-pounder carriages, with implements and equipments complete.
- 4 caissons, with tools and spare parts.
- 4 battery wagons.
- 4 travelling forges.
- 2,000 cadets' muskets, with appendages.
- 9,500 percussion rifles, with appendages.
- 1,000 percussion carbines, with appendages.
- 3,900 percussion pistols, with appendages.
- 2,000 Colt's pistols, with appendages.
- 2,550 cavalry sabres.
- 1,000 bayonet scabbards, with frogs.
- 150 cap-pouches.
- 30 sword shoulder belts.
- 1,000 copper powder flasks.
- 375 pairs of holsters.
- 375 sabre belts.

The quantity and kind of arms and equipments furnished to the militia during the year, are shown by the annexed statement marked B.

NATIONAL ARMORIES.

The following table exhibits the expenditures at the national armories, during the fiscal year, for manufacturing arms and for all other objects :

	Harper's Ferry.	Springfield.	Total.
For the manufacture of arms, appendages, tools, &c., and purchase of materials for the same.....	\$197,478 29	\$169,074 78	\$366,553 07
For repairs, improvements, and new machinery, including buildings, dams, &c....	44,631 80	34,440 89	79,072 69
	242,110 09	203,515, 67	445,625 76

The manufactures at Harper's Ferry armory include 13,400 percussion muskets and 3,227 steel-barrel percussion rifles, with appendages for the same—consisting of extra cones, wipers, and screw-drivers; 2,072 assorted components for repairs of arms at other posts, and 48,473 hammers, cones, and screw-drivers, for altering flint-lock arms to percussion. For the last two months of the year, manufacturing operations at this armory were entirely suspended in consequence of the overflow of the grounds and workshops by the flood of April 19th and 20th. This suspension has diminished the product of the year. To make good the damages of the flood has caused an expenditure not foreseen and not provided for in previous estimates, to cover which an item has been included in the estimate last rendered. The manufactures at Springfield armory include 21,800 percussion muskets, of which 2,000 are of the model in use by the cadets, with 56,620 appendages for the same, and 216,205 hammers, cones, and screw-drivers, for altering flint-lock arms. Work on buildings and machinery has also been done, the description and extent of which are stated in the annexed reports of the commanding officers of the armories, which are referred to for information in detail respecting the operations of the year. The cost of the finished muskets manufactured at Springfield armory during the year, averaged \$8 74½; at Harper's Ferry armory, the cost of the muskets averaged \$9 99½, that of the steel-barrel rifles \$11 60½. The inspector of arsenals and armories, during the past year, has visited and minutely and critically examined the condition and management of the two national armories. His inspection reports represent their general condition to be excellent; the operations to be conducted with skill and system; the buildings and machinery to be kept in the best order; the artisans and other workmen employed to be intelligent and to perform their work willingly, diligently, and skilfully; and all in authority to exert their energies for the promotion of the public interest. I annex hereto copies of these inspection reports in full, to which I invite attention for a proper understanding of the condition of these public establishments under their present system of superintendence. A recent personal inspection of the Springfield armory enables me to speak in similar terms of the excellence of its condition and management; and my experience in the affairs of these

establishments for many years convinces me, fully and entirely, that, since they were placed under the present system, many important improvements have taken place, which are, in my judgment, due to the system. The change has produced a great, if not entire, reformation of the abuses formerly existing. Like all other reformations, it has met with opposition, and the reformers have had to encounter the ill-will and hostility of those who had profited by the abuses and are interested in restoring the former state of affairs, and to contend against their personal endeavors to effect that end, as well as the influence they could command in other quarters. A full and thorough inquiry into the merits of the two systems will, it is confidently believed, convince any unprejudiced person of the superiority of the present system over that which preceded it. Such has been the effect of the two investigations heretofore made—the one by a board composed exclusively of civilians, the other by a military court of inquiry. I refer with confidence, in support of my opinion, to the facts elicited by those investigations, to be found recorded in public documents, (Executive Doc. No. 207, second session Twenty-seventh Congress, and Senate Doc. No. 344, first session Twenty-ninth Congress,) and ask that no action calculated to effect a change may take place, at least until preceded by such an inquiry, and found therefrom to be expedient.

The number of serviceable small-arms at the armories and arsenals on the 30th June, 1852, was about 629,745; of which there were 193,061 new percussion muskets; 281,509 percussion muskets altered from flint-lock, and 73,992 flint-lock muskets—in all 548,562 muskets; 45,599 new percussion rifles; 4,700 percussion rifles altered from flint-lock, and 3,885 flint-lock rifles—in all 54,184 rifles; 9,435 new percussion pistols; 6,450 percussion pistols altered from flint-lock, and 11,114 flint-lock pistols—in all 26,999 pistols. The opinion expressed in my last annual report, in regard to the number of small-arms that would constitute a proper provision for the nation, is still entertained, and, in support of it, I refer to the views therein expressed.

ARSENALS AND DEPOTS.

There has been no change in the number of arsenals and ordnance depots during the year. The expenditures from the appropriation for arsenals, during that time, have amounted to \$153,888 80, which have been applied to the objects stated in the estimates on which the appropriation was based. The work done consists of repairs and preservation of buildings and sites, the erection of new and additions to old buildings, and all improvements of a permanent character. The reports of the commanding officers accompanying this give a detailed account of this work and of other principal operations at each, and are referred to for particulars. The annual inventories, which are rendered to include the 30th June of each year, show the aggregate valuation of all property in charge of the Ordnance department to have been, at the beginning of the present fiscal year, about 19,000,000 of dollars.

I again recommend that such of the arsenals as are not required for military purposes be disposed of. There are several of them of which little or no use can be made as arsenals, and their maintenance is a

source of constant expense. The views on this subject expressed in my last report, as also those in regard to the transfer of the arsenals at Old Point Comfort, Virginia, and Mount Vernon, Alabama, to other sites, are unchanged. No action in reference to them having been authorized, I respectfully repeat my former suggestions and recommendations touching these points. There appears to be a necessity for extending the present limits of the ground assigned to the arsenal at Greenleaf's Point, in this city. The measure suggested as best calculated to effect this object is to obtain a restoration to the arsenal of the ground which was taken from it as a site for the penitentiary. This measure has heretofore been proposed, and I think might be effected with advantage to the public interest. I refer to the report of Major Mordecai, and to an extract from Lieut. Col. Baker's last inspection report of Washington arsenal, hereto annexed, for further information in regard to the subject.

During the last session of Congress I made a report in answer to a resolution of the Senate calling for information in relation to the establishment of suitable depôts for the preservation of the gunpowder belonging to the United States. That report, dated March 23, 1852, was transmitted to the Senate, but no action was had on the subject. The public service, in my opinion, requires the establishment of such depôts; and I understand that the site formerly selected by a board of officers as most suitable for the main depôt may be purchased by the government, if it be soon authorized; otherwise, it is likely to be sold, in small parcels, to individuals, which will render its acquirement by the government difficult, if not impossible. I therefore beg leave to bring the subject again, through the War Department, to the notice of the legislature, believing that it was favorably received when heretofore before them, and not acted on only from the pressure of other business demanding their attention. My report and the document therein referred to, which are on the Congressional files, contain full information on the subject.

I am, sir, very respectfully, your obedient servant,

H. K. CRAIG, *Colonel Ordnance.*

Hon. C. M. CONRAD,
Secretary of War.

A.

Apportionment of arms to the militia for the year 1851, under the act of 1808, for arming and equipping the whole body of the militia.

States and Territories.	For what years returns received.	No. of militia.	No. of arms apportioned, in muskets.
Maine.....	1851	62,533	413
New Hampshire.....	1851	32,151	213
Massachusetts.....	1851	119,690	791
Vermont.....	1843	23,915	158
Rhode Island.....	1851	14,443	95 $\frac{5}{8}$
Connecticut.....	1851	51,649	341
New York.....	1851	265,293	1,754
New Jersey.....	1829	39,171	259
Pennsylvania.....	1847	276,070	1,825
Delaware.....	1827	9,229	61
Maryland.....	1838	46,864	310
Virginia.....	1851	125,128	827
North Carolina.....	1845	79,448	525
South Carolina.....	1848	55,209	365
Georgia.....	1850	78,699	520
Florida.....	1845	12,122	80
Alabama.....	1851	76,662	507
Louisiana.....	1847	43,823	290
Mississippi.....	1838	45,385	300
Tennessee.....	1840	71,252	471
Kentucky.....	1851	81,840	541
Ohio.....	1845	176,455	1,166
Michigan.....	1850	63,938	423
Indiana.....	1832	53,913	356
Illinois.....	1851	170,359	1,126
Wisconsin.....	1848	32,203	213
Iowa.....			
Missouri.....	1844	61,000	403
Arkansas.....	1843	17,137	113
Texas.....	1847	19,766	131
California.....			
Minnesota Territory.....	1851	2,003	13
Oregon Territory.....			
Territory of Utah.....	1851	2,575	17
Territory of New Mexico.....			
District of Columbia.....	1832	1,249	8
		2,211,174	14,615 $\frac{5}{8}$

ORDNANCE OFFICE, *Washington, Nov. 2, 1852.*

H. K. CRAIG, *Colonel Ordnance.*

B.

Statement of the ordnance and ordnance stores distributed to the militia under the act of April, 1808, from the 1st July, 1851, to the 30th June, 1852.

- 2 12-pounder bronze guns.
- 15 6-pounder bronze guns.
- 1 12-pounder bronze howitzer.
- 1 10-inch mortar.
- 1 8-inch mortar.
- 18 carriages for field artillery, with implements and equipments complete.
- 1 10-inch mortar bed, with implements and equipments complete.
- 1 8-inch mortar bed, with implements and equipments complete,
- 8 caissons, with tools and spare parts.
- 13 sets of artillery harness for two wheel-horses.
- 5 sets of artillery harness for two lead-horses.
- 15 extra sponges.
- 12 extra thumbstalls.
- 6 extra gunners' gimlets.
- 10 extra priming wires.
- 4 extra linstocks.
- 4 extra portfire stocks.
- 12 extra drivers' saddles.
- 12 extra bridles.
- 2,852 muskets and appendages.
- 550 cadets' muskets and appendages.
- 1,526 rifles and appendages.
- 50 Hall's carbines and appendages.
- 100 artillery musketoons and appendages.
- 3,006 percussion pistols and appendages.
- 889 Colt's pistols and appendages.
- 1,197 cavalry sabres.
- 24 artillery sabres.
- 349 non-commissioned officers' swords.
- 60 musicians' swords.
- 680 artillery swords.
- 6 cadets' swords.
- 5 field officers' swords.
- 6,105 sets of accoutrements for infantry, riflemen, and cavalry.
- 635 infantry cartridge boxes.
- 510 infantry cartridge box belts.
- 1,130 bayonet scabbards.
- 1,180 waist belts.
- 620 brushes and picks.
- 60 cap pouches and picks.
- 764 sword belts for non-commissioned officers and artillery.
- 349 belts for cavalry and artillery.
- 24 sabre knots.
- 500 cartridge-box belt plates.

- 500 rifle pouches.
- 250 flask and pouch belts.
- 250 copper flasks.
- 643 pairs of holsters.
- 122,000 percussion caps for small-arms.
- 500 cannon percussion primers.

H. K. CRAIG, *Colonel Ordnance.*

ORDNANCE OFFICE,
Washington, November 2, 1852.

C.

Ordnance and ordnance stores issued to the army, and to the several military posts, for the year ended June 30, 1852.

- 29 32-pounder guns.
- 1 24-pounder siege gun.
- 2 12-pounder siege guns.
- 5 6-pounder bronze guns.
- 2 12-pounder bronze howitzers.
- 10 12-pounder bronze mountain howitzers.
- 2 10-inch siege mortars.
- 1 8-inch siege mortar.
- 41 32-pounder casemate carriages.
- 1 24-pounder barbette carriage.
- 1 8-inch barbette carriage.
- 1 24-pounder siege carriage.
- 1 8-inch siege howitzer carriage.
- 2 10-inch mortar beds.
- 1 8-inch mortar bed.
- 7 6-pounder carriages.
- 2 12-pounder howitzer carriages.
- 8 prairie carriages.
- 9 caissons, with tools and spare parts.
- 225 32-pounder cannon balls.
- 120 24-pounder cannon balls.
- 33 6-pounder cannon balls.
- 70 10-inch shells.
- 200 8-inch shells.
- 25 spherical case-shot.
- 1,989 stands of fixed ammunition, for field service.
- 1,700 stands of ammunition, for siege and garrison service.
- 790 muskets.
- 17 rifles.
- 10 cavalry musketoons.
- 7 artillery musketoons.
- 606 percussion pistols.
- 89 Colt's pistols.
- 37 cavalry sabres.

11	horse-artillery sabres.
71	non-commissioned officers' swords.
37	musicians' swords.
408	sets infantry accoutrements.
2,981	cartridge-box belts.
643	infantry cartridge boxes.
3,206	waist belts.
3,178	bayonet scabbards, with frogs.
400	cap pouches.
318	gun slings.
906	sabre belts.
784	sword knots.
615	carbine slings.
255	carbine swivels.
475	sword shoulder belts.
1,250	cartridges for field service.
4,100	cartridges for siege and garrison service.
213,100	cartridges for small-arms.
192,800	percussion caps for small-arms.
14,200	cannon percussion primers.
7,000	friction primers.
34,000	pounds cannon powder.
2,963	pounds paint.
527	gallons oil.

H. K. CRAIG,
Colonel of Ordnance.

ORDNANCE OFFICE, *Washington, November 2, 1852.*

INSPECTION REPORT OF SPRINGFIELD ARMORY.

UNITED STATES ARMORY,
Springfield, Mass., October 20, 1852.

SIR: Having made an inspection of the United States armory at Springfield, I have the honor to report:

1. That the annual estimate, to June, 1854, made by the commanding officer, for "improvements and repairs," amounts to \$118,094 10, inclusive of \$99,094 10, which he supposed had reverted to the surplus fund, but which he has since been informed only amounted to \$46,094 10, leaving the sum of his estimate at \$65,094.

The new objects for which the estimates were made, are—

1st. Purchase of land, \$9,000.

2d. For boilers, shafting, &c., for new engine, \$10,000.

The first of these objects includes three small parcels of land for the purpose of straightening the boundary lines of the public tract, and ultimately, should private improvements advance towards the arsenal grounds, of enabling the United States to interpose a road all around the public grounds, between it and the city. It is undoubtedly desirable to acquire these small parcels of land for these purposes; and, in my opinion, the fifteen-acre lot, immediately east of the armory

square, might be sold at a price far exceeding the cost of the land proposed to be purchased. This fifteen-acre lot is separated from the rest of the public land by a road, is not used for any public purpose, nor can I conceive of any use to which it can be applied hereafter.

The second item in the estimate, of \$10,000, for purchasing boilers and shafting for a new engine—intended for shops to be built—is necessary, and is probably not too great, as it includes the building of the boiler-house. As I understand from Lieutenant Colonel Ripley, these two sums, with that which has reverted, make the foregoing total of the annual estimate.

2. The system of improvements at this armory contemplates a complete renovation. It has been pursued for several years to the great benefit of the establishment and the public interest. When the present old and crowded shops shall be replaced by more capacious and convenient ones, and the enclosing fences shall have been finished, this will undoubtedly be one of the most complete manufactories of arms in the world; and the commanding officer having nearly perfected a *plan* for the principal shops, the improvements should be hastened to completion.

The plans and sites selected for the buildings appear to me to be excellent and judicious. In carrying the plans into effect it will become necessary to remove the old frame dwellings and barns, which are of very little value. It is intended to execute the work in such manner as will not interfere with the manufacturing operations for any considerable time. These three old frame buildings are condemned, on the list of condemned stores forwarded by me on the 19th instant. The two dwelling-houses had been previously condemned.

3. The hired force at the armory, by the September return, was three hundred and thirty-six men, including clerks, foremen and assistants; in August the number was three hundred and thirty-five, and the pay-roll for this latter month amounted to \$13,016 52, as follows, viz: Under the appropriation for "*national armories*"—

For manufacture of arms.....	\$9,357 53	
“ special work.....	1 75	
“ miscellaneous.....	601 58	
“ work on machines, &c.....	1,258 25	
	<hr/>	\$11,219 11
“ repairs and improvements.....	994 30	
“ machinery.....	656 48	
	<hr/>	1,650 78
“ ordnance stores.....		146 63
		<hr/>
Total.....		<u>13,016 52</u>

The wages earned by mechanics on piece-work are found to range from about \$1 50 to \$3 per day, and at almost all the intermediate amounts. These may be considered liberal wages, but probably not above those paid at large private establishments; and the amounts earned may be ascribed to the system of paying by the *piece* instead of the *day*, which induces greater activity and industry.

It will be observed, on reference to the monthly returns from this armory, that quite a large number of carpenters, masons, painters, and

laborers, are temporarily employed in the improvements in progress of execution.

That the number of persons employed is not more numerous than required, is evident from the industry and attention to duty observable in every branch of the establishment; and it is equally evident that their services, as well as all the material purchased and expended, are applied exclusively for public purposes.

4. The number of public horses kept at the armory is *six*, and that number appears to be necessary.

5. In all the public storehouses the arms and other public property are neatly arranged, so as to secure their safety and preservation.

6. All the books and papers required by the regulations, and all that are necessary to account for the operations of such an establishment, are kept with the greatest accuracy and system of accountability, which is well known to the department, and appears to be as perfect as it is practicable to render it.

7. The interchange of the parts of the Harper's Ferry and Springfield muskets resulted as in a similar trial on my inspection at Harper's Ferry. The exceptions to perfect uniformity, in all the components of the arms, were not of any practical importance.

I observed, however, at this armory, that the adopted increase in the length and width of the comb of the hammer has been omitted, but the improvement will soon be made.

The arms continue to be of excellent quality, and are, undoubtedly, equal to any manufactured elsewhere; and, in the rigid system of inspections, there is hardly any possibility of any falling off in the quality of the material or workmanship.

8. An examination of the annual report shows the manufacture for the year ending June 30th last to have been 19,800 muskets, and 2,000 cadets' ditto, at a cost of \$8 74 and \$9 75 each, respectively. It likewise exhibits an annual expenditure of \$229,633, and the value of property amounting to \$3,690,597.

9. The balance due the United States from the paymaster was, on the 1st October..... \$44,796 59

Which is thus accounted for, viz:

Expended in October..... 24,670 76

Leaving due to the United States, October 16..... 20,125 83

Which is balanced as follows:

Paid on September roll..... \$502 00

Paid on contracts 1,043 00

Cash in specie..... 18,580 83

20,125 83

10. There are about 8,000 6-pounder cannon balls, apparently of good quality, at this armory, which, not being required here, I recommend should be inspected; and if found of good quality, that they be sent to the Watervliet arsenal, where they can be expended, as required, for fixed ammunition.

11. The general condition of this large establishment is almost unexceptionable. The shops at the river, and on the hill, are conducted

with skill and system; and everything connected with the place exhibits the most perfect neatness and care. Every person employed seems to understand his duty, and to perform it willingly, diligently, and skilfully.

The buildings and machinery are kept in the best order, and all those upon whom any responsibility rests seem to exert their energies for the promotion of the public interests.

I am, sir, respectfully, your obedient servant,

R. L. BAKER,

Lieutenant Colonel Ordnance, Inspector, &c.

Col. H. K. CRAIG,

Ordnance Department.

INSPECTION REPORT OF HARPER'S FERRY ARMORY.

WASHINGTON, July 20, 1852.

SIR: Having finished, on the 17th instant, an inspection of the armory at Harper's Ferry, its several workshops and mechanical operations, I am satisfied that the system under which they are conducted is a very excellent one. There are few, if any, private manufactories of arms, requiring as much intelligence, and so general a knowledge of mechanics, theoretical and practical, as the command and management of one of our national armories. Private manufacturers of arms are, comparatively, copyists: they have models furnished them, and their instructions and interests require a close imitation of them; but those models are results of a knowledge of the sciences—of study in the investigation of principles—and an application of that knowledge to the examination, tests, and selection of materials which compose them, and to those forms of construction which impart to them the qualities and peculiar characteristics required. Hence, without a scientific education, no person could conduct the concerns of this armory with a certainty of success. It would not be enough, that a system had been established; that governing rules were known, acquiesced in, and followed; that an armory was complete in all its parts; its mechanical operations a simple routine; and that, from these causes, similar results with the past would necessarily follow. Were the perfection of the arts already attained, the experience of the past might be safely and exclusively followed; but, in the *machines* and general material of war, there is an increasing effort at improvement all over the civilized world. Every nation, by means of the investigations and experiments of its educated officers, is on the search for new elements in the construction, that shall produce new and important effects in the several fire-arms for the military service; and discoveries have been made; and are frequently appearing, which are changing, very materially, their character and power. Some of these causes were accidentally developed, but always in the course of investigation and experiment; and unimportant as they may appear to an inexperienced observer, their effects have been traced to scientific causes. To avoid the danger of falling behind other nations in improvements connected with this branch of our military service,

those intrusted with its management should possess an appropriate military education, and likewise a practical acquaintance with mechanical operations, and of business transactions. To provide successors in the command of this armory, I would, therefore, respectfully recommend that a subaltern officer should be stationed at it, as assistant to the commanding officer.

The completeness of the present system, so far as *uniformity in construction* is concerned, is made manifest by the late submersion of some 20,000 arms during the highest flood ever known at the place. In cleaning those arms, 9,000 percussion muskets have been stripped and completely dismantled, their parts being thrown into great masses; and after being repaired, the arms are re-assembled from those lots of 9,000 components, having no distinguishing mark, every limb filling and fitting its appropriate place with perfect exactness. Had not this perfect uniformity existed, the parts of each arm must have been separately distributed; boxes must have been provided for these several and numerous parcels; great care would have been requisite, to avoid a mixture; every limb, of every musket, must have been numbered; and the expense of the operation would have been greatly increased.

All these inconveniences have been obviated by that system of uniform dimensions, even in the simplest and minutest components of the arm, which obtains in such perfection at this armory.

To determine whether this general uniformity extended to the fabrications of both national armories, I caused a musket of the manufacture of 1851, of either armory, to be taken to pieces, and then applied all the components of one to the other, mixing them in almost every possible manner, and applying the parts likewise to the receiving gauges. The result was, the *components*, as well as the *whole*, were identical, for every practical purpose. Only one, almost inappreciable, variation, was the length of the front end of the lock plates being detected, and this did not prevent a perfect assembling of the arms.

The system embraces all the various operations and transactions of the armory—the hours and distribution of labor, the regulation and police of the workshops, the duties and responsibilities of foremen and workmen, the accountability for public property—for its purchase, manufacture, receipt, issue and expenditure—the receipt, keeping, disbursing, and accounting for all moneys appropriated for the service of the establishment. Each foreman is required to keep—

- 1st. An account-book with the workmen.
- 2d. A tool-book.
- 3d. A stock-book.
- 4th. A book of fabrication.

In the first an account is opened with each man, by the foreman in whose department he is employed, charging him with the parts of the arm upon which he works. When his labor has been performed upon them, he returns them to his foreman for inspection; after which he is credited with all that have been approved, as well as for all rejected for bad material or bad workmanship, under their respective heads. From these books the monthly returns of work are made and handed to the master-armorer, to be by him approved, previous to making up the pay-rolls in the office of the commanding officer.

In the second, or "tool-book," an account is kept with each workman, charging him with all the tools he receives, and he is held accountable for their return, should he leave the armory. Should any be lost, or injured, their value is deducted from his pay. These books are consolidated quarterly and annually in others, kept in the master-armorer's office, and from the annual consolidation the annual inventory is, in part, made up.

The "stock-book" exhibits a statement of all materials, &c., received from the military storekeeper—the quantities expended, and the purposes of expenditure—and they are closed quarterly, and handed in to the book-keeper for examination and comparison with the military storekeeper's account of issues; after which their contents are consolidated in a book for the "quarterly consolidation of stock," and at the expiration of the year into an "annual consolidation of stock," which exhibits the total issues and expenditures, and the purposes for which they were made.

The fourth, or "book of fabrication," is one of much importance. It exhibits the total number of the various parts of the arm on hand from the previous month, the number fabricated during the month, and the various stages of finish to which they have advanced; the number received from and delivered to other foremen and the military storekeeper, and their stages of finish, and the number condemned for workmanship or material. At the expiration of each month these books are handed to the master-armorer, to be compared with the monthly returns of work from each foreman, and are consolidated monthly in a book kept by the master-armorer. Quarterly and annually they are likewise consolidated, the last being used in making up the annual inventory. All the accounts of the armory are settled quarterly, and correct inventories rendered by the foremen to the master-armorer of all tools, machines, &c., in the current service, and of all stock expended, and for what purpose.

It is obvious that the degree of accountability to which the workmen and foremen are subject, prevents all deception, inasmuch as the former are strictly accountable to the latter, and the latter, in turn, to the master-armorer, for all the details of duty, and the faithful performance of the work assigned them. From this system of accounts, information may, at any moment, be obtained of the operations in detail, by reference to the books in the master-armorer's office.

The gradual advance to these improvements has not escaped opposition, which almost every reform has to encounter, yet they have been attained notwithstanding; and are so strikingly evident, that no one who observes them can refuse his approval of the measures and means that have been employed so successfully. As far as I can learn, the only objection, perhaps, that still exists among the workmen, to this improved system, is to the rule which requires an observance to fixed hours for labor in the shops. The work is done by the piece; and provided it be done, and well done, it is contended by some that the operative should enjoy the privilege of laboring as few or as many hours, and during such parts of the day, as might best suit his interests or convenience; but under such a rule the public interests would inevitably suffer. There could be no reliable estimate of the amount of work

by a fixed number of workmen, during a given time. The most industrious would advance their particular parts of the arms beyond the required number, whilst others, less ambitious or industrious, would fail to supply the necessary amount, and all would be uncertainty and confusion; the year closing with a great surplus of some components, and a great deficiency in others. There can be no complaint as to wages, which are as good, and, I suppose, better than at most private manufactories. Taking the month of March last, for instance, I found that—

Barrel-forgers averaged	per day ..	\$2 25
Bayonet, lock, and mounting forgers.....	“ ..	2 4
Barrel-finishers	“ ..	1 77
Lock-filers	“ ..	1 95
Mounting-filers.....	“ ..	1 89
Borers.....	“ ..	2 03
Stockers	“ ..	1 82
Polishers	“ ..	1 98

And these prices appear to have a very just proportion to the relative skill and severity of labor required in the several branches of the work.

A reduction in the number of muskets manufactured monthly, which, prior to the great flood, was about 1,667, is a consequence of that disaster, by which more than 20,000 arms were injured. Labor has been diverted from the manufacture to the repair; and the work of reparation is proceeding at the rate of about 250 per day. This change in employment has enabled the commanding officer to add to the number of workmen on rifles, so as to increase the manufacture of that arm to about 250 per month. One shop more will finish the rifle factory, and make it complete in its buildings. Many of its machines are of old, clumsy models, that have been many years in use. They should be replaced gradually by others better adapted to the service required of them. This last shop, for machines, is already commenced, and built up to the water-table, with its wheel-pit, &c. All the modern shops are well adapted to the work of manufacturing arms, being spacious, well lighted, and ventilated.

There are at the present time 354 men employed at this armory, as follows, viz:

- 1 master-armorer.
- 4 clerks.
- 1 assistant clerk.
- 16 foremen.
- 32 machinists.
- 5 barrel-forgers.
- 5 lock-forgers.
- 3 bayonet-forgers.
- 8 mounting-forgers.
- 4 trip-hammer men.
- 12 assistant forgers.
- 4 annealers.
- 9 borers.
- 34 turners and drillers.

- 3 grinders.
- 12 lock-filers.
- 29 mounting-filers.
- 7 polishers.
- 19 stockers.
- 23 barrel finishers.
- 1 arm assembler.
- 7 blacksmiths, for jobbing.
- 1 job filer.
- 9 carpenters.
- 103 laborers.

Many of the laborers are temporarily employed in cleaning the wet arms, &c., and will be discharged when that work shall be finished. The amount of the pay-roll for May is as follows, viz :

Manufacture of muskets.....	\$4,515 80	
Tools and machines.....	846 27	
Miscellaneous.....	448 16	
		\$5,810 23
Manufacture of rifles.....	1,928 54	
Tools and machines.....	168 98	
Miscellaneous.....	203 84	
		2,301 36

Special work.

Repairing damages by flood.....	1,957 56
Fabricating cones and polishing.....	298 72
Buildings and improvements.....	538 58
New machinery.....	720 28
	11,626 73

Col. Huger proposes to include in his annual estimate to be made in August, the following items, viz :

1. Completion of new arsenal.....	\$10,000
2. Enclosing wall of arsenal yard and for grading grounds.....	3,700
3. Building a stock-house.....	8,000
4. Converting present stock-house into millwright, &c., shop.....	1,000
5. Canal walls, railing, &c., at the musket factory.....	5,000
6. Paving smiths' shop.....	1,000
7. Sheet-iron stacks to 13 forges.....	700
8. Repairing buildings, culverts, &c.....	1,500
9. Making and improving roads, walks, and grading grounds.....	2,500
10. Building rolling-mill.....	7,000
11. Purchase and repair of machines.....	10,000
12. Two water-closets, rifle factory.....	150
13. Repairs of canal and revetment along where there is none, at both establishments.....	3,500
14. Opening new waste-way, and closing old; repairing canal bridge, &c.....	1,500
15. Repair of storehouse at rifle shops.....	650

16. Removing old buildings at rifle shops, and grading the grounds.....	\$1,500
17. Repairing Potomac dam, injured by floods.....	1,500
	<hr/>
	58,500
	<hr/> <hr/>

All these proposed improvements, I have no doubt, are very necessary to complete the establishment.

The reserved (from sale) site, on which it is proposed to build the arsenal, is large enough to contain other buildings which are required, and which I recommend should be constructed. 1st. A stock-house, for the large supply of stocks stored for seasoning. The present stock-house in the armory yard was overflowed, and that building being convenient and required for a work-shop, another stock-store should be put up on the ground above all floods. The site for the arsenal is such; but it is very rough, and will require much labor and expense to put it in order. By suitable grading and draining, the wash down the ravine passing through these grounds will be prevented, and the annual labor and expense of cleaning out the canal, at this point, saved.

The principal improvements required, after the construction of the new arsenal, canal walls, rolling-mill, &c., and the arrangement of the adjoining grounds, will be to establish a lumber yard, above high water; a stable yard, adjoining the stables; grading and improving the roads, which are very bad between different parts of the establishment, &c.

The reservation of the land between the quarters of the commanding officer and the military storekeeper affords good lots for such quarters as may be necessary at a future time for the officers of the armory, which might be erected, perhaps, from the proceeds of the sales of the public lots and houses. I examined all the grounds belonging to the United States, at this armory—the lots arranged for sale, and those reserved for the use of the armory. The whole arrangement appears to me to be a good one.

The necessary preparations are in progress to construct the experimental rifle, on the "Minié" and "à la tige" methods. A rifling machine, and other fixtures, have been completed, and many preliminary arrangements made; but it will require some time to get fully in operation, as such constructions require much study and care. Col. Huger is pursuing the subject with all diligence.

I made a strict examination of the books and accounts of the paymaster of the armory, and found that, on the 31st March last, there was a balance due him of.....	\$1,149 72
That he has on hand cash vouchers.....	47,833 76
Cash in Baltimore	\$5,440 16
And in his safe	15,992 59
	<hr/>
	21,432 75
	<hr/> <hr/>
Making a total of.....	70,416 23
	<hr/> <hr/>

And that he had received during the quarter, including a warrant,
July 9th—

April 22, war warrant	\$500 00
May 13, do.	45,000 00
June 8, proceeds auction sale	5,909 37
July 9, war warrant.....	19,000 00
Total.....	<u>70,409 37</u>

The paymaster makes his payments in specie.

The balance of cash on hand, including \$5,440 16 deposited with Alberts & Co., Baltimore, amounts to \$21,467 75, which is on hand.

I examined the annual inventory of 1851, for the purpose of comparing prices of the principal articles with similar ones at the Springfield armory.

The number of horses kept at the armory is six, which is no greater than is required for the public service.

The arrangement of the public property is according to regulations, and the issues and uses of it are exclusively for the public. I am satisfied that there is no misapplication of materials or labor at the place.

Very respectfully, your obedient servant,

R. L. BAKER,

Inspector of Armories and Arsenal.

Col. H. K. CRAIG, *Ordnance Department.*

Statement of the principal operations at the armories and arsenals during the year ended June 30, 1852.

SPRINGFIELD ARMORY, COMMANDED BY BREVET LIEUTENANT COLONEL
J. W. RIPLEY.

The principal operations at this armory during the year ended June 30, 1852, were as follows :

Arms and appendages fabricated.

19,800	percussion muskets, model of 1842, complete.
2,000	do do cadet
177,805	cones, extra.
13,020	wipers { 10,785 for model of 1842.
	{ 2,235 for cadet, do.
11,053	hammers for percussioning flint muskets.
70,947	compound screw-drivers.
101	arm chests.
136	packing boxes.

Machinery fabricated and in progress.

2	boring banks, complete.
1	punching and shearing machine, complete.

1	turning engine,	complete.
4	tilt hammers,	"
4	stocking machines,	"
2	do	do in progress.
1	milling do	"
1	shaving do	"
2	water wheels,	"

About 45,000 muskets have been cleaned and oiled, which completes the number remaining at the close of the preceding year, exclusive of those in the third story of the middle arsenal.

Various experiments in machinery, having for their object the improvement of the musket and the reduction of its cost, have been conducted during the year.

Buildings.

The gun-racks in the third story of the new arsenal, represented as in progress in last year's report, have been completed, and are partially filled with arms. The racks in the middle arsenal, and other parts of the building requiring it, have been repaired and put into complete order.

The painting of the new arsenal has been commenced, and is now in progress.

Grounds.

Gas-pipes have been laid around the principal square, and with little additional labor and expense the offices, shops, and other buildings can be furnished with the fixtures necessary for lighting them.

The work of constructing an iron fence, to enclose the public grounds on the hill, has been commenced; the grading and foundation for the same along the line of State street and a part of Byers street being nearly completed, and the whole work urged forward with as much expedition as is compatible with durability and the permanent character of the structure.

HARPER'S FERRY ARMORY, COMMANDED BY BREVET COL. B. HUGER.

REPORT OF THE PRINCIPAL OPERATIONS AT HARPER'S FERRY ARMORY,
DURING THE FISCAL YEAR ENDED JUNE 30, 1852.

Musket factory.—Arms, appendages, &c., fabricated.

13,400	percussion muskets.*
9,793	cones, extra.
29,524	screw-drivers.
21,371	wipers.

* Owing to the damages caused by the flood of 20th April, no muskets were completed during the two last months of the year, May and June.

- 1,886 ball screws.
 1,553 spring vices.
 2,072 components, assorted, for issuing to other posts.
 35,415 cones for percussioning flint-lock muskets.
 6,313 screw-drivers do. do. do.
 6,745 hammers do. do. rifles.

Machines fabricated and in progress.

- 93 $\frac{1}{2}$ feet main line of shafting.
 81 $\frac{3}{4}$ feet counter line of do.
 2 trip-hammers, iron frame, for forging bayonets.
 3 do. do. do. barrels.
 1 trip-hammer, do. do. ramrods.
 5 trip-hammers, wood frame, do. barrels.
 1 machine for draw-polishing barrels.
 3 force-pumps, with fixtures.
 12 cast-iron forges for components.
 10 machines for cutting components, purchased.
 1 machine for milling cones, purchased.
 2 machines for punching and trimming, purchased.
 2 fan-blowers and fixtures, purchased.

The wood frames for belt tilt-hammers have been found to stand much better than iron ones. They answer perfectly well. Solid platforms of stone masonry have been placed under these hammer frames and the two punching presses. Much of the old machinery has been repaired and improved.

Buildings.

1. The new annealing and brass foundry, described in last report as ready for the brick masonry, has been completed.
2. A new wash-house between the bell-shop and boring-mill has been erected of brick, with a tin roof.
3. A new brick building on stone foundations, adjoining the new machine shop, and of the same style of architecture, has been erected as an office of the foreman of that shop.
4. A new lime-house of wood has been erected.
5. An outside store-room of brick, on stone foundation, erected at commanding officer's quarters.

Grounds, &c.

6. Fifty-four panels of fence, sixteen feet high, have been constructed around the wood-yard and along the south side of armory canal.
7. Two drains, about 300 feet long, and a stone wall, built on the hill-side, about 217 feet long, seven feet high, and 2 $\frac{1}{2}$ feet thick, have been finished along the south side of the armory canal, to prevent the wash of earth from the hill and road into it.
8. The open space under the trestle-work of the Baltimore and Ohio railroad, 13 feet deep by 17 feet, has been filled in with rubbish and earth, for eight coal-bins, or places of deposite for other heavy materials.

The armory yard and shops were overflowed by the flood of April 20. The water was about ten feet deep over the yard, and six feet over the shop floors, leaving a large deposite of mud. All was cleaned off, and the walks and roads laid off and re-made; and near 400 feet of stone flagging, $5\frac{9}{12}$ feet wide, laid in front of the workshops.

RIFLE FACTORY.

Arms, appendages, &c., fabricated.

- 3,227 percussion rifles, steel barrels, brass mounting.
- 3,227 cones, extra.
- 6,118 screw-drivers.
- 5,592 wipers.
- 615 ball-screws.
- 161 bullet-moulds, round balls.
- 74 bullet-moulds, conical.

Machines fabricated, in progress, &c.

- 1 for milling swivels, completed.
- 2 for drilling, purchased.
- 1 for turning guard plates, purchased.
- 1 for milling cones, purchased.

The construction of some special rifles, of musket calibre, has been commenced, for the purpose of experimenting with the à la tige and Minié bullets.

Buildings, &c.

9. The annealing proof-shop, described in last report as having its foundation ready for the brick masonry, has been completed.

10. A two-story machine-shop has been commenced, basement of stone, $87\frac{9}{12}$ feet long by 35 feet wide, with a projection in the centre of 14 by 36 feet, for an office. The foundations are ready for the brick masonry.

11. A new bridge, 32 feet span, 12 feet wide, has been constructed over the canal to the workshops.

Grounds, &c.

The principal workshops at the rifle works were not injured by the flood of April 20. The lower buildings and ground were covered. These works were suspended a day only. The grounds have been cleaned up and partially graded.

Remarks.

The flood of 20th April overflowed the old arsenal, which is built on low ground, and damaged over 20,000 stand of arms. These had to be stripped and cleaned, and no muskets were manufactured during

the two remaining months of the fiscal year. All the force that could be so employed were set to repairing these damaged arms, among which there were 9,000 new percussion muskets, all of which were stripped and the parts thrown into boxes. When they had been cleaned and repolished, they were put together again without any difficulty, all the parts fitting and interchanging perfectly, thus showing the great accuracy of the work.

WATERVLIET ARSENAL, COMMANDED BY MAJOR J. SYMINGTON.

Report of operations at Watervliet arsenal during the year ended 30th June, 1852.

1. The timber storehouse, 185 × 50 feet, commenced last year, completed, and exterior walls and wood-work painted. This building is of brick, two stories high, and covered with slate.

2. A palisade fence 12 feet high and 152 × 83 feet, enclosing new west magazine, constructed, with two lightning conductors adjusted to high posts.

3. An iron truss bridge, crossing the Erie canal, designed by Lieutenant Symmes, of the ordnance corps, constructed. This bridge is 95 feet span, and 17 feet width of roadway; the abutments and wing wall of cut stone.

4. Three hundred and twenty yards of new fencing made and painted.

5. Three hundred square yards of pebble gutter laid, and four cess-pools of brick covered with cut stone, with iron grating, constructed.

6. Lattice enclosing gallery made, and interior walls of north stone quarters painted.

7. The whole interior wood-work and walls of barracks painted, and 16½ squares of new flooring laid in two end rooms.

8. Extensive excavations in the slate rock in rear of north stone quarters made; rubble removed, to make and repair roads, &c.

9. The whole interior of south brick quarters painted, and basement floor paved; a new brick privy erected, and the garden lot raised one foot high with earth, to turn off the water.

10. One thousand and nine feet of lightning conductor fitted to new timber storehouses.

11. All necessary repairs to buildings, roads, fences, &c., made; also to machines, tools, &c., in use, including a new driving (main) shaft to blowing cylinders, and cut-stone head-blocks and foundations to geared driving-wheels of punching machine.

The principal stores fabricated and work executed, consist of the following:

51 field carriages and caissons.

51 carriages and chassis, for garrison and sea-coast guns.

141 sets of irons, for do. do.

1 barbette pintle and twelve bolts.

64 rammers and worms, with staves—various calibres.

- 3 tompions.
- 149 sponge, tar, and water buckets.
- 84 tarpaulins.
- 479 linstocks, and other artillery implements.
- 18 prolonges.
- 10 pendulum hausses, mountain howitzer.
- 55 tangent scales, various calibres.
- 94 lanyards, friction tubes.
- 22 breech-sights for heavy artillery guns.
- 65 sponge covers, various calibres.
- 3 tongs, loading.
- 24 fuze plug reamers.
- 3 pack-saddles and harness.
- 4 nose-bags.
- 2,296 bolts, rings, and stands for grape and canister shot.
- 1,951 cap-pouches.
- 100 6-pounder cartridges for cannon.
- 17,900 cartridges for small-arms.
- 8,700 bullets for small-arms.
- 400 fuze plugs.
- 500 signal rockets.
- 56 poles, wheels, and stocks for gun carriages.
- 174 handspikes, trail and manœuvring.
- 50 siege carriage linch-pins.
- 13 implement straps.
- 74 curb bits, plated, artillery harness.
- 100 bridles.
- 61 breechings.
- 9 girths, breast-straps, &c., for pack harness.
- 24 hip and breast-straps for artillery harness.
- 93 quoins, blocks, chocks, &c., for heavy artillery.
- 1 furnace for shot.
- 1 gin-head collar, fall, and blocks.
- 4 lifting jacks.
- 5 prolonges, double and single.
- 12 rollers for heavy artillery.
- 1 sling cart.
- 550 tin canisters for shot.
- 30 pounds hard and soft solder.
- 570 pounds paints, mixed.
- 13 pickaxes.
- 14 tin cans.
- 1 two-horse wagon.
- 367 packing boxes.

Altered and repaired.

- 138 priming wires from gunner's bits.
- 9 sets of harness, for two wheel-horses.
- 276 cadets' muskets, *repaired.*
- 500 do. do. *browned.*

40 swords repaired.
 243,000 musket ball and buck-shot cartridges altered to percussion,
 from flint.

ALLEGHENY ARSENAL, COMMANDED BY MAJOR W. H. BELL.

REPORT OF THE PRINCIPAL OPERATIONS AT ALLEGHENY ARSENAL,
 DURING THE YEAR ENDED JUNE 30, 1852.

Articles fabricated.

20 6-pounder stock trail carriages.
 4 travelling forges.
 544 implements and equipments for gun-carriages.
 42 sets of artillery harness.
 858 infantry cartridge boxes.
 2,232 accoutrement belts.
 198 pairs pistol holsters.
 3,366 gun slings.
 1,050 carbine swivels.
 1,204 percussion cap pockets.
 260 sabre knots, (buff leather.)
 8,691 cartridges for cannon.
 3,520 sabots and straps.
 40 handspikes, assorted.
 19 barbette carriage pintles.
 2,000 infantry box and bayonet belt plates.
 1 casemate gin, with blocks, fall, &c.
 4,069 pounds sheet lead.
 19 pounds copper tacks, hinges and straps.
 43 packing boxes, assorted.
 1 wagon.
 1 roller press, for stamping leather.
 6 shot and shell gauges.
 9 patterns, for castings.
 10 ammunition boxes.
 1 instrument for inspecting cannon.

Miscellaneous.

The erection of the new smithy and machine-shop well advanced towards completion.

The barracks, armorer's shop, and stables, extensively repaired.
 New lightning conductors erected at the two magazines, and two brick warehouses.

94 barbette carriages, pent-houses, &c., altered and repaired.

32 pounder 8-inch and 10-inch iron cannon tested.

The proving ground and proving apparatus thoroughly repaired.

A house thirty feet by twelve, and covered with earth, erected, for

the protection of persons employed in testing cannon at the proving-ground.

220 muskets repaired, and altered from flint-lock to percussion.

8,800 muskets cleaned, oiled, &c.

3,300 pistols cleaned, oiled, &c.

800 square yards of protection wall pointed with cement.

9,050 cart-loads of earth, stone, gravel, cinders, &c., hauled and used in repairing the roads and walks, and in levelling the public grounds.

75 lineal feet of barrel sewer, and 1,988 square feet of paved gutters, constructed.

WASHINGTON ARSENAL, COMMANDED BY BREVET MAJOR A. MORDECAI.

The operations at this arsenal during the year ended June 30, 1852, have not been of sufficient importance to require special notice in an annual report of operations, but a small amount of funds having been assigned for work here during that time. Of the several experiments and trials of new inventions which I have been required to make during the year, special reports have been made from time to time.

In my annual report for several years past I have referred to the dilapidated condition of the principal workshops, in consequence of their having been built on made ground and insecure foundations. On the nineteenth of December, 1850, I made a special communication on this subject to the Colonel of Ordnance; suggesting, as the best remedy for the evil, that measures should be taken to procure again, for the use of the arsenal, the ground which was injudiciously taken from it to build the penitentiary upon. Unless this is done, there is no really suitable place in the arsenal grounds to build such workshops as would be well adapted to the operations of the arsenal, and creditable to the department, in an establishment at the seat of government. I therefore earnestly renew the recommendations heretofore made on this subject; and under the present circumstances I refrain from proposing any estimate for permanent improvements during the year ending June 30, 1854, except to ask for \$1,000 to be applied to contingent repairs and preservation of buildings.

ST. LOUIS ARSENAL, COMMANDED BY CAPTAIN R. H. K. WHITELEY.

REPORT OF PRINCIPAL OPERATIONS AT ST. LOUIS ARSENAL, DURING THE YEAR ENDED JUNE 30, 1852.

1st. Permanent improvements.

New carriage-maker's shop, built complete, except painting. This building is seventy feet long, forty-two feet wide, and thirty-one feet ten inches high from top of foundation to eave-gutter; built of brick

and covered with slate. The window-shutters are of sheet-iron; the sashes of cast-iron; and the doors covered with sheet-iron.

New stable, built complete, of brick and stone, and covered with slate.

Two quarters for enlisted men, built complete. These buildings are of brick, with stone caps and sills, and covered with slate. Each building divided into eight rooms.

One steam-engine, twenty-four horse power, with boiler and forty-six feet of shafting, put up complete in armory shop.

Chimney-stack for engine, sixty feet high; built of brick and stone.

One powder magazine, erected on the Jefferson Barracks reserve. This building is one hundred and eight feet two inches long; thirty-five feet ten inches wide; thirteen feet high from top of foundation to top of wall; built of stone and covered with slate.

Keeper's house, laborers' house, and stable, erected on the Jefferson Barracks reserve; built of brick or stone, and covered with slate.

Quarters, storehouses, and workshops have been painted, and all necessary repairs have been made to the several buildings requiring them.

2d. Work done.

The principal work executed in the workshops since the last annual report consists of the following constructions, viz:

- 2 tangent scales fabricated.
- 1 die for pressing plates fabricated.
- 3,859 pounds bar-lead cast.
- 297 arm-chests and ammunition-boxes fabricated.
- 16,697 flint-lock arms altered to percussion.
- 1,662 cartridge-bags and cartridges for field-guns made.
- 156 canisters shot and shells fixed.
- 242,990 blank and ball cartridges for small-arms made and altered.
- 20 case-hardening boxes fabricated.
- 22 smiths' tools fabricated.
- 35 artillery carriages repaired complete.
- 5,830 small-arms cleaned, repaired, and oiled.
- 12,851 accoutrements and appendages for small-arms repaired, cleaned, and oiled.
- 3,407 shot and shells lackered.
- 43 iron guns, mortars, and howitzers, lackered.

WATERTOWN ARSENAL, COMMANDED BY MAJOR E. HARDING.

REPORT OF PRINCIPAL OPERATIONS AT WATERTOWN ARSENAL, DURING
THE YEAR ENDED JUNE 30, 1852.

1st. Permanent improvements.

One new brick stable, 70 by 32 feet, reported in progress last year, completed in a substantial manner, with appropriate bins for forage, hay-lofts, &c.

One new brick timber shed and storehouse, 190 by 55 feet, two stories high, slate roof, and composed of other materials of the most permanent kind, all of which has been erected in pursuance of plans from the Ordnance department.

Extensive alterations to the privies of the right block of officers' quarters. These privies had been regarded as nuisances until these alterations were made, which were absolutely necessary to preserve the proper health of the post.

One granite pavement, 50 by 13 feet, laid in front of the north pediment of the south arsenal.

Several buildings re-slated; quarters, barracks, and shops repaired and kept in order, as the service required.

2d. Machinery, &c.

1 mortising machine manufactured.	
12 feet shafting complete,	do.
1 canon-scraper,	do.
1 sled,	do.
1 wagon,	do.

3d. Miscellaneous, fabricated, &c.

1,496 cannon-cartridges and wads.
2 siege mortar platforms, complete.
3 gun-skids and chairs.
349 bolts and nuts and washers.
116 feet conductors.
2,933 wrought nails and spikes forged.
297 hangers, nuts, and fastenings for machinery, pent-houses, &c.
1 cistern, capacity 2,000 gallons.
2,126 lights of sash.
108 doors, blinds, and sashes.
205 pounds paint and putty.
140 horse-shoes.

4th. Work done.

8,188 small-arms altered from flint-lock to percussion.
266 cannon, various calibres, cleaned, oiled, and lackered.
34,492 cannon-balls and shells lackered.
2,429 pistols cleaned and oiled.
730 feet skidding put down.
560 feet water-pipe put down.
195 feet brick pavement laid.
3,000 musket blank cartridges altered.
4 six-pounder bronze guns proved and inspected.

In addition to the foregoing, various lots of small-arms and accoutrements were altered and repaired for the army, with other jobs, such as improvement of public grounds, police, &c., and receiving and issuing stores.

FORT MONROE ARSENAL, COMMANDED BY BREVET MAJOR G. D. RAMSAY

Since the last annual report, the operations of this arsenal have been carried on in regular course, under general and special instructions from the Ordnance office.

Experiments have been made by firing flanged shells from a grooved or rifle gun, 32-pounder, of the calibre of 24. The gun has two grooves or rifles of one turn in 40 feet; the shell is of cylindro-conical form, its whole length nine inches—the cylinder three inches; it has two flanges, corresponding in inclination with the groove of the gun. The windage of the body of the shell is the usual windage—that of the flanges $\frac{1}{16}$. The sides of the flanges fit the groove.

These experiments were commenced on the 2d of December, 1851, and continued at intervals up to the 30th of May. An injunction from the courts of Virginia, growing out of the suit of James French against the United States, in reference to our operations at this post, has greatly embarrassed the trials of the rifled gun at long ranges; and as the experiments have in consequence been suspended, it is not deemed worth while giving the partial results obtained.

These experiments will be continued as soon as possible.

Experiments are now in progress to test the classification of iron cannon, under your instructions of May 10, 1852. For this purpose, in view of the extensive firing, three suspension frames, after the manner adopted by Lt. Rodman, at Pittsburg, have been constructed, and three 24-pounder guns, from the Bellona foundry, Va., the classes 1, 2, and 3, are now undergoing trial with service charges. The number of rounds sustained by each gun, up to the present time, is 300.

There are 24 each of 24 and 32-pounder guns, and two 8-inch and two 10-inch columbiads, to be subjected to extreme proof. A journal, in detail, is kept of each day's proceedings. The result will doubtless be highly interesting as testing the correspondence between the powder proof and the analysis on which is based the present classification. The arrangements for conducting the extensive firings are in all respects complete. The duration of the experiments will greatly depend on the character of the guns.

A timber shed, near the ordnance wharf, fifty-six by twenty feet, has been built, and a shed seventy-six by twenty-seven feet, near the experimental battery, for the storage of gun-carriages, is in progress of completion. Extensive filling in with sand from the beach has reclaimed a portion of the low grounds bordering on the ordnance stables and shed; this work has, however, been suspended, owing to the injunction of the courts of Virginia, as previously alluded to.

FRANKFORD ARSENAL, COMMANDED BY BREVET MAJOR P. V. HAGNER.

Statement of principal operations at Frankford arsenal, during the year ended June 30, 1852.

The buildings in progress at the date of the last annual statement have been completed; the one intended at that time for a guard-house

has been enlarged, by the addition of one room, and is now the office, its position making it more convenient for that purpose.

A fuel-shed, 41 by 16 feet, having brick ends connected by lattice sides, and a tin roof, has been erected in rear of the men's barracks, for the storage of coal and wood; and a yard enclosed, 100 by 28 feet, with the necessary outhouses for barracks.

The iron cannon have been collected and arranged upon cast-iron skidding, in the east arsenal square, and the shot repiled on new platforms in the west square.

Nitre storehouse.

In order to provide suitable and sufficient storage for the nitre and sulphur, kept here as the reserve supply, in case of war, a building is in course of erection, disconnected from others, and nearly fire-proof, intended for the storage of nitre only. It is of brick, in the arch style, of one story. The window and door frames are of cast-iron, and the roof of slate, supported by trusses, chiefly of iron. The floor will be paved with brick, laid on edge, grouted with cement. The building is nearly ready for paving.

Percussion-cap factory.

As the shop erected last year for armorer's and smith's work was nearly in the position deemed most suitable for the cap machinery, it was decided to unite the new building for the steam-engine and cap machines with it; thus collecting under one roof all the arsenal operations requiring power.

The plan of the machine-shop will be in the form of the letter H; the present building, forming one limb of the letter, will be used as at present, and will contain the necessary machines for repairs of arms and tools. A parallel building, sixty feet distant, of the same size, will contain a packing and counting-room, for caps; a passage and wash-room, and a room for varnishing caps, and additional operations. The central stem of the letter will contain boiler and engine-room, and room for cap-machines. The chimney stack will be detached from the main building, and be surrounded by a shed, containing bins for coal, a wash-room for copper, and a privy.

The necessary buildings for the other operations will be—

A retort house, 40 feet by 16 feet.

A mixing house, 22 feet by 12 feet.

A drying house, 22 feet by 12 feet.

A magazine, 10 feet by 10 feet.

These are separated from each other, and from other buildings, and may be further secured from accidental injury by traverses of earth, if deemed necessary.

The buildings are all of brick, one story high, with slate roofs, and in the arch style; window-frames of the machine-shop, of cast-iron; of the other buildings, of wood. It is expected that the machinery will all be in place and the buildings ready for use on the 1st October. A steam-engine, of eight-horse power, (about) has been purchased, and a

turning-lathe and planing-machine. Other necessary machines have been ordered to be transferred from the Watervliet and Washington arsenals.

River wall and embankment.

At the date of the last report, a contract had been entered into by my predecessor, for the erection of a wall and embankment along the river and creek fronts of the arsenal property. This work, requiring 2,260 perches of stone wall and 6,267 cubic yards of mud embankment, was completed in March last. Since that date, an additional length of wall and embankment, 933 feet long, has been made on the east front, across the low lands; thus completely securing the whole tract from overflow, and leaving but 356 yards of wall to be built, to finish the permanent enclosure of the whole grounds.

NEW YORK ARSENAL, COMMANDED BY BREVET MAJOR W. A. THORNTON.

REPORT OF OPERATIONS AT THE NEW YORK ARSENAL, FOR THE YEAR
ENDED JUNE 30, 1852.

Fabricated.

- 200 6-pounder cartridge bags.
- 133 cone picks; steel.
- 911 pounds of paint and putty.
- 93 implements and parts, for mortar beds and siege carriages.
- 2 large screw-drivers, for issue.
- 34 stone chisels and drills, for masons.
- 122 boxes, for packing stores.

Repaired.

- 98 barbette chassis, } In forts; replacing many parts; paint
- 93 do. top carriages, } ing, &c.
- 3 mortar beds, by new transoms.
- 12 muskets, percussion, for troops in the field.

Other work.

- 126 guns dismantled and re-mounted, in the repairs of carriages, in forts.
- 26 cannon locks re-adjusted to guns, in Castle Williams.
- 42 gun carriages, mortar wagons, sling carts, and gins.
- 13,141 small-arms cleaned, oiled, and repacked.
- 3,100 cavalry sabres do. do. do.
- 5,230 accoutrements do. do. do.
- 40 yards of sea-wall, for extension of ordnance yard.
- 2,220 yards of earth excavated and hauled, for backing sea-wall and enlarging ordnance grounds.

- 100 feet of picket enclosure fence, put up
- 350 do. do. do. do. painted.
- 850 feet of flooring put down in barn.
- 1,350 feet of stalls and racks put up in barn.
- 2,100 yards of whitewashing, in buildings.
- 134 mortars and heavy guns; and } hauled to and from wharf, in the
- 1,319 loads of boxes, &c., } receipt and issue of stores.
- 718 50-pounder balls, } removed and re-piled in preservation of
- 5,871 24-pounder shells, } stores.
- 500 feet of iron skidding for guns, raised and re-laid in ordnance yard.
- 211 heavy guns assorted, classed, and arranged on skidding.
- 44½ feet of platform put down for skidding mortars.
- 25 mortars and 22 mortar beds skidded.
- 481 iron guns and mortars oiled, interior and exterior, in preservation of stores.

Inspected.

- 4,000 infantry cartridge boxes and plates.
- 5,000 infantry bayonet scabbards.
- 4,000 infantry waist-belts.
- 3,000 infantry waist-belt plates.
- 1,000 non-commissioned officers' waist-belts.
- 3,000 non-commissioned officers' waist-belt plates.
- 540 non-commissioned officers' shoulder-belts and plates.
- 375 pairs holsters, with soft leather caps.
- 1,225 sabre-belts, and 375 plates.
- 1,224 sword-knots.
- 1,200 carbine slings and swivels.
- 224 horse-artillery sabre-belts.
- 100 sappers' waist-belts and frogs.
- 48 pieces of iron skidding.
- 10,900 percussion rifles.
- 4,900 percussion pistols.
- 2,000 Colt's pistols.
- 1,000 carbines.

CHARLESTON ARSENAL, COMMANDED BY CAPTAIN J. A. J. BRADFORD.

Report of the chief operations at Charleston arsenal during the year ended June 30, 1852.

The buildings erected during the year are, permanent sheds for fuel and for police implements, on the west and south sides of the southwest angle of the arsenal square; a prison-room and a laboratory; very extensive repairs done to the buildings and fences to make good damages caused by the severe gale of last summer. The fabrications, alterations, and other work on ordnance stores, include—

2 24-pounder pent-houses made.

- 2 copper powder-measures made.
- 1 copper powder-scoop made.
- 200 cannon cartridges made.
- 3,000 percussion-musket cartridges made.
- 574 cannon cartridge-bags made.
- 1,000 paper fuzes made.
- 60 cone picks made.
- 9 pounds quick-match made.
- Furniture and tools complete for laboratory, and many smith's tools, made.
- 13 barbette and casemate carriages repaired and re-painted.
- 205 implements and parts of garrison carriages cleaned, painted, and lackered.
- 8 tarpaulins painted.
- 2,978 small-arms cleaned, oiled, and packed.
- 28 sets of artillery harness cleaned, oiled, and packed.
- 12 iron cannon inspected, cleaned, and lackered.
- 270 infantry and artillery accoutrements cleaned and repaired.
- 12 muskets, received from troops, repaired and returned.
- 330 artillery swords inspected and cleaned.
- 43,500 musket cartridges altered from flint to percussion.
- A circular saw and bench, and a whip-saw, fitted up for service.
- A platform made in the old arsenal building to store the heavy carriages, and carriages arranged in the same.

BENICIA ARSENAL, COMMANDED BY BREVET CAPTAIN C. P. STONE.

During the year the following buildings have been erected :

1. Powder storehouse, 40 feet by 20 feet, of wood.
2. Carriage maker's, blacksmith's, armorer's, saddler's, and painter's shops, and quarters for twenty men, in one building 140 feet by 28 feet, of wood, one story high, with basement under one half.
3. Stable and timber shed, 100 feet by 20 feet, of rough boards.
4. Storehouse and gun-carriage shed, 140 feet by 20 feet; forty feet in length of this building is left open in front, to serve as a gun-carriage shed.

The mechanical labor on the last two named buildings, and much of that on the second, was performed by the enlisted ordnance men.

Buildings 2, 3, and 4, are distant about one quarter of a mile from Suisun bay, to which a good road has been constructed.

The small force at the post has been occupied during the greater part of the year, in the construction of buildings, and the securing of the ordnance and ordnance stores brought with the command from the Atlantic States, and those found in the division.

Besides these duties, there have been fabricated—

- 40,530 cartridges for small-arms.
- 362 pounds leaden bullets, for Colt's repeating-pistols.
- 300 cartridges for cannon.
- 45 gallons gun-lacker.

- 48 pounds wrought nails, and various tools, chests of drawers, &c.
for fitting up the shops.
- Repaired and transferred from unserviceable to serviceable—
- 16 artillery carriages and caissons.
- 12 32-pounder tompions.
- 4 sets artillery harness, for two wheel-horses.
- 592 small-arms of different kinds.
- 12 cavalry and artillery sabres.
- 298 accoutrements for cavalry, riflemen, and infantry.
- 6,000 rifle cartridges.

Other work done.

- 9 32-pounder garrison guns mounted in old fort, at the entrance
of San Francisco bay.
- 41 barbette and siege carriages cleaned and oiled.
- 26 garrison guns placed on skids, cleaned and lackered.
- 5 platforms, for shot, laid.
- 13,011 shot and shells scraped, lackered and piled.
- 1,500 cartridge boxes cleaned, oiled, and repacked.
- 2,395 percussion-cap pockets oiled and repacked.
- 8 sets of artillery harness, for two horses, oiled and repacked.
- 540 bridles, collars, and other parts of harness, oiled and repacked.
- 1,648 muskets, rifles, and carbines taken from boxes, oiled and re-
packed.
- 382 swords and sabres taken from boxes, oiled and repacked.

*Extract from Lieutenant Colonel Baker's inspection report of Washington
arsenal.*

BRIDGEPORT, CONN., August 9, 1852.

SIR: * * * I would respectfully bring to your notice the dilapidated state of the old workshops at this arsenal, and the necessity for constructing others, larger and better adapted to the large operations that, during war, would be indispensable at such an important point.

Judging from the fractures in the walls of these shops, I consider it dangerous to continue work in them much longer, especially those that have heavy machines in them.

It is known to the department that these shops were built upon *made ground*, and that it has resulted in insecure foundations and consequent settling and cracking in the walls. The limited area of the public grounds is such, that all sites suitable for new buildings are already occupied, and it is not possible, without a dangerous contiguity with the storehouses, to find room on which to place such workshops as the public interest requires. An extension of the arsenal grounds further north, in the direction bounded by the district penitentiary, seems to be the only remedy for the evils resulting from this contracted space. Could the penitentiary be purchased, or in any other legal way be re-transferred to the arsenal, it might either be converted into workshops,

or its materials might be used in constructing others. I would strongly recommend that application be made for such transfer, for the purpose of enlarging this important arsenal.

I append to this report a copy of a letter, dated December 19, 1850, from Major Mordecai to the Colonel of Ordnance, recommending this improvement.

* * * * *

I am, sir, very respectfully, your obedient servant,
R. L. BAKER,
Lieutenant Colonel Ordnance, Inspector, &c.

Colonel H. K. CRAIG,
Ordnance Department.

WASHINGTON ARSENAL, D. C.,
December 19, 1850.

SIR: I feel it to be my duty to call the attention of the Ordnance department, by a special communication, to the representations which I have heretofore made of the condition of the principal workshops at this arsenal, in the hope that some measures may be adopted for improving them.

When the extension of this establishment was begun, about twenty years ago, a portion of the public reservation belonging to it was already occupied by the penitentiary; and in consequence of this limitation of the grounds, it became necessary to place the new workshops on made ground, which was gained from the river, and which furnished but an insecure foundation for the buildings. The settling and cracking of the walls which ensued from this cause made it necessary to rebuild the principal shop, about eight years ago; but the evil was not entirely remedied thereby, and the same causes continue to operate, not only of producing a very unsightly appearance in the buildings, but interfering seriously with the operations of the machinery: the buildings are also too small for the due accommodation of the proper number of workmen for the arsenal.

Under these circumstances it is highly expedient, I may say necessary, to build new workshops, and I should have offered a plan and estimate for the purpose this year, but for the great difficulty of finding within the present limits of the arsenal a suitable site for their erection. The object of this communication is, therefore, to urge you to recommend that proper measures be taken for again transferring to the arsenal the ground which was wrongfully assigned for the penitentiary.

It would not be proper for me, perhaps, to suggest the manner in which this object might be accomplished; but I may remark that it has already been proposed in the House of Representatives, as a measure of economy, to transfer the convicts from this District to the State penitentiary of Maryland; and it is probable that, on proper representation, the object which I propose may be effected, either in that way or by an appropriation for building another penitentiary in a more suitable

place. The present buildings might be converted into storehouses or shops for the use of the arsenal.

Earnestly recommending this subject to the attention of the department,

I am, sir, your obedient servant,

A. MORDECAI,

Captain Ordnance and Brevet Major.

Brig. Gen. GEORGE TALCOTT,

Colonel of Ordnance.

XIII.

REPORT OF THE THIRD AUDITOR.

TREASURY DEPARTMENT,
Third Auditor's Office, October 23, 1852.

SIR: I have the honor to hand you, herewith, the annual statement required to be made of the number of accounts of disbursing officers and agents presented at this office in the three last years which remain unsettled, and which will not be included in my annual report to be made to the Comptroller of the Treasury, under the act of March 3, 1809, and act of March 3, 1817. The statement exhibits the number of disbursing officers and agents; the number of quarter-yearly accounts presented in each year ending 30th September, 1850, 1851, and 1852; and the bureau of the War Department through which they were received.

I have the honor to be, very respectfully, your obedient servant,
 JNO. S. GALLAHER, *Auditor.*

Hon. C. M. CONRAD,
Secretary of War.

Statement showing the number of quarter-yearly accounts of disbursing officers and agents presented at the office of the Third Auditor for settlement in the last three years, each ending on the 30th September, which remain unsettled, and which will not be included in the annual report required to be made to the Comptroller of the Treasury, in pursuance of the second section of an act approved March 3, 1809, chap. 28, and the fourth section of an act approved March 3, 1817, chap. 45.

Whence received.	No. of officers and agents.	Received in 1850.	Received in 1851.	Received in 1852.	Total.
Quartermaster's department	344	101	635	652	1,388
Subsistence department.....	214	45	307	177	529
Engineer bureau.....	23	28	60	102	190
Topographical bureau.....	39	45	109	98	252
Total.....	625	.....	.....	.....	2,359

JOHN S. GALLAHER, *Auditor*

TREASURY DEPARTMENT,
Third Auditor's Office, October 23, 1852.

COMPENDIUMS OF THE REPORTS OF THE SECRETARY OF WAR AND THE
CHIEFS OF BUREAUS OF THE WAR DEPARTMENT.

COMPENDIUM OF THE REPORT OF THE SECRETARY OF WAR.

The efforts of the department principally directed, and with success, to the defence of our own frontiers, and those of Mexico, from Indians. About 8,000 of the 11,000 officers and men, borne on the rolls of the army, employed for this purpose, and in the protection of emigrants to California and Oregon.

Disorders on the Rio Grande occasioned by lawless persons from our own territory and that of Mexico, as well as by the Indians. The exertions of the commanding officer of the eighth military department to put a stop to them partially successful.

In New Mexico, Indian depredations entirely arrested, and expenditures greatly reduced.

The 4th regiment of infantry sent to California to replace the regiment of mounted riflemen which had been ordered to Texas.

The Yuma Indians of California have agreed to a peace.

The attempt to cultivate farms by the troops attended but in a few instances with beneficial results.

The expenditures of the army greatly reduced, particularly in the quartermaster's department—must continue to be great in proportion to its numbers.

Suggestions as to policy to be pursued towards the Indians in Texas, California, Oregon, and New Mexico.

That Texas be asked to set apart a portion of her territory for their occupation; and

That the inhabitants of New Mexico be induced to abandon that Territory, and be remunerated for their property in money or in lands situated in more favored regions.

The annual cost of maintaining the troops in New Mexico nearly equal to half the value of the whole real estate of the Territory.

Recommends that an additional regiment of mounted men be authorized.

Remarks upon system of coast defence, and recommends appropriation for the completion of at least the most important of the works already commenced. Appends statement showing amounts required to complete all the unfinished works.

Recommends works for protection of New Bedford and San Francisco, now entirely defenceless.

Also one at Sandy Hook, to complete defences of the city of New York.

Calls attention to omission of Congress at last two sessions to make appropriations for the purchase of heavy ordnance used in coast defence.

States progress made in carrying out the provisions of the river and harbor bill, passed at the last session.

The work has been assigned to the two corps of engineers, and boards formed of three officers of each corps, to aid the head of the corps in preparing, &c., plans and estimates, and to act separately as inspectors of the works in progress.

The works on the Atlantic and Gulf of Mexico assigned to the corps of engineers, and those on the northern lakes and western and south-western rivers to the corps of topographical engineers.

The estimates for all these works for the next fiscal year will be submitted as soon as they can be prepared.

Captain Sitgreaves has returned from his exploration of the headwaters of the Red river, but has not yet prepared his report.

Captain Marcy has returned from his exploration of the headwaters of the Red river, but has not yet prepared his report.

Commends the good order and discipline which prevail at the Military Academy.

Concurs in opinion with the Colonel of Ordnance, that no benefit would be likely to result from a return to the former mode of governing the national armories.

Renews former suggestions—

That the department be authorized to abolish such arsenals as are no longer needed ;

That an additional number of commissaries be authorized ;

That a retired list of the army be established ; and that the distribution of arms to the militia of the States, under act of 1808, be made on the basis of free white male inhabitants of age to bear arms, as shown by the last census, instead of on the returns of the militia.

Recommends that any minor above the age of eighteen, who shall enlist, representing himself of age, shall be compelled to serve out his term of enlistment.

Recommends increase of officers of the corps of engineers and topographical engineers, of three second lieutenants per annum for six years ; also of the medical corps.

Concurs in the recommendation of the General-in-chief that books of military tactics be distributed for the use of the militia of the States, and that the pension laws be so amended as to place the widows and orphans of officers of the army on an equal footing with those of naval officers.

ABSTRACT OF THE ANNUAL REPORT OF THE GENERAL-IN-CHIEF TO THE SECRETARY OF WAR, DATED WASHINGTON, NOVEMBER 22, 1850.

Transmits six returns from the Adjutant General's office, marked and described, respectively, as follows :

A.—Organization of the army as established by law, showing, in detail, 959 commissioned and 12,380 enlisted men, as now posted, to be the authorized force.

B.—General return of the army, showing, in detail, 957 commissioned officers and 10,245 enlisted men to be the actual strength.

C.—Distribution of troops in the eastern division, showing 25 companies in that division.

D.—Distribution of troops in the western division, showing 105 companies in that division.

E.—Distribution of troops in the Pacific division, showing 28 companies in that division.

F.—Statement of the number of recruits enlisted, from October 1, 1851, to September 30, 1852, to be 4,174.

Texas, New Mexico, California, and Oregon.

During the past twelve months the troops on the frontiers have been actively employed, and have had several sharp combats with parties of Indians in Texas, New Mexico, and California. All is now quiet, and likely, under judicious arrangements of commanders, to remain so.

General Smith, in Texas, has 48, and Col. Sumner, in New Mexico, 21 companies, respectively.

The 4th infantry sent from the northern lakes to the Pacific to meet hostile manifestations on the part of Indians in that quarter. Post at the mouth of the Gila reoccupied, and the whole force (28 companies,) under General Hitchcock, posted so as to awe the Indians and keep open communications between Oregon and California.

Other movements of less importance.—Portion of the 4th artillery sent from the seaboard to northern lakes, and two companies 2d artillery from Charleston harbor to Florida, in connexion with proposed removal of Indians.

Recruiting service and enlistment of minors.

Officers engaged show zeal and ability; *minors*, near full age, impose themselves upon the recruiting officers, and get discharged, under a recent act, to the great vexation and pecuniary loss of the service. New legislation suggested to guard against such frauds.

The 3d section of the act of June 17, 1850, to encourage enlistments, a failure. Repeal suggested.

Farm culture, as directed by general orders No. 1, January 8, 1851, has not met expectations. Field cultivation may be, for reasons, abandoned, but the cultivation of kitchen gardens continued.

Revision of the rules and articles of war recommended, through a board of officers to report to Secretary of War, and, if approved, the report laid before Congress.

Tactical instruction of the militia.

Existing laws require the militia to observe the same systems of instruction adopted for the army. Appropriations annually made for arming the militia; but, without the books, arms nearly useless. Annual appropriations of \$20,000, for a few years, sufficient.

Military asylum.

For progress made in carrying out the beneficent intentions of Congress, reference is made to recent report of board of commissioners, created by that act, made to the Secretary of War for Congress.

Retired list for superannuated and disabled officers.

Creation of such list ought not to be mistaken for extension of pension system; officers would be placed on it who are now in full pay and do no duty. The system so often recommended would retire them on reduced compensation, promote efficient officers, to the great benefit of the service, and no new burden on the treasury.

Additional cavalry recommended.

Present cavalry force insufficient; no troops so efficient against Indians. At least another mounted regiment needed. Number of privates allowed to the companies of all arms should not be less than 64, with a sliding scale upwards to 84, at discretion of the Executive.

Inequality of army and navy pensions.

Widows and orphans of deceased naval officers, seamen, and marines receive five-year pensions, practically renewable every five years, whether the deaths occurred in battle or were caused by disease contracted in service; while widows of army officers receive pensions only when their husbands have been killed in action, and then but for five years, and the period never extended. Widows of enlisted men of the army receive no pensions, no matter what the circumstances, although the laws allow pensions to the widows and orphans of volunteers who may have been killed, or have died, from any cause, in service. The five-year pensions granted to widows, &c., of the Mexican war, have just expired, or are about expiring, and these relicts and children of gallant officers are nearly all in the humblest circumstances. On the subject of pensions, see Senate Document No. 43, first session 29th Congress, and extracts from annual reports, (herewith,) dated November 22, 1841, and November 26, 1846.

COMPENDIUM OF THE REPORT OF THE QUARTERMASTER GENERAL OF
THE ARMY, FOR THE YEAR ENDING 30TH JUNE, 1852.

Fiscal exhibit.

Apparent balance to be accounted for, as shown by last report.....	\$728,185 00
To which add remittances in fiscal year.....	2,927,342 57
Amount received for property sold, and rents of public lands and buildings.....	79,089 29
Amount of drafts the proceeds of which were applied to the service within the year, which were not paid within the year, but have since been paid from the appropriation for deficiencies.....	148,698 65

Making the whole amount to be accounted for.... \$3,883,315 51

From which is to be deducted—

Expenditures and disbursements prior to the fiscal year, including drafts drawn in 1850 and paid in 1851, but not included in last report.....	\$762,828 34	
Expenditures in fiscal year.....	2,646,907 43	
Amount deposited to credit of Treasurer.....	30,924 09	
		<u>\$3,440,659 86</u>
Leaving to be accounted for.....		<u>442,655 65</u>

There is included in the remittances from appropriations other than those for the Quartermaster's department proper—

From the appropriations for clothing.....	\$161,000 00
From the Mexican war appropriations.....	218,700 00
From the contingencies of the army.....	840 00

The second of these sums will be required to settle outstanding claims; but as it comes into the treasury by the settlement of accounts, it will be carried to the surplus fund if not re-appropriated. In addition to this sum the following balances have already been carried to the surplus fund, viz:

Mexican hostilities.....	\$10,569 06
Contingencies of the army.....	4,804 75

They will be required, and it is requested that they be re-appropriated.

Included in the reported expenditures are, on account of various appropriations other than that for the Quartermaster's department proper, sums amounting, in the aggregate, to \$239,276 74, viz: for "clothing and equipage;" "contingencies of the army;" "barracks at Newport, Kentucky;" "Texan volunteers;" "Indian department;" "recruiting service;" "Ordnance department;" "Subsistence department;" "Medical department." To settle accounts for "Texan volunteers," an appropriation will be necessary, or authority by law to settle them.

Captain Reynolds, who was reported last year for having failed to render his accounts, has reduced the apparent balance against him to \$3,053 62. He is ready to pay that, or any other balance that may be found against him, should he not recover certain lost or mislaid vouchers in a reasonable time.

Captain Folsom is the only officer of the department from whom accounts are due for the year ending on 30th June, 1852. He has rendered accounts to 31st March, at which time the balance against him on his former account, the vouchers for which are supposed to have been destroyed by fire at San Francisco in 1850, was \$112,757 31; and on account of the present fiscal year, at date of his last account, \$41,086 53; but the latter amount was reduced by transfers to Major Allen and Captain Miller, as shown by their accounts for the 4th quarter of the fiscal year, \$36,107 08, leaving the actual balance \$117,736 76. He has been relieved, and is now endeavoring to collect evidence of his payments previous to the fire.

Lieutenants Hawkins, Russell, and Irwin, are still delinquent. The two latter are out of service, and it is not known where either is to be

found. If their accounts could be received, the balance against them would, it is believed, be small.

Accounts are due from seventeen acting assistant quartermasters, whose joint liability is \$34,825 86.

The regular supplies, with means of transportation, horses, &c., have been furnished to the extent of the means at the disposal of the department. A gradual reduction of expenditure is taking place. In New Mexico expenses have been reduced one-half, though five new posts have been established, with lengthened routes of transportation. Reference for details in New Mexico to reports, appended, of Major Sibley, Captain Bowman, and Lieutenant Moore.

From Texas no report has been received: it is, however, known that the officers acting in the department have been prompt in the performance of all their duties. The frontiers have been extended and eight new posts established. Expenses are heavy, but are gradually lessening; the sums estimated for new posts and to complete those in progress will barely be sufficient.

An accompanying map shows that the troops in Texas are so placed as to defend that State on the north and northwest, but not to exercise much control over the nomadic Indians in their predatory expeditions. At the great bend of the Rio Grande, below the mouth of the Conchos, the Comanches have their principal crossing-places. Here they cross and re-cross, after plundering the Mexicans and the inhabitants of Texas. This is the great strategic point on that part of our frontier, and it should be occupied for our own defence, as well as that of Mexico: five hundred men stationed there, under an efficient commander, would be worth more in military effect than thousands scattered in small posts along the line of New Mexico. The only objection to this post is, that it must depend on Mexico, in a great measure, for its supplies. There is reliable information that all needful supplies, except clothing and tools, could now be obtained at reasonable rates in the towns and villages of Mexico; and under the protection of a post there, they would soon be furnished from the immediate neighborhood. In regard to the Comanches, reference is made to Captain Bowman's report, A 2.

In California and Oregon several new posts have been established: they, with those previously occupied, number seventeen, including the two depots—twelve in California and five in Oregon; these must be kept up at a heavy cost. One of them, Fort Yuma, necessary to hold the Indians in check and protect immigrants, is 226 miles from San Diego, the depot whence it is supplied: 100 miles of the route is a desert, without grass or water, and where the heat is almost insupportable. Loss from damage and wastage of subsistence and other perishable stores on that route, is estimated at ten per cent. on the amount transported.

Should the Colorado be found navigable for small steamers, the cost of supplying the post may be reduced; but the outlay would be considerable in the first instance, as the materials and machinery for the boats, with the workmen to put them together, would have to be transported from the Atlantic.

All reinforcements for the posts on the Pacific should be sent in fast-

sailing vessels around Cape Horn; the cost would be much less by that route, and there would be less danger of disease among the troops.

The Indians, north and south, annoy the settlers and immigrants. Those in the southern part of California number about 3,000. A portion are warlike, and all are thieves. Until the country be settled by an American population, troops will be necessary for its protection.

It is important that authority be obtained to settle the titles to sites occupied by military posts, and such as may be necessarily occupied in future, in California and Oregon. For details in relation to affairs on the Pacific, see the reports of Major Cross, Major Allen, Major McKinstry, Captain Miller, and Captain Ingalls.

The economy, as well as the efficiency of the service, would be promoted, were better positions selected for the defence of the western frontier. Were Forts Ripley and Dodge, in Minnesota and Iowa, removed, the former to the head of navigation on the Minnesota, and the latter to the Missouri, near the mouth of Sioux river, their effect upon the Indians would be doubled, and both could be supplied by water transportation at far less expense.

A post at or near the junction of the Republican fork with the Kansas river would greatly improve the efficiency of the service, and cause a reduction of expense. It is in a fertile country, abounding in timber, water, and grass. It would be the point of departure for troops and immigrants going to Oregon and New Mexico, where they could refit, &c. It would be about one hundred and fifty miles nearer than Fort Leavenworth to the powerful bands of Indians of the western prairies. It would be a shorter route to Santa Fé than the present one. All the building materials are on the spot. In two years' time, settlers would probably produce and furnish, at St. Louis prices, all needful supplies of subsistence and forage, &c. This post established, the troops might be withdrawn from Forts Scott, Atkinson, and Kearny, and the heavy expense of keeping up the two latter saved. A letter from Colonel Fauntleroy, on the advantages of the proposed site, is submitted. Estimates have been presented for a post at this position, and for that on the Minnesota.

Great difficulties are experienced, and heavy expense incurred, by the lack of direct, certain, and expeditious communications from the Mississippi river and the Gulf of Mexico to the outposts on the frontiers. On a recent occasion it became necessary to send subsistence stores for Forts Towson and Washita, on the upper Red river, from New Orleans; but, in consequence of the obstruction of the navigation of Red river, the stores had to be sent to Fort Smith, on the Arkansas river, whence they were transported in wagons, a long distance, at a heavy expense. More than half a million of dollars have been appropriated for removing the raft of Red river, and the navigation is no better, it is believed, than in 1228, when the improvements were begun. The difficulty lies in the nature of the obstructions to be removed.

The southern portion of our country, west of the Mississippi, is an inclined plane, and during the annual rains the rivers of Arkansas and Texas fill and overflow, and the torrent carries down large masses of timber which lodge and obstruct navigation. When the rain ceases,

the rivers run dry. On Red river the timber brought down accumulates above the raft and annually increases the obstruction.

This condition of the rivers would seem to indicate the necessity for a different, more certain, and rapid means of communication with our distant posts and territories. The routes are too long for turnpikes or plank roads. The only system of improvement which seems to be adapted to the peculiar condition of the country is that of railroads. A central railroad from some point on the Mississippi river, through Arkansas, and along the northern frontier of Texas to the Rio Grande, would more than quadruple our military power in that quarter.

A similar work, to intersect this at a suitable point, might be made through Texas, and another from the frontier of Missouri, on the route to the Pacific, at least to the proposed new post on the Kansas. Similar works, to meet them, might be commenced on the Pacific. In a military point of view, these works would be more important than any other in which the government could engage. They are strictly national; are necessary to bind our distant possessions together, and to enable us, in the event of war with a great maritime power, to supply our troops and defend our possessions on the Pacific.

In consequence of the increased duties of the department, there are, in addition to the regimental quartermasters and such commissaries of subsistence as can be occasionally employed, more than fifty regimental officers acting in the department. The greater part of them perform the duty confided to them in the best manner; they are subjected to a heavy responsibility, often sustain losses, and receive no compensation for the extra work done. These cases seem to require attention, and it is recommended that provision be made by law for the employment in the department of forty or fifty lieutenants, and that they be allowed from ten to twenty dollars a month extra while so employed, to be determined by the Secretary of War. It is also recommended that soldiers employed as teamsters and mechanics be allowed thirty cents, and laborers twenty-five cents a day, extra, provided they perform the duties assigned to them faithfully and diligently.

COMPENDIUM OF THE PAYMASTER GENERAL'S REPORT.

The amount of money in the hands of paymasters on the 30th of June, 1851, was	\$472,655 08
Received by them since	2,549,784 65
Total	3,022,439 73
Expended in the year ending June 30, 1852	2,660,245 26
Leaving in their hands, July 1, 1852	<u>362,194 47</u>

The troops have been promptly paid in every part of the country.

Attention is asked to the operation of the act requiring balances of appropriations of more than two years' standing to be carried to the surplus fund. A part of these balances consists of the portion of soldiers' pay which by law is retained until his discharge—a period, in

some cases, of five years. A re-appropriation of those balances is asked.

A COMPENDIUM OF THE ANNUAL REPORT OF THE COMMISSARY GENERAL OF SUBSISTENCE, DATED OCTOBER 30, 1852.

The posts on the lakes, Niagara frontier, Atlantic seaboard, on the western waters, in the State of Missouri and Territory of Minnesota, have been furnished by contract.

The troops in Texas, New Mexico, on the Oregon route, in California and Oregon, have been supplied by purchase in the open markets of the old States, and counties adjacent to the posts.

The contractor for Fort Towson, (on the Red river,) Forts Smith and Gibson, (on the Arkansas,) failed to make deliveries under his contracts, and purchases had to be made to supply those posts.

The lowest bidder for Forts Ripley, Snelling, and Mackinac, was promptly furnished with contracts and bonds, but never replied to the department, and purchases had to be made to supply those posts.

Some reduction has been made in subsisting recruiting parties throughout the country by causing subsistence to be purchased and issued by the recruiting officers, when reasonable bids could not be procured for complete rations.

Sales of subsistence have been made to the officers of the Mexican boundary survey for the use of their parties, and issues in small quantities have been made to suffering emigrants.

Under general orders No. 1, January 8, 1851, a system of "farm culture" was undertaken at some posts, a particular account of which will be found in the report of the Adjutant General, dated August 18, 1852, to the general commanding the army.

Experiments are making in the solar evaporated salt of New York and Turk's Island salt, for testing their comparative value in curing pork.

Good and wholesome provisions have been supplied to the troops at all points.

GEO. GIBSON, C. G. S.

OFFICE OF C. G. S.,
Washington, November 2, 1852.

COMPENDIUM OF THE REPORT OF THE SURGEON GENERAL OF THE ARMY FOR THE FISCAL YEAR ENDING 30TH JUNE, 1852.

Fiscal affairs.

Amount of money to be accounted for.....	\$163,057 56
Amount of money paid out during the fiscal year ending June 30, 1852.....	35,416 78
Amount of available funds remaining at the disposal of the medical and hospital department of the army on the 30th of June, 1852.....	127,640 78

Of the available funds remaining on the 30th of June last, more than \$23,000 have been since disbursed in liquidation of claims growing out of the Mexican war; and as many quartermaster's accounts for expenditures made during the Mexican war, and immediately afterwards by order of military commanders, and charged to the medical department, are now just being settled in the Treasury Department, it is to be presumed that a large portion of the balance of former appropriations will be absorbed during the current year in the payment of debts contracted previously to the last fiscal year.

Loss of supplies.

No inconsiderable sum has to be paid out every year in the renewal of medical supplies lost or destroyed in the transit from the depots to the distant military posts. During the last year about \$8,000 worth of medical and hospital property was destroyed by fire at San Antonio, and about \$2,000 worth was lost by the sinking of a steamer in the Arkansas. Some of the losses sustained are owing to the perishable character of many articles of medicine; others may be attributed to accidents inseparable from a long and divided line of transportation, and to the fact that due responsibility is not always exacted from wagoners and other carriers of the public stores.

The supply of medicines, hospital stores, &c., &c., to the troops.

The necessary medical supplies, and of good quality, have been regularly provided by the medical purveyors, and forwarded to the various military posts, and every possible precaution has been taken to meet the wants of the sick in the remotest sections of the country. A liberal supply of medicines has also been provided for emigrants on the western plains, to very many of whom the medical officers of the army have rendered professional services gratuitously.

Recommends extra pay to soldiers detached as nurses and attendants in military hospitals.

The attendants in a military hospital are the only soldiers who do not by law or regulations receive extra compensation for extra services; yet, in consideration of the constant risk of life from contagion, loss of sleep, &c., they are most equitably entitled to remuneration from the government. (The compensation referred to is twenty cents per day, as is allowed to soldiers on fatigue duty by act of Congress approved March 2, 1819.)

Statistics of disease and mortality in the army.

Remarks concerning the meteorological observations taken at the various military posts.

Result of the proceedings of the army medical board for the examination of assistant surgeons for promotion, and of applicants for appointment in the medical staff.

Remarks showing the necessity of an increase of the medical staff of the army.

TH. LAWSON, *Surgeon General.*

SURGEON GENERAL'S OFFICE,
November 4, 1852.

COMPENDIUM OF THE REPORT OF THE COLONEL OF ENGINEERS.

ENGINEER DEPARTMENT,
Washington, December 2, 1852.

SIR: I have the honor to transmit, in compliance with a resolution of the Senate of August 26, 1852, a *compendium* of my annual report on the condition of those public interests that have been confided to this bureau.

Fortifications, and military establishments connected therewith.

Congress having for the last two sessions withheld appropriations for fortifications, it has only been possible to make progress in works of construction or repair, at a few of the forts where there were balances of former grants; and even in these cases, as the balances were small, I cannot report very material advancement. On the other hand, it is to be apprehended—notwithstanding every precaution taken to protect the suspended works—that all have suffered more or less injury from bad weather, and other causes—in some instances to a considerable extent. The condition, or state of advancement, of each fort, as far as could be briefly stated, will be seen in the following detail:

The estimates for fortifications, presented for the consideration of Congress at its approaching session, are, with the addition of two or three small amounts for repairs made necessary by injuries sustained in the interim, the same as were laid before that body both last year and the year before. All the items of the estimates are for objects that have again and again received the sanction of Congress; several of them—indeed, all of considerable amount—are for the advancement or completion of forts under construction or repair, that are indispensable to the security of large maritime cities, and of great national establishments, as Boston, New York, Philadelphia, Baltimore, Norfolk and its navy yard, Charleston, Savannah, Pensacola navy yard, Mobile, New Orleans, Key West, Tortugas, &c., &c.

The remaining items of the estimate are small sums required for providing new barrack-room, store-room, magazines, wharves for the protection of sites, &c., &c.; all these last pertaining to forts in important positions that, as regards defence and efficiency, are finished, some being very old works.

In the hope that Congress may be requested to make provision for the same, I again take leave to press upon your attention the importance of an immediate commencement of a fortification in New Bedford harbor, Massachusetts, and also of a fort on Sandy Hook, New Jersey.

And I have also to recall to your notice the necessity of an appropriation for the commencement of a fort at the entrance to San Francisco harbor, California.

I am, very respectfully, sir, your obedient servant,

JOS. G. TOTTEN,

Brevet Brigadier General, and Chief Engineer.

HON. C. M. CONRAD,

Secretary of War.

COMPENDIUM.

At *Fort Winthrop*, Boston harbor, all that remained to be done to complete the cutting of the coping of the parade-wall, the lined ashlar of the scarp, and the breast-height, has been accomplished.

At *Fort Wood*, New York harbor, the cisterns of the hospitals have been finished, and other capacious ones built, with means derived from contingent appropriation.

At *Fort Hamilton*, New York harbor, the hospital casemates have been refitted, and some pointing and grading done. Eighteen gun-platforms have been made and put in place, and blinds for store-rooms prepared.

At *Fort Richmond*, New York harbor, the masonry has been raised to the general level for receiving the floor-arches of the second tier, the curtain of the gorge being thirty-four feet above the foundations; a large amount of stone is on hand, prepared to be put in place.

At *Fort Delaware*, Delaware river, the timber foundations, consisting of a grillage upon piles of the work, have been completed, and the superstructure accurately traced upon them, a few stones thereof being laid.

At *Fort Carroll*, Baltimore harbor, the constructing wharves are complete on four fronts of the work; three hundred linear feet of the piled foundation are prepared for masonry, and five hundred feet in length of masonry have been raised to a height of fourteen feet.

At *Fort Sumter*, Charleston harbor, the gorge casemates have been made habitable, the walls of the east barrack raised to the upper lintels, and the two arches of one gun casemate turned.

At *Fort Pike*, Louisiana, repairs of the asphaltting have been made, and some new work of that sort has been added; a brick wall substituted for the exterior slope of the parapet, the earth of which has also been replenished. The site in front of the ditch has been revetted with timber, for its preservation.

At *Battery Bienvenue*, Louisiana, the stone pintle-blocks and traverse circles have been set, and the guns remounted.

At *Tower Dupré*, Louisiana, six sets of stone pintle-blocks and traverse circles have been put down, and the guns at the work remounted.

At *Fort Jackson*, Louisiana, the ditch of the exterior battery has been excavated, its scarp and counter-scarp revetted with timber, the parapet formed to full dimensions, and materials collected for the breast-height walls.

At *Fort St. Philip*, Louisiana, the facing of the land-scarps has been continued, and the construction of those on the water-fronts advanced.

At *Fort Taylor*, Key West, the masonry of all the work has been raised to the height (about) of the tongue-holes of the lower tier of guns, and the filling in the earth to the parade level is finished.

At *Fort Jefferson*, Tortugas, the scarp of three bastions and the connecting curtains is raised to the level of low-water, and the foundations of another bastion and curtain are completed; a large permanent cistern is built; the frame of the coffer-dam of two more fronts is in place, and a large supply of coral has been collected, for concrete.

Of the works provided for by the "act making appropriations for the improvement of certain rivers and harbors," those on the Atlantic and gulf frontiers, and the rivers, were—with the exception of the survey for a ship canal across Florida, and the improvement above the mouth of the Mississippi—placed under the direction of the chief of the corps of engineers.

The time which has elapsed since the distribution of these duties among those officers of the corps whose existing engagements best admitted of new labors being assigned to them, has not been long enough to allow them, generally, to mature their projects for the execution of the improvements designed by Congress. All are under way, however, and in some cases important progress has been made; these will be specified below.

Repairing the piers at Kennebunk, Maine.—That portion of the piers next the mouth of the river is now undergoing repairs, which will be completed this fall.

Survey for a breakwater at East Dennis, Massachusetts.—A survey of the locality designed is completed, and a project and estimate for the work are received.

Preservation of Great Woods Hole harbor, Massachusetts.—Repairs to the extent immediately essential have been completed; the work will be continued as soon as the season admits.

Removal of Middle Rock, New Haven harbor, Connecticut.—A contract is about to be made with Mr. Maillefert, looking to the removal of this rock the present season.

Improvement of the harbor of Bridgeport, Connecticut.—The project for this improvement is completed.

Improvement in the harbor of New York at Hell Gate and Diamond Reef.—Two hundred charges of powder have been exploded on Pot Rocks since the operations have been in our hands, the effect of which is now being examined. Projects for the removal of the other rocks have been prepared.

Removal of the bar at the junction of the Passaic and Hackensack rivers, New Jersey.—The survey for this improvement is completed.

Repairing the piers and improving the harbor at New Castle, Delaware.—The survey for this improvement is completed.

Repairs of the works at the harbor of Chester, Pennsylvania.—A contract for the complete repairs of these works by the end of the year is in course of vigorous execution.

Improvement of James and Appomattox rivers, Virginia.—The localities of the designed improvements have been examined by a commission, whose report is in preparation.

Construction of a harbor on Lake Pontchartrain, near New Orleans, Louisiana.—A commission of army and navy officers have examined the locality of the proposed work; their project, with map and estimates, is received.

Opening a ship-channel from the Mississippi to the Gulf of Mexico.—This work has also been examined by the commission above referred to; and their report, map, and estimates, are received. A contract has been made for opening a channel through the Southwest Pass, 300 feet wide and 18 feet deep, on the completion of which the contractors are to be paid the sum of \$75,000.

Survey for the abundant supply of water to Washington city and Georgetown.—This survey is in active prosecution; and the officer in charge expresses his confident hope that his report will be prepared in time for the action of Congress at their approaching session.

Military Academy. The accompanying interesting and able report of the Board of Visitors, which attended the annual examination in June last, bears full and flattering testimony to the continued and increasing efficiency and usefulness of the institution.

Captain Brewerton, after seven years of laborious and successful service as superintendent of the academy, was relieved and succeeded on the 1st of September last by Brevet Colonel R. E. Lee, of the corps of engineers.

I beg now to renew a recommendation which I have repeatedly made, that the salaries of the professors of drawing and of French should be raised to those of the other professors. There is, in my opinion, no reason why the inequality should exist.

The estimate transmitted by the superintendent of the expenses of the Military Academy, for the fiscal year ending June 30, 1854, is as follows:

For current and ordinary expenses.....	\$31,660 00
For the completion of new mess-hall and out-buildings..	3,500 00
For increase and expense of library.....	1,000 00
For expenses of the Board of Visitors.....	3,000 00
For arrearages on account of expenses of the Board of Visitors for the fiscal year ending on 30th June, 1852..	557 83
For riding-hall	12,000 00

For stable for dragoon and artillery horses.....	\$8,000 00
For forage for ninety dragoon and cavalry horses for 12 months—1,080 months, at \$6 per month.....	6,480 00
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	66,197 83
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A letter of the superintendent of the Military Academy, explanatory of this estimate, is appended to the detailed annual report.

Officers of the corps of engineers and the company of engineer soldiers.—I would respectfully call your attention to a subject which I have several times pressed upon the attention of the government, namely: the gradual increase of the corps of engineers, by an addition to the grade of second lieutenant, of not more than three officers annually for seven years, from graduates of the Military Academy. My report of November, 1850, presented reasons in detail, which received the favorable consideration of the Military Committee of the House; and to the report of that committee I now beg leave to refer, in support of the proposition. It is House Report No. 29, 2d session 31st Congress.

The engineer company has been employed during the year as usual, in its proper military exercises and studies; and, by labors in the field, has greatly assisted the instruction of the cadets in practical engineering, including the formation of saps, trenches, field batteries, magazines, platforms, &c., and in the manœuvres of the ponton bridge. It also assisted materially in the erection of a target for the determination of the proper material and construction of embrasures for casemate guns.

A detachment, consisting of some of the best educated men of the company, has been fully employed upon the coast survey; and it is intended to make other detachments of similar character from the company, for service on fortifications, as soon as they shall be resumed.

Board of engineers for the Atlantic coast. This board has continued the preparation of plans and estimates for works in Portsmouth harbor, New Hampshire.

Board of engineers for the Pacific coast.—The projects for the defence of the entrance to San Francisco bay, upon which this board was engaged when my last annual report was made, have been completed; and the board is now engaged upon a project for the defence of the entrance to San Diego bay, which will be completed, it is thought, in a short time.

Projects for other points may be taken as soon as the necessary surveys shall have been made, for which appropriations are still required.

SYNOPSIS OF REPORT FROM BUREAU OF TOPOGRAPHICAL ENGINEERS.

Survey of the lakes—conducted under Captain Macomb; base line measured by Captain Lee; report of the same will be ready for any call of Congress; apparatus for the base line made in this city; estimate rather larger than heretofore; reason for same; estimate given

in detail in appendix; also detailed report of lake survey operations, by Captain Macomb.

Salt Lake expedition—report has been printed and distributed.

Report of expedition from Santa Fe to the Pacific, by the Zuni and the Colorado—not yet completed; waiting for some reports on natural history collections.

Expected report of Captain Humphreys upon survey in reference to inundations of the Mississippi—not yet received; delayed from his ill health; further examinations going on.

Duty of restoring maps and reports of the northeastern boundary—will be completed in January; two officers engaged upon the work.

Survey of Minnesota roads—completed; the making of the roads is being attended to, to the extent of the previous small appropriations; no additional estimates submitted this year; reason for the omission.

Late period of appropriation law did not admit of much work on rivers and harbors; labor of the law divided; reason for the division; on this account, total estimate from this office more limited than formerly; have advertised for materials for lake harbors as far as limited appropriations would justify; further appropriations necessary to work up materials and procure more.

Snag-boat agent appointed; Lieutenant Colonel Long's report added as appendix, being last report of former system.

All the light-houses, assigned by law to this office, completed and transferred to Treasury Department, except one, which is named; duty now under Light-house Board.

Board of engineers for improvement at the Falls of the Ohio—yet on the duty.

Survey for the Florida canal, as directed by law, going on; five officers assigned to the duty.

Red river raft—advertisement for proposals has been made, according to law.

ABSTRACT OF THE REPORT OF THE COLONEL OF ORDNANCE FOR THE
FISCAL YEAR 1851-'52.

Fiscal affairs.

Available means of all kinds.....	\$1,915,894 08
Expenditures on all accounts during the year.....	1,241,982 48
All duly and legally accounted, as prescribed by law and regulations.	

Armament of fortifications.

Operations under this head limited to old balances for want of an appropriation for the fiscal year. Principal operations, and supplies obtained, stated. It is an error to suppose that the discontinuance or abridgment of the system of fortifications dispenses with the necessity of appropriating for the "armament of fortifications." On the contrary, the fewer the points permanently fortified, the more necessity for can-

non and gun carriages, which it is the object of this appropriation to provide. A national armory for the fabrication of cannon and projectiles is very desirable—almost indispensable. Its speedy establishment strongly recommended, as a measure of great public importance.

Ordnance, ordnance stores, and supplies.

The application of the expenditures under this head, and the principal supplies obtained, specified. A statement of arms, ammunition, and other ordnance supplies furnished to the troops, appended. Experimental firing to test the classification of iron cannon commenced; not sufficiently advanced as yet to authorize reliable conclusions; test still in progress. Many experiments have been made with small arms of novel construction, which have generally been found unsuitable for military weapons. The general objects of the inventors have been to increase the rapidity of fire, and to obtain greater range and accuracy. The first is of doubtful utility, if not of positive injury; but there is no doubt of the importance of the latter. The French arms, "à la tige," and Sharp's arms, seem the best that have been offered. Experiments are in progress to fix the details of altering some on the "tige" system, and some of Sharp's have been ordered; both to be issued to troops for trial by use in actual service, the only reliable test. A new fuze for spherical case-shot tried, and seems to answer the purpose well; some shot thus prepared have been issued to the artillery for trial and practice.

Arming and equipping the militia.

Statements annexed to the report showing the apportionment of arms under the law of 1808, and the arms and equipments which have been procured and issued to the States and Territories during the year. The want of regularity and uniformity in making militia returns, renders it impossible to apportion the arms "according to the number of effective militia," as required by the law. The only remedy is to make the apportionment according to population or to representation in Congress, which will require a change in the law. The suggestion, made last year, in regard to a special provision for supplying arms to the new States and Territories, is repeated.

National armories.

Expenditures and products stated: 38,427 muskets and rifles made at the armories during the year. Cost of musket at Springfield armory, \$8 74½; at Harper's Ferry, \$9 99¼; cost of the steel-barrel rifle, \$11 60½. The general condition of the national armories is excellent; the operations are conducted with skill and system; the buildings and machinery are kept in the best order; the artisans and other workmen employed are intelligent, and perform their work willingly, diligently, and skilfully, and all in authority exert their energies for the promotion of the public interest. The management of the armories, under

the present system, has produced many important improvements, and corrected many abuses. That system has its opponents among those who profited by the abuses, and whose interest it is to break down the present and restore the former system of superintendence; and it has to contend against their endeavors to attain that end, as well as the influence they can command in other quarters. All that is asked is, that no change shall be made until preceded by a full and thorough investigation into the merits of the two systems of superintendence, as shown by their results, and found, therefrom, to be expedient. The total number of serviceable small-arms on hand, muskets, rifles, and pistols, including flint and percussion lock, is 629,745. The proper supply of small-arms for the nation to possess is estimated at a million. For the grounds of this estimate, the views expressed in the annual report from the Ordnance Office of 28th October, 1851, are referred to.

Arsenals and depots.

No change, during the year, in the number of arsenals and ordnance depots. Reports of commanding officers, annexed, are referred to for the particular operations at each. Recommended that some of the arsenals be sold—there are several now of no public use from their position; also, that the arsenals at Old Point Comfort, Virginia, and Mount Vernon, Alabama, be transferred to other sites, and that the ground taken from the Washington arsenal, as a site for the penitentiary, be restored. The valuation of all property in charge of the Ordnance department, on the 30th June, 1852, was nineteen millions of dollars. The establishment of suitable depots for the preservation of the gunpowder belonging to the United States recommended as a measure required by the public service.

COMPENDIUM OF THE THIRD AUDITOR'S REPORT.

The number of military accounts remaining unsettled in his office is 2,359, rendered by 625 officers and agents of the quartermaster, commissary, engineer, and topographical departments, of which 219 were received in 1850; 1,111 in 1851; and 1,029 in 1852.

The first section provides that the President may, in his discretion, suspend any person from his office for cause. The second section provides that the President may, in his discretion, remove any person from his office for cause. The third section provides that the President may, in his discretion, reappoint any person who has been removed from his office for cause. The fourth section provides that the President may, in his discretion, suspend any person from his office for cause.

ARTICLE II, SECTION 2, CLAUSE 1

The President shall have the power to nominate and, with the advice and consent of the Senate, to commission Officers of the United States, Judges of the Supreme and inferior Courts, Consuls, Vice Consuls, Ministers and Consuls, Judges of the Admiralty, and other Officers and Ministers of the United States. He shall have the power to grant Reprieves and Pardons for Offenses against the United States, except in Cases of Impeachment. He shall have the Power to grant Reprieves and Pardons for Offenses against the United States, except in Cases of Impeachment.

THE HISTORY OF THE NATION

THE HISTORY OF THE NATION
 BY J. H. BURTON
 NEW YORK: HENRY HOLT & CO., 1893.

The history of the nation is a subject of great interest and importance. It is a subject that has attracted the attention of many writers and scholars. The history of the nation is a story of growth and development, of struggle and achievement. It is a story that has shaped the character of the nation and the lives of its people. The history of the nation is a story that is full of meaning and purpose. It is a story that is worth knowing and understanding.

REPORT

OF

THE SECRETARY OF THE NAVY,

DECEMBER 4, 1852.

Part ii—19

THE SECRETARY OF THE NAVY

DEPARTMENT OF THE NAVY

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REPORT OF THE SECRETARY OF THE NAVY.

NAVY DEPARTMENT, *December 4, 1852.*

SIR: I have the honor to submit the annual report of this department, which will make you acquainted with the present condition of the naval service, and bring to your notice the several subjects which I have thought worthy of your consideration and the attention of Congress. I would beg leave also to say, that the many valuable suggestions for the improvement of the service, made by my predecessors, in previous reports, which yet remain open to the deliberation and disposal of Congress, have, in my opinion, lost nothing of their interest, and that I refer to them now as most appropriate subjects for commendation to the favor of the national legislature. If I have presented other views on the same topics, or proposed a different method for improving the organization of any branch of the service, I hope these will be received as contributions to the common effort which this department has ever felt it a duty to make towards the perfection of our naval system, and that they may be weighed in the deliberations of Congress with a full appreciation of what is deservedly due to the experience of those who have heretofore conducted the affairs of this department.

DISTRIBUTION OF SQUADRONS.

During the year now about to close, the vessels of the navy in commission have been assigned to the various employment deemed necessary for the protection of our commerce, according to the system of distribution heretofore adopted and found most convenient to the exigencies of the service.

This distribution has been made in a provision for six squadrons, each of which is required to serve on a cruise of three years, with the exception of that allotted to the coast of Africa, where, from a consideration of the peculiar character of the service, it is limited to two years.

The duration of the cruise is subject only to an occasional prolongation, when the public interest may render it necessary. Suitable provision is made in the enlistments for this incident, whenever it may occur.

The six squadrons are assigned to—

- The East Indies,
- The Pacific ocean,
- The coast of Africa,
- The coast of Brazil,
- The Mediterranean, and
- The coast of the United States.

In addition to these, a steamship is appropriated to the lakes upon our northern border; and a few vessels are kept for detached service.

The East India squadron has continued during the past year under the command of Commodore John H. Aulick, and has consisted of the steam frigate *Susquehanna*, being the flag-ship of the squadron, the sloop-of-war *Plymouth*, Commander Kelly; *Saratoga*, Commander Walker; and *Marion*, Commander Glendy. This vessel (the *Marion*) has recently returned to the United States, and is now assigned to the African squadron, and, being ready for sea, will very soon proceed to her destination.

The squadron has been lately reorganized and placed under the command of Commodore M. C. Perry, and Commodore Aulick only waits the arrival in the East Indies of an officer to command the *Susquehanna*, to return to the United States, which he will do in advance of his ship. Commodore Perry's command will consist of the line-of-battle ship *Vermont*, which is now in a course of rapid preparation for service, and it is expected will be ready to sail about the first of March. The Commodore himself has just sailed from the port of Norfolk in his flag-ship, the steam frigate *Mississippi*.

He will be followed in a few days by the steam frigate *Powhatan*, Captain McCluney, which vessel has been recently added to the squadron, in place of the steamer *Princeton*, originally detailed for it, but which, from some imperfection discovered in her machinery, after she had undergone a thorough repair, has been compelled to remain in port. This imperfection I have reason to hope will prove to be less serious than was at first apprehended, and that she may soon be in condition for service, when she will be assigned to other employment.

In addition to these two ships, the corvette *Macedonian*, Captain Abbot, the sloop-of-war *Vandalia*, Commander Pope, and the steamer *Alleghany*, Commander Sands, constitute the remaining force assigned to Commodore Perry. The two first of these, the *Macedonian* and the *Vandalia*, are now nearly ready for sea, and may be expected to take their departure during the month of December. The *Alleghany* is waiting only for the completion of her engine, and will be despatched as soon as it is finished.

The storeships *Supply*, Lieut. Sinclair, and *Southampton*, Lieut. Boyle, are also attached to the squadron, and are already on their way to their appointed stations.

The Pacific squadron, under the command of Commodore Charles S. McCauley, has been composed of the frigate *Raritan*, commanded by Commander McKean, as flag-ship of the squadron; the frigate *St. Lawrence*, Captain Dulaney; the sloop-of-war *St. Mary's*, Commander Magruder, Portsmouth, Commander Dornin, Falmouth, Commander Petigru, *Vandalia*, Comander Gardner, and *Vincennes*, Commander Hudson. The *Falmouth*, *Vandalia*, and *Vincennes*, and the two storeships, *Lexington* and *Southampton*, also attached to the squadron, have returned home within the last two or three months. The *Raritan*, with Commodore McCauley on board, is now also on her homeward voyage, and may be looked for in the course of the month of January.

This squadron has been actively employed in cruising near the Sandwich Islands, from the Straits of Fuca and Puget's Sound, in Oregon, to Panama, on the North American coast, and along the whole line of South America on the Pacific. It has also visited the Gallipagos islands

and the adjacent seas, whilst one or more of its vessels have been kept in constant intercourse with every port, familiar to our commerce, from California to Valparaiso.

In the new arrangement of this squadron, it will be put under the command of Captain Dulany; and the razeed Independence, the sloop-of-war Falmouth and St. Mary's, will be despatched with no more delay than may be necessary for their equipment. The storeship Fredonia having performed her service in this squadron, has lately been sent on a voyage to California as a transport of troops, and will, when released from that duty, be established at Valparaiso in charge of the public stores at that port.

The African squadron is under the command of Commodore Lavallette, whose flag-ship is the sloop-of-war Germantown, Commander Nicholas. Besides this vessel, it is composed of the sloop-of-war John Adams, Commander Barron, and Dale, Commander Lardner, and the brigs Bainbridge, Lieutenant Manning, and Perry, Lieutenant Page.

Commodore Lavallette having nearly completed the period of his cruise, will return to the United States in the Germantown as soon as he can be relieved by Commodore Mayo, who will sail in the month of December, in the frigate Constitution, with Commander Rudd in command. The Dale will be replaced by the Marion, Commander Howard, which is now ready to sail.

The steamer Vixen will be added to this command, for such rapid communication with the coast and the trading points on the rivers as the duties assigned to the squadron constantly require.

The service on this station is arduous, and attended with many incidents to render it far from being acceptable to those employed upon it. Constant vigilance and frequent intercourse with a barbarous people on the coast, are the least of its discomforts. To these are added exposure to disease and the irksome seclusion of a long voyage, which finds but small relief in visits to a shore without attraction, and always dangerous to the stranger. The health of our ships on that station, I am happy to report, has in general been well guarded by the useful sanitary discipline which the experience of the service has, of late years, been able to suggest and enforce, and we have now no longer to complain of such ravage by the maladies of the climate as overtook those who were in times past consigned to this service.

The time has come, perhaps, when it may be properly commended to the notice of Congress to inquire into the necessity of further continuing the regular employment of a squadron on this coast. The slave trade may be said to be now driven into a comparatively narrow space on the southern portion of the coast, and confined to North and South Guinea; whilst the measures recently adopted in Brazil, encourage the hope that this infamous traffic will soon be abandoned altogether. A few small vessels added to the Brazilian squadron, and directed to cruise in the track of the slave ships, may be found effectual to suppress the last efforts of that forbidden commerce, against which the abhorrence of all Christian nations is awakened.

The squadron on the coast of Brazil is commanded by Commodore McKeever, and is composed only of his flag-ship, the frigate Congress, Commander Pearson, and the sloop-of-war Jamestown, Captain Down-

ing, with the storeship Relief, Lieutenant Hitchcock. It has rendered useful service to the public interests in that quarter, and been found adequate to all the demands of our varied and extensive commercial intercourse there.

Commodore McKeever will return in the spring with his ship, and his place will be supplied by Captain Salter, who has received preparatory orders to the frigate Savannah, to be commanded by Commander Mercer.

Commodore Silas H. Stringham has command of the Mediterranean squadron, in the frigate Cumberland, Commander Turner. His force consists of the steamer San Jacinto, Captain Crabb, and the sloops-of-war St. Louis, Commander Ingraham, and Levant, Commander Goldsborough. This squadron will probably be reinforced hereafter by the steamer Princeton or the Saranac, if either of these vessels may be spared from the service at home, and the San Jacinto, which is now undergoing repairs at Trieste, in that event may be ordered back to the United States.

This squadron has been conspicuously engaged in various service connected with our important commercial and political relations to the countries bordering on the Mediterranean, and has performed its duties with a commendable zeal and the best results. We have been able, through the exertions of Commodore Stringham, to obtain a permanent arrangement for the accommodation of our ships at Spezzia, by the good will of the King of Sardinia, and all that the public interest and convenience require in a safe and commodious naval depot, we may now regard as secured.

The squadron on the coast of the United States, or the Home Squadron, under the command of Commodore J. T. Newton, consists, at this time, of the frigate Columbia, the flag-ship of the Commodore, and commanded by Commander Pendergrast; the steamer Saranac, Captain Long; the sloops-of-war Albany, Commander Gerry, and Cyane, Commander Hollins; and the steamer Fulton, Commander Jackson. The steam frigate Powhatan, Captain Mervine, was, a short time ago, attached to this squadron, and immediately despatched, with the Commodore on board, on special service, to the ports of Havana and Vera Cruz. Upon his return from this voyage, it was found necessary, in consequence of the disability of the Princeton, to change her station and place her in the East India squadron.

The steamer Saranac, detailed for duty in the Home Squadron, sailed on the 4th of October last for Rio de Janeiro, under the command of Captain Long, giving conveyance to the late Brazilian chargé d'affaires, the Chevalier de Sodré, to the seat of his own government. Captain Long will be back, it is supposed, in a few weeks, to re-assume his position in the squadron from which he was detached, or for such other service as may await him.

The Cyane has been recently ordered to cruise in the neighborhood of the island of Cuba, and to visit the port of Havana. The Albany is ordered to the same quarter, and will for the present remain at Pensacola.

The steamer Mississippi having been in condition for her cruise to the East Indies some time in advance of the rest of the squadron, was

employed, in the month of August last, on a visit to the coast of the British provinces, upon our northern border, in a service connected with the question of the fisheries. She returned early in the month of September to resume her allotted station, and to await the period of her departure upon the long voyage in which she is now engaged.

EXPLORATIONS AND SURVEYS.

During the past year the attention of this department, in conjunction with the Department of State, has been directed to the employment of the East India squadron in an enterprise of great moment to the commercial interests of the country—the endeavor to establish relations of amity and commerce with the Empire of Japan.

The long interdict which has denied to strangers access to the ports or territory of that country, and the singularly inhospitable laws which its government has adopted to secure this exclusion, having been productive, of late years, of gross oppression and cruelty to citizens of the United States, it has been thought expedient to take some effective measure to promote a better understanding with this populous and semi-barbarous empire; to make the effort not only to obtain from them the observance of the rights of humanity to such of our people as may be driven by necessity upon their coasts, but also to promote the higher and more valuable end of persuading them to abandon their unprofitable policy of seclusion, and gradually to take a place in that general association of commerce in which their resources and industry would equally enable them to confer benefits upon others, and the fruits of a higher civilization upon themselves.

The extension of the domain of the United States to the shores of the Pacific, the rapid settlement of California and Oregon, the opening of the highway across the isthmus of Central America, the great addition to our navigation employed in trade with Asiatic nations, and the increased activity of our whaling ships in the vicinity of the northern coasts of Japan, are now pressing upon the consideration of this government the absolute necessity of reviewing our relations to those Eastern communities which lie contiguous to the path of our trade. The enforcement of a more liberal system of intercourse upon China has met the approval of the civilized world, and its benefits are seen and felt not less remarkably in the progress of that ancient empire itself, than in the activity which it has already imparted to the pursuit of Eastern commerce. China is awaking from the lethargy of a thousand years to the perception of the spirit of the present era, and is even now furnishing her quota to the adventure which distinguishes and stimulates the settlement of our western coast.

These events have forced upon the people of America and Europe the consideration of the question, how far it is consistent with the rights of the civilized world to defer to those inconvenient and unsocial customs by which a nation, capable of contributing to the relief of the wants of humanity, shall be permitted to renounce that duty; whether any nation may claim to be exempt from the admitted Christian obligation of hospitality to those strangers whom the vocations of commerce or the lawful pursuits of industry may have incidentally brought in need of its assistance; and the still stronger case, whether the enlightened

world will tolerate the infliction of punishment or contumelious treatment upon the unfortunate voyager whom the casualties of the sea may have compelled to an unwilling infraction of a barbarous law.

These are questions which are every day becoming more significant. That Oriental sentiment which, hardened by the usage and habit of centuries, has dictated the inveterate policy of national isolation in Japan, it is very apparent, will not long continue to claim the sanctity of a national right to the detriment of the cause of universal commerce and civilization, at this time so signally active in enlarging the boundaries of human knowledge and the diffusion of comfort over the earth. The day has come when Europe and America have found an urgent inducement to demand of Asia and Africa the rights of hospitality, of aid and comfort, shelter and succor, to the men who pursue the great highroads of trade and exploration over the globe. Christendom is constrained by the pressure of an increasing necessity to publish its wants and declare its rights to the heathen; and in making its power felt, will bring innumerable blessings to every race which shall acknowledge its mastery.

The government of the United States has happily placed itself in the front of this movement; and it may be regarded as one of the most encouraging guarantees of its success, that the expedition which has just left our shores takes with it the earnest good wishes, not only of our own country, but of the most enlightened communities of Europe. The opening of Japan has become a necessity, which is recognised in the commercial adventure of all Christian nations, and is deeply felt by every owner of an American whale-ship, and every voyager between California and China.

This important duty has been consigned to the commanding officer of the East India squadron, a gentleman in every respect worthy of the trust reposed in him, and who contributes to its administration the highest energy and ability, improved by long and various service in his profession. Looking to the magnitude of the undertaking, and the great expectations which have been raised, both in this country and in Europe, in reference to its results, the casualties to which it may be exposed, and the necessity to guard it, by every precaution within the power of the government, against the possibility of a failure, I have thought it proper, with your approbation, to increase the force destined to this employment, and to put at the disposal of Commodore Perry a squadron of unusual strength and capability. I have, therefore, recently added to the number of vessels appropriated to the command, the line-of-battle ship Vermont, the corvette Macedonian, and the steamer Alleghany. These ships, together with the sloop-of-war Vandalia, originally intended to be assigned to the squadron, and with the ships now on that station—the steamer Susquehanna and the sloops-of-war Saratoga and Plymouth—a portion of which are now near to the term of their cruise, will constitute a command adapted, we may suppose, to any emergency which the delicate nature of the trust committed to the Commodore may present. It is probable that the exhibition of the whole force which will be under the command of Commodore Perry during the first year, will produce such an impression upon a government and people who are accustomed to measure their respect

by the array of power which accompanies the demand of it, as may enable him to dispense with the vessels whose term of service is drawing near to a close, and that they may be returned to the United States without any material prolongation of their cruise.

A liberal allowance has been made to the squadron for all the contingencies which the peculiar nature of the enterprise may create. The commanding officer is furnished with ample means of defence and protection, on land as well as sea; with the means, also, of procuring despatch vessels when necessary, transports for provision and fuel, and for such other employment as may be required. Special depots of coal have been established at various points, and abundant supplies provided. He has, in addition to the instructions usually given to the squadron on this station, been directed to avail himself of such opportunities as may fall in his way, to make as accurate surveys as his means may allow, of the coasts and seas he may visit, and to preserve the results for future publication for the benefit of commerce.

Somewhat allied in character and importance to these projected operations of the Japan squadron is the expedition now prepared for the exploration and survey of the China seas, the Northern Pacific, and Behring's Straits. The naval appropriation bill of the last session of Congress put at the disposal of this department one hundred and twenty-five thousand dollars "for the building or purchase of suitable vessels, and for prosecuting a survey and reconnaissance for naval and commercial purposes, of such parts of Behring's Straits, of the North Pacific ocean, and the China seas, as are frequented by American whale-ships, and by trading vessels, in their routes between the United States and China."

Very earnestly concurring with Congress in the importance of this exploration and survey, I have lost no time in the arrangement and preparation of what I hope will prove itself to be a most effective and useful expedition. As the act of Congress has confided to the discretion of this department the selection of the vessels which may be found necessary for the prosecution of this enterprise, the equipment and distribution of the force it may require, and the organization of every matter of detail connected with it, limited only by the amount of the appropriation, I have thought I should best accomplish the object proposed, and gratify the expectation of the country, by giving to the expedition the benefit of such naval resources as the department could command, rather than confine it to such limited supply as would have resulted from either building or purchasing vessels, and providing for the other details of this service out of the fund intrusted to the department. With this fund, so applied, the department would have been constrained to organize the expedition upon a scale which I conceive to be altogether inadequate to the nature of the labor required, and which, indeed, would have been almost certain to end in the failure to accomplish such results as Congress had contemplated. Looking to the amount which it would have been necessary to reserve, in order to provide for the special contingencies of such an expedition, it would have been impracticable to procure, by the application of the remaining portion of the appropriation, more than one steamer of an inferior class, and perhaps two small brigs, to constitute the force to be used in the under-

taking: it is doubtful if even this equipment could have been obtained by such an appropriation of the fund. The absolute necessity of altering, strengthening, and arranging any vessel which might be purchased, so as to adapt it to the character of the service required, and give reasonable assurance of safety and success, would have drawn so largely upon the appropriation as to reduce the outfit to a limit quite incompatible with the object expected to be attained.

This cruise of exploration and survey, destined to equal employment in the tropics and the arctic regions, and required to traverse the broad expanse of the Pacific, among dangerous and unknown shoals, and in search of islands and rocks, misplaced upon our charts, and therefore the more perilous to the navigator, will find enough, and more than enough, of labor to occupy it during the next three years. Its toilsome duties, exacting ceaseless vigilance and all the skill of seamanship, will be inevitably enhanced by the disease incident to varying climates and exposure to the peculiar casualties of boat-navigation, and contests with the savage islanders of the seas it is destined to explore. I have therefore deemed it indispensable, that at least one large vessel should be always at hand to afford a change of quarters to those who may be disabled, and to supply reliefs of fresh men, to take the place of those who may be broken down by sickness or accident. It is impossible to maintain the health of the crews of the small vessels in so long a service, without the comforts which such a change may afford. These surveys also require an extra supply of men beyond the usual complement destined to our cruising ships, there being constant occasion for detachments in boats to conduct the operation of measuring and determining the position and bearings of the shoals and islands, which it is the purpose of the enterprise to ascertain.

In consideration of all these conditions, and many others of a kindred nature, I have determined to give to this little squadron every facility which the resources at my command have enabled me to supply. I have accordingly put the Vincennes, one of our staunchest and best sloops-of-war, in the lead of the expedition. I have added to this the propeller John Hancock, which being found to have an engine of the strongest construction, needed only some alterations in her size and frame, and the addition of new boilers, to make her, in every respect, a most efficient contribution to the force required. She has, with this view, been placed in the hands of the naval constructor, who is now assiduously at work, and, I am happy to report, with all desirable success, in fitting her out with every accommodation which her future operations may demand. Besides these two vessels, the brig Porpoise has been detailed for the expedition, and put in condition for all the exigencies of her employment. A small pilot-boat, adapted to speedy navigation and shallow waters, will be added to the squadron. These vessels, fully manned and equipped, and furnished with all the necessaries appropriate to the hazardous nature of their cruise, constitute the material elements of the expedition.

To promote the scientific objects contemplated by the reconnoissance, I have supplied the squadron with an astronomer and hydrographer of known ability and accomplishment, and also with a naturalist and a botanist, who are charged with the duty of collecting and preserving

specimens of such natural productions as may be interesting to science and commerce.

The squadron is placed under the command of an officer already distinguished by his participation in a former exploring expedition, and well known for the valuable contributions he has made to the hydrographical survey of our western coast—Commander Ringgold, whose professional accomplishment and devotion to the service eminently qualify him for the duty committed to him. He will be able, I hope, to take his departure in a few weeks, and will sail directly to the Pacific, doubling Cape Horn, and proceeding by the Sandwich Islands to Behring's Straits, where he may be expected to arrive at the opening of the season for operations in that quarter. It is designed to employ the expedition during each year in the reconnoissance of these high latitudes from June until October, this being the only season in which the surveys may be prosecuted in these regions. The remaining portions of each year will be devoted to the prosecution of survey and exploration in the lower latitudes, along the coast of Japan, the China seas, and the routes of navigation between our ports on the Pacific and the East Indies. Particular attention will be given to the survey of the seas and coasts through and along which our whaling-ships pursue their perilous trade, looking carefully to the coast of Japan, the Kurile islands, the sea of Okhotsk, and the unexplored shores of Northern Asia.

The commander of the expedition is made fully aware of the necessity and value of an accurate survey of the various lines of navigation between California and China, and will bestow upon this undertaking an attention commensurate with its importance. He is directed to make frequent reports of his work, in order that no time may be lost in communicating to the country the results, together with descriptive charts of his survey, for the benefit of commerce and navigation. These will be duly published as often as they are received by the department.

Being persuaded that this department cannot better contribute to the fulfilment of the high expectations which the country has ever entertained as to the value of the navy, nor perform a more acceptable duty to the navy itself, than by imparting to this arm of the national power the highest spirit of enterprise, as well as the greatest efficiency of action, I have sought every opportunity to put in requisition for useful service the various talent, skill, and ambition of honorable adventure, which equally distinguish and embellish the professional character of the officers under the control of the department. Constant employment of ships and men in the promotion of valuable public interests, whether in the defence of the honor of our flag or in the exploration of the field of discovery and the opening of new channels of trade, or in the enlarging of the boundaries of science, I am convinced will be recognised, both by the government and the people, as the true and proper vocation of the navy, and as the means best calculated to nurse and strengthen that prompt and gallant devotion to duty which is so essential to the character of accomplished officers, and so indispensable to the effectiveness of the naval organization.

Acting in conformity with this opinion, I have availed myself of events that favored the object, to set on foot two other expeditions which may be classed with those which I have just presented to your notice,

and from which I have every reason to hope much good is to be derived hereafter. My attention has been invited by the Colonization Society of Pennsylvania to the necessity of prosecuting some researches into the character of the continent of Africa, and especially that portion of it lying eastward of the settlements of Liberia. It is supposed that an exploration of this region would lead to the discovery of a broad tract of fertile and healthy country, well adapted to the extension of that system of colonization which, for some years past, has greatly interested the public attention, and more recently attracted the favorable consideration of Congress.

The proposition submitted to my view by the society, and referred to your approval, I regard as one which may be rendered productive of great public advantage, and in regard to which you might confidently bespeak and anticipate the approbation of the country. I have, therefore, not hesitated, with your concurrence, to give it the aid which it was in the power of the department to bestow. As I could not, however, without some special appropriation to the object, organize a full and effective expedition for the prosecution of this enterprise, I have thought that, by the employment of such means as have been provided for the ordinary exigencies of the service, I might profitably prepare the way for such an expedition as Congress might hereafter think fit to authorize. I have accordingly directed a preliminary investigation to be made by an officer of the navy, whom I have attached to the African squadron, with orders to devote the months of the coming winter to an examination of the necessary conditions which this undertaking may require.

In Commander Lynch, to whom the country is already indebted for important service in another field, I have found a prompt and ardent volunteer for this employment. He is now on his way to the African coast. He will land at Liberia, Cape Palmos, and other points, and will pursue his inquiries as far as the river Gaboon, with a view to the ascertainment of such localities on the margin of the African continent as may present the greatest facilities, whether by the river courses or by inland routes, for penetrating with least hazard to the interior. He will collect information touching the geographical character of the country; its means of affording the necessary supplies of men and provisions; the temper of the inhabitants, whether hostile or friendly; the proper precautions to be observed to secure the health of a party employed; and all other items of knowledge upon which it may be proper hereafter to prepare and combine the forces essential to the success of a complete and useful exploration of the interior. In the performance of this duty, under the most favorable circumstances, he will encounter the perils of a climate famed for its unwholesome influence upon the white man, and may hardly hope to escape the exhibition of hostility from the natives. The spirit which has prompted him to court this perilous adventure, so honorable to his courage and philanthropy, I trust will enable him to brave every hazard with success, to overcome every obstacle in his progress, and to reserve himself for the accomplishment of the great object to which these preparations are directed. In the mean time, I most earnestly commend the subject of the exploration to the early and favorable attention of Congress, with the expres-

sion of my own conviction that there is no enterprise of the present day that deserves a higher degree of favor, or that will more honorably signalize the enlightened policy of this government in the estimation of the present or of future generations. It will require a liberal appropriation of money, and an enlarged discretion to be confided to the Navy Department, for the organization and arrangement of a plan of operations which must embrace the employment of a number of men, the supply of boats, armaments, and tools, and the enlistment of such scientific aid as a long and laborious inland exploration, beset with many dangers and difficulties, will suggest.

With a view to the preparatory operations of Commander Lynch, and also in consideration of the need which the African squadron has, at all times, for such an auxiliary, I have directed the small steamer Vixen to be prepared without delay and sent to that coast, to constitute a part of the force under the command of Commodore Mayo, who is about to take charge of the squadron. He will be instructed to furnish Commander Lynch with every facility which his position may allow. A small sum of money has also been placed at the disposal of Commander Lynch for the contingencies of his present service.

The second expedition to which I have referred has grown out of the recent decree of the Provisional Director of the Argentine Confederation, which has very lately reached this country, and which now throws open to navigation that long sealed and excluded country lying upon the tributaries of the river La Plata. The Uruguay and the Parana are at last opened by this decree to the access of all nations who may choose to seek the new associations which they offer to the spirit of adventure. A vast territory of boundless resource, proverbial for its treasures of vegetable and mineral wealth, extending, like the Mississippi, from south to north, and reaching through twenty-four parallels of latitude, with every climate between the temperate and torrid zones, and with every variety of product which may be gathered from the alluvial plains of the ocean border to the heights of the Andes—this is the field into which the liberal decree of President Arguiza has invited the enterprise of our country, as well as of other nations, who will be equally prompt to pursue it. We have waited with anxiety for the occasion to add this new resource to the industry of our people; and I am sure it will gratify the commercial pride, and please the emulous ambition of the nation, not less than it will secure great and permanent advantages to its trade, to have the American flag and a national vessel the first to receive the greetings of the population who, at the foot of the Andes and along the navigable waters of inland Brazil, Bolivia, and Paraguay, are ready to welcome the first messenger of commerce and throw their treasures into his hand.

Anticipating the near approach of this opportunity, with your approval, I admonished Lieutenant Page, before it arrived, to hold himself in readiness for an exploration of these rivers, and directed the steamer Water Witch to be put in condition for the service. She is now nearly equipped, and Lieutenant Page will be ready to take his departure at the first moment that the steamer may be fit to receive him. He is provided with an able crew, well adapted to the nature of his expedition, and seconded by officers chosen for their efficiency both

in the sphere of seamanship and scientific labor. A few boats are provided, adapted to the navigation of the upper streams above their falls; and the equipment, though of simple and unexpensive kind, will be in all respects such as may enable Lieutenant Page to accomplish the duty assigned to him.

These four expeditions, each of them of a highly interesting character, and likely to be productive of results which will be beneficially felt and acknowledged long after the men who may procure them shall have passed away, constitute, in great part, the chief and most important topics which have engrossed the care of the Navy Department during the past year.

It gives me pleasure to report, in connexion with these, the return of Lieutenant Herndon, to whom was consigned, in conjunction with Passed Midshipman (now Lieutenant) Gibbon, an exploration of the valley of the river Amazon and its tributaries. These officers were directed to cross the Cordilleras, in Peru and Bolivia, and by a selection of the most judicious routes of travel, with a small company of men, for the employment of whom means were furnished by this department, to explore the valley of the Amazon, and to descend that river to the sea. More than a year has been spent in the active prosecution of this duty. Lieutenant Herndon reached the United States in July last, bringing with him a large amount of interesting and useful facts industriously collected by him in the course of his long and hazardous journey, embracing many valuable statistics of the country, and adding most important contributions to the hitherto unknown geographical character of the country. He is now engaged in preparing a full report of the incidents and discoveries of his travel, which will be communicated to you as soon as it is placed in possession of this department. I beg to commend Lieutenant Herndon to your special approbation and thanks for the intelligence and ability, and yet more for the high professional zeal, he has exhibited in the performance of his difficult and honorable duty.

Lieutenant Gibbon having taken a different route from that of Lieutenant Herndon, has not yet arrived, but may be expected in the course of the winter. When he returns to this city, the result of his work will be submitted to your notice.

The brig *Dolphin*, which was employed during the last year, under the command of Lieutenant Lee, in a survey of portions of the Atlantic, for the purpose of ascertaining the position of some dangerous rocks and shoals which were known to exist in the routes of navigation between the United States and Europe, has performed useful service, of which the results will be communicated to Congress. This work being yet incomplete, the *Dolphin* has again been despatched on a second cruise of the same character, under the command of Lieutenant Berryman, and may be expected to accomplish a work which will tend, in no small degree, to lessen the hazards which have heretofore embarrassed the voyages of our merchant marine.

Lady Franklin, whose devotion to the cause of her unfortunate husband has excited so large a sympathy in the United States, has been encouraged to make another effort to determine the fate of the gallant navigator of the Arctic sea, and is now intent upon the organization of a new expedition, under the auspices of our countrymen, Mr. Henry

Grinnell, and Mr. George Peabody of London. Their endeavor will be directed to an exploration of the upper coasts of Greenland, by land as well as sea, and will furnish occasion for valuable scientific observation, tending to the ascertainment of the magnetic poles and the intensity and dip of the needle, and interesting, also, to geological questions connected with the supposed existence of an open polar sea, and other subjects of much importance in the natural history of our globe. Apart, therefore, from its main object, there is much in the projected expedition to excite a high degree of interest in its results, both in Europe and America.

The distinguished lady whose sorrows have inspired this zeal of adventure, and whose energy has given it an intelligent and hopeful direction, has done no more than justice to a meritorious young officer of our navy, Passed Assistant Surgeon Kane, in asking his co-operation in this hazardous exploit. Dr. Kane has already won a high praise from his countrymen by his intrepid perseverance in facing the extraordinary dangers of the last expedition, on the same errand, to the Arctic sea, and still more by the diligence which, guided by scientific accomplishment, has enabled him to contribute a valuable fund towards the illustration of a subject that now engrosses an unusual share of learned investigation.

The request of Lady Franklin to enlist Dr. Kane in the new expedition has been communicated to me, and I have not delayed to give him the necessary permission, and to confer upon him all the benefit he may derive from his position in the navy, by an order which puts him upon special service. If it should become requisite, in the field of operations to which he is destined, to provide him with means for the prosecution of scientific discovery beyond those which may be afforded by the department, and the liberality of the distinguished gentlemen who have assumed the charge of this expedition, I would commend it to the enlightened regard of Congress, with the most confident hope that that body will respond to the suggestions of this necessity with a prompt appreciation and generous support of an undertaking so honorable to humanity and so useful to the enlargement of liberal science.

THE NAVAL ACADEMY.

The Naval Academy at Annapolis presents to the regard of Congress an institution worthy of the highest encouragement.

Under a judicious and energetic administration, it has now reached a stage in its progress which may enable the government to form a satisfactory estimate of its influence in promoting and sustaining the future efficiency of the navy.

The school has grown up to its present stage in the progressive expansion and improvement of a design which, in its origin, forbade the adoption of a comprehensive and permanent system of naval education. It was at first contrived to supply nothing more than the opportunity of prosecuting a few useful studies to a class of occasional students who were subject to all the interruptions of details for service at sea, and who were therefore not in a condition to conform to the requirements necessary to a regular course of professional instruction. The obvious insufficiency of this mode of study soon suggested the

necessity for a more methodical arrangement. A plan was accordingly devised in 1850, to take effect at the commencement of the next term of October, 1851, by which all the acting midshipmen of the date of that and subsequent years should be inducted into the school in its lowest class, and proceed in due order through a prescribed course of naval education, which is specifically adapted to a term of four years. The series of studies appropriate to each year was defined, the practice of gunnery and seamanship established, and the whole organization, as it now exists, completed. The classes were so contrived, also, as to receive, according to an appointed succession, the acting midshipmen of dates prior to 1851, who, by this provision, will, in the space of the next three years, have had the opportunity of graduating in the school.

The admissions of acting midshipmen to the navy, and consequently to the academy, have been regulated and limited by several laws, of which the combined import now is, to give to each State and Territory its relative proportion of appointments, determined by the ratio of representation in Congress, and its relation to the whole number of acting and passed midshipmen allowed to the navy. To this determination of the quota of appointments appropriated to each State and Territory, there has been added an allotment of a fractional share to each congressional district, and the nomination for each district has been conferred upon the member representing it.

The whole number of midshipmen, including passed midshipmen, allowed to the navy, is four hundred and sixty-four. The number of representatives and delegates, according to the last census, is two hundred and thirty-nine. Each representative, therefore, is entitled, by the existing law, to the nomination of one candidate and a fraction equal to $\frac{225}{239}$.

No provision has been made for the disposition of these fractions, and I have therefore thought myself bound, in the absence of any other regulation, to consult the wishes of at least a majority of the representatives entitled to the fractional part, in receiving a nomination to supply the vacancy.

As the school does not contain more than a fourth of the midshipmen belonging to the navy, and as the vacancies in the number of students are dependent altogether upon the promotions to the grade of lieutenants, and upon the resignations, dismissals, and deaths in each year in the corps of midshipmen, the annual nominations to the school must, when the entire complement of midshipmen is regularly filled, be comparatively but few in number. The present condition of the service supplies but a small ratio of promotions; and if it were not for the operation of the resignations, dismissals, and deaths, it is manifest that the yearly recruits to be added to the school would be so inconsiderable in numbers as to forbid any hope of extensive usefulness, whilst the fluctuating character of these causes which produce the vacancies tends to a result scarcely less injurious.

It is, indeed, the most obvious defect in the present organization of the academy, that its supply of students is liable to these contingencies; for while the classes are advancing, by regular steps, through the course of four years' study, to the term at which they must leave the school and enter into the fields of active service, the vacancies which

they create are dependent upon such a limited fund of supply as must ultimately reduce the number of pupils below the quota which is essential to the administration of the system.

That this defect has not already been visible in the career of the academy is to be ascribed only to the fact that, up to the present time, the members of the institution have been recruited from the grade of midshipmen who have been employed at sea previous to the new arrangements adopted and commenced with the class of 1851. The classes heretofore have been furnished out of this corps, in addition to the annual nominations. When this resource is exhausted, and the school is dependent on the yearly nominations alone, the defect to which I have referred will be fully seen and felt. It will then be manifest that the whole number at the school cannot exceed, at any time, the number of promotions, added to the occasional vacancies occurring in the corps of midshipmen and passed midshipmen in four years.

It is to remedy this defect, and to give the school an inherent power necessary to its own perpetuation, and to make it what I am sure the country desires to see it—a vigorous and healthful institution, completely adapted to the useful ends for which it was ordained—that I propose, with your approbation, to submit to Congress the following change in its fundamental structure.

The academy should be composed exclusively of cadets, or young men, who are received as candidates for admission to the navy. Its design should be that of a preparatory school to qualify these candidates for appointments, and they should only be in condition to be selected for midshipmen when they had successfully passed through this probation.

If this principle be adopted as the groundwork of the plan, then the whole number of cadets to be nominated for the school may be established by law. For the present, I suggest that this number may be fixed at two hundred and forty-eight. It may be altered as future experience may require. Of this number of two hundred and forty-eight, who are to be furnished to the academy every four years, one-fourth, or sixty-two, should be nominated for admission at the commencement of each yearly term, to constitute the first or lowest class of the school. Of this whole number of two hundred and forty-eight, two hundred and twenty-eight might be allotted to the nomination of members of Congress, apportioning them to each State according to the ratio of representation, and requiring the nomination to the vacancies to be made, not by the representatives singly, but by the united counsel and action of the whole representation of each State, including senators and representatives. The remaining twenty of the two hundred and forty-eight may be given, with advantage, to the President.

By this arrangement, Congress would be called on to nominate fifty-seven cadets every year, and the President five.

The classes would thus commence their career with sixty-two members; and this number, or so many of them as are not dropped in the progress of the four years, would represent the annual number of graduates. Provision, of course, should be made for the gradual absorption of all those acting midshipmen, who, under the present system,

are not yet disposed of. In a few years they must disappear, after which the organization of the cadets would be undisturbed.

In addition to this number of sixty-two nominations to be made in each year, Congress and the President would also have the appointment to such vacancies in the new class as might arise out of the failure of the first candidates to pass the preliminary examinations required at their admission. The vacancies occasioned by subsequent examinations, and by the other causes operating during the progress of the classes through the term of the four years, I propose should not be filled, but the classes, after their commencement, should advance to the end of the term of study, subject to all the incidents of their career, which may reduce their numbers. The propriety of this provision will be recognised when it is observed that a vacancy occurring in any class after it has become advanced in its studies, could not be supplied, at that advanced stage, by a new appointment to the school. The class would still go on in its reduced state, whilst the supply of a vacancy occurring in it could only operate to the undue increase of the lowest class of beginners, and would thus produce a periodical and inconvenient increase of graduates for whom no allotment could be made in the navy.

Assuming sixty-two as the number which shall always be supplied to the lowest class, or beginners, of the school, we have reason to believe, from the data afforded by the experience of West Point, that the annual number of graduates would not exceed some twenty-five or thirty, it being found, in the general operation of the system, that the graduates do not bear a greater average proportion to the admissions than forty per cent. Upon this basis it may be estimated that these twenty-five or thirty may be looked to as the ordinary yearly resource for the supply of young officers to the navy.

I propose, in the next place, that the law should establish the corps of midshipmen for the service at two hundred and fifty. These should be recognised as midshipmen only, and be subject to all the understood and appropriate duties of that class of officers. They should then be consigned to service on board of ships-of-war; and after six months' employment at sea, should, upon examination and approval by a competent board, be entitled to the midshipman's warrant, bearing the date of the graduation at the school; and after three years' service at sea and another examination, they should be noted for promotion to a higher grade, which I propose should be created by law, and denominated *masters*. The grade of passed midshipman should be abolished as soon as the gradual promotion of the corps may allow. It is an anomaly in the naval service, presenting a class of officers to whom no duty is specifically assigned, and constantly engendering discontent when the duties of ordinary midshipmen are required of it. This class now perform the duty of masters, and I think it but proper that the duty and the rank should be associated by law. The change would require no increase of pay, and would, I have no doubt, be productive of good effects.

The grade of masters might be established at one hundred, and might at once be filled by appointing to it that number of passed midshipmen. The ultimate result of this plan would give, when all the

present passed midshipmen shall have been absorbed in the regular course of promotion, two hundred and fifty midshipmen and one hundred masters, to occupy the space now filled by the corps of four hundred and sixty-four officers—a reduction of one hundred and fourteen. This reduction, of course, would increase the ratio of promotion to the corps of lieutenants, and would leave a sufficient complement for all the demands of the service, estimated by the present size of the navy. A future increase of the navy would suggest a proportionate increase of officers of every grade.

The promotions incident to this organization of the corps—that is to say, of two hundred and fifty midshipmen and one hundred masters—would supply about twenty-five vacancies a year. The present number of higher officers furnishes something near this yearly average, and there is no reason to suppose that it will be reduced in future: the more active service of the navy, even on the present establishment, may rather increase it. The school, therefore, may be regarded as subject to an annual demand for this number of its graduates to be advanced into the regular line of service. Estimating the number of graduates at twenty-five, the whole of them would thus find position and employment. An increase to thirty would, of course, give a remainder of five, which may also be disposed of.

I propose, in further organization of this system, to construct a scientific corps in the navy, to be established as the hydrographical corps—this corps to be designed, in its first formation, upon a basis which shall provide for thirty masters, thirty lieutenants, fifteen commanders, and five captains, making eighty in all. It should be especially educated for that scientific professional service in which some portion of the navy is constantly employed. Its chief duties should be connected with hydrographical surveys, astronomical observations, construction of charts, preparation and improvement of ordnance, the supervision of naval architecture and machinery, and the direction of civil engineering in the construction of docks and other structures requiring scientific knowledge and skill.

The corps should be entirely separate from, and independent of, the regular naval service. Its line of promotion should be confined to its own organization, and its government should be under its own proper officers. In addition to the duties assigned to it on shore, and in hydrographical surveys, some portion of it might be appropriated to service at sea; and one or more officers of the corps might be introduced into the complements of squadrons on foreign or home service. An experienced officer of this corps would find useful and active duty upon every cruise. It should be left to the Navy Department to regulate the character and contingencies of this service, and to make all the necessary rules and orders for its application.

This corps should be built up under the direction of the Secretary of the Navy, from the material afforded by the academy, with such additions to it, in its commencement, from the regular line of naval service, as in his judgment the qualifications of the present officers might enable him to make with advantage.

With a view to the supply of this corps from the academy, I propose that, upon the yearly examination of the graduates, the Board of Ex-

amination shall be directed to bestow a close attention upon the class submitted to them, in order to ascertain the particular adaptation of any of the graduates to this species of service, and that they shall report to the department the names of such as they may find qualified, by study, talent, and acquirement, for admission to the corps; and if, upon this report, the students so designated shall consent to enter the corps, they, or so many of them as the established complement of the hydrographical corps may require, shall be appropriated to that service; and upon being so appropriated, they shall be returned to the academy for an additional course of study of two years, during which they shall be employed in obtaining a thorough knowledge of the higher branches of civil engineering, hydrography, astronomy, mechanism and gunnery, in conformity with the best system of instruction which the academy may be able to furnish. At the end of this probation of two years, they shall be subjected to a final examination, and, upon a recommendation to that effect, shall be admitted to the rank of masters in the hydrographical corps. Five years' service in this grade should entitle them to be promoted to lieutenants, as vacancies may happen, and the promotions thenceforward should await the ordinary incidents of the corps which may supply the proper occasion.

If the department should be able to contribute any members to the corps from the present officers of the service, I think such appointments should not exceed twenty to each grade of masters and lieutenants, and ten commanders, and that no captain be appointed until after five years' service in the corps: there may be found the proper officers to occupy the vacancies in this grade. It should also be well understood that the Secretary of the Navy, in assigning present officers to the corps, should be governed alone in his selection by high qualification and accomplishment in the science required, and not by seniority in the service; and that no appointments should be made unless there be found officers of approved reputation for their acquirements in reference to this service, who may be willing to enter the corps.

The yearly graduates of the academy will, according to this system, be assigned to the two branches of service I have described—that is to say, to the regular naval service, and to the hydrographical corps. The graduates required for these two branches should be selected from those who are adjudged by the board of examination to stand highest on the roll of the class; and if, at any time, it should happen that the requisitions should not embrace the whole number of graduates in each year, then those whose services are not required, being the lowest on the roll, should receive an honorable discharge from the school. These would return to the occupations of private life, well educated by the bounty of the government, and qualified for useful employment in the many important vocations connected with commerce and navigation, and especially in the various service of steamships, which create so large a demand for expert and accomplished officers. In whatever situation they may be placed, they will find abundant occasion to rejoice in the advantages they shall have obtained at the school, and, by the proper use of these advantages, indemnify the country for the care and expense it may have bestowed upon their culture. These conditions and incidents of an admission to the academy being understood in ad-

vance, both by the cadet and his friends, it is presumed, will prepare them to regard the discharge in its true point of view, as the necessary contingency of a most important good conferred, and not as a disappointment which should occasion regret. If, on the other hand, it should turn out that the annual number of graduates should not be adequate to the demands of these two branches of service, the basis of sixty-two in the class of beginners may be increased to the number at which experience may show that the desired result may be obtained. It will be easy, after the experiment of a few years, to ascertain this number with sufficient precision; and as, in the mean time, the hydrographic corps is to be filled, the extra supply of the classes for the next three years, by the admission of the midshipmen of dates prior to 1851, will very opportunely enlarge the classes to a number which will satisfy that requisition.

In arranging the complement of officers to the hydrographic corps, I have proceeded upon a conjectural estimate of what I suppose may be found necessary to the service required of it. I submit this to the judgment of Congress for such alterations in the grades and numbers as their investigation of the subject may suggest. I have thought it safest to propose a number rather below what I think the service may ultimately demand, as it is easier to increase this complement than to reduce it. It is proper for me to say, also, that, in assigning five captains to this corps, I may have exceeded the number which may be appropriate to the organization. But, as no captain, according to this plan, could be appointed before the lapse of five years, the experience which may be gained in the interval may enable Congress, before that period has gone by, to adjust this grade to its proper number, and assign to it its appropriate duties. It may be hereafter looked to for the supply of the head of the engineer department, the superintendents of naval architecture and construction, the general supervision of hydrographical surveys, and the management of the Naval Academy. If these functions may be efficiently discharged by it, the number I have assigned will not be too large.

These are the general views and considerations which have induced me to submit this plan to your approval, and to the consideration of Congress.

It will afford the annual appointment of sixty-two candidates for the navy.

It will give greater permanency and efficiency to the school.

It will quicken promotion in the navy, and give to the younger officers hope of useful command whilst they yet possess the vigor and ambition of youth.

It will establish a valuable corps of scientific officers, who will bring to the service equal devotion to the prosperity of the navy, and the highest attainments to promote it.

And it may occasionally give to the country, men carefully educated in useful knowledge, and bound, by the strongest obligation of gratitude and honor, to requite this public bounty by laudable service in the employments of civil life.

I think it proper, in presenting this new organization of the school, and of the officers which it is intended to supply, to ask of Congress

that the grade of master in the service shall be entitled to a commission, and recognised in that character by law. The masters are ward-room officers, and should be placed among the commissioned officers of the navy. No change of pay is necessary; and in that respect, they may be left upon their present footing.

It must be observed that some years will elapse, if this organization be now authorized by law, before it can be rendered complete; and the sooner, therefore, it is adopted, the better.

The present class of passed midshipmen numbers two hundred and sixteen. These are to be disposed of. One hundred of them may be commissioned as masters, and the grade may be at once established at that number by law. The remaining hundred and sixteen would be gradually absorbed by the grade of masters in a few years; after which the system will work according to its permanent regulation.

The present number of acting midshipmen is two hundred and six, of which the school contains, by the last report, eighty-one. Five appointments have been made for the next term, and there are yet thirty-seven vacancies. To the nominations already made for the new class of beginners to the next term of October, 1853, may be added at once, with the thirty-seven vacancies, as many as may be necessary to make sixty-two. The classes should then advance regularly to the end of their respective terms without additions, and the law may provide for the annual supply henceforth, of sixty-two, in the manner I have indicated. The grade of midshipmen might be at once declared to be limited to two hundred and fifty, and the filling of that complement should await the supply it may hereafter obtain from the graduates.

If any of the present grade of passed midshipmen and masters should be found qualified for admission to the hydrographic corps, the vacancies which may be made by their appointment to it may be filled by promotion, and so hasten the period at which the new organization may be brought into full operation.

The school has yet to receive some classes of midshipmen of the date previous to 1851. When admitted, they will constitute an extra portion beyond the quota allowed to the academy; and I would suggest in regard to them, that they should be permitted, as heretofore, to constitute a part of any class for which they may be qualified, and upon their graduation, to be entitled to their advancement to the proper grade; it being mainly important to provide, at present, that each yearly class of new admissions should be constituted of the appointed number of sixty-two, and in no event to exceed that number. The future organization of the school will necessarily follow upon the observance of this provision.

In proper connexion with this subject of the academy, it is my duty to apprise you that I have recently adopted regulations for the government of apprentices to be admitted at the several navy yards and workshops under the control of this department. The propriety of these regulations has been suggested by the Bureau of Yards and Docks, and I am indebted to the intelligent labors of three distinguished officers of the department, Commodores Morris, Shubrick, and Smith, to whom I referred the subject, for a report, which I have received, and which will be found among the documents accompanying this communication.

The report presents the regulations which I have approved. The number of apprentices, as established for the present by this system, is eighty-three. They are required to undergo an examination twice in each year, and after the first year those most distinguished in the previous trials are to be subjected to another of a still more extensive and rigorous character; upon which, such as shall be reported as worthy of the highest approbation and reward; and as demonstrating talent adapted to eminence in the public service, are to be commended to the Secretary of the Navy for such further advantages of instruction as he may have it in his power to confer.

I regard it as a most salutary power to be invested in the Secretary of the Navy, for the beneficial performance of the duty thus assigned to him, that he should have authority to admit into the Naval Academy those apprentices whose good conduct and capabilities shall have earned this distinction, and to provide that they should there be conducted through a course of study appropriate to their intended future vocations, and calculated to advance them in mathematical and mechanical science, under such regulations, in regard to the term of their application, their duties and deportment, as the Navy Department might think it expedient to adopt. Having completed this course of study, they should be returned to the yards from which they may have been received, or allotted to suitable employments in the service.

It would be a useful provision in this scheme to give to the young men so educated a preference in the admissions to the corps of engineers for steamships, for which appointments their education would particularly qualify them; their admission into that corps, nevertheless, to be dependent upon successful examination, and a favorable certificate to moral and intellectual character.

In the operation of this scheme the navy would derive the benefit of the best talents and acquirement for the supply of engineers, naval architects and constructors, and superintendents in the various departments of mechanical employment connected with the service.

I take great pleasure in presenting this subject to your approval, and to the attention of Congress.

In view of this reorganization of the academy, I submit also, as a question worthy of consideration, whether it would not be a salutary provision to require that the officers of the marine corps should be prepared for that service by an education at the school. My own opinion is, that it would be attended by manifest advantage, both as respects the necessary accomplishment for naval service in that corps, and the personal character and deportment of the officers belonging to it. It is among the incidents of their employment that they are sometimes required to perform important military duties on shore, in which a necessity is found for that species of knowledge only to be gained in the military or naval school; and in every service to which they are called, it is quite apparent that this knowledge, and the spirit to appreciate the duties of command that is inseparable from it, must increase the efficiency of the officer, and elevate the character of the corps to which he is attached. If these considerations should influence the opinion of Congress as they do my own, they will suggest the expediency of making the provision to which I have invited their attention.

In concluding this notice of the Naval Academy, it is due to Commander Stribling, who has charge of the institution, and to the officers, professors, and assistants under his command, to say that the assiduity and intelligence with which they have performed the laborious and complicated duties assigned to them, merit the highest approbation; and that the prosperous condition of the school, and admirable arrangement of its details; particularly manifested in the deportment and proficiency of the young men confided to their care, eminently entitle it to the favorable opinion and encouragement of the government.

I particularly commend to the notice of Congress the consideration of the appropriations asked for by the Bureau of Ordnance and Hydrography for the improvements necessary, to purchase the grounds, and complete the buildings required by the academy.

ORGANIZATION AND DISCIPLINE OF SEAMEN.

There is no subject connected with the prosperity of the navy that, in my estimate, better deserves the attention of Congress, than that relating to the condition of the corps of mariners which constitutes the great working force in the navigation and management of the public vessels.

In obedience to a sentiment which is prevalent throughout the country, and which is naturally suggested by those impulses that distinctively characterize the opinions and habits of our people, Congress has been recently led to the consideration of the ordinary mode of punishment, which it had heretofore been supposed was necessary to the preservation of the discipline of the navy. The result of this consideration has been the passage of a law for the entire abolition of corporal punishment on board of our ships, both public and private. This punishment, which for a long time has been practised in the navy and commercial marine, not only without question as to its efficacy in maintaining the proper observance of duty on ship-board, but which, indeed, had become so incorporated in the sober conviction of both officers and men, as an indispensable necessity of the service, that it had grown to be the most unquestioned usage and generally-received incident of naval discipline, many judicious persons believed might be dispensed with, not only most acceptably to the feelings of the nation, but also without disadvantage to the service. The adoption of this opinion by Congress, in the passage of the act of September, 1850, which forbade the accustomed penalty without providing a substitute for it, has afforded the navy the opportunity to make the experiment. I very sincerely regret to say, that the records of this department, as well as the almost entire concurrence of facts and opinions brought to my notice from authentic sources, and vouched by intelligent and experienced observers, all tend to indicate a most unsatisfactory result. The omission of Congress to provide for the punishment of what may be called minor offences against discipline and good order on shipboard, may perhaps account, in part, for the failure; but the fact of the most serious detriment to the efficiency of our service is so unhappily forced upon my attention, as the effect of the recent change, that it becomes the gravest of my duties at this time to lay the subject once more before Congress, and to ask its

attention to the consideration of such a corrective to the present condition of the service as I am confident it must find to be indispensable to the proper government of the navy.

We have evidence furnished to this department, in the history of almost every cruise, of acts of insubordination that not only impair the usefulness of our ships, but which tend, also, to the gradual development of habits among the seamen that threaten to lead to extensive and uncontrollable mutinies. The multiplication of courts-martial, and all the consequences of an increase of disorder and crime, are among the least of the apparent and growing evils of the new system. The demoralization of both men and officers is a yet more observable consequence. The absence or prohibition of the usual punishments known to seamen, has led to the invention of new penalties of the most revolting kind, in the application of which, full scope has been given, and the strongest provocations administered to that exhibition of temper and passion, which, however natural it may be to men of hasty and excitable natures, is seldom indulged without leading to cruelties that must disgrace those who practise them, and, what is more to be feared, raise a sentiment in the public mind hostile to the navy itself. The seaman, believing himself exempt from the speedy penalty of disobedience or neglect of duty, and looking with indifference to the remote and uncertain proceeding of a court-martial upon his delinquency, grows habitually contumacious to his superiors, and infuses the same sentiment into his comrades; and in the very fact of the diffusion of this spirit of insubordination, finds ground to hope for immunity from punishment, naturally enough believing that what has grown to be common and frequent, will also come to be more lightly considered when he is summoned to a trial at the end of his cruise. It may excite some surprise in the statement of what I learn to be true, that the most frequent complaints against the abolition of corporal punishment are made, in great part, by the seamen themselves. The difficulties arising out of its abrogation, and the absence of any substitute for it, now constitute the most prominent obstacles to the ready supply of our squadrons with seamen. This department is familiar with complaints from the recruiting stations, of the difficulty of enlisting the better class of seamen. Of that large number of men who have heretofore constituted the pride of our navy, by their good seamanship and highly respectable personal deportment—composing, I rejoice to say, the great body of the mariners who have sustained the honor and glory of our flag in its most perilous as well as in its most useful career—of these men, it is a fact which invites the deepest concern of Congress, we are daily deprived, by their refusal to enter again into the service, until, as they ask, they shall have some assurance that a better system of discipline may be restored. They reasonably complain that, whilst the worst portions of the crew are placed under arrest, and are exempt, in consequence, from the severe duties of the deck, they find their toil increased by the constantly recurring exigencies which compel them, for weeks and months during a cruise, to perform the extra work which the reduction of the force of the ship inevitably throws upon them. So oppressively is this evil felt, that I have reason to believe, if the best seamen, who have heretofore been accustomed to man our ships, could find an occasion to express

their wishes to Congress, a majority of the whole number would be seen to prefer a restoration of that form of punishment which has been forbidden, rather than be subject to the severities imposed upon them by the present condition of disorder in the naval discipline.

Looking at this state of things in the navy, I think the occasion propitious to the adoption of a new system for the organization and government of the whole material constituting the crews of our ships; and I take advantage of the present time to submit to your consideration the outline of a plan, which I trust will engage your attention, and receive the approbation of Congress.

The supply of our navy with seamen has heretofore been obtained by a system of enlistment, modelled, in its principal elements, upon the plan adopted in Great Britain, from which nation we have derived, by old habit and national descent, the general features of our marine. Like England, we have looked to our commercial navigation for the re-inforcement of the men of the navy. We enlist the mercantile seamen for the national cruise, discharging and paying them off when it is finished, and returning them to the merchant service. The navy, in general, has been sufficiently attractive to the sailor to be able to secure his service when needed; and this mode of enlistment being an easy and accessible resource, but little consideration has heretofore been bestowed upon its effect, either on the navy itself or upon the seamen. To the navy it has given a large and meritorious class of mariners—not unmixed, however, with many of a different character; and from that mixture itself, requiring a prompt and effective system of punishment adapted to secure a ready discharge of duty in every emergency. The effect of the system upon the men of the navy has been overlooked; or if regarded at all, it has not attracted the attention of the public authorities. The sailor is, in general, upon shore a helpless being. Between himself and all around him there is a palpable incongruity. He has come off a long cruise, and has earned some three or four hundred dollars. He has no home—often no friends but his comrades. He knows no thrift—no saving economy; has no adviser. His only out-look is for some pastime, and his idea of that is confined to sensual enjoyment. Every one is familiar with his history in his brief sojourn on shore. He is a victim to that class of persons who pander to his appetites, and who plunder him of his earnings. Necessity and inclination very soon drive him back to the sea, where he finds his natural home, and the only friends who can understand his character and sympathize with it. It is very apparent that a man so organized and circumstanced stands very much in need of better culture than this course of life affords. A discreet attention to his condition by the government, with a few salutary regulations that may teach him more thrift, and furnish him guidance and encouragement, will make him more useful as a citizen, or, at least, more self-dependent and respectable in his individual character, and render him, at the same time, certainly not less useful in his profession.

I propose, for the consideration of Congress, a plan for the reorganization of this portion of the navy; which, if matured by such experience as the future practise of it may afford, will, I am confident, enhance the respectability and value of our seamen, and secure to the

country a most efficient corps of men permanently devoted to the public service.

I think it cannot be doubted that the successful application of the navy to the purposes for which it is designed would be better assured by the services of a well-disciplined and carefully-maintained body of seamen, permanently attached to the public naval establishment and incorporated with it, than it ever has been, or is ever likely to be, by the fluctuating and variable resource of frequent enlistment and discharge. The constant changes which this corps undergoes is unfavorable to the growth of that sentiment, so essential to the service, which makes a sailor proud of his flag. It is still more unfavorable to the acquirement of that peculiar adaptation of habit and training to the duties belonging to the employment of a man-of-war, which all officers regard as the test and indispensable element of an efficient seaman in the navy. In a large navy like that of England, where all the seamen of the mercantile marine, in a certain sense, belong to the government, the difference between the man-of-war's-man and the seaman of civil employment is not so apparent or significant as it is in our service, in which the seamen bear so small a proportion to the whole body of mariners of the nation. Every English sailor has generally more or less service in the navy, and passes so frequently from the private to the public employment as to give him, to a great degree, an actual incorporation in the national marine; the one service is so connected with the other, that the seamen of both assimilate more in their training and education than the correspondent classes in this country. Our navy, for obvious reasons connected with these considerations, is much more dependent upon a body of men nurtured by the government and attached to the service, than that of England. It is, therefore, a fundamental purpose in the plan which I submit to Congress, to provide for the ultimate establishment of a permanent and recognised body of seamen, connected with the navy by the strongest and most durable bonds of attachment and interest.

Whilst providing for the gradual and eventual organization of such a body, my attention has been directed also to the procurement of men of the highest character in personal and professional quality, in whose good deportment and faithful service will be found the most satisfactory reasons for protecting by legal enactment their whole class against the form of punishment which has of late so much excited the sensibility of the nation. The successful accomplishment of such an object, I trust will commend the plan to the regard of all who desire to preserve that exemption, and who have hoped to find it in practice not incompatible with the highest efficiency of service on shipboard.

The general outline of the plan may be exhibited in the following regulations:

With a view to the commencement of this system, and to organize a body of efficient seamen of the most meritorious class, I propose that every commanding officer of a squadron, or of a single ship when not with a squadron, shall, on his return from a regular cruise, report to the Navy Department, in the muster-roll of the men under his command, a statement of the good or bad general deportment of each man, with a special designation of those whose conduct has merited that degree of approbation which shall entitle them to be admitted into the navy.

That this report be submitted by the department to the President, who shall thereupon issue a general order, to admit into the navy the seamen who have been distinguished in the report for good conduct. And the President shall transmit, with this order, to the commanding officer of the squadron or ship, a certificate to each seaman, written on parchment and stamped with the signature of the President himself, expressing his approbation of his conduct, and his permission to admit the subject of it into the navy, which certificates shall be delivered by the commanding officer of the squadron or ship to the men entitled to them, before they are discharged from the ship. This delivery to be made in the presence of the crews, and with suitable formality, to attract public notice.

That each seaman to whom this certificate shall be awarded, shall, if he accept it, register his name in a book, to be provided for that purpose, and kept on board of the ship, by which registry he shall become a registered seaman of the navy of the United States, and be entitled to all the privileges, and be bound to all the obligations, of that character. This registry-book shall be transmitted to the Navy Department, where it shall be preserved, and the entries made in it copied into a general registry, alphabetically arranged, and kept in the department.

The obligations incurred by every seaman who signs the register shall be those of faithful service and due performance of all seaman-like duty under the flag of the United States, good moral deportment and prompt obedience to all orders that may be issued by his lawful superiors, so long as he shall continue to be a member of the navy.

The privileges attached to this registry shall be—

1. For every five years of actual duty on board a public vessel, an increase of one dollar a month over and above the established rates of ordinary pay: that is to say, for the first five years of such service, one dollar per month; for a second term of five years of such service, an additional dollar per month; for a third term of five years, another dollar; and for a fourth term of five years, making a total of twenty years' service, another dollar: amounting in all for such twenty years' service to four dollars a month, after which no further increase to be made. This additional monthly pay, so earned by service, to be paid to each man so long as he may continue to be a registered seaman of the navy; and after twenty years of service, to be paid, whether he continues a registered seaman or not.

The right to this additional pay to be liable to forfeiture at any time within the twenty years' actual service, by the resignation of any seaman on the registry, or by his being struck off the list of registered seamen, which may be done at any time, and shall only be done by the order of the Secretary of the Navy, or by the sentence of a naval court-martial upon charges of misconduct; in either of which events, resignation or discharge by sentence of the Secretary of the Navy, or of a court-martial, he shall cease to belong to the navy, and shall lose all the privileges of such a character.

2. Every registered seaman to be entitled to resign his post in the navy at any time after three years' service, if not engaged on a cruise. When engaged on a cruise and absent from the ports of the United

States, he shall not resign without the consent of the commanding officer of his ship. A record of all resignations to be duly kept and reported to the department.

A registered seaman of more than twenty years' service, continuing in the navy, only to forfeit his additional pay when such forfeiture shall be adjudged by a court-martial, as a punishment for grossly immoral or insubordinate conduct. By such sentence, also, for such offences, his additional pay may be suspended by a court, for such time as they may adjudge.

3. No registered seaman of the navy to be subject to any corporal or other punishment of a degrading character, and to such only as may be ordered by a court-martial, on charges duly preferred and tried. This prohibition not to prevent the punishment, without a court-martial, of such minor delinquencies in conduct and discipline as may be corrected by withholding the usual indulgences of the service, stopping portions of the ration or increasing ordinary duty.

4. Every registered seaman to be entitled, after any term of three years' sea-service, to a furlough of such reasonable length as may enable him to make one or more voyages in the merchant marine, not extending, without special permission, to more than six months. Such furlough to be granted by the commanding officer of the squadron, or the commandant of the navy yard nearest to the port at which his cruise may terminate; and only to be granted, in any case, with an express reservation and notice, that the seaman to whom it is given shall report for duty in the navy when any public emergency shall render it necessary so to order him; the order for his return to duty to be issued by the Navy Department, or by such officer as may be authorized by the department to do so. A failure to report in accordance with this provision, to render him liable to be struck off the registry by the Secretary of the Navy. Every registered seaman reporting for duty within three months of his last cruise, and being thereupon ordered to duty, to be entitled to pay from the date of termination of his last cruise.

All furloughs to be regularly reported and noted at the Navy Department.

5. Every registered seaman to be entitled to wear on his dress some appropriate badge by which he may be distinguished and known in the navy, which badge will be designated and provided by the Navy Department.

6. The petty officers of each ship to be selected, as far as convenient, from the class of registered seamen, and the appointment always to be regarded as dependent upon the merit and good character of the person selected; to be held, on good behavior, during the term of a cruise.

7. A record to be kept, under the direction of every commanding officer of a squadron or ship, of the actual amount of sea-service performed by each registered seaman while under his command; this record to be returned to the department at the end of every cruise, and to be transferred to the general registry of seamen. Upon the evidence of this general registry, the additional pay to be granted.

8. Every seaman to be admonished to give his true name, age, and place of birth, upon signing the registry; and to be required to engage

not to ship in merchant or other vessels, while on furlough, by any other name. His being convicted of violating this engagement, to render him liable to be struck from the list of registered seamen, upon the order of the Secretary of the Navy.

9. In every case of dismissal from the service as a registered seaman, the party so dismissed to receive whatever moneys may be due to him, unless the same shall have been forfeited by the sentence of a court-martial, imposed as a punishment for an offence committed by him. A seaman dismissed from the registry not to be entitled to be restored, but upon the permission of the head of the Navy Department, granted in consideration of the meritorious character of the applicant.

10. Seamen, ordinary seamen, and landsmen in the service, not belonging to the registry, to be subject to such discipline, duty, and penalties as Congress may provide in a code of regulations adapted to their government, under such restrictions or modifications as the department may think proper to make.

11. A printed book or circular to be made by the department, containing all the regulations and conditions relating to the establishment of registered seamen, giving a full description of the obligations to be contracted by them, and of the privileges to which they may be entitled. Copies of this book or circular to be furnished to every squadron or single vessel in commission; of which copies one shall be given to every seaman, in order that he may be fully informed of the nature of the engagements to be incurred by him on entering the service of the United States. These regulations to be read and explained to the several crews, and, as far as may be necessary, to every seaman before he signs the registry.

12. The department to be authorized to make, alter, and modify all rules and regulations, so far as it may be found expedient for the due establishment and support of this purpose of creating a corps of registered seamen, in accordance with the general objects intended to be promoted in the above plan, and for the supplying of any defect which experience may show to exist in it.

The term seamen, as used throughout this plan, is to be understood to embrace every class of mariners on board a public vessel, whether denominated seamen, ordinary seamen, or landsmen.

13. A limited number of boys to be received into the navy, upon obligations contracted, according to law, to serve until they arrive at the age of twenty-one years. Their number, the quota to be allowed to each vessel, and all needful and proper rules for their government and duties, to be regulated by the orders of the Navy Department.

This system of providing for a more effective marine, I respectfully submit to your consideration. There already exists power in the Executive to adopt nearly the whole of its details. It may be proper, however, to submit it to the approval of Congress, with a view to obtain for it a legislative recognition, and especially to procure such enactments as may be necessary to give the sanction of law to the establishment of the registry which constitutes the groundwork of the plan.

INCREASE OF THE NAVY.

In the activity and diversity of enterprise which the busy spirit of this time has exacted from the navy, it has now become manifest that the increase of the naval establishment of the country is not only recommended by the most urgent public considerations, but is also forced upon the attention of Congress as an absolute necessity. The honor as well as the successful adventure of the nation, and I might even say the indispensable obligation of national defence and the constantly recurring need for the exhibition of the national power, all combine to present this question to Congress as one of the first magnitude. During the past year this department has been impelled, by a due regard for the great public interests committed to its charge, to put in requisition nearly the whole disposable force of the navy. The details of this report will show that constant and various employment has been demanded of officers, ships, and crews. I trust that Congress will see in these requisitions how much the demands of necessary service engross the means provided to accomplish it, and will deduce from this fact an argument in favor of enlarging the naval resources for still larger naval operations.

Whilst other great maritime powers are strengthening and extending their capabilities for aggression and defence, and are bestowing a sedulous labor upon the creation of steam navies of singular efficiency, they have imposed upon us a new obligation, if not to track their progress with equal steps in an effort to bring ourselves abreast with them in their advance, at least to maintain that position of relative strength which it has been our policy heretofore to assume.

The actual exigencies of our own service, so conspicuously multiplied by the rapid extension of our domain, and the settlement of new marts of trade, and the establishment of new lines of commerce on the Pacific, cannot but present to every citizen of the United States an altogether irresistible argument to persuade the nation to a much larger provision of ships and men than we have heretofore kept in commission. The Pacific, during the next ten years, is likely to become the theatre of the most interesting events of our time. A nation is growing up upon its shores which will both attract and supply an amount of commercial enterprise, in the rapid growth and activity of which the world has yet had no parallel.

The discovery of America did not give such an impulse to this spirit as we now witness in the energy and occupations of these recent settlements.

At this moment we are without a public steamship in that ocean. Our various commerce, scattered along the whole coast from Oregon to Chili, and our citizens who are found in every port throughout that extended line, are left to the protection of but two frigates and two sloops-of-war, composing a squadron whose utmost activity can but half perform the duty assigned to it. Our new relations with Asia and the intermediate islands, which are constantly multiplying the resources of trade, and with them the hazards of collision, and the consequent increase of numbers, drawn from the population of every country, to the competition of this theatre, all indicate the commencement of an era of great

political significance, which will henceforth exact from the government more than its accustomed vigilance in noting the progress of events, and more than its usual energy in the duty of guarding our citizens who may be connected with them. It is, therefore, more necessary than ever that we should have a respectable force always accessible to our countrymen in this field of action, and capable of giving them protection against the perils of war, and popular outbreak, and revolutionary commotion, which in future, even more than in the past, may be expected to characterize many of the States and communities to which their business invites them. A steamer of a large class, adapted to the general duties of a cruise, and a smaller one, to be kept at hand at San Francisco, for use in California and Oregon, I regard as almost indispensable additions to the squadron assigned to that service.

Looking to the Atlantic, we find motives equally strong for the increase of our naval armaments, and particularly for the enlargement of the number of our steamships.

Whilst I am fully aware that the power of the United States happily consists more in their ability to provide for the contingencies of invasion than in the actual exhibition of an equipped force, and that we may dispense with much that is deemed requisite in the relations of European powers, still we cannot fail to recognise the fact that the respect due to the interests of our people requires the habitual and familiar presence of our flag in every region of commerce, sustained by such an amount of force, and of such a quality, as may give some significant token of the resources we command at home. A salutary conviction on this point is, to a great extent, inspired by the excellence of our armaments when brought into comparison with those of other nations. We cannot afford to lose or impair our reputation for producing the best ships and the best disciplined crews that navigate the ocean, however we may afford to exhibit them in smaller numbers.

The principal maritime nations are now diligently intent upon the effort to build up powerful steam navies. Most of them are already far ahead of us in this species of force; and it is very obvious, from the urgency with which the new marine of Europe is pressed to assume this character, that there is a deep and earnest conviction of an impending necessity in which the improved force will be mainly relied on as the efficient element of war. Are we so far removed from the occasion or the scene of apprehended conflict as to warrant any indifference on our part to the possible issue of a collision? Are our affairs so little exposed abroad, or concentrated at home, as to exempt us from all necessity to consider the effects which may follow the recent changes in the naval organization of Europe?

These considerations, and others which they suggest, induce me to ask the attention of Congress to the recommendations of the Bureau of Construction accompanying this report, and to invite them, with the most earnest solicitude, to provide for the building of three first-class screw-propeller frigates, and the same number of propeller sloops-of-war. To these might be added with advantage a few smaller steamers adapted to quick despatch and coast navigation.

Our navy yards are abundantly supplied with large quantities of the best timber in the best condition, which could not be better appropriated

than to this object. There are two frigates—the Santee and the Sabine—which have been housed on the stocks in Portsmouth and New York for the last ten years. These might be launched and fitted for service, and their places might be occupied, as well as the sheds now vacant in other yards, by the new steamships proposed to be built.

In connexion with this subject, I would call the attention of Congress to the necessity of authorizing the establishment of one or more factories for the construction of all the machinery necessary to the complete equipment of the largest class of steamers. The great importance of such establishments to the government is felt by this department, in the daily conviction, that only by the command of such a resource may the navy be promptly and surely supplied with the best machinery for the public vessels. The inspection and control of the work whilst it is in progress, the assurance of the best material, and the punctual compliance with the demands of the service, are advantages that may only be efficiently secured by having the workshop under the command of the government. The experience of the past will also fully demonstrate that this mode of supplying the machinery of our public vessels must be, in its general result, more economical than any other, and will certainly secure much the most reliable kind of work. The plans would be more uniform, failure of machinery less frequent, and the improvement of the models of construction more certain.

The mail contract law of 1847 contains a provision which authorizes the government to appropriate any of the vessels built under it to the naval service. I would recommend that one of these, of the first class, be selected and equipped with the proper armament. I make this suggestion from a persuasion that it is a matter of importance to the government practically to determine, by experiment, a question upon which much doubt is entertained, and which it is necessary to solve—whether these steamers are really adequate to the demands of the naval service, and may be usefully converted into ships-of-war. The determination of this question may settle a point of great moment, touching the reliance to be placed upon these ships in any sudden emergency—a point much more safely to be settled in a time of peace than in moments of excitement and pressure, when no other resource may be at hand to meet the consequences of a failure.

It is further necessary to make provision for an increase of seamen. The present limit of seven thousand five hundred men is insufficient even for the necessities of the service in its existing condition. If the full complement of men appropriated by the regulations of the navy were now on board of the vessels in commission, more than the whole number allowed would be required. I think it, therefore, indispensable to the proper efficiency of the service that an addition of not less than fifteen hundred be authorized to be made to the establishment, and that a correspondent addition be made to the yearly estimates of naval pay. It is equally necessary that provision be made for an increase of wages, either in monthly pay or in the shape of a bounty, to be given after enlistment. The amount of this increase should be regulated by some reference to the wages given in the merchant service, which are now so much higher than the naval pay as to increase the difficulty

to which I have heretofore alluded, in the procurement of the best men.

A reference to the report of the Bureau of Medicine will inform Congress of the condition of the medical service of the navy, and the pressing necessity that exists for an increase of officers in that department. Great relief would be afforded by an authority to appoint a number not exceeding twenty assistant surgeons, and to make a correspondent promotion of an equal number, or of so many as by proper length of service may be qualified for it, into the upper grades.

I beg leave also to call the attention of Congress to the report of the commanding officer of the marine corps, which will show how inadequate is the present limitation of that corps to the ordinary demands of the service. The opinion of General Henderson upon this point, of itself entitled to great weight, is re-inforced by that of many of the most experienced officers of the navy, as will be seen in the correspondence accompanying the report, to which I invite a careful attention. In conformity with these opinions, I respectfully recommend to Congress the passage of a law to authorize the enlargement of the corps by the addition of eighty sergeants, eighty corporals, thirty drummers and fifers, and one thousand privates, and that the four captains, four first and four second lieutenants, conditionally allowed to the service by the proviso to the naval appropriation bill of March 3, 1849, be retained permanently in the corps.

The same necessity which has led to this representation of the embarrassments of the service, in those branches to which I have just alluded, compels me to ask for some addition to the corps of pursers. This important division of the naval organization is found to stand in need of more aid than the present allowance affords. The corps scarcely furnishes that proper rotation in service which the peculiar duties of the purser demands. It is necessary, after every cruise, to allow this officer a sufficient time on shore to settle his accounts—a period which will not always place him at the disposal of the department for an early return to sea, if it were even proper to compel these officers to a repetition of duty without some time for such refreshment on shore, as every officer requires.

If Congress should think proper, in consideration of this condition of the corps, to sanction an increase of its members, I would earnestly recommend the establishment of a grade of assistant pursers, to which only the new appointments should be made; that these assistants should undergo an examination as to their physical and mental abilities, previous to their appointment; that the age of admission should be regulated by the Navy Department, and that no applicant should be nominated for the corps without a satisfactory conformity to the preliminary condition. Promotion and pay should be regulated by law, and no promotion should be made but upon full evidence of the capability of the individual to comply with all the demands of service—this evidence to be obtained by such course of examination as the department may prescribe. With such conditions, I would recommend that Congress should at present authorize the appointment of twenty assistant pursers to be attached to the corps.

As a subject of great interest to the efficiency of the navy, I beg

leave to renew the recommendations heretofore made by this department for the gradual reduction of the number of officers who are incapable of useful service, by the adoption of some suitable plan for retiring all of this character from the sphere of ordinary duty. A well-organized naval system requires that the officers charged with its administration should, as far as possible, be maintained in a condition for whatever employment may be demanded of them, and should always exhibit the utmost alacrity in their obedience to orders. There is no better test of the spirit of the corps, nor no more commendable sign of a good officer, than his readiness to accept every call of his profession. This high character can only be maintained in the navy by exempting from command all who obstruct the path of duty. Those whose disability has been the result of long and faithful toil in the national service should be provided with an honorable retreat, in which old age and infirmity may find repose. They who, without service to plead for their incapacity, only stand in the way of more willing and more capable men, should be consigned to a retirement on smaller pay, by the operation of a law which should render their retirement compulsory.

It may be worth the consideration of Congress to make permanent provision for these two classes of officers. This might be advantageously accomplished, perhaps, by a law which should confer upon the first class a rate of retired pay, graduated from half-pay up to that allowed to leave of absence, according to the amount of sea-service they may have performed, and adding to this an honorary promotion of one degree in rank; and which should dispose of the second class by retiring them on half of leave-of-absence pay.

The details necessary to such a system may be easily regulated whenever Congress shall find occasion to take the subject into their deliberations.

I repeat, also, my concurrence in the views presented by my predecessor in his report of November, 1850, on the propriety of "recognising by law the office of commodore, and the creation of at least two officers of the rank of rear admiral." I can add nothing to the satisfactory arguments with which that recommendation is enforced, and therefore content myself with a reference to the report, and an earnest invocation to Congress to give it a favorable consideration.

MISCELLANEOUS.

The reports from the chiefs of the several bureaus of this department will make Congress acquainted with the details of the naval service in each branch of its administration. I respectfully ask their attention to the many valuable suggestions these reports contain for the better government of the navy. Among these, I select for a more special notice the recommendations of the Bureau of Provisions and Clothing, touching the mode of making contracts, in respect to which it is proposed that some discretion should be lodged in the bureau, to authorize its rejection of a contract when offered by a bidder who has on any previous occasion failed to comply with his engagement.

I particularly commend to the notice of Congress the representations of the Bureau of Yards and Docks in reference to the several navy yards

under its care. The yard at New York requires early consideration. A large portion of the land belonging to it has not yet been placed under the exclusive jurisdiction of the United States, and is consequently subjected to onerous assessments for improvements by the city of Brooklyn, and exposed to the very inconvenient demands of that city in the opening of streets leading to the channel of the Wallabout, which, if opened, would seriously affect the security of the yard, and greatly incommode its operations. So important is it to the government that this difficulty should be removed, that I think it would even be advisable to transfer the works of this yard to some other convenient location, unless the jurisdiction over the land be fully conceded to the United States. Efforts have been made, and are still making, to obtain this cession from the legislature, and I trust will now be successful. If they should not, there is reason to believe a better site may be obtained for the yard, free from the present inconveniences, and that the expense of the new establishment might be defrayed by the sale of the old.

The floating dry dock in California, contracted for in obedience to the several acts of Congress heretofore passed, has been completed and delivered at San Francisco. No appropriation was made for the basin and railway, without which the dock cannot be safely or usefully employed. I submit it to the decision of Congress, whether these structures should not be made without delay.

The Naval Asylum at Philadelphia is well conducted, and is found a valuable refuge to the infirm and disabled seamen who have been admitted into it. I concur in the opinion expressed by the head of the Bureau of Yards and Docks, that its position is not the best adapted to its effective usefulness in the navy; and, as the property is believed to be very valuable, it may be worthy of consideration whether it would not be good policy to dispose of it, and re-establish this institution either at Annapolis or Norfolk, where its inmates would be removed from the temptations to disorder which the proximity to a large city throws in their way.

The Naval Observatory continues to pursue its appropriate labors with its usual good results, and is found to contribute the most important facilities to the improvement of navigation. I cannot better commend it to the regard of Congress than by a reference to the letter of Lieutenant Maury which accompanies this report.

The first volume of the Nautical Almanac, in charge of Lieutenant Davis, is now in press, and will be given to the public. His report will explain the progress and condition of his work.

Lieutenant Gilliss, who for more than three years past has been employed, in pursuance of the directions of Congress, in conducting in Chili the observations recommended to be made by the American Philosophical Society and the Academy of Arts and Sciences, has recently returned to the United States, bringing with him a rich contribution to science, in a series of observations amounting to nearly forty thousand, and embracing a most extensive catalogue of stars. He deserves great praise for his assiduity in this labor, which, in conjunction with similar observations in other quarters of the globe, will supply important aid towards the determination of the solar parallax, a problem of great interest to navigation and science. Upon the conclusion of

his work at Santiago, he was enabled to make a judicious sale of his observatory and its apparatus to the Chilian government, which has manifested a most friendly interest in his service and afforded him much useful assistance.

His full report will be made to this department, and, as soon as received, will be transmitted to Congress.

Professor Espy, during the past year, has been, as in the years before it, busy in the pursuit of his meteorological observations and his theory of storms, prosecuting his researches without abatement of zeal or assiduity. He promises soon to give the world another volume of facts and deductions, by which he hopes to bring the laws of the wind and the tempest into the category of an "exact science." His letter, appended to this report, will explain his progress and commend his industry to the friendly recognition of Congress.

By an enactment of the naval appropriation bill of August 31, 1852, this department was authorized and directed "to select a site for a navy yard and naval depôt in the bay of San Francisco, in California, or neighboring waters."

The board of officers who were despatched to make the necessary examinations for the selection of this site have performed the task intrusted to them, and have returned to this city. They have not yet entirely completed their report. It will be put in the possession of this department in a few days, when I shall make it the subject of a special communication to Congress.

I renew the recommendations heretofore made, and now again referred to in the report of the Bureau of Provisions and Clothing, in favor of such discretionary change in the navy ration as recent scientific research has proved to be useful; through the process by which vegetables may be preserved for consumption at sea. And I also adopt, and respectfully beg leave to urge upon the attention of the legislature, the suggestions of the head of that bureau in reference to a prescribed limit on the commutation for stopped rations in money.

Congress having, at its last session, made a retrospective provision for an increase of pay to the officers, petty officers, seamen, and marines of the navy, and to the officers and men of the revenue service who served in the Pacific ocean, on the coast of California and Mexico, since the 28th of September, 1850, it would seem to be but an equitable act, and strictly in accordance with the liberal design of this provision, to extend its operation so far back, in point of time, as to embrace the case of those who served on that coast from the origin of the war. Indeed, every consideration which could recommend the policy of the appropriation that was made, will be found to apply with increased cogency to those to whom I have alluded. Their service was more severe, their hazards greater, and the expenses to which they were subject in that quarter when the country was more unprovided than in the subsequent period, were still more onerous. An appropriation in their behalf, of a similar character to that which was made in favor of their successors, would be an acceptable and just tribute to a corps which has proved itself worthy of the high appreciation of the government.

The estimates for the support of the navy and the marine corps for

the year ending on the thirtieth day of June, 1854, and the statement of appropriations required for all objects within the control of this department, present an aggregate of.....	\$11,501,593 67
Deduct for special objects.....	4,031,921 98
Leaves for the support of the navy and marine corps.....	<u>7,469,671 69</u>

It is proper to remark that the large increase in some of the estimates made for the coming year, over the actual amounts appropriated for the service of the last two or three years, which it will be found are required for the improvements of yards and docks, construction, equipment and repair of vessels, the expenses of ordnance and the encouragement and support of the mail service, has become necessary by the reduction which Congress has hitherto thought proper to make from the estimates submitted for the expenditures which were thought essential to the public service in most of these branches of the naval administration. The appropriations now asked for, may, therefore, be regarded as the necessary consequence of such a subtraction from what was deemed but an adequate annual provision for the completion of works of indispensable use; and being viewed in the light of arrears due to the public wants, they furnish no index of what may be the future necessities of the department, if provided for as they arise.

The estimate for the mail service, also, being one with which the naval establishment has no proper connexion, should not be brought into the account of the expenditures of the navy.

The total amount drawn from the treasury during the fiscal year ending June 30, 1852, as shown by the statement of appropriations for the naval service, prepared by the Second Comptroller of the Treasury, is	\$9,726,251 42
Deduct repayments.....	813,132 70
Which shows the sum of.....	<u>8,913,118 72</u>
as the total expenditure on all objects under the control of the Navy Department; but of which amount there was expended for special objects the sum of.....	2,656,066 84
Leaving as the true expenditure for the support of the navy and marine corps, for the fiscal year ending June 30, 1852.....	<u>6,257,051 88</u>

The unexpended balances of appropriations for the naval service, marine corps, and special objects under the control of the Navy Department, was, on the 30th of June, 1852, \$3,119,644 50; all of which will be required to meet the outstanding obligations due from the appropriations, to complete the objects as provided for by the appropriations for that year, in addition to the estimates for the fiscal years ending 30th June, 1853 and 1854.

Accompanying the reports and documents will be found the abstract or compendium of the reports of the chiefs of the bureaus, required by the resolution of the Senate of the 26th August, 1852.

I have the honor to be, very respectfully, your obedient servant,
JOHN P. KENNEDY.

To the PRESIDENT OF THE UNITED STATES.

*List of papers accompanying the report of the Secretary of the Navy,
December 4, 1852.*

- A.—List of deaths, resignations, and dismissions in the navy, since the last report.
- B.—Report of the board of examiners, in relation to the condition, police, &c., of the Naval Academy at Annapolis, Md., and report of the commandant of midshipmen in relation to the cruise of the practice-ship.
- C.—Letter of Professor Espy, relating to meteorological observations.
- D.—Report of chiefs of bureaus, submitting regulations for apprentices at navy yards.
- E.—Lieutenant M. F. Maury's letter—Naval Observatory.
- No. 1.—Detailed estimates of office of the Secretary of the Navy, and report of Lieutenant Charles Henry Davis, superintendent of the Nautical Almanac.
- No. 2.—Report and detailed estimates of the chief of the Bureau of Construction, Equipment, and Repair.
- No. 3.—Report and detailed estimates of the chief of the Bureau of Ordnance and Hydrography, including Hydrographic Office and Naval Observatory, and Naval Academy.
- No. 4.—Report and detailed estimates of the chief of the Bureau of Navy Yards and Docks.
- No. 5.—Report and detailed estimates of the chief of the Bureau of Provisions and Clothing.
- No. 6.—Report and detailed estimates of the chief of the Bureau of Medicine and Surgery.
- No. 7.—Report of the commandant of the marine corps, and detailed estimates from the paymaster and quartermaster of the corps.
- No. 8.—Aggregate estimates.
- No. 9.—General estimate of office of the Secretary of the Navy, and the several bureaus of the department.
- No. 10.—General estimate for southwest executive building.
- No. 11.—General estimate for the support of the navy.
- No. 12.—General estimate for the support of the marine corps.
- No. 13.—General estimate for special objects under the control of the Navy Department.
- No. 14.—Statement of the expenditures under the head of contingent expenses, as settled at the office of the Fourth Auditor of the Treasury Department, for the year ending the 30th of June, 1852.
- No. 15.—Statement of the appropriations for the naval service, viz: Balances on hand on the 1st July, 1851; appropriations for the fiscal year 1851-'52; amounts drawn from the treasury during that fiscal year; and balances on hand on the 30th June, 1852.
- No. 16.—Abstract or compendium of the reports of the chiefs of bureaus of the Navy Department, called for by the resolution of the Senate of August 26, 1852.

A.

List of deaths in the navy, as ascertained at the department, since December 1, 1851.

Name and rank.	Date.	Place.
<i>Commanders.</i>		
William Pearson.....	Nov. 1, 1852	Bordentown, New Jersey.
George P. Upshur.....	Nov. 3, 1852	Sloop Levant, Spezzia.
<i>Lieutenants.</i>		
Wm. Preston Griffin...	Dec. 4, 1851	New York.
Benjamin S. Ganntt...	Mar. 12, 1852	Macao, China.
Nathaniel W. Duke....	July 8, 1852	Near Paris, Kentucky.
John H. Little.....	Aug. 28, 1852	Baltimore, Maryland.
<i>Surgeons.</i>		
Napoleon C. Barrabino..	April 13, 1852	Naval hospital, Norfolk, Va.
Edward J. Rutter.....	April 30, 1852	Drowned at San Francisco, California.
John S. Wiley.....	June 20, 1852	Brooklyn, New York.
Daniel C. McLeod....	Sept. 1, 1852	Naval hospital, Pensacola, Florida.
Jonathan Cowdery....	Nov. 21, 1852	Norfolk, Virginia.
<i>Pursers.</i>		
Lewis Ashmun.....	March 1, 1852	Sloop Decatur, San Juan de Nicaragua.
George F. Sawyer....	June 24, 1852	Frigate Cumberland, Spez- zia.
Cameron Anderson....	June 25, 1852	Wilmington, N. C.
William A. Christian..	Aug. 29, 1852	Gibraltar, Spain.
<i>Passed Midshipman.</i>		
Francis Gregory.....	Feb. 27, 1852	Norfolk, Virginia.
<i>Masters.</i>		
Nathaniel A. Prentiss..	April 20, 1852	Andover, Massachusetts.
John W. West.....	Nov. 24, 1852	Navy yard, Norfolk, Va.
<i>Boatswain.</i>		
John Featherston.....	Oct. 30, 1852	Navy yard, Pensacola, Fla.

A—Continued.

Name and rank.	Date.	Place.
<i>Gunner.</i>		
Gustavus Newman....	May 2, 1852	Naval hospital, New York.
<i>Carpenter.</i>		
Daniel James.....	June 5, 1852	Navy yard, Pensacola, Fla.
<i>Third Assist. Engineer.</i>		
John Carroll.....	Dec. 21, 1851	San Francisco, California.
MARINE CORPS.		
<i>First Lieutenant.</i>		
Robert C. Caldwell....	Nov. 13, 1852	Pensacola, Florida.

List of resignations in the navy since December 1, 1851.

Name and rank.	Date of acceptance.
<i>Lieutenants.</i>	
Lafayette Maynard.....	April 1, 1852.
Wilmer Shields.....	April 6, 1852.
Edmund T. Shubrick.....	April 23, 1852.
William B. Muse.....	June 9, 1852.
Samuel J. Shipley.....	July 12, 1852.
William Leigh.....	Sept. 3, 1852.
Edward F. Beale.....	March 5, 1852.
<i>Surgeons.</i>	
Samuel Moseley.....	April 13, 1852.
Augustus J. Bowie.....	May 1, 1852.
<i>Passed Assistant Surgeons.</i>	
J. Francis Tuckerman.....	Jan. 3, 1852.
Joseph Hopkinson.....	Sept. 17, 1852.
<i>Assistant Surgeon.</i>	
Owen Jones Wister.....	July 24, 1852.
<i>Pursers.</i>	
Francis G. McCauley.....	Sept. 30, 1852.
William A. Bloodgood.....	Nov. 26, 1852.
<i>Passed Midshipmen.</i>	
Joseph J. Cooke.....	Dec. 9, 1851.
Walter O. Crain.....	Dec. 30, 1851.
Samuel B. Elliott.....	Feb. 21, 1852.
John McLeod Murphy.....	March 10, 1852.
William H. Hudson.....	April 22, 1852.
Richard T. Renshaw.....	June 29, 1852.
Allan McLane.....	Nov. 6, 1852.
<i>Midshipmen.</i>	
James B. Hodges.....	Jan. 14, 1852.
George J. Sloan.....	Feb. 5, 1852.
S. De Witt Hubbell.....	May 3, 1852.
David G. H. Glasson.....	May 14, 1852.

List of resignations in the navy—Continued.

Name and rank.	Date of acceptance.
Maurice W. McEntee.....	May 17, 1852.
Edward E. Sumner.....	May 20, 1852.
Hamilton C. White.....	April 12, 1852.
Robert Hugenin.....	June 12, 1852.
A. McF. Davis.....	Sept. 8, 1852.
John J. Laughlin.....	Sept. 22, 1852.
Rufus Spaulding.....	Oct. 1, 1852.
John K. Lagow.....	Oct. 19, 1852.
William A. Abbott.....	Oct. 27, 1852.
Thomas H. Looker.....	Nov. 24, 1852.
<i>Boatswain.</i>	
John Munro.....	Aug. 9, 1852.
<i>Gunner.</i>	
E. Curtiss Hine.....	Nov. 1, 1852.
<i>Sailmaker.</i>	
Timothy J. Griffin.....	April 6, 1852.
<i>Third Assistant Engineers.</i>	
Peter C. Bogardus.....	Feb. 6, 1852.
Samuel McElroy.....	July 20, 1852.

List of dismissals in the navy since December 1, 1851.

Name and rank.	Date of dismissal.
<i>Midshipmen.</i>	
Adolphus G. Armington	February 16, 1852.
Cecil Walpole	February 16, 1852.
George P. Dodge	February 16, 1852.
James Noble	February 16, 1852.
Carlton W. Seely, jr.	February 16, 1852.
B. Naglee Meeds	May 18, 1852.
Frederic J. Clarke	May 18, 1852.
Hiram A. Lawson	June 16, 1852.
Rene E. Cortez	June 16, 1852.
Charles E. Fortier	June 16, 1852.
George M. Mathes	June 16, 1852.
John R. Taylor	June 16, 1852.
<i>Boatswain.</i>	
George Williams	November 11, 1851. Deserted from the sloop St. Mary's, at Talcuhano, S. A.
<i>Gunners</i>	
William Harcourt	January 12, 1852.
Robert C. Barnard	August 4, 1852.
<i>Carpenter.</i>	
Hugh Lindsay	January 17, 1852.
<i>Chief Engineer.</i>	
Charles H. Haswell	May 14, 1852. <i>Dropped.</i>
<i>Third Assistant Engineer.</i>	
William F. Lynch	February 5, 1852.
MARINE CORPS.	
<i>First Lieutenants.</i>	
Joseph W. Curtis	August 26, 1852.
John S. Devlin	Sept. 20, 1852. <i>Cashiered.</i>
<i>Second Lieutenant.</i>	
J. Hartley Strickland	Sept. 20, 1852. <i>Cashiered.</i>
<i>Naval Storekeeper at Valparaiso.</i>	
James G. McPheeters	Office to be discontinued after the transfer of stores to the permanent storship.

B.

UNITED STATES NAVAL ACADEMY,
Annapolis, Md., June 10, 1852.

SIR: The board of examiners for the present year, acting under the orders of the department of the 10th ult., having completed their examination of the classes of midshipmen of 1845 and 1846 now at the Naval Academy, and forwarded their reports accordingly, entered upon the examination of the several classes of acting midshipmen at the Naval Academy, and the inspection of the state of police, discipline, and general management of the institution, the result of which they beg leave to report.

The board are happy to state that the examination of the acting midshipmen has been, in all respects, highly satisfactory. Their advancement in the various studies, exercises, and drills assigned them by the regulations, has given undoubted evidence of the skill and zealous attention of their instructors, and of the industry and aptitude of the young gentlemen themselves.

The state of the police, discipline, and general management of the institution is, in the opinion of the board, unexceptionable; excepting only that there should be a more rigid observance of those military forms and ceremonies which are so essential to the order and discipline of the navy, and in the knowledge of which the midshipmen should be carefully instructed.

The quarters of the young gentlemen are capacious, clean, and airy; their mess arrangements excellent; and their food abundant and of good quality; in a word, every care seems to be taken of their health, their comfort, and their moral culture.

The board, in the course of their investigation, have noticed some defects in the present system, which they feel called upon to bring to the attention of the department.

They conceive that the midshipmen of the dates of warrant prior to 1851 labor under serious disadvantages, when the privileges granted to those of more recent dates are considered. The former being required to perform long and arduous service at sea, and being constantly engaged in occupations which give them no time for study, are rendered incapable, for some time after their return from abroad; of applying themselves profitably to the acquisition of the several branches of professional science which they are expected to understand and explain in their general examination; and however zealous and assiduous they may be, the inconveniences just mentioned, and the limited time allowed them for preparation, frequently causes them to confound one study with another, so as to render them superficial in all: while the younger classes, commencing at an early age, and kept constantly at their studies, with nothing to distract their attention, gradually advance, step by step, to the more ready attainment of the requisite knowledge. Therefore, in view of these considerations, the board would respectfully recommend that all the midshipmen of the dates prior to 1851 should be required to remain two years at the Academy, after they shall have served the allotted time at sea, and that they may be examined in sea-

manship as formerly practised by the boards of examiners, and receive their merit numbers (certainly in that branch) from that board.

It is also recommended that any midshipman who shall have had the advantages of two years of study at the academy, after the usual service at sea, and shall be found deficient in any one branch of the academic studies at present established, he shall surely be dropped from the list, without hope of restoration.

The board would further suggest the advantages of allowing to the instructor of seamanship a series of miniature skeleton vessels, with which he could instruct the classes in the construction, stowage, and masting of the several descriptions of war vessels.

In conclusion, the board cannot too highly commend to the fostering care of the government this admirable institution, which, in its progress thus far, has given promise of unrivalled usefulness.

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

M. C. PERRY,
President of the Board.

HON. WILLIAM A. GRAHAM,
Secretary of the Navy, Washington.

UNITED STATES NAVAL ACADEMY,
Annapolis, Md., October 4, 1852.

SIR: I transmit herewith the very satisfactory report of Lieutenant Craven, of the cruise of the practice ship.

The young gentlemen who were on board the practice ship have returned to the academy in good health, and, I trust, prepared to enter upon their studies with renewed diligence.

I am, very respectfully, your obedient servant,

C. K. STRIBLING, *Superintendent.*

HON. JOHN P. KENNEDY,
Secretary of the Navy.

UNITED STATES SHIP PREBLE,
Annapolis, Md., October 1, 1852.

SIR: My report of the second summer's cruise of the practice ship will necessarily, in its main features, be a repetition of that of last year.

The acting midshipmen were embarked on board of the Preble on the 14th of June, when the general exercises, as provided for in your instructions of the 21st July, 1851, and June, 1852, were immediately commenced.

On the 22d of June, we got under way from the moorings in the Severn, and dropped down to Annapolis roads, where we were detained until the 23d awaiting the arrival of a draught of men to fill up the complement of our crew, when, having received them, we weighed anchor and commenced working down the Chesapeake. On the evening of the 25th we were fairly outside of the capes; from which time up to the present date, the course of instructions in seamanship, navigation, and

gunnery have been most steadily attended to, and the progress made by the young gentlemen has been highly satisfactory.

In the elements of rigging and practical seamanship, knotting, splicing, weaving mats, strapping blocks, &c.; reefing, furling, making and reducing sail, sending up and down yards and masts; steering, heaving the lead, and the evolutions of tacking and wearing ship, getting under way, and bringing ship to anchor, were all severally and most diligently taught, and with the most gratifying results. There are but few of the young gentlemen who, from the use of the marline-spike to the reefing and handing of sails, steering, heaving the lead, &c., &c., are not far more expert than many of our best ordinary seamen, and many of them can with ease, while in charge of the deck, perform the ordinary evolutions of tacking and wearing ship. In the great-gun exercise, so far as practicable with the present armament of this ship, the instructions have been thorough. Advantage was taken of every opportunity for firing at a target in a seaway, and the precision with which the guns were aimed was not only admirable, but, in many instances, was surprising to us all.

This cruise has been unusually favorable for the practice and instruction of the young gentlemen in the use of the sextant and practical navigation; and, excepting the measuring of distances, and the working out of lunars, the students have acquired very considerable skill in the use of the sextant, and can with ease determine the ship's position at sea, variation of the compass, &c. With the methods known as "dead reckoning," and "obtaining of bearings and distances," they are all perfectly familiar.

This, our second cruise, has not only strengthened me in the opinion expressed in my report of the first cruise, but it has added to my conviction that there is no part of our system so eminently calculated for the instruction and improvement in practical knowledge of young gentlemen for the naval service, as the annual cruise of four months in the practice ship.

The ports visited by us were Orta, in the island of Fayal; Funchal, of Madeira; Santa Cruz and Palma, of the Canaries; and the island of St. Thomas, West Indies.

While at anchor in Hampton roads, I took the young gentlemen, in two parties, up to the navy yard at Norfolk, where they visited, with great interest, the Pennsylvania, the dry-dock, machine-shops, and rigging-loft.

It is with great pleasure that I have not only to announce the happy termination of this cruise; but that, by God's good providence, we are all once more permitted to return to the port from whence we started. We have not lost a man, either by death or *desertion*.

The crew have been permitted to visit the shore at each of the ports touched at; and, with the usual exception of a few cases of disorderly conduct incident to drunkenness whilst on shore on liberty, they have always been remarkably orderly and well-behaved.

Very respectfully, sir, your obedient servant,

THOS. T. CRAVEN, *Lieut. Com'g.*

Commander C. K. STRIBLING,

Sup't U. S. Naval Academy, Annapolis, Md.

C.

IRVING HOTEL, *Washington, October 19, 1852.*

SIR: Agreeably to your orders of the 18th instant, I make the following "report on meteorology."

During the last fourteen months, I have, with the aid of an assistant, who has been constantly employed, completed about four hundred meteorological charts, such as you find in the second and third reports comprising part of the years 1849 and 1850.

The plan adopted is, as heretofore, to construct a chart for each day in the year; and in case of a great storm travelling over the United States, two charts are made for the same day—one showing the position of the storm at 9 o'clock a. m., the other its position at 3 p. m.—so that the direction and velocity of the storm may be more fully made out.

In forming the last report, about eleven hundred of such charts were formed, of which one hundred and eleven were called out for publication, the others not containing storms. The same plan is continued, with a much more widely extended and more numerous meteorological correspondence; and as soon as the charts for 1852 and 1853 shall be completed, it is my purpose, with your consent, to call out all that exhibit the progress of storms for a general report, embracing all the storms of five years, from 1849 to 1853, inclusive, together with the "generalizations" which have already been obtained and printed in the three previous reports, modified, if necessary, by the investigations now being made.

From my advanced age, it is not likely that I will live to make another report after the one now in preparation; and therefore I wish *this* to contain all the principles which I consider established in such a manner as to entitle them to take rank among the "exact sciences." I shall be happy, if you wish it, to show you the charts already completed.

Very respectfully, your obedient servant,

JAMES. P. ESPY.

HON. JOHN P. KENNEDY,
Secretary of the Navy.

D.

BUREAU OF YARDS AND DOCKS,
August 14, 1852.

SIR: In conformity with your order of the 9th instant, we have carefully examined the rough draught of proposed regulations for apprentices in navy yards, and respectfully submit herewith, for your consideration, a fair copy of regulations on that subject, in which we all concur.

We have the honor to be, with great respect, your obedient servants,
C. MORRIS,
W. B. SHUBRICK,
JOS. SMITH.

HON. JOHN P. KENNEDY,
Secretary of the Navy.

NAVY DEPARTMENT, *October 28, 1852.*

I approve the regulations herein reported, and direct that the Bureau of Yards and Docks take the proper measures to carry them into effect.

JOHN P. KENNEDY.

Regulation for the admission of apprentices into the navy yards of the United States.

NAVY DEPARTMENT,
November 1, 1852.

The existing regulation, allowing apprentices to master-workmen and others, is hereby revoked, to take effect on the 1st of January, 1853.

Apprentices at that time in the yard, and who may pass the required examination, may remain, if their parents or guardians desire it, under this regulation.

The commandants of navy yards will appoint a board, to be composed of a commissioned sea officer, a medical officer, the constructor, and two mechanics, (in case of a deficiency of any such officer on the station, he will fill the vacancy from other classes) to assemble on the 1st of January and July of each year. to examine all apprentices at the yard, and all candidates for apprenticeship. The board will report on the character, proficiency, peculiar aptness for any particular trade, theoretical knowledge, and general merits, of each. Each apprentice may be required to perform any problem, or piece of work, required by and in presence of the board. At these examinations after the first year, if any one or more of the apprentices examined shall exhibit an unusual degree of talent, cleverness, and general merit, the report of the board will state fully its opinion on each one so distinguished.

Applicants must be over fifteen and under seventeen years of age, (of which satisfactory evidence to board will be required;) they must produce testimonials of good character; must pass an examination by the medical officer of the board; be physically able to perform the labor incident to the branch in which they desire to serve; be able to read and write legibly, and understand the first four rules of arithmetic.

As a general rule, preference will be given to the orphan children of master-workmen, quartermen and mechanics, who have faithfully served in navy yards, and of seamen and marines, in the order herein named.

All reports of boards will be transmitted to the department for its sanction.

A book of registry will be kept in the office of the commandant at each yard, in which will be recorded all entries, discharges, reports of character, or other matters touching the subject of apprentices; which record will be opened to the Board of Examiners hereinafter named.

Another board will be ordered by the Secretary of the Navy once a year, after the first year, in March, to examine those apprentices whom the previous board report as possessing unusual cleverness and merit; and such of them so examined and passed as worthy of it, will be

recommended to the consideration of the Secretary of the Navy for such further advantages of instruction as he may think proper.

No person on a yearly salary from the government shall receive any part of apprentice's pay, or any gratuity from or on account of such apprentice. Master-workmen and quartermen, and those on per diem pay, who properly instruct apprentices in their trade; shall be entitled to receive from the pay of apprentices so instructed, in addition to their own pay: for the last year of their apprenticeship, twenty cents per day; for the three years preceding the last, fifteen cents per day, and for any previous service of his apprentices from the commencement, ten cents per day for each, depending on the age at which they enter; the apprenticeship to terminate at the age of 21 years. The clerk of the yard shall have access at all times to the apprentice book, to ascertain the rate of wages to be allowed, which rate will only be changed on the 1st of January and July nearest the period of the entry of the apprentice.

The wages of the apprentices until they shall arrive at the age of seventeen years will be $\frac{2.5}{100}$, for the next year $\frac{3.5}{100}$, for the next $\frac{4.5}{100}$, for the next $\frac{5.5}{100}$, and for the last year $\frac{6.5}{100}$, of the rates of wages paid to the first-class journeymen workmen in the department in which they serve.

At the expiration of the apprenticeship, or at the next succeeding examination, such apprentices as pass a satisfactory examination by the board shall receive a certificate on parchment, stating their good conduct and proficiency, signed by the commandant of the station, and countersigned by the chief of the Bureau of Yards and Docks, which certificate shall entitle him to preference over other applicants equally qualified for employment and promotion at the several navy yards, according to their respective merits at the time their services shall be required. Apprentices shall be subject to be discharged at any time by order of the Secretary of the Navy.

All necessary tools, which it is usual for mechanics to find, shall be furnished by the parents or guardians; in case of their failure, then to be supplied by the master-workmen who instruct them, and their cost to be deducted from the apprentice's pay, as they are furnished, and paid to the master-workmen who supplied them.

The master-workmen or others in charge of apprentices will report their conduct and progress monthly, in writing, to the naval constructor, who will forward the report to the commandant, with such remarks as he thinks necessary. When there is no constructor, the reports to be made directly to the commandant of the yard.

Whenever work shall be suspended and the employment of master-workmen and others, who have apprentices under their charge, shall be discontinued, the employment of the apprentices will also be suspended, unless otherwise directed by the chief of the Bureau of Yards and Docks.

Upon the renewal of work, and satisfactory evidence to the commandant that the apprentice merits it, he shall be continued on the same terms, excepting pay during absence, as though there had been no suspension.

All complaints on the subject of apprentices will be at once examined into by the commandant, and such steps taken in the matter as he may

deem proper, reporting to the Secretary of the Navy, if, in his opinion, the case requires dismissal or the action of the department.

The number of apprentices to be allowed will be determined from time to time by the Secretary of the Navy.

On and after the first of January next, and until further orders, the following number of apprentices will be received at the respective yards named, including those who remain and are now engaged, viz :

PORTSMOUTH, N. H.

Carpenter's department.....	2
Blacksmith's department.....	1
Joiner's department.....	1
	<hr/>
	4

BOSTON.

Carpenter's department.....	4
Joiner's department.....	2
Blacksmith's department.....	2
Machinist's department.....	1
Plumber's department.....	1
Caulker's department.....	1
Painter's department.....	1
Spar maker's department.....	1
Sail maker's department.....	1
Boat builder's department.....	1
Rope maker's department.....	2
Block and pump maker's department.....	1
	<hr/>
	18

NEW YORK.

Carpenter's department.....	4
Joiner's department.....	2
Blacksmith's department.....	2
Plumber's department.....	1
Caulker's department.....	1
Painter's department.....	1
Spar maker's department.....	1
Sail maker's department.....	1
Boat builder's department.....	1
Block and pump maker's department.....	1
	<hr/>
	15

PHILADELPHIA.

Carpenter's department.....	2
Blacksmith's department.....	1
Joiner's department.....	1
	<hr/>
	4

WASHINGTON.

Carpenter's department, (when employed).....	2
Machinist's department.....	4
Anchor smith's department.....	2
Chain cable department.....	2
Joiner's department.....	1
Plumber and brass founder's department.....	1
Painter's department.....	1
Ordnance shop and laboratory department.....	4
Iron foundry.....	1
	<hr/>
	18

NORFOLK.

Carpenter's department.....	4
Joiner's (ship and house) department.....	2
Blacksmith's and plumber's department.....	2
Machinist's department.....	1
Caulker's department.....	1
Painter's department.....	1
Spar maker's department.....	1
Sail maker's department.....	1
Boat builder's department.....	1
Block and pump maker's department.....	1
	<hr/>
	15

PENSACOLA.

Carpenter's department.....	1
Joiner's department.....	1
Blacksmith's department.....	1
Machinist, engineer, and plumber's department.....	1
Painter's department.....	1
	<hr/>
	5

MEMPHIS.

Rope maker's department.....	1
Joiner's department.....	1
Blacksmith's department.....	1
Machinist's department.....	1
	<u>4</u>

JOS. SMITH,

*Chief of Bureau of Yards and Docks.*Approved *November 3, 1852.*

JOHN P. KENNEDY.

E.

NATIONAL OBSERVATORY,
Washington, October 12, 1852.

SIR: The investigations carried on at this office with regard to the winds and currents of the sea, and other phenomena, a better knowledge of which is calculated to benefit commerce and navigation, have been prosecuted during the last year with as much vigor as the forces of the observatory would allow.

Of these charts there have been printed and distributed, for use, about thirty thousand copies of the various sheets, some of which, being in red, black, blue, and green, require four impressions, which would make the total number of impressions distributed not less than fifty thousand.

The demands for this work are largely increasing, calling, during the year, for a third and fourth edition of the Sailing Directions which accompany the chart, and explain the discoveries made.

Thirty-one sheets have been printed, and eighteen sheets more are in the hands of the engraver. These relate, principally, to the Pacific ocean.

Sixty-eight sheets of similar charts, including the entire Indian and Pacific oceans, are in hand, and will be pushed forward with all the energy possible.

The most gratifying evidence, as to the value and importance of these charts to the practical navigator, continues daily to be received from all parts of the world. They lessen the dangers of navigation; and by showing at a glance the prevailing winds and currents for each part of the ocean, and for every month of the year, they enable the navigator to come and go with despatch; and thus, by shortening passages from port to port, they have brought remote parts of the world—particularly the markets of the northern hemisphere, India, China, and the Pacific slopes of America—nearer together by many days' sail.

American navigators, among whom the advantages of these researches are chiefly confined, and by whose gratuitous and voluntary co-operation the materials and data for the construction of these charts

have been made, continue to furnish abstract logs of their passages with great zeal.

During the past week, I have received abstract logs kept by masters in the American commercial marine, according to a prescribed form, which give the required observations during 108 passages between various parts of the world.

Of these, a number was of vessels crossing the equator on the voyage from some one or another of the Atlantic ports of the United States to the markets in the southern hemisphere, or the way to which lies partly in the southern hemisphere.

The route for all these vessels is the same as far as the equinoctial line. When these charts were commenced, the route that then was thought the best, and which was generally followed, occupied, on the average, forty-one days to the equator.

These investigations led to the discovery of a shorter and a better route to the equator, and all parts beyond.

Among the returns received during the last week are the abstract logs of twelve vessels, whose voyages led them across the equator. Of these, eleven took the "Wind and Current Charts" for their guide, and followed the new route as therein recommended. The twelfth went the old route, and had a passage of fifty-three days to the line; whereas, of the eleven that adopted the route of the chart, the longest had but twenty-eight days, and the shortest seventeen days, with an average for the whole of but twenty-four days to the line.

One of these vessels taking these charts, which gave her the experience of all other navigators for her guide, was thus enabled so to avoid calms and opposing currents, and avail herself of favorable winds, that on the 25th day out from New York she was south of the latitude of Rio de Janeiro, or nearly half way on her route to India.

Now, the average passage to Rio, when this system of mapping the winds and currents was commenced, was fifty-three days; and when the United States frigate "United States," in her fleet-footed days, made that passage, with the accomplished seaman, Commodore Hull, as her commander, in thirty-five days, it was considered as most remarkable.

Of course, charts which lead to such results and achievements are attracting the attention both of the commercial and scientific world.

Those in the course of construction promise similar results for the parts of the ocean to which they relate.

More than a thousand American seamen, in different parts of the world, are engaged day and night as co-laborers in this great work. They make observations, and collect materials for it, without the hope or promise of reward, and I therefore recommend that the work be allowed to proceed with all convenient despatch.

Respectfully, &c.,

M. F. MAURY,
Lieut. U. S. N.

HON. JOHN P. KENNEDY,
Secretary of the Navy.

No. 1.

Estimate of the sums required for the support of the office of the Secretary of the Navy, for the fiscal year ending June 30, 1854.

	Amount.
For salary of the Secretary of the Navy, per act of February 20, 1819.....	\$6,000
For salary of the chief clerk, per act of August 31, 1842....	2,000
For salary of the principal corresponding clerk, per act of August 31, 1842.....	1,500
For salary of the registering clerk, per act of August 31, 1842.....	1,400
For salary of the warrant clerk, per act of August 31, 1842..	1,200
For salaries of two assistant corresponding clerks, per act of August 31, 1842.....	2,400
For salaries of two additional clerks, per act of August 26, 1842.....	2,400
For salaries of three recording clerks, per act of August 31, 1842.....	3,000
For salary of miscellaneous clerk, per acts of August 26 and 31, 1842.....	1,000
For salary of messenger, per acts of April 30, 1822, and March 3, 1851.....	700
For salary of assistant messenger, per act of April 30, 1822..	400
Total for salaries for fiscal year 1853-'4.....	22,000
Appropriated for fiscal year 1852-'3.....	\$22,000
<i>Contingent expenses.</i>	
Blank books, binding, and stationery.....	\$1,000
Printing.....	400
Labor.....	400
Newspapers and periodicals.....	200
Miscellaneous items.....	840
	2,840
Total estimate for fiscal year 1853-'4.....	24,840
Appropriated for fiscal year 1852-'3.....	\$24,840
<i>Civil.</i>	
Salaries.....	\$22,000
Contingent.....	2,840

Estimate of the sums required for the expenses of the Southwest Executive Building, for the fiscal year ending June 30, 1854.

	Amount.
Salary of superintendent.....	\$250
Salaries of four watchmen.....	2,000
Labor.....	325
Fuel and light.....	1,550
Miscellaneous items.....	1,150
Total estimate for fiscal year 1853-'4.....	5,275
Appropriated for fiscal year 1852-'3.....	\$5,075
<i>Civil.</i>	
Salaries.....	\$2,250
Contingent.....	3,025

NOTE.—The difference between the estimate for 1853-'4 and the appropriation for 1852-'3 is caused by an increase of \$200, for "fuel and light;" the estimate of former years—\$1,350—being found insufficient for the wants of the building.

Abstract of the report of the Superintendent of the Nautical Almanac.

The report of the superintendent of the Nautical Almanac refers to previous reports, and especially to the one made in obedience to an order from the department to reply to a resolution of the Senate of the United States, passed on the 10th of June, relating to the Nautical Almanac. It states that the principles adopted, and the methods pursued, in the preparation of this work, are therein fully exposed and explained.

It further states that some unimportant delays have occurred in the passage of the work through the press, which will delay its appearance until about the time of the meeting of Congress; that the press, however, is now at work, and that many of the signatures of the first edition are struck off.

It gives information of the commencement of the second volume, of the rapid progress in the printing of the new tables, and of some changes in the office.

It contains a detailed statement of the manner in which the assistants are to be employed during the year, and of the work assigned to each, and is accompanied by another statement exhibiting, in detail, the current expenses of the office.

It concludes by saying that the general state and progress of the work are satisfactory. The date of the report is November 2, 1852.

*Report of the Superintendent of the Nautical Almanac.*CAMBRIDGE, *November 2, 1852.*

SIR: I have the honor to submit the following report of the state and progress of the Nautical Almanac:

In the previous general and special reports made from time to time, under the instructions of the department, the principles on which the work has been constructed, the objects it has been proposed to accomplish, and the methods by which these objects were to be attained, have been so fully and repeatedly stated, that it will, I apprehend, be proper and sufficient to refer to these reports for information. Among these I would specially mention the report made in obedience to the order of the department of June 17, 1852, and called for by certain resolutions of the Senate of the United States.

A printed copy of this report has been transmitted to the department since the change in its administration.

Four months have now elapsed since that report was written, and it was then supposed that the almanac would by this time be ready for distribution.

But it will be readily understood that a work comprising such numerous and complicated details is subject, when printed for the first time, to occasional unforeseen delays, arising sometimes from a want of actual experience, and therefore not likely to recur in the passage of another volume through the press; sometimes from such mistakes and oversights as will surprise the most active vigilance; and sometimes from accident, or a miscalculation of the time requisite for the performance of a certain task.

But the interruption produced by these causes has not been in any instance of a serious or formidable nature.

The press is now at work. By the end of the present week twenty-five or thirty forms of the first edition will be struck off; and the remaining signatures will follow so rapidly, that I am in hopes the whole impression will be completed by the time of the meeting of Congress, but certainly very shortly after that event.

The preparation of the second volume has been commenced, and some few of its pages have been printed.

The printing of the new lunar tables has progressed rapidly during the autumn.

Mr. W. C. Kerr, whose appointment was approved by the department in its letter of the 27th of May last, reported himself for duty on the 4th of August, and has since continued to be usefully employed in the office.

Mr. J. W. Sprague, who was appointed, on the 2d of August, computer, with a salary of three hundred dollars per annum, resigned his situation on the 1st of October.

The following detailed statement exhibits the manner in which the prominent duties of the office have been assigned for the present:

DIVISION OF WORK.

Professor Peirce—The general theory; planets generally; Mars particularly. Mr. J. B. Bradford, assistant.

Professor Winlock—Sun and Mercury, Astraea, Egina.

Mr. J. D. Runkle—Last ninety-two days of moon, Pallas. Mr. C. A. Runkle, assistant.

Mr. Van Vleck—Second ninety-two days of moon, Hausen's theory of Jupiter and Saturn. Mr. E. Loomis, assistant.

Mr. B. S. Hedrick—First ninety-one days of moon, Metis, Ceres. Mr. W. C. Kerr, assistant.

Mr. C. Wright—Third ninety-one days of moon. Mr. J. G. Runkle, assistant.

Mr. J. E. Oliver—Latitudes and longitudes; miscellaneous.

Mr. John Downs—Occultations, Saturn; proof-reading. Mr. J. A. Wilder, assistant.

Miss M. Mitchell—Venus.

Professor E. Shubert—Iris and other asteroids.

Professor E. O. Kendall—Jupiter and Neptune.

Professor A. W. Smith—Flora.

Mr. C. Hale—Clio.

Dr. B. A. Gould—Vesta, Hygeia.

Mr. C. H. Sprague—Fixed stars.

Mr. Nathan Loomis—Star table.

Mrs. E. C. Bache—Copyist.

I transmit with this report a proof copy of the general preface to the first number of the Nautical Almanac, for the approval of the department.

In conclusion, I have the honor to inform the department that, notwithstanding the slight delays referred to in the beginning of this report, the general state and progress of the work under my charge is satisfactory.

Very respectfully, your obedient servant,

CHARLES HENRY DAVIS,
Lieutenant, Superintendent Nautical Almanac.

HON. JOHN P. KENNEDY,
Secretary of the Navy, Washington, D. C.

CAMBRIDGE, *November 2, 1852.*

SIR: I have the honor to transmit to the department, in compliance with its instructions, the remaining copies of estimates for the Nautical Almanac for the fiscal year ending June 30, 1854, together with the following statement:

Whole amount of appropriation to June 30, 1852.....	\$38,250 00
Total expenditure to the same date.....	33,962 19
Expenditure for the fiscal year 1851-'52.....	18,684 25

In the amount specified as the expenditure for the fiscal year 1851-'52, is included the cost of printing up to the 12th of October, 1852, because it is a part of the regular expenditure for that year.

I have the honor to transmit, also, a statement detailing the current expenses of the office during the present year.

Very respectfully, your obedient servant,

CHARLES HENRY DAVIS,
Lieutenant, Superintendent Nautical Almanac.

HON. JOHN P. KENNEDY,
Secretary of the Navy, Washington, D. C.

Estimate for the Nautical Almanac for the fiscal year 1853-'54.

For salaries of computers.....	\$16,200 00
For the purchase of paper, printing, &c., in order to publish, in the year 1854, the Nautical Almanac for the year 1857, and for other occasional printing.....	2,200 00
For clerk.....	500 00
For contingent, (including rent, servant hire, &c.).....	500 00
Total.....	<u>19,400 00</u>

The amount of this estimate is the same as that of the preceding year.

Respectfully,

CHARLES HENRY DAVIS,
Lieutenant, Superintendent.

CAMBRIDGE, *October 14, 1852.*

Detailed estimate of the current expenses of the Nautical Almanac for the fiscal year ending June 30, 1853.

COMPUTERS.

Professor Peirce.....	\$1,500
Professor Shubert.....	1,200
Professor Winlock.....	1,200
J. D. Runkle.....	1,200
Nathan Loomis.....	1,000
John Downs, as computer.....	600
John Downs, as corrector of the press.....	800
J. M. Van Vleck.....	1,000
B. S. Hedrick, as clerk.....	500

B. S. Hedrick, as computer.....	\$500
Professor E. O. Kendall.....	900
C. H. Sprague.....	800
J. E. Oliver.....	600
W. C. Kerr.....	600
E. J. Loomis.....	500
J. G. Runkle.....	500
Dr. B. A. Gould.....	500
M. Mitchell.....	500
J. B. Bradford.....	400
C. A. Runkle.....	400
Professor A. W. Smith—off.....	300
J. A. Wilder.....	300
Chauncy Wright.....	300
Charles Hale—off.....	300
E. C. Bache, copyist.....	300
	<hr/>
	16,700
Deduct.....	600
	<hr/>
	16,100

MISCELLANEOUS.

Printing almanac.....	2,150
Occasional printing.....	50
Rent of rooms.....	378
Books.....	50
Stationery.....	150
Fuel.....	127
Servant.....	120
Contingent.....	275
	<hr/>
Total.....	19,400

Very respectfully,

CHARLES HENRY DAVIS,
Lieutenant, Superintendent.

CAMBRIDGE, November 2, 1852.

Estimate of the amount required for expenses of the navy, not enumerated under the general head for contingent expenses, for the fiscal year ending June 30, 1854.

For contingent expenses of the navy, not included in the enumerated contingent..... \$5,000

Navy.

Contingent not enumerated	\$5,000
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NOTE.—No appropriation has been made under this head since the appropriation act for the support of the navy, approved August 3, 1848.

Estimate for the pay of commission and warrant officers of the navy, including the engineer corps not on duty, for the fiscal year ending June 30, 1854.

For pay of commission and warrant officers of the navy, <i>not on duty</i>	\$266,196
Appropriated for the fiscal year 1852-'53	280,224

Navy.

Pay of the navy	\$266,196
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Estimate of the sums required for the transportation of the United States mail—authorized by the acts of Congress approved March 3, 1847, March 3, 1851, and July 21, 1852—for the fiscal year ending June 30, 1854.

For E. K. Collins's contract, from New York to Liverpool and back, per act March 3d, 1847	\$385,000
For additional compensation under the act of 21st July, 1852	473,000
	\$858,000

For A. G. Sloo's contract, from New York to New Orleans, Charleston, Savannah, Havana, and Chagres, and back, per act March 3d, 1847	290,000
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For Arnold Harris's contract, from Panama to California and Oregon, and back, per act March 3d, 1847	199,000
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For the contract with the Pacific Mail Steamship Company, semi-monthly service, authorized by act approved March 3d, 1851	149,250
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1,496,250

Appropriated for the fiscal year 1852-'3	\$1,496,250
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Special.

Transportation of the mail	\$1,496,250
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RECAPITULATION.

Civil.

Office of the Secretary of the Navy—	
Salaries.....	\$22,000
Contingent.....	2,840
Southwest Executive Building—	
Salaries.....	2,250
Contingent.....	3,025

Navy.

Pay of the navy.....	\$266,196
Contingent not enumerated.....	5,000

Special.

Transportation of the mail.....	\$1,496,250
Nautical Almanac.....	19,400

Abstract or compendium of the following report.

- Petty officers and seamen.
- Estimates for wear and tear of vessels.
- Increase of estimates for wear and tear, &c.
- Cause of increase of estimates.
- Increase of number of ships; reasons therefor.
- Respecting the repairs of the "Franklin" and "Constellation."
- Increase of estimates for fuel for steamers, and cause for same.
- Increase of purchase of materials recommended.
- Additional steamers and sailing vessels recommended to be built.
- Suggestions in relation to the poverty of our navy in screw propellers.
- Uses for which the above additional increase are required, and the reasons for same.
- Facilities for its accomplishment.
- Tables of vessels in commission, &c.
- American hemp.

No. 2.

NAVY DEPARTMENT,
Bureau of Construction, &c., October 12, 1852.

SIR: As instructed in the letter of the department of the 13th July last, I have the honor to submit estimates for the support of the naval service for the fiscal year ending 30th June, 1854, in so much as comes under the cognizance of this bureau.

The number of petty officers and seamen to be employed being the same as that for the present year, the estimate under that head is the same. The same rule, however, cannot be observed in the estimate for "the wear and tear and repairs of vessels in commission," and for "fuel for steamers," although it may be contemplated to maintain only the same number of vessels in service. It has been deemed necessary to increase the estimate for these purposes (Table C) from \$1,365,000, the appropriation of the present year, to \$1,940,950.

This increase is due in part to the increased expense, owing to their age, of repairing some of the vessels returning from long cruises, and which will soon be required again.

As a general rule the repairs required to a vessel of war increase with her age—every successive thorough repair being more expensive than the last, until a thorough repair becomes almost equal in cost to the expense of a new ship. It would therefore be sound economy, even if it should be deemed that we have a sufficient number of ships in the water for the current service of the navy, to discontinue the use of some of the oldest, and introduce others in their stead, by launching the two frigates, "Sabine" and "Santee," that have been on the stocks since 1823, and by building some sloops-of-war.

The frigates above named were, when laid down, of the largest class, but are inferior to the frigates of the present day of the first class; and the changes which the introduction of new applications of power and new arrangements of armament are making in the composition of other navies as well as of our own, may soon make them of little value. By putting them in the water now, for which a small appropriation would be needed, and using them, heavy expenses in the repair of old ships would be avoided, and room would be made to take advantage of the improvements in architecture and armament, by which alone we may hope to keep pace with the navies in comparison with which we must so frequently be placed.

Provision has been made in the estimate for repairing the "Franklin," seventy-four, reducing her to a razeed of fifty guns, and the "Constellation" frigate, of thirty-six guns, reducing her to a first-class sloop-of-war, by which two valuable cruising vessels would be made available.

It has also been necessary to increase the estimate for "fuel for steamers," in consequence of the employment of several steamers on very distant service—the purchase of coal at high prices, at places where the supply is not abundant, being sometimes unavoidable.

It is also necessary to provide for the purchase of materials of wood and iron beyond the current consumption of the year, in order to keep on hand a proper supply, large draughts having been made on the stock on hand without any corresponding return.

Besides the usual estimates for the fiscal year, the bureau has caused to be prepared and submits (marked D) an estimate for commencing one steam-frigate, two steam-sloops, and three sailing sloops-of-war, of the 1st class.

On more than one occasion the bureau has felt it to be its duty to bring to the notice of the department the poverty of the navy of the United States in the most, indeed the only efficient description of war-

steamers, the *screw-propeller*. The three steamers estimated for in this paper are proposed to be of that description, and would be scarcely sufficient to enable the department to test the most improved inventions for the application of that power to ocean navigation.

The three sloops-of-war would take the place of old ships, which are not of the most approved models or armaments, and require frequent extensive and increasing repairs, and which might be broken up or otherwise disposed of.

This increase of six vessels is required for the active operations of the service; but it is a subject for the consideration of the department, whether it should be divided between sailing and steam vessels, or the whole number be of the latter description. When it is recollected that two classes of most serviceable steamers may be built from the frames of frigates and first-class sloops-of-war on hand, lengthened by promiscuous timber also on hand, and that the principal expense in building such ships will be for labor and the purchase of machinery, it is believed that this course will recommend itself to the favorable consideration of the department.

The usual tables of vessels in commission, the vessels in ordinary, and the vessels on the stocks, accompany this report.

Since the last annual report from this bureau, between seventy and eighty tons of American hemp have been received at the agencies, and there is no reason to expect that there will be an increased quantity from the incoming crop. The reports from the superintendents of the ropewalks, both at Memphis and at Boston, are unfavorable as to the quality of the American hemp. This is believed to be owing to a want of proper care in the culture and curing of the plant. No reason can be perceived why the American may not be made of as good quality as the best foreign article; but with the fair, and indeed high encouragement given, this has not been effected.

Enclosed with this is a copy of an interesting report from the superintendent of the ropewalk at Memphis, the distribution of printed copies of which, with instructions to the hemp agents to receive no hemp that is not cultivated, cured, and packed in the same manner as the Russia hemp, and an act of Congress classing the material into clean, half-clean, and outshot, would, in the opinion of this bureau, be found to be very beneficial in effect, and in the course of time make it altogether independent of a foreign market for a material so important for naval purposes.

I have the honor to be, respectfully, your obedient servant,
 W. B. SHUBRICK,
Chief of the Bureau.

HON. JOHN P. KENNEDY,
Secretary of the Navy.

UNITED STATES NAVY YARD,
Memphis, September 1, 1852.

SIR: I regret being obliged to call your attention again to the unsuitableness of the hemp sent here by the agents, for the use of the

navy, on account of its general inferior quality. With the exception of a lot of ten tons received from the Kentucky agency, (marked "Weir,") none has yet been found equal to the Russian "half-clean;" while "outshot," the poorest quality of Russian hemp, would be preferable to most of it.

In working a bale, a few days since, the "bar," or short pullings from the tow, was found packed in the centre of the bale, which is nothing uncommon. From the manner in which American hemp is packed, it is difficult to inspect it properly unless the bales are opened, the centre of the bale being often packed with refuse stock. This difficulty, as well as others, might be obviated by requiring all hemp that is delivered for the uses of the navy to be put up in the same manner as the Russian—that is, in "layers" of from ten to twenty pounds each, which is done by selecting a sufficient quantity at the "brake," of the same length, color, and quality of fibre, (very important requisites in the manufacture of good work,) and fastening the bundle of hemp firmly by a single tie, from fifteen to eighteen inches from the root end of the fibres. Any marked inequality in the length of the fibres will thus be plainly seen; and the Russian method is to trim the seed end after the layer is tied up.

In this form the hemp may be very easily submitted to a thorough inspection, and its character judged of at once. It is, besides, handled with much greater facility, and no chance is afforded for false packing, while the expense is but a small part of what is required for baling. It may be urged that it is liable to less injury in transportation in the bale than in the layer, but this objection would be unworthy of consideration, from the fact that when it becomes accidentally wet, which is the chief cause of injury to hemp, the extent of the injury is more readily seen in the latter case; besides, it appears that if hemp may be sent in this form from the interior of the cultivating districts of Russia, France, and Germany to the seaboard, and from thence to all parts of the world without injury, it may be sent from the States of Kentucky and Missouri to this navy yard.

In obedience to your order to report my views as to the causes of hemp of a native growth being considered by manufacturers generally so much inferior to the Russian, I would most respectfully state that my observations and experiments in raising and curing hemp, as well as manufacturing it, have induced the opinion that the farmers, for the most part, are not sufficiently experienced or informed upon the subject, in its various branches, from the preparation of the soil to the process of breaking, to produce an article that will compete with the Russian, or that is suited to the requirements of the navy. Very little water-rotted hemp has been produced by the native growers, except by way of experiment.

Hemp is a crop which requires the skill, care, and constant attention of the farmer. The soil should be a strong, rich, moist loam—a deep alluvian; it needs to be deeply cultivated, and well manured. If it is desired to grow hemp of a fine, flaxy fibre, the sowing should be thick; if for cordage, more sparingly; and the quantity of seed requisite in either instance will be regulated by the character of the soil.

Before the plants exceed six inches in height they should be thinned out to a distance of from four to seven inches, according to the character of the soil and the length of fibre required. From four and a half to five and a half feet is the length best adapted to the wants of the government.

It is essential that the "thinning out" should be carefully attended to before the plants exceed six inches in height, as, afterwards, it will not do, and the result is a crop with every variety of length and quality of fibre.

The male and female plants should be gathered at different times. The plants which bear no seed require to be gathered several weeks before the seed-bearing plants, for, if left until the seed-bearing plant matures, they are worth but very little.

The proper time for gathering them is when the root end of the stalk becomes bleached, the top turns yellow, and the flowers have been unfolded long enough to shed their pollen upon the male plants.

The ripeness of the seed-bearing plants may be determined by the maturity of the seed and the fading of the stalk.

It requires much less time to rot the first than the last, and, notwithstanding the importance of gathering and rotting the male and female plants at separate times, there is hardly one farmer in twenty who does so in this country.

It is essentially important that care be taken in rotting—everything depends upon it. The objects are to secure a good color, to preserve the strength of fibre, (which will deteriorate if the stalks remain too long in the water,) and to cleanse it from glutinous matter.

It should be immersed in water until the stalk is so far decomposed that the fibres may be separated with ease. Great skill is requisite to determine the proper time for removing it from the water, as a few hours in such cases make an important difference both in the strength and color of the hemp.

The process is completed, sooner or later, according to the temperature of the weather and the quality of hemp. The cisterns or vats in which it is rotted should be so arranged that the water may be drawn off, and supplied with fresh water occasionally during the process of rotting.

The water should have nothing in it which would discolor or injure the fibre. Water impregnated with iron stains it permanently. Lime water burns it and renders the fibres harsh and brittle. Pure spring or rain water is best adapted to the purpose of rotting hemp.

It should be taken out of the steep when the acetous fermentation is complete, and before the putrid begins, or, rather, has time to affect it; otherwise the fibre rots rapidly, gets a dark color, and yields a large proportion of tow. If the process is not carried sufficiently far, the hemp is cleaned with difficulty, portions of the stalk "shives" cling to the fibre with such tenacity that the operations of breaking, hackling, and spinning will not remove them; and, as the gummy matter has only been partially removed, the hemp is handled with difficulty; it will not draw well, but works harshly, and becomes entangled in the process of manufacturing.

The proper length of time for rotting hemp must be a matter of experience rather than of any written instructions. It is a process that has been very little studied.

Prior to being rotted it is better that the hemp stalks should be selected with reference to their length, size, and ripeness, as it requires more time to rot the riper the plants. After rotting the hemp should be taken from the steep immediately, washed in clean water, and carefully dried, which may be done by the sun, or in a drying room artificially heated, the temperature of which should not exceed 120 degrees Fahrenheit. A greater degree of heat is considered decidedly injurious, and should be carefully guarded against.

After the drying process is finished the hemp should be allowed some hours to cool in the open air, and it is then ready for the "brake."

The object of breaking is to separate the fibres from the stalks, and this is performed by various machines, or simply by hand, it matters not how, provided the fibres are left straight and cleansed thoroughly from the woody particles of the stalk.

By the law of Russia the first quality, or "clean hemp," is required to be of equal growth, of long, strong fibre, straight, perfectly clean, and free from woody particles, without tow at the extremities, to be easily parted, and of uniform color.

The standard of second and third quality hemp ("half clean" and "outshot") is also regulated by law. If hemp should be heated, or sweated, or accidentally wet, although, in the latter case, it may have received no injury, still it is rejected.

By similar laws, rigidly observed, classing the material into "clean," or first rate; "half clean," or second rate; and "outshot," or third rate, and under similar preparation and *equal care* American hemp may (as experiment has proved) be made to equal, if not to excel, any foreign importation.

I am, sir, very respectfully, your obedient servant,
ROBERT GARDNER, JR.,
Superintendent of Ropewalk.

Commodore WM. C. NICHOLSON,
Commanding U. S. Navy Yard, Memphis, Tenn.

LIST OF TABLES.

- A.—Estimates for expenses of the bureau.
 B.—Estimates for pay of persons employed in vessels in commission.
 C.—Estimates for the increase, repairs, &c., of vessels in the navy.
 D.—Estimate of the sum required to prepare materials and purchase machinery.
 E.—Estimate for enumerated contingent.
 F.—Statement of vessels in commission.
 G.—Statement of vessels in ordinary.
 H.—Statement of vessels on the stocks, or building.
 I.—Statement of vessels sold or broken up.
 J.—Statement of receipts and expenditures.
 K.—Statement of the number of days' labor, and its cost.

A.

Estimate of the amount required for the expenditures of the Bureau of Construction, Equipment, and Repair, for the fiscal year ending June 30, 1854.

For salary of chief of bureau.....	\$3,500
“ “ chief naval constructor.....	3,000
“ “ engineer in chief.....	3,000
“ “ chief clerk.....	1,400
“ “ two clerks, 1st class.....	2,400
“ “ four “ 2d “.....	4,000
“ “ one “ 3d “.....	800
“ “ draughtsman.....	800
“ “ messenger.....	700
	19,600

CONTINGENT EXPENSES.

For blank books, binding, stationery, printing, and miscellaneous items.....	800
For laborer for the bureau.....	200
Total amount.....	20,600

OCTOBER 12, 1852.

CIVIL.

Salaries.....	\$19,600
Contingent.....	1,000
Appropriated for fiscal year 1852-'53.....	20,600

B.

Estimate for pay of commission, warrant, and petty officers and seamen, including the engineer corps of the navy, required for vessels proposed to be kept in commission, including receiving vessels, for the fiscal year ending June 30, 1854.

For the fiscal year ending June 30, 1853.	For the fiscal year ending June 30, 1854.
\$2,102,610	\$2,102,610

OCTOBER 12, 1852.

NAVY.

Pay of the navy..... \$2,102,610

C.

Estimates of the amount required for objects under the direction of this bureau, payable from the appropriation for increase, repairs, &c., of the navy; and for wear and tear of vessels in commission, including fuel for steamers, and the purchase of hemp for the navy, for the fiscal year ending June 30, 1854.

For the fiscal year ending 30th June, 1853.	For the fiscal year ending 30th June, 1854.
\$1,365,000	\$1,940,950

NOTE.—Under this head, an increase of five hundred and seventy-five thousand nine hundred and fifty dollars is asked for over the appropriation for the year ending 30th June, 1853.

This increase is required to meet the large repairs which will be needed to prepare old ships to take the place of those returning from long cruises, the large supply of fuel required for steamers on distant service, and to purchase timber and other materials, in order to keep a proper stock on hand; all of which is more fully explained in the report of the Bureau to the Secretary of the Navy.

OCTOBER 12, 1852.

NAVY.

Increase, repairs, &c.....\$1,940,950

D.

Estimate of the sum required during the fiscal year ending June 30, 1854, to prepare materials and purchase machinery for the following vessels:

1 steam-propeller frigate.....	\$312,000
2 do do sloops.....	328,000
3 sloops of war, first class.....	187,500
	827,500

This sum includes all materials other than those on hand, the machinery and so much of the labor as can probably be done in the fiscal year.

OCTOBER 12, 1852.

NAVY.

Increase, repairs, &c..... \$827,500.

E.

Estimate of the amount required to meet the expenditures under the head of "enumerated contingent," for the fiscal year ending June 30, 1854.

For the fiscal year ending June 30, 1853.	For the fiscal year ending June 30, 1854.
\$225,000	\$225,000

OCTOBER 12, 1852.

NAVY.

Contingent enumerated..... \$225,000

Recapitulation of estimates.

CIVIL.

Salaries.....	\$19,600
Contingent.....	1,000
	20,600

NAVY.

Pay of the navy.....	\$2,102,610
Increase, repairs, &c.....	2,768,450
Contingent enumerated.....	225,000
	5,096,060

F.

Vessels in commission, belonging to the navy.

Name of vessel.	Guns.	Men.	Where built.	Date.	Sailed.	What service.
<i>Ships-of-the-line.</i>						
Pennsylvania	120		Philadelphia	1837	.....	Receiving-ship, Norfolk.
North Carolina	74		do	1820	.....	Receiving-ship, New York.
Ohio	74		New York	1820	.....	Receiving-ship, Boston.
<i>Frigates.</i>						
Congress	44	400	Kittery	1841	June 6, 1850	Brazil.
Cumberland	44	400	Boston	1842	May 7, 1852	Mediterranean.
Raritan	44	400	Philadelphia	1843	April 16, 1850	Pacific.
St. Lawrence	44	400	Norfolk	1847	Dec. 12, 1851	Pacific.
<i>Sloops.</i>						
Saratoga	20	164	Kittery	1842	.....	East Indies.
John Adams	20	144	Charleston, S. C.	1820	.....	Africa.
Vincennes	20	144	New York	1826	.....	Surveying (China.)
Warren	20	144	Boston	1826	.....	Pacific.
Vandalia	20	144	Philadelphia	1828	.....	East Indies.
Cyane	20	164	Boston	1837	Oct. 9, 1851	Home Squadron.
Levant	20	164	New York	1837	July 12, 1852	Mediterranean.
St. Louis	20	164	Washington	1828	August, 1852	Mediterranean.
Portsmouth	20	144	Kittery	1843	Dec. 15, 1851	Pacific.
Plymouth	20	164	Boston	1843	Aug. 23, 1851	East Indies.
St. Mary's	20	144	Washington	1844	Oct. 21, 1850	Pacific.
Jamestown	20	164	Norfolk	1844	May 31, 1852	Brazil.
Albany	20	164	New York	1846	.....	Home Squadron.
Germantown	20	164	Philadelphia	1846	April 14, 1851	Africa.

F—Vessels in commission—Continued

Name of vessel.	Guns.	Men.	Where built.	Date,	Sailed,	What service.
Ontario.....	18		Baltimore.....	1813		Receiving-shp, Baltimore.
Decatur.....	16	105	New York.....	1839	April 22, 1852	Home Squadron,
Dale.....	16	105	Philadelphia.....	1839	Aug. 9, 1850	Africa,
Preble.....	16	105	Kittery.....	1839		Practice, Annapolis.
<i>Brigs.</i>						
Dolphin.....	10	70	New York.....	1836		Special service.
Porpoise.....	10	70	Boston.....	1836	June 8, 1850	Surveying (China.)
Bainbridge.....	10	70	do.....	1842	Nov. 2, 1850	Africa.
Perry.....	10	70	Norfolk.....	1843	June 8, 1852	Africa,
<i>Schooners.</i>						
Wave.....	1		Transferred from War De- partment.....			
Phoenix.....	2		do.....			Coast survey, Coast survey,
<i>Steamers.</i>						
Susquehanna.....	9	280	Philadelphia.....	1850	June 8, 1851	East Indies.
Mississippi.....	10	180	Philadelphia.....	1841	1852	East Indies.
Powhatan.....	9	280	Norfolk.....	1850	1852	Home Squadron.
San Jacinto.....	6	144	New York.....	1850	Mar. 3, 1852	Mediterranean.
Saranac.....	6	181	Kittery.....	1848	May 8, 1850	Home Squadron,
Princeton.....	10	135	Boston.....	1851	1852	East Indies,
Fulton.....	5	70	New York.....	1837	Feb. 21, 1852	Home Squadron,
Michigan.....	1	70	Erie, Pa.....	1844		Lakes.
Alleghany.....	2		Pittsburg.....	1847		East Indies.
Union.....			Norfolk.....	1842		Receiving-ship, Philadelphia
Vixen.....			Purchased.....	1846		Repairing,
Water-Witch.....			Washington.....	1852		Repairing,

Massachusetts		60	Transferred from War Department			Returning from Pacific.
Engineer			Purchased			Norfolk.
John Hancock			Boston	1850		Boston, fitting for sea.
<i>Store-ships.</i>						
Relief	6	40	Philadelphia	1836		Brazil.
Lexington	6		New York	1825		New York.
Southampton	4	40	Norfolk	1845		Pacific.
Supply	4	40	Purchased	1846		East Indies.
Fredonia	4	40	Purchased	1846		Transport.

OCTOBER 12, 1852,

G.

Vessels in ordinary, repairing, equipping, &c.

Name of vessel.	Guns.	Where built.	Date.	Station.
<i>Ships-of-the-line.</i>				
Vermont	74	Boston	1848	Boston, fitting for sea.
Columbus	74	Washington	1819	Norfolk.
Delaware	74	Gosport	1820	Norfolk.
Franklin	74	Philadelphia	1815	Kittery.
<i>Frigates.</i>				
United States	44	Philadelphia	1797	Norfolk.
Constitution	44	Boston	1797	Fitting for sea.
Potomac	44	Washington	1821	Repairing.
Brandywine	44	do	1825	New York.
Columbia	44	do	1836	Home Squadron.
Savannah	44	New York	1842	Fitting for sea.
Independence	54	Boston	1814	New York, repairing.
Constellation	36	Baltimore	1797	Norfolk.
Macedonian	36	Captured—rebuilt	1836	Fitting for sea.
<i>Sloops.</i>				
Falmouth	20	Boston	1827	Norfolk.
Marion	16	do		New York.

OCTOBER 12, 1852.

H.

Vessels on the stocks and in progress of construction.

SHIPS OF THE LINE.

Alabama	Kittery.
Virginia	Boston.
New York	Gosport.
New Orleans	Sackett's Harbor.

FRIGATES.

Santee	Kittery.
Sabine	New York.

STEAMER.

Stevens's iron steamer	Hoboken, N. J.
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OCTOBER 12, 1852.

I.

Vessels sold or broken up during the last year.

Steamer "General Taylor," sold	Pensacola.
Sloop "Fairfield," ordered to be broken up	Norfolk.

OCTOBER 12, 1852.

J.

Statement of the cost or estimated value of stores on hand at the several navy-yards July 1, 1851; of articles received and expended from June 30, 1851, to June 30, 1852, and of those remaining on hand July 1, 1852, under the direction of the Bureau of Construction, Equipment, and Repair.

Navy-yards.	On hand July 1, 1851.	Received.	Expended.	On hand July 1, 1852.
Portsmouth	\$657,614 66 $\frac{3}{4}$	\$24,869 50	\$14,190 18	\$668,293 98 $\frac{1}{2}$
Boston	1,634,932 53	392,890 90	461,432 94	1,566,390 49
New York	1,360,851 65	380,389 66	391,597 28	1,349,644 03
Philadelphia	447,387 02	17,915 70	20,426 12	444,876 60
Washington	425,520 95	157,843 67	157,250 36	426,114 26
Norfolk	1,638,785 61	296,900 85	301,289 48	1,634,396 98
Pensacola	238,367 90 $\frac{1}{2}$	39,693 67	20,697 24	257,364 33 $\frac{1}{2}$
Memphis	530 21	10,903 07	162 00	11,271 28
Total	6,403,990 54 $\frac{3}{4}$	1,321,407 02	1,367,045 60	6,358,351 96

OCTOBER 12, 1852.

K.

Statement of the number of days' labor, and its cost, from the 1st July 1851, to the 1st July 1852, for the respective navy-yards, for building, repairing, and equipping vessels of the navy, or in receiving or securing stores and materials for those purposes.

Navy-yards.	No. of days' labor.	Cost of labor.	Av. per diem.
Portsmouth	4,860 $\frac{1}{2}$	\$5,832 32	\$1,200
Boston	88,521 $\frac{1}{2}$	150,917 75	1,705
New York	179,356 $\frac{1}{2}$	285,807 69	1,593
Philadelphia	14,613 $\frac{1}{2}$	21,347 85	1,461
Washington	72,304	96,793 10	1,338
Norfolk	208,871 $\frac{1}{2}$	308,460 75	1,467
Pensacola	8,154 $\frac{1}{2}$	13,200 61	1,618
Total	576,681 $\frac{3}{4}$	882,360 07	1,530

OCTOBER 12, 1852.

NAVY DEPARTMENT,
Bureau of Construction, &c., November 2, 1852.

SIR: In conformity with the act of 3d March, 1843, I respectfully transmit herewith duplicate abstracts of offers received to furnish naval supplies, coming under the cognizance of this Bureau, exhibiting, in scales No. 1 to No. 5, inclusive, as well those which were accepted as those which were rejected, between the 14th November, 1851, (the date of the last report,) and the 2d November, 1852; and in conformity with the act of 21st April, 1808, I also transmit herewith duplicate lists of contracts made and received during the same period.

I have the honor to be, sir, with great respect, your obedient servant,

W B. SHUBRICK,
Chief of Bureau.

Hon J. P. KENNEDY,
Secretary of the Navy.

ABSTRACT OF OFFERS

MADE

TO FURNISH NAVAL SUPPLIES

COMING UNDER THE COGNIZANCE OF THE

BUREAU OF CONSTRUCTION, EQUIPMENT, AND REPAIR,

EXHIBITING,

In scales from No. 1 to No. 15, inclusive, as well those which were accepted as those which were rejected, between the 14th of November, 1851, (date of the last report,) and November 2, 1852; reported in obedience to act of Congress of the 3d of March, 1843.

Schedule of prices per Merrick & Son's offer for repairs to the engines and boilers of the United States steamer "Mississippi."

Two new cylinders; engine frames to be strengthened and repaired; new feed and blow pipes of composition; four new bilge pump chests of composition; repairs on boilers; furnace doors, &c.; engines to be relined; all valves and cocks ground in; repairs on water-wheels; new joints, &c.

	To be delivered after date of contract in 2 months.	To be delivered after date of contract in 3 months.
Cast iron: prices to be given per pound of finished metal for the steam cylinders accurately bored and their end flanges faced	\$0 12½	\$0 10
Cast iron: prices to be given per pound of finished metal for such other castings as may be required	5	4
Wrought iron: prices to be given per pound of finished metal for such parts of wrought iron as may be required	20	16
Wrought steel: prices to be given per pound of finished metal for such parts of wrought steel as may be required	35	30
Wrought copper: prices to be given per pound of finished metal for such parts of wrought copper as may be required	40	35
Composition of brass: prices to be given per pound of finished metal for all the brass castings, exclusive of pipes	40	35
Composition of brass: prices to be given per pound of finished metal for the composition feed and blow-pipes	35	30
Turning, boring, and planing: prices per square inch of all materials (to be in addition to the above prices,) per pound	3	2½
Pattern making: prices per day, of ten hours, for the required number of good workmen, including use of tools, turning screws, nails, varnish, plates, and lumber	3 00	2 75
Fitters: prices per day, of ten hours, for the required number of good workmen to fit and repair engines, &c., on board	2 50	2 25
Fitters: prices per day, of ten hours, for the required number of good workmen to fit and repair engines, &c., in shop	2 50	2 25
Laborers: prices per day, of ten hours, for the required number on board	1 75	1 50
Laborers: prices per day, of ten hours, for the required number in shop	1 75	1 50
Boiler-makers: prices per day, of ten hours, for the required number on board	2 25	2 00
Boiler-makers: prices per day, of ten hours, for the required number in shop	2 25	2 00

Contract with Merrick & Son, dated January 14, 1852. The work to be performed in two months.

No. 2.

Scale of offers to furnish naval supplies at the navy yard, Kittery, Maine, during the fiscal year ending June 30, 1853, under advertisement of April 27, 1852. Offers received to June 2, 1852.

Bidders.		Class 1.	Class 2.	Class 3.	Class 4.	Class 5.	Class 6.
		Hardware.	Braziers' copper, screws, &c.	Tin.	Paints.	Glass.	Oakum, tar, &c.
		Aggregate amount.					
1	Richard Jenness.....	\$428 16	\$327 84	\$114 00	\$916 00	\$114 00	\$2,104 27
2	N. K. Rayne and Thomas Neil.....	440 26	355 04	-----	882 00	200 00	1,937 25
3	George Adams.....	432 38	286 49	85 00	873 50	122 00	2,168 00
4	L. D. Spalding.....	-----	-----	137 00	-----	-----	-----
5	Plume & Co.....	-----	-----	-----	-----	-----	1,663 20
6	Benjamin F. Wilson.....	-----	-----	-----	908 50	104 50	2,053 50
7	Henshaw & Prescott.....	-----	-----	-----	850 00	-----	1,946 50
8	J. G. Bogert.....	-----	-----	-----	-----	-----	1,850 00

Offers opened June 3 and 4, 1852, in presence of—

W. B. SHUBRICK,
P. C. JOHNSON,
J. H. REILY.

The following offers, being the lowest, are accepted, viz: No. 1, of Richard Jenness, for class No. 1; No. 3, of George Adams, for class No. 2; No. 3, of George Adams, for class No. 3; No. 7, of Henshaw & Prescott, for class No. 4; No. 6, of Benjamin F. Wilson, for class No. 5; No. 5, of Plume & Co., for class No. 6.

W. B. SHUBRICK, *Chief of Bureau.*

BUREAU OF CONSTRUCTION, &c., June 9, 1852.

Scale of offers to furnish naval supplies at the navy-yard, Charlestown, Massachusetts, during the fiscal year ending June 30, 1853, under advertisement of April 27, 1852. Offers received to June 2, 1852.

		Class 1.	Class 2.	Class 3.	Class 4.	Class 5.	Class 6.	Class 7.	Class 8.	Class 9.	Class 10.	Class 11.	Class 12.	Class 13.
Bidders.		Iron.	Copper.	Hardware.	Composition nails.	Flax canvas.	Cotton canvas & hammock and bag stuff.	Ship chandlery.	Paints, oil, and glass.	Sperm oil and candles.	Oakum.	Manilla hemp.	Stationery.	Firewood.
		Aggregate amount in dollars.												
1	J. G. Kidder	.....	.....	.....	.....	.....	.....	.....	.....	3,510 00	.....	.....	.....	.....
2	Lambert & Lane	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	594 17	.....
3	R. Sands Tucker	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	14,370 00	.....	.....
4	S. G. Bogert	.....	.....	.....	.....	.....	.....	.....	.....	4,300 00	675 00	14,000 00	.....	750 00
5	Wm. T. Hawes*	.....	.....	.....	.....	.....	.....	.....	.....	Informal.	.....	.....	.....	.....
6	Lyles, Polhemus, & Co.	.....	.....	.....	.....	.....	.....	.....	.....	3,690 00	.....	.....	.....	.....
7	Durbro & Hitchenst	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Informal.	.....	.....
8	Fox & Polhemus	.....	.....	.....	.....	.....	5,941 25	.....	.....	.....	.....	.....	.....	.....
9	L. Timberlake	.....	.....	.....	.....	6,965 00	.....	.....	.....	.....	.....	.....	.....	.....
10	John Marsh	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Informal.	.....
11	Geo. Gardner & Co.	1,656 87½	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12	Henshaw & Prescott	.....	.....	.....	.....	.....	.....	.....	3,340 10	4,320 00	700 00	13,250 00	.....	.....
13	Plume & Co.	.....	.....	.....	.....	.....	.....	.....	.....	.....	499 98	.....	.....	.....
14	Wm. H. Smith	.....	.....	.....	.....	.....	.....	.....	.....	3,570 00	.....	.....	.....	.....
15	Storer & Stephenson	.....	.....	.....	.....	7,085 00	5,512 50	.....	.....	3,640 00	.....	12,745 00	.....	.....
16	U. Hendricks	.....	15,370 78	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17	Revere Copper Co.	.....	14,721 58	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18	G. T. Cobb & Co.	1,959 38	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19	Robert Todd	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20	Phelps, Dodge, & Co.	.....	15,428 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	730 00

21	Mount Vernon Co. §					Informal.												
22	Horton, Hall & Co.					6, 187 50												
23	do do																11,744 00	
24	do do		13,640 99															
25	do do									3, 100 90								
26	do do										3, 585 00							
27	do do				753 50													
28	do do									3, 533 75								
29	do do				2, 788 76													
30	do do																5, 970 00	
31	do do	1, 510 00																
32	do do					7, 325 00												
33	Eaton, Hill & Chandler.										3, 442 25							
34	Jos. J. Whiting					7, 140 00												
35	Charles H. Leonard											3, 690 00						
36	McKim & Cutter																582 52	
37	Benj. T. Wilson										3, 677 78	3, 860 00	670 00	12, 850 00				
38	William Lang	1, 735 00	15, 158 75	3, 481 40	840 00					3, 568 62	3, 460 25	3, 600 00	650 00	12, 000 00				740 00
39	Geo. R. A. Ricketts				881 58													
40	W. Mason & Son								5, 253 00									
41	S. Varney ||	Informal.																
42	S. Hilling ¶		Informal.															
43	W. Barton					6, 870 00												
44	L. Timberlake					6, 965 00												
45	John Cameron					7, 000 00												

* Offers *stearine* candles. † Offer not certified. ‡ Offer not signed. § No guaranty. || No guaranty. ¶ No guaranty or certificate.

Offers opened June 3 and 4, 1852, in presence of—

W. B. SHUBRICK,
P. C. JOHNSON,
J. H. REILY.

The following offers, being the lowest, are accepted, viz: No. 31, of Horton, Hall & Co., for class No. 1; No. 24, of Horton, Hall & Co., for class No. 2; No. 29, of Horton, Hall & Co, for class No. 3; No. 27, of Horton, Hall & Co., for class No. 4; No. 43, of William Barton, for class No. 5; No. 40, of William Mason & Son, for class No. 6; No. 28, of Horton, Hall & Co, for class No. 7; No. 25, of Horton, Hall & Co., for class No. 8; No. 1, of J. G. Kidder, for class No. 9; No. 13, of Plume & Co., for class No. 10; No. 23, of Horton, Hall & Co., for class No. 11; No. 36, of McKim & Cutter, for class No. 12; No. 19, of Robert Todd, for class No. 13.

BUREAU OF CONSTRUCTION, &c., June 9, 1852

W. B. SHUBRICK, Chief of Bureau.

Part II—24

Scale of offers to furnish naval supplies at the navy yard, Brooklyn, New York, during the fiscal year ending June 30, 1853, under advertisement of April 27, 1852. Offers received to June 2, 1852.

Bidders.	Class 1.	Class 2.	Class 3.	Class 4.	Class 5.	Class 6.	Class 7.	Class 8.
	Iron.	Copper.	Hardware.	Lead and tin.	Composition nails.	Glass.	Flax canvas.	Cotton canvas.
Aggregate amount.								
1 William T. Hawes.....								
2 Lyles, Polhemus & Co.....								
3 Lambert & Lane.....								
4 William H. Smith.....								
5 E. M. Browne.....					\$1,638 00			
6 J. G. Kidder.....								
7 L. Timberlake.....								
8 do.....								
9 do.....								
10 R. Sands Tucker.....								
11 do.....								
12 S. G. Bogert.....								
13 Storer & Stephenson.....	\$10,736 50		\$8,727 84	\$1,833 00	1,551 00	\$587 00	\$10,600 00	\$7,015 00
14 Revere Copper Company.....		\$45,977 60						
15 John A. Wright & Co.....	17,342 50							
16 G. T. Cobb & Co.....	12,598 00							
17 U. Hendricks.....		47,718 40						
18 Phelps, Dodge & Co.....		48,287 50						
19 John K. Graham.....						599 22		
20 Peru Iron Company.....	17,715 00							
21 J. J. Ordway.....								

22	Chambers & Cattoll.....							
23	Williams & Hindman.....							
24	Mount Vernon Company.....							Informal.
25	Charles H. Leonard.....							
26	Brooklyn Flint-glass Company.....					622 00		
27	B. F. Wilson.....							
28	William Lang.....	10,652 00	47,240 00		2,030 00	1,560 00	768 20	
29	Henry Walden.....							
30	H. S. Macombs.....							
31	Fox & Polhemus.....							7,707 00
32	G. R. A. Ricketts.....					1,635 64		
33	L. Timberlake.....						10,645 50	
34	John Cameron.....						10,762 50	
35	Edward Crolius.....			8,823 07				
36	White & Knapp.....			9,478 05				
37	George Gardner & Co.....	11,079 37 $\frac{1}{2}$						
38	Henshaw & Prescott.....							
39	Collins, Brown & Co.....							
40	William Mason & Son.....							6,801 95
41	William Barton.....						9,967 50	
42	L. Timberlake.....						10,645 50	
43	C. Wilkins & Co.....							
44	J. R. Anderson.....	10,328 00						

No. 4—Continued.

Bidders.		Class 9.	Class 10.	Class 11.	Class 12.	Class 13.	Class 14.	Class 15.	Class 16.
		Flax and cotton twine.	Ship chandlery.	Paints, oils, &c.	Sperm oil & candles.	Stationery.	Wood.	Leather.	Brushes.
		Aggregate amount.							
1	William T. Hawes.....				Informal.				
2	Lyles, Polhemus & Co.....				\$7,057 00				
3	Lambert & Lane.....					\$449 50			
4	William H. Smith.....				6,950 00				
5	E. M. Browne.....								
6	J. G. Kidder.....				6,940 00				
7	L. Timberlake.....								\$839 00
8	do.....		\$12,325 30						
9	do.....	\$562 50							
10	R. Sands Tucker.....	602 75							
11	do.....		11,178 70						
12	S. G. Bogert.....				8,100 00		\$2,700 00	\$2,856 00	881 50
13	Storer & Stephenson.....	510 00	10,960 55	\$3,502 10	6,740 00		2,660 00	2,327 00	745 60
14	Revere Copper Company.....								
15	John A. Wright & Co.....								
16	G. T. Cobb & Co.....								
17	U. Hendricks.....								
18	Phelps, Dodge & Co.....								
19	John K. Graham.....			3,874 80					
20	Peru Iron Company.....								
21	J. J. Ordway.....				Informal.				
22	Chambers & Cattoll.....							3,046 50	
23	Williams & Hindman.....		11,092 55					2,424 00	919 60
24	Mount Vernon Company.....								

25	Charles H. Leonard			7,057 00			
26	Brooklyn Flint-glass Company						
27	B. F. Wilson			4,230 82	7,560 00		
28	William Lang	534 00	11,313 20	3,812 46	6,860 00		
29	Henry Walden			3,701 85			
30	H. S. Macombs					2,728 50	
31	Fox & Polhemus						
32	G. R. A. Ricketts						
33	L. Timberlake						
34	John Cameron						
35	Edward Crolius						
36	White & Knapp						
37	George Gardner & Co						
38	Henshaw & Prescott			3,534 50	7,700 00		
39	Collins Brown & Co					357 24	
40	William Mason & Son						
41	William Barton						
42	L. Timberlake						
43	C. Wilkins & Co	489 25					
44	J. R. Anderson						

Offers opened June 3 and 4, 1852, in presence of—

W. B. SHUBRICK,
P. C. JOHNSON,
J. H. REILY.

The following offers, being the lowest, are accepted, viz: No. 44, of J. R. Anderson, for class No. 1; No. 14, of Revere Copper Company, for class No. 2; No. 13, of Storer & Stephenson, for class No. 3; No. 13, of Storer & Stephenson, for class No. 4; No. 13, of Storer & Stephenson, for class No. 5; No. 13, of Storer & Stephenson, for class No. 6; No. 41, of William Barton, for class No. 7; No. 40, of William Mason & Son, for class No. 8; No. 43, of C. Wilkins & Co., for class No. 9; No. 13, of Storer & Stephenson, for class No. 10; No. 13, of Storer & Stephenson, for class No. 11; No. 13, of Storer & Stephenson, for class No. 12; No. 39, of Collins, Brown, & Co., for class No. 13; No. 13, of Storer & Stephenson, for class No. 14; No. 13, of Storer & Stephenson, for class No. 15; No. 13, of Storer & Stephenson, for class No. 16.

Informalities.—No. 1 offers *stearine* candles instead of sperm; No. 21—no certificate as required; No. 24—not guaranteed.

BUREAU OF CONSTRUCTION, &c., June 9, 1852.

W. B. SHUBRICK, *Chief of Bureau.*

Scale of offers to furnish naval supplies at the navy yard, Philadelphia, during the fiscal year ending June 30, 1853, under advertisement of April 27, 1852. Offers received to June 2, 1852.

Bidders.	Class 1.	Class 2.	Class 3.	Class 4.	Class 5.	Class 6.	Class 7.
	Iron.	Sheathing copper.	Hardware.	Paints.	Flax canvas.	Cotton canvas.	Miscellaneous articles.
	Aggregate amount.						
1 John Cameron.....					\$5,514 50		
2 Phelps, Dodge & Co.		\$7,163 28					
3 Storer & Stephenson.....	\$3,047 87			\$1,215 74	5,533 50	\$2,356 00	\$329 86
4 Bowlby & Brenner.....	2,956 25						
5 do.....			\$683 01				
6 Revere Copper Company.....		6,834 96					
7 G. T. Cobb & Co.....	3,762 50	8,954 10					
8 Jesse Williamson, jr.....				1,216 35			
9 Baxter Brothers.....			584 16				
10 Paul J. Field.....			734 43				
11 Jno. A. Wright & Co.....	4,837 50						
12 Henshaw & Prescott.....				1,199 00			
13 Geo. Gardener & Co.....	2,676 75						
14 Henry Waldron.....				1,234 33			
15 Wetherell & Brother.....				1,188 39			
16 U. Hendricks.....		7,014 04					
17 Mount Vernon Company*.....						Informal.	
18 Hollingswood & Co.....		7,312 52					
19 Thomas E. Baxter.....	3,483 75						
20 Jno. K. Graham†.....				Informal.			

21	B. F. Wilson				1,337 06		
22	William Lang	2,461 75	6,864 81		1,424 11		391 95
23	Fox & Polhemus					2,533 95	
24	L. Timberlake					5,480 35	
25	Wm. Mason & Son					2,229 08	
26	William Barton					5,496 60	
27	J. R. Anderson	2,472 50					

* No guaranty.

† Offers 1,000 pounds of white lead instead of 8,000 pounds.

Offers opened June 3 and 4, 1852, in presence of—

W. B. SHUBRICK,
P. C. JOHNSON,
J. H. REILY.

The following offers, being the lowest, are accepted, viz: No. 22, of Wm. Lang, for class No. 1; No. 6, of Revere Copper Company, for class No. 2; No. 9, of Baxter Brothers, for class No. 3; No. 15, of Wetherell & Bro., for class No. 4; No. 24, of L. Timberlake, for class No. 5; No. 25, of Wm. Mason & Son, for class No. 6; No. 3, of Storer & Stephenson, for class No. 7.

W. B. SHUBRICK, *Chief of Bureau.*

BUREAU OF CONSTRUCTION, &c., June 9, 1852.

Scale of offers to furnish naval supplies at the navy-yard, Washington, during the fiscal year ending June 30, 1853, under advertisement of April 27, 1852, Offers received to June 2, 1852.

Bidders.		Class 1.	Class 2.	Class 3.	Class 4.	Class 5.	Class 6.	Class 7.	Class 8.	Class 9.
		Round, flat, and square iron.	Camboose iron.	Copper.	Lead and tin.	Hardware.	Ship chandlery.	Paints.	Glass.	Sperm oil and candles.
		Aggregate amount.								
1	C. Wilkins & Co.									\$780 00
2	E. Wheeler	\$5,612 75				\$443 77				
3	S. G. Bogert	6,123 00	\$1,815 00	\$7,800 00	\$314 00	530 20	\$187 50	\$305 00	\$300 00	240 00
4	William Lang	4,898 40	2,133 00	6,900 00	344 50	446 10	219 50	325 60	420 00	230 00
5	Brooklyn Flint-glass Company								840 00	
6	Charles H. Leonard									212 00
7	Hollingsworth & Co.			7,200 00						
8	Charles L. Ondersluys	6,133 00								
9	Phelps, Dodge & Co.			6,900 00						
10	U. Hendricks			6,900 00						
11	G. F. Cobb & Co.	7,653 75	Informal.*							
12	Henshaw & Prescott						206 50	303 50		260 00
13	George Gardener & Co.	5,204 55								
14	Lyles, Polhemus & Co.									213 00
15	John K. Graham								570 00	
16	Wetherell & Brother							285 53		
17	O. Whittlesey						198 00	345 50	335 00	215 00
18	William H. Smith									217 00
19	J. G. Kidder									224 00

20	John A. Wright & Co.....	9,184 50							
21	Revere Copper Company.....			6,750 00					
22	Plume & Co.....						164 20		
23	Storer & Stephenson.....						212 50	333 00	1,190 00
24	S. R. Anderson.....	4,694 30	1,494 00						192 00
25	Bonsal & Brother.....	5,408 65	2,346 00	12,000 00	324 00	357 20	196 00	345 00	400 00
									266 00

* Offers wrong articles in class No. 2.

Offers opened June 3 and 4, 1852, in presence of—

W. B. SHUBRICK,
P. C. JOHNSON,
J. H. REILY.

The following offers, being the lowest, are accepted, viz: No. 24, of J. R. Anderson, for class No. 1; No. 24, of J. R. Anderson, for class No. 2; No. 21, of Revere Copper Company, for class No. 3; No. 3, of S. G. Bogert, for class No. 4; No. 25, of Bonsal & Brother, for class No. 5; No. 22, of Plume & Co., for class No. 6; No. 16, of Wetherell & Brother, for class No. 7; No. 3, of S. G. Bogert, for class No. 8; No. 23, of Storer & Stephenson, for class No. 9.

BUREAU OF CONSTRUCTION, &c., June 9 1852.

W. B. SHUBRICK, *Chief of Bureau.*

Scale of offers to furnish naval supplies at the navy yard, Gosport, Virginia, during the fiscal year ending June 30, 1853; under advertisement of April 27, 1852. Offers received to June 2, 1852.

Bidders.	Class 1.	Class 2.	Class 3.	Class 4.	Class 5.	Class 6.	Class 7.	Class 8.
	Iron.	Copper.	Hardware.	Lead, tin, and zinc.	Composition sheathing nails.	Glass.	Flax can- vass.	Cotton can- vass.
	Aggregate amount.							
1 Bluford & Co.....								
2 Bonsal & Brother.....	\$5,585 25		\$6,740 75	\$1,931 50	\$1,958 40	\$135 85		
3 Fox and Polhemus.....								\$9,026 50
4 L. Timberlake.....							\$21,425 00	
5 H. S. Macombs.....								
6 George Adams.....	5,198 50	\$32,527 25	10,764 41	1,930 50	2,592 00	184 00		
7 William Lang.....	4,800 50	32,493 25						
8 B. F. Wilson.....								
9 Vickery and Griffith.....								
10 Charles H. Leonard.....								
11 Mount Vernon Company.....								Informal.
12 Isaac Startzman.....								
13 Phelps, Dodge & Co.....		Informal.						
14 U. Hendricks.....		32,917 95						
15 G. T. Cobb & Co.....	7,524 75							
16 Lyles, Polhemus & Co.....								
17 Henry Waldron.....								
18 L. Timberlake.....								
19 Henshaw & Prescott.....								
20 George Gardener & Co.....	5,375 87							

21	John P. Wetherell, jr						137 50		
22	John Cameron							21,582 50	
23	L. Timberlake							21,425 00	
24	George R. A. Ricketts					2,015 04			
25	Doyle & Irvin								
26	William T. Hawes								
27	J. G. Kidder								
28	William H. Smith							148 00	
29	John K. Graham								
30	John A. Wright & Co	8,701 25							
31	John Davis, jr., agent for R. R. Co		31,821 80						
32	R. Sands Tucker								
33	Lambert & Lane								
34	Storer & Stephenson	5,049 60		6,472 36	2,057 50	2,230 00		21,440 00	8,375 00
35	J. R. Anderson	4,948 00							
36	William Barton							Informal.	
37	William Mason & Son								7,961 00

No. 7—Continued.

380

		Class 9.	Class 10.	Class 11.	Class 12.	Class 13.	Class 14.	Class 15.	Class 16.
Bidders.		Flax and cotton twine.	Ship chandlery.	Paints and oils.	Sperm oil and candles.	Leather, &c.	Dry goods.	Sheet brass.	Stationery.
		Aggregate amount.							
1	Bluford & Co.....					\$2,256 05			
2	Bonsal & Brother.....		\$1,725 50	\$5,191 00	\$2,690 00	2,121 25	\$775 50	\$133 50	
3	Fox & Polhemus.....								
4	L. Timberlake.....								
5	H. S. Macombs.....					2,200 00			
6	George Adams.....	\$860 00	1,855 25	5,084 35		2,111 00	875 00	112 75	
7	William Lang.....				2,470 00				
8	B. F. Wilson.....			5,316 55	2,680 00				
9	Vickery & Griffith.....								\$543 12
10	Charles H. Leonard.....				2,520 00				
11	Mount Vernon Company.....								
12	Isaac Startzman.....					2,581 32			
13	Phelps, Dodge & Co.....								
14	U. Hendricks.....								
15	G. T. Cobb & Co.....								
16	Lyles, Polhemus & Co.....				2,490 00				
17	Henry Waldron.....			5,007 33					
18	L. Timberlake.....						723 50		
19	Henshaw & Prescott.....		1,921 00	4,687 00	2,760 00				
20	George Gardener & Co.....								
21	John P. Wetherell, jr.....								
22	John Cameron.....								
23	L. Timberlake.....								
24	George R. A. Ricketts.....								

H. Doc. 1.

25	Doyle & Irvin.....	938 00	1,978 75					
26	William T. Hawes.....				Informal.			
27	J. G. Kidder.....				2,550 00			
28	William H. Smith.....				2,550 00			
29	John K. Graham.....							
30	John A. Wright & Co.....							
31	John Davis, jr., agent R. R. Co.....							
32	R. Sands Tucker.....					867 75		
33	Lambert & Lane.....							612 50
34	Storer & Stephenson.....	786 00	1,767 50	4,669 65	2,450 00	2,514 00	745 00	
35	J. R. Anderson.....							
36	William Barton.....							
37	William Mason & Son.....							

Offers opened June 3 and 4, 1852, in presence of—

W. B. SHUBRICK,
P. C. JOHNSON,
J. H. BAILY.

The following offers, being the lowest, are accepted, viz: No. 7, of William Lang, for class No. 1; No. 31, of Revere Copper Company, for class No. 2; No. 34, of Storer and Stephenson, for class No. 3; No. 6, of George Adams, for class No. 4; No. 2, of Bonsal & Brother, for class No. 5; No. 2, of Bonsal & Brother, for class No. 6; No. 4, of L. Timberlake, for class No. 7; No. 37, of William Mason & Son, for class No. 8; No. 34, of Storer & Stephenson, for class No. 9; No. 2, of Bonsal & Brother, for class No. 10; No. 34, of Storer and Stephenson, for class No. 11; No. 34, of Storer & Stephenson, for class No. 12; No. 6, of George Adams, for class No. 13; No. 18, of L. Timberlake, for class No. 14; No. 6, of George Adams, for class No. 15; No. 9, of Vickery & Griffith, for class No. 16.

Informalities.—No. 11 has no guarantee as required. No. 13 offers for part of the class. No. 26 offers *stearine* candles. No. 36 offers for part of the class.

BUREAU OF CONSTRUCTION, &c., June 9, 1852.

W. B. SHUBRICK, *Chief of Bureau.*

Scale of offers to furnish naval supplies at the navy yard, Pensacola, Florida, during the fiscal year ending June 30, 1853, under advertisement of April 27, 1852. Offers received to June 2, 1852.

Bidders.		Class 1.	Class 2.	Class 3.	Class 4.	Class 5.	Class 6.	Class 7.	Class 8.	Class 9.	Class 10.	Class 11.
		Iron.	Copper.	Hardware.	Lead and tin.	Composition, copper and iron, nails.	Glass.	Ship chandlery.	Paints.	Sperm oil & candles.	Stationery.	Fuel.
Aggregate amount.												
1	Revere Copper Company.....		\$5,642 82									
2	Jno. P. Wetherell, jr.....						\$24 00		\$265 50			
3	Storer & Stephenson.....					\$528 00	50 00	\$539 20	272 50	\$1,190 00		
4	S. G. Bogert.....	\$489 00	5,531 89	\$291 35	\$151 50	477 00	100 00	579 50	242 00	1,350 00		
5	R. Sands Tucker.....							537 50				
6	W. B. Davis.....											\$690 50
7	Chas. H. Leonard.....									1,245 00		
8	Chester P. Knapp.....										\$136 50	703 00
9	U. Hendricks.....		6,004 29									
10	Jno. A. Wright & Co.....	774 25										
11	Jesse Prichett.....											878 50
12	A. L. Avery.....	652 00	6,082 32	330 96	334 50	549 00	64 00	587 70	352 50	1,550 00	152 20	952 50
13	Bonsal & Brother.....	479 22	7,008 90	370 50	315 00	498 00	30 00	629 50	335 00	1,440 00	120 50	2,350 00
14	Lyles, Polhemus & Co.....									1,199 00		
15	Wm. T. Hawes*.....									Informal.		
16	W. H. Smith.....									1,245 00		
17	G. T. Cobb & Co.....	933 50										
18	Lambert & Lane.....										71 95	
19	Geo. T. Pattison.....											855 00

20	J. G. Kidder.....									1,255 00	
21	William Lang.....	407 50	5,856 35		296 50	652 50	72 00			1,299 00	
22	J. R. Anderson.....	464 55									

* Offers *stearine* candles.

Offers received after the expiration of the time limited, viz: From Henry J. Creighton, on the 3d June; and from William J. Keyser, on the 7th June.

Offers opened June 3 and 4, 1852, in presence of—

W. B. SHUBRICK,
P. C. JOHNSON,
J. H. REILLY.

The following offers, being the lowest, are accepted, viz: No. 21, of William Lang, for class No. 1; No. 4, of S. G. Bogert, for classes Nos. 2, 3, 4, and 5; No. 2, of John P. Wetherell, jr., for class No. 6; No. 5, of R. Sands Tucker, for class No. 7; No. 4, of S. G. Bogert, for class No. 8; No. 3, of Storer & Stephenson, for class No. 9; No. 18, of Lambert & Lane, for class No. 10; No. 6, of W. B. Davis, for class No. 11.

BUREAU OF CONSTRUCTION, &c., June 9, 1852.

W. B. SHUBRICK, *Chief o Bureau.*

Scale of offers to furnish timber, &c., at the navy yard, Kittery, Maine, under advertisement of May 11, 1852; offers received to July 13; deliveries by December 30, 1853.

Bidders.		Class 1.	Class 2.	Class 3.
		50 hickory capstan bars.	3 tons of lignumvitæ.	6,000 feet of cypress.
		Aggregate amount.		
1	Samuel B. Grice.....	\$200 00	\$405 00	\$570 00
2	Wm. C. Borroughs.....	124 50	-----	210 00
3	Bonsal & Brother.....	-----	168 00	-----
4	Storer & Stephenson.....	125 00	150 00	240 00
5	S. G. Bogert.....	125 00	150 00	270 00
6	Wm. H. Gunnell.....	-----	165 00	-----

NOTE.—An offer was received from Lewis Hayes on the morning of the 15th July, and being after the expiration of the time limited by the advertisement, was not scaled.

Offers opened July 14, 1852, in presence of—

W. B. SHUBRICK,
P. C. JOHNSON,
J. H. REILY.

The following offers, being the lowest, are accepted, viz: No. 2, of William C. Borroughs for class No. 1; No. 5, of S. G. Bogert, (by lot,) for class No. 2; No. 2, of William C. Borroughs, for class No. 3.

W. B. SHUBRICK, *Chief of Bureau.*

BUREAU OF CONSTRUCTION, &c., July 17, 1852.

No. 10.—*Scale of offers to furnish timber, &c, at the navy yard, Charlestown, Massachusetts, under advertisement of May 11, 1852. Offers received to July 13; deliveries by December 30, 1853.*

Part II—95

Bidders.	Class 1.	Class 2.	Class 3.	Class 4.	Class 5.	Class 6.
	White oak.	White pine.	Yellow pine.	Locust, ash, elm, cherry, cedar, bl'k walnut, &c.	Hickory butts and white ash oar rafters.	Lignumvitæ.
Aggregate amount.						
1 G. Schnable		\$1,635 00				
2 William Lang*		Informal.	\$9,200 00	\$2,995 00	\$1,103 00	\$769 50
3 Austin, Ring & Co†	Informal.					
4 Joseph L. Ross				3,665 00		
5 Bunsal & Brother						817 00
6 Storer & Stephenson	\$15,630 00	1,595 00	8,700 00	2,974 00	1,279 00	931 00
7 S. G. Bogert	15,680 00	1,620 00	6,600 00	2,850 00	1,003 00	710 00
8 David Hamblen‡					Informal.	
9 Samuel P. Brown			6,360 00			
10 Joseph Temple			8,000 00			
11 Samuel B. Grice§	Informal.	2,290 00	6,440 00	4,385 00		2,451 00
12 William H. Gunnell						779 00
13 William White	15,775 00					
14 Horton, Hall & Co.						710 00

* Offers for part of class No. 2.

† Offer for part of class No. 1.

‡ Offers for part of class No. 5.

§ Offers for part of class No. 1.

Offers opened July 14, 1852, in presence of W. B. SHUBRICK, P. C. JOHNSON, and J. H. REILY.

The following offers, being the lowest, are accepted, viz: No. 6, of Storer & Stephenson, for classes Nos. 1 and 2; No. 9, of Samuel P. Brown, for class No. 3; No. 7, of S. G. Bogert, for classes Nos. 4 and 5, and (by lot) No. 6.

BUREAU OF CONSTRUCTION, &c., July 17, 1852.

W. B. SHUBRICK, Chief of Bureau.

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Scale of offers to furnish timber, &c., at the navy yard, Brooklyn, N. Y., under advertisement of May 11, 1852. Offers received to July 13; deliveries by December 30, 1853.

	Bidders.	Class 1.	Class 2.	Class 3.	Class 4.
		White oak.	White pine.	Yellow pine, &c.	Black spruce spars, &c.
		Aggregate amount.			
1	William G. Lawrence	\$10,556 70			
2	G. Schnable		\$1,645 00		
3	William Lang				\$3,968 50
4	Storer & Stephenson	9,625 50	1,470 00	\$5,399 00	4,211 00
5	S. G. Bogert	9,725 50	1,166 00	5,120 00	3,695 00
6	Samuel P. Brown				3,553 50
7	do			5,116 00	
8	William White	11,480 50			
9	Samuel B. Grice	18,351 00	1,857 00	7,201 00	
10	F. A. Southmayd				3,507 50
11	Edw. H. Herbert			5,826 00	
12	John Petty	12,570 75			
13	J. Bigler*		1,231 00		
14	S. G. Bogert*	Informal.			

* Offers for part of class No. 1.

Offers opened July 14, 1852, in presence of—

W. B. SHUBRICK,
P. C. JOHNSON.
J. H. REILY.

The following offers, being the lowest, are accepted, viz: No. 4, of Storer & Stephenson, for class No. 1; No. 5, of S. G. Bogert, for class No. 2; No. 7, of Samuel P. Brown, for class No. 3; No. 10, of F. A. Southmayd, for class No. 4.

W. B. SHUBRICK, *Chief of Bureau.*

BUREAU OF CONSTRUCTION, &c., July 17, 1852.

No. 12.

Scale of offers to furnish timber, &c., at the navy yard, Philadelphia, Pennsylvania, under advertisement of May 11, 1852 Offers received to July 13 ; deliveries by December 30, 1853.

Bidders.		Class 1.	Class 2.	Class 3.	Class 4.
		White oak.	Yellow pine.	White ash oar rafters.	Lumber.
		Aggregate amount.			
1	G. Schnable		\$2,600 00		
2	Wilson L. Cannon	\$4,730 00			
3	Storer & Stephenson	4,180 00	3,500 00	\$831 00	\$4,105 00
4	S. G. Bogert	4,290 00	2,990 00	592 15	3,945 00
5	Joseph Temple	4,000 00	3,300 00		
6	Saml. P. Brown		2,800 00		
7	Wm. C. Borroughs	4,730 00			
8	Saml. B. Grice	7,060 00	2,890 00	1,146 50	4,825 00
9	F. A. Southmayd			605 15	
10	Wm. S. Shultz	4,400 00	3,000 00	671 70	3,970 00
11	Wm. White	4,380 00			
12	Matthew Vandusen, jr.	4,200 00		470 70	
13	Jesse C. Allen		3,000 00		
14	Geo. W. Churchman	4,290 00			
15	J. Bigler				3,758 00
16	John Petty	4,900 00	4,000 00		

Offers opened July 14, 1852, in presence of—

Wm. B. SHUBRICK,
P. C. JOHNSON,
J. H. REILY.

The following offers, being the lowest, are accepted, viz: No. 5, of Joseph Temple, for class No. 1; No. 1, of G. Schnable,* for class No. 2; No. 12, of M. Vandusen, jr.,† for class No. 3; No. 15, of J. Bigler, for class No. 4.

* G. Schnable declined for class No. 2, and the same was awarded to the next lowest offer, being offer No. 6, of Saml. P. Brown.

† M. Vandusen, jr., declined for class No. 3, and the same was awarded to the next lowest offer, being offer No. 4, of S. G. Bogert.

W. B. SHUBRICK, *Chief of Bureau.*

BUREAU OF CONSTRUCTION, &c., July 17, 1852.

Scale of offers to furnish timber, &c., at the navy yard, Washington, D. C., under advertisement of May 11, 1852. Offers received to July 13; deliveries by December 30, 1853.

Bidders-	Class 1.	Class 2.	Class 3.	Class 4.	Class 5.	Class 6.
	White oak knees.	White oak plank stocks.	Yellow pine plank stocks.	Ash plank.	White pine lumber.	Black walnut and mahogany lumber.
Aggregate amount.						
1 Thomas Clarke and James O. Bien.....		\$12,200 00				
2 Storer & Stephenson.....	\$4,070 25	11,735 00	\$8,500 00	\$480 00	\$1,904 00	\$375 00
3 S. G. Bogert.....	3,955 00	11,750 00	7,475 00	420 00	1,596 00	390 00
4 William H. Gunnell.....				456 00		
5 William S. Shultz.....	9,045 00	14,600 00	7,500 00	720 00	2,280 00	447 50
6 Matthew Vandusen, jr.....	3,728 75					
7 Edward H. Herbert.....			8,000 00			
8 John Petty.....		16,875 00	9,750 00			
9 J. Bigler.....				480 00	1,360 00	525 00
10 Samuel B. Grice.....	10,361 50	18,975 00	7,450 00	1,020 00	3,060 00	522 50
11 J. C. Allen.....			7,500 00			

Offers opened July 14, 1852, in presence of W. B. SHUBRICK, P. C. JOHNSON, J. H. REILY.

The following offers, being the lowest, are accepted, viz: No. 6, of M. Vandusen, jr., for class No. 1; No. 2, of Storer & Stephenson, for class No. 2; No. 10, of S. B. Grice, for class No. 3; No. 3, of S. G. Bogert, for class No. 4; No. 9, of J. Bigler, for class No. 5; No. 2, of Storer & Stephenson, for class No. 6.

NOTE.—M. Vandusen, jr, having declined for class No. 1 the same was awarded to the next lowest, being offer No. 3, of S. G. Bogert.

BUREAU OF CONSTRUCTION, &c., July 17, 1852.

W. B. SHUBRICK, Chief of Bureau.

No. 14.—Scale of offers to furnish timber, &c., at the navy yard, Gosport, Virginia, under advertisement of May 11, 1852.
Offers received to July 13; deliveries by December 30, 1853.

Bidders.	Class 1.	Class 2.	Class 3.	Class 4.	Class 5.	Class 6.	Class 7.	Class 8.
	White oak and locust.	White hickory butts and handspikes.	Yellow pine plank stocks.	Elm plank and boards.	White ash pl'k and boards.	Mahogany.	White pine plank and boards.	Hackmatack knees.
	Aggregate amount.							
1	Thos. Clarke & Jas. O. Brien.	\$13,213 40						
2	Wm. Lang							\$1,378 00
3	Bonsal & Brother					\$596 00	\$1,259 00	\$7,859 18
4	Storer & Stephenson	12,774 50	\$758 00	\$14,735 00	\$1,187 50	1,120 00	1,230 00	8,464 00
5	S. G. Bogert	9,374 70	560 00	12,076 00	995 00	840 00	1,025 00	8,070 80
6	Saml. P. Brown			14,093 50				
7	Jos. Temple			9,422 50				
8	Saml. B. Grice			15,296 20	1,660 00	1,290 00	2,320 00	
9	Jas. M. Robinson			14,767 50				
10	Matthew Vandusen, jr*	Informal.						
11	Edwd. H. Herbert	8,547 00		9,291 50				
12	John Tunis							7,892 50
13	Jno. Petty	9,255 95		9,537 00	1,075 00			
14	J. Bigler					812 00	1,594 00	7,774 20
15	G. L. Madrie		363 00					
16	Wm. H. Clarke					855 00		

* Offers for part of class No. 1.

Offers opened July 14, 1852, in presence of W. B. SHUBRICK, P. C. JOHNSON, J. H. REILY.

The following offers, being the lowest, are accepted, viz: No. 11, of Edwd. H. Herbert, for class No. 1; No. 15, of G. L. Madrie, for class No. 2; No. 11, of Edw. H. Herbert, for class No. 3; No. 5, of S. G. Bogert, for class No. 4; No. 14, of J. Bigler, for class No. 5; No. 5, of S. G. Bogert, for class No. 6; No. 14, of J. Bigler, for class No. 7; No. 2, of Wm. Lang, for class No. 8.

BUREAU OF CONSTRUCTION, &c., July 17, 1852.

W. B. SHUBRICK, Chief of Bureau.

Scale of offers to furnish timber, &c., at the navy yard, Pensacola, Florida, under advertisement of May 11, 1852. Offers received to July 13; deliveries by December 30, 1853.

Bidders.		Class 1.	Class 2.	Class 3.
		White oak knees.	White ash plank and boards.	Yellow pine boards and plank.
		Aggregate amount.		
1	Matthew Vandusen, jr.	\$871 50		
2	Samuel B. Grice	3,342 00	\$1,725 00	
3	S. G. Bogert	629 00	874 00	\$450 00
4	Storer & Stephenson	590 25	1,150 00	450 00
5	J. Bigler		920 00	
6	J. C. Allen			262 50
7	William Miller			236 25

Offers opened July 14, 1852, in presence of—

W. B. SHUBRICK.
P. C. JOHNSON.
J. H. REILY.

The following offers, being the lowest, are accepted, viz: No. 4, of Storer & Stephenson, for class No. 1; No. 3, of S. G. Bogert, for class No. 2; No. 7, of William Miller, for class No. 3.

W. B. SHUBRICK, *Chief of Bureau.*

BUREAU OF CONSTRUCTION, &c., July 17, 1852.

List of contracts, under the cognizance of the Bureau of Construction, Equipment, and Repair, made and received from November 14, 1851, to November 2, 1852 : prepared in conformity with an act of Congress of April 21, 1808.

Date.	Expiration.	Name of contractor.	Articles.	Rate.	Navy yard where deliverable.
1852. Jan. 14	1852. Mar. 14	Merrick & Son.....	Repairs on engines and boilers of U. S. steamer Mississippi:		
			Cast iron for steam-cylinders	\$0 12½ per pound..	Philadelphia.
			Other castings required.....	5 do	
			Wrought iron required.....	20 do	
			Wrought steel	35 do	
			Wrought copper	40 do	
			Brass castings, exclusive of pipes	40 do	
			Composition feed and blow-pipes.....	35 do	
			Turning, boring, and planing.....	3 do	
			Pattern making	3 00 per day.	
			Fitters	2 50 do	
			Laborers	1 75 do	
			Boiler makers	2 25 do	
Feb. 12	.....	Allen & Noyes	Patent metallic self-adjusting conical packing:		
			Steamer of the first class.....	1,250 00 each.	
			Steamer of the second class	900 00 do	
			Steamer of the third class.....	700 00 do	
Mar. 23	.....	Jos. P. Pirsson.....	Patent condensers in the United States steamer Alleghany	1,000 00	
Mar. 26	June 30	Prentice & Stickney	1,000 tons Camelton coal.....	5 00 per ton....	Pensacola.
June 16	Aug. 1	Merrick & Son.....	Repairs on engines and boilers of U. States steamer Saranac:		
			Cast iron steam-cylinders	12½ per pound..	Philadelphia.
			Other castings required.....	5 do	
			Wrought iron required.....	20 do	
			Wrought steel	35 do	
			Wrought copper	40 do	
			Brass castings, exclusive of pipes.....	40 do	
			Composition feed and blow-pipes.....	35 do	
			Turning, boring, and planing.....	3 do	
			Pattern making	3 00 per day.	

LIST OF CONTRACTS—Continued.

Date.	Expiration.	Name of contractor.	Articles.	Rate.	Navy yard where deliverable.
1852. June 16	1852. Aug. 1	Merrick & Sons Continued.	Repairs on engines and boilers of U. States steamer Saranac: Fitters	\$2 50 per day	Philadelphia.
			Laborers	1 75 do	
			Boiler makers	2 25 do	
July 22 July 21		James M. Quimby Andrew Mehaffey	Use of Blanchard's patent lathe: Repairs on United States steamer Massachusetts:	5,000 00	Gosport.
			Iron castings, made in loam moulds.....	6 per pound..	
			Iron castings, made in sand moulds.....	5 $\frac{1}{4}$ do	
			Iron castings, made in green sand moulds	4 $\frac{1}{2}$ do	
			Grate bars	3 $\frac{1}{2}$ do	
			Wrought iron	18 do	
			Wrought steel	35 do	
			Copper work, pipes excepted	38 do	
			Copper pipes	46 do	
			Brass castings, except propeller, feed, and blow-pipes....	40 do	
			Feed and blow-pipes.....	35 do	
			Screw propeller.....	50 do	
			Coal bunkers.....	15 do	
			Boilers	18 do	
			Smoke chimney, &c.....	16 do	
			Turning and boring.....	2 $\frac{1}{2}$ per sq. inch	
			Planing	3 $\frac{1}{2}$ do	
			Pattern making	3 00 per day.	
			Fitters	3 10 do	
			Laborers	1 70 do	
June 21	1853. June 30	Lewis Timberlake	213 bolts No. 1 flax canvas.....	11 00 per bolt.....	Philadelphia,
			73 bolts No. 2 do.....	10 05 do	
			65 bolts No. 3 do.....	9 35 do	
			39 bolts No. 4 do.....	8 65 do	
			59 bolts No. 5 do.....	8 10 do	

June 26

June 30

Richard Jenness.....

74 bolts No. 6	do
41 bolts No. 7	do
30 bolts No. 8	do
600 bolts No. 1	do
500 bolts No. 2	do
300 bolts No. 3	do
200 bolts No. 4	do
150 bolts No. 5	do
200 bolts No. 6	do
200 bolts No. 7	do
200 bolts No. 8	do
20 bolts light ravens duck	
30 rolls red bunting	
30 rolls white bunting	
50 yards green baize	
200 yards fearnought	
300 yards bleached muslin	
100 yards black cotton velvet	
15 pounds red sewing thread	
50 pounds shoe thread	
600 yards Russia sheeting	
20 yards blue nankeen	
2 dozen brass mortise locks, 4 by 3 inches	
2 dozen brass closet locks, 4 by 3½ inches	
1 dozen brass padlocks, 3-inch	
1 dozen brass padlocks, 2½-inch	
1 dozen brass desk locks, 3-inch	
2 dozen pairs butt hinges, 5 by 4 inches	
2 dozen buttons on plates, 2½-inch	
2 do do 1½-inch	
3 dozen flush locker rings, 1½-inch	
2 dozen cupboard ketches, 2½-inch	
1 gross flat escutcheons, 1½-inch	
1 gross thread escutcheons, ¾-inch	
2 pounds escutcheon pins	
2 gross brass screws, 3 inch No. 20	
2 do do 2½-inch No. 17	
12 do do 2-inch No. 16	
6 do do 1½-inch No. 15	

7 30	do
6 50	do
5 80	do
11 00	do
10 05	do
9 35	do
8 65	do
8 10	do
7 30	do
6 50	do
5 80	do
6 50	do
6 50	each.
5 75	do
55	per yard.
55	do
8½	do
25	do
60	per pound.
40	do
23	per yard.
5	do
13 00	per dozen
10 00	do
9 00	do
8 50	do
5 00	do
18 00	do
1 00	do
50	do
50	do
8½	do
3 00	per gross.
58	do
62½	per pound.
5 19	per gross.
3 12	do
2 18	do
1 89	do

Gosport.

Kittery.

LIST OF CONTRACTS—Continued.

Date.	Expiration.	Name of contractor	Articles.	Rate.	Navy yard where deliverable.
1852. June 26	1853. June 30	Rich'd Jenness—Continued.	2 gross brass screws, 1 $\frac{3}{4}$ -inch... No. 11..... 1.....do.....do.....No. 8..... 3.....do.....1 $\frac{1}{2}$ -inch...No. 14..... 2.....do.....do.....No. 10..... 1.....do.....do.....No. 8..... 1.....do.....do.....No. 6..... 2.....do.....1 $\frac{1}{4}$ -inch...No. 10..... 2.....do.....do.....No. 8..... 2.....do.....do.....No. 6..... 4.....do.....1-inch.....No. 10..... 4.....do.....do.....No. 8..... 2.....do.....do.....No. 6..... 3.....do..... $\frac{3}{4}$ -inch...No. 8..... 4.....do.....do.....No. 6..... 1.....do.....do.....No. 5..... 1.....do.....do.....No. 4..... 4.....do..... $\frac{5}{8}$ -inch...No. 7..... 4.....do.....do.....No. 6..... 1.....do.....do.....No. 5..... 1.....do.....do.....No. 4..... 1.....do..... $\frac{1}{2}$ -inch...No. 7..... 2.....do.....do.....No. 6..... 6.....do.....do.....No. 4..... 1.....do.....do.....No. 3..... 1.....do..... $\frac{3}{4}$ -inch...No. 4..... 2.....do.....do.....No. 3..... 2 dozen iron mortise locks, 4 by 3 inches..... 2 dozen cupboard locks, 4-inch..... 1 dozen chest locks, 4-inch..... 5 dozen iron drawer locks, 2 $\frac{3}{4}$ -inch.....	\$1 15 per gross... 83 do 1 45 do 92 do 75 do 67 do 81 do 58 do 50 do 61 do 55 do 46 do 49 do 41 do 40 do 38 do 44 do 41 do 39 do 37 do 43 do 40 do 37 do 35 do 36 do 35 do 5 00 per dozen. 3 00 do 3 00 do 2 00 do	Kittery.

3 dozen iron padlocks, 3-inch	3 00	do
6 dozen iron padlocks, 2½-inch	2 00	do
1 dozen pair 4½ by 4 iron butt hinges	2 00	do
2 do 4 by 3½ do	1 35	do
2 do 3 by 2 do	50	do
2 do 2½ by 1¾ do	36	do
2 do 2 by 1½ do	24	do
1 gross iron screws, 3-inch No. 20	1 36	per gross.
1 do do No. 18	1 15	do
4 do 2¼-inch No. 17	82	do
3 do 2-inch No. 18	75	do
2 do do No. 12	43	do
7 do 1¾-inch No. 14	47	do
1 do do No. 12	37	do
1 do do No. 8	30	do
2 do 1½-inch No. 16	53	do
4 do do No. 14	42	do
3 do do No. 10	28	do
2 do do No. 8	25	do
2 do 1¼-inch No. 16	48	do
1 do do No. 14	37	do
7 do do No. 10	25	do
2 do 1-inch No. 12	25	do
1 do do No. 6	18	do
1 do do No. 4	16	do
3 do ¾-inch No. 8	18	do
6 do do No. 6	15	do
2 do do No. 5	14	do
2 do do No. 4	13	do
4 do ⅝-inch No. 7	15	do
3 do do No. 5	13	do
2 do do No. 4	12	do
4 do ½-inch No. 4	11	do
2 do do No. 3	11	do
2 do ⅜-inch No. 3	11	do
10,000 wrought iron brads, 1½-inch	37½	per M.
20,000 do 1¼-inch	37½	do
10,000 do 1-inch	37½	do
1,300 pounds cut iron nails, various sizes	3½	per pound.

LIST OF CONTRACTS—Continued.

Date.	Expiration.	Name of contractor.	Articles.	Rate.	Navy yard where deliverable.
1852. June 26	1853. June 30	Rich'd Jenness—Continued.	100 pounds wrought iron nails, 20-penny 100.....do.....do.....10-penny 100.....do.....do.....8-penny 100.....do.....do.....6-penny 20 pounds clout nails, 1-inch 30 pounds clout nails, $\frac{3}{4}$ -inch 52 pounds iron wire 1 gross mahogany knobs, 2-inch 1.....do.....do..... $1\frac{1}{2}$ -inch 1.....do.....do..... $1\frac{1}{4}$ -inch	\$0 09 per pound. 10 do 12 do 14 do 62 $\frac{1}{2}$ do 62 $\frac{1}{2}$ do 7 do 2 00 per gross. 1 50 do 1 25 do	Kittery.
June 28	June 30	Baxter Brothers.....	3 dozen brass door-locks, $2\frac{1}{2}$ by 2 inches 5 dozen brass bureau locks, $2\frac{1}{2}$ by 2 inches 8 dozen brass cupboard locks 4 dozen mortise locks, 4 by $3\frac{1}{2}$ inches 3 dozen 6-inch dead locks 3 dozen 6-inch upright rim locks 4 dozen chest locks 60 pair 2-inch brass hinges 60 pair $2\frac{1}{2}$ -inch.....do..... 50 pair 3-inch.....do..... 40 pair $3\frac{1}{2}$ -inch.....do..... 40 pair 4-inch.....do..... 20 pair 2-inch brass hinges, loose joints 4 dozen 4-inch brass neck bolts 2 dozen 5-inch thumb bolts 2 dozen 6-inch copper bolts, with plates 4 dozen sash springs 2 dozen door springs 5 dozen 4-inch brass hooks and eyes 4 dozen brass buttons.....	2 50 per dozen... 2 00 do 1 50 do 4 00 do 3 50 per dozen 4 00 do 1 50 do 10 per pair. 15 do 22 do 30 do 37 $\frac{1}{2}$ do 12 $\frac{1}{2}$ do 3 50 per dozen. 2 25 do 6 50 do 50 do 1 50 do 75 do 25 do	Philadelphia.

			4 dozen brass buttons with plates	1 00	do	
			10 gross 2-inch brass screws, Nos. 12 to 20	1 84	per gross.	
			5 gross 3-inch.....do.....Nos. 12 to 20	3 36	do	
			10 gross 1 $\frac{1}{4}$ -inch.....do.....Nos. 12 to 20	1 82	do	
			12 gross 1 $\frac{1}{2}$ -inch.....do.....Nos. 12 to 20	1 50	do	
			12 gross 1 $\frac{1}{4}$ -inch.....do.....Nos. 12 to 20	1 22	do	
			30 gross 1-inch.....do.....Nos. 8 to 16	73	do	
			10 gross $\frac{3}{4}$ -inch.....do.....Nos. 4 to 10	37 $\frac{1}{2}$	do	
			17 gross $\frac{1}{2}$ -inch.....do.....Nos. 4 to 10	35	do	
			10 gross $\frac{1}{2}$ -inch.....do.....Nos. 4 to 8	36 $\frac{1}{2}$	do	
			5 gross $\frac{3}{4}$ -inch iron screws.....Nos. 4 to 8	11.8	do	
			10 gross 1-inch.....do.....Nos. 7 to 16	20.3	do	
			8 gross 1 $\frac{1}{4}$ -inch.....do.....Nos. 8 to 20	20	do	
			8 gross — inch.....do.....Nos. 8 to 20	25	do	
			8 gross 1 $\frac{3}{4}$ -inch.....do.....Nos. 9 to 20	32	do	
			8 gross 2-inch.....do.....Nos. 10 to 20	38	do	
			8 gross 2 $\frac{1}{2}$ -inch.....do.....Nos. 15 to 20	56	do	
			8 gross 3-inch.....do.....Nos. 15 to 20	69	do	
			50 pounds 2-inch finishing nails or spigs	7 $\frac{1}{2}$	per pound.	
			50 pounds 1-inch.....do.....do	7 $\frac{1}{2}$	do	
			60 pounds 1 $\frac{1}{2}$ -inch.....do.....do	7 $\frac{1}{2}$	do	
			60 pounds 1 $\frac{3}{4}$ -inch.....do.....do	7 $\frac{1}{2}$	do	
			70 pounds 1 inch.....do.....do	7 $\frac{1}{2}$	do	
			50 pounds $\frac{3}{4}$ -inch.....do.....do	7 $\frac{1}{2}$	do	
			50 pounds $\frac{1}{2}$ -inch.....do.....do	7 $\frac{1}{2}$	do	
			5,000 pounds cut nails.....do.....do	2 62	per 100 lbs.	
			2,500 pounds wrought nails.....do.....do	4 25	do	
June 30	June 30	J. Davis, jr.....	29,847 pounds cold-rolled sheathing copper	22.9	per pound.	Philadelphir,
			177,000 pounds.....do.....do	22.45	do	Brooklyn.
			5,600 pounds braziers' copper.....do.....do	22.45	do	
			21,900 pounds bolt copper.....do.....do	22.45	do	
			1,200 pounds boiler copper.....do.....do	22.45	do	
			31,000 pounds bolt copper.....do.....do	22 $\frac{1}{2}$	do	Washington.
			5,700 pounds rod and bolt copper.....do.....do	22 $\frac{3}{4}$	do	Gosport.
			128,075 pounds sheathing copper.....do.....do	22.6	do	
			6,900 pounds braziers' copper.....do.....do	22.9	do	
June 24	June 30	William Barton.....	200 bolts No. 1 flax canvas.....do.....do	11 00	per bolt	Charlestown,
			100 bolts No. 2.....do.....do	9 90	do	
			100 bolts No. 3.....do.....do	9 30	do	

LIST OF CONTRACTS—Continued.

Date.	Expiration.	Name of contractor.	Articles.	Rates.	Navy yard where deliverable.
1852. June 24	1853. June 30	William Barton—Continued.	100 bolts No. 4 flax canvas.....	\$8 70 per bolt ...	Charlestown.
			100 bolts No. 6 ... do.....	7 00 do	
			100 bolts No. 7 ... do.....	6 20 do	
			100 bolts No. 8 ... do.....	5 60 do	
			100 bolts No. 1 ... do.....	10 55 do.....	Brooklyn.
			150 bolts No. 2 ... do.....	9 45 do	
			250 bolts No. 3 ... do.....	8 85 do	
			150 bolts No. 4 ... do.....	8 25 do	
			150 bolts No. 5 ... do.....	7 75 do	
			150 bolts No. 6 ... do.....	6 60 do	
			150 bolts No. 7 ... do.....	5 75 do	
			200 bolts No. 8 ... do.....	5 15 do	
June 25	June 30	Vickery & Griffith.....	5 dozen memorandum books	1 25 per dozen ...	Gosport.
			1 dozen expenditure books	3 50 do	
			2 dozen 2-quire blank books	3 50 do	
			5 reams blank requisitions.....	5 00 per ream.	
			10 dozen pint bottles black ink.....	1 75 per dozen.	
			3 dozen ½-pint bottles red ink	1 75 do	
			2 dozen metal inkstands.....	3 00 do	
			4 dozen 4-blade penknives.....	7 00 do	
			50 reams foolscap paper	2 62½ per ream.	
			6 reams log paper.....	6 00 do	
			5 reams buff envelope paper.....	2 75 do	
			2 reams blotting paper.....	3 50 do	
			100 sheets drawing paper	15 per sheet.	
			50 gross steel pens	87½ per gross.	
			6 dozen camel-hair pencils.....	18¾ per dozen.	
			1 dozen parallel rulers	12 00 do	
			1 dozen rolling rulers	3 00 do	
			6,000 quills	5 00 per M.	

June 25

June 30

Collins, Bowne & Co.

2 dozen sand boxes.....	2 75 per dozen.
4 dozen slates.....	2 01 do
2 dozen double log slates.....	9 00 do
3 gross red tape.....	3 00 per gross.
100 pounds ink powder.....	4 per pound.
2 dozen ivory pounce boxes.....	5 00 per dozen.
25 pounds best red wafers.....	40 per pound.
15 pounds best red sealing-wax.....	65 do
$\frac{1}{2}$ dozen boxes water-colors.....	1 75 per dozen.
1 dozen erasers.....	3 00 do
6 gross black lead pencils.....	4 25 per gross.
12 letter books.....	60 each.....
48 blank books, 2-quire.....	30 do
48 blank books, 1-quire.....	20 do
72 memorandum books, 1-quire.....	15 do
72 memorandum books, 1-quire, in leather.....	12 do
24 paper folders, ivory.....	20 do
6 dozen pint bottles black ink.....	1 25 per dozen.
12 dozen $\frac{1}{2}$ -pint bottles black ink.....	60 do
1 dozen $\frac{1}{2}$ -pint bottles carmine ink.....	1 50 do
$\frac{1}{2}$ dozen pieces India ink.....	25 do
3 dozen penknives.....	8 00 do
$\frac{1}{2}$ dozen deskknives.....	2 00 do
6 cases drawing instruments.....	3 00 each.
3 dozen papers ink powder.....	50 per dozen.
6 dozen metal inkstands.....	4 00 do
6 dozen pieces India rubber.....	10 do
20 reams cap paper.....	2 00 per ream.
5 reams regulation paper.....	2 00 do
5 reams letter paper.....	2 00 do
11 reams folio post paper.....	1 00 do
5 reams envelope paper (buff).....	2 50 do
2 reams blotting paper (thick).....	2 50 do
4 reams log paper.....	3 00 do
24 sheets elephant drawing paper.....	10 per sheet.
24 sheets double elephant drawing paper.....	15 do
24 sheets double elephant tracing paper.....	15 do
14 sheets pastepard.....	5 do
2,000 slate pencils.....	1 00 per M.

Brooklyn.

LIST OF CONTRACTS—Continued.

Date.	Expiration.	Name of contractor.	Articles.	Rate.	Navy yard where deliverable.
1852. June 25	1853. June 30	Collins, Bowne & Co.—Continued.	4 gross Faber's best lead pencils 3 dozen drawing pencils 3 dozen drawing pens 3 dozen drawing pins 6 India ink saucers 4 boxes water colors 20 gross Gillott's eagle pens 2 gross steel pens 12 dozen pen holders 12 ivory pounce boxes 1,000 quills 24 wafer seals 6 dozen half pint papers black sand 2 dozen sand boxes 6 slates 24 log slates 3 gross red tape 3 dozen rolls silk taste 10 pounds best American sealing wax 6 pounds best scarlet wafers	\$1 50 per gross .. 50 per dozen. 25 do 25 do 10 each. 5 00 per box. 1 00 per gross. 1 50 do 10 per dozen. 2 each. 1 50 per M. 2 each. 10 per dozen. 25 do 20 each. 75 do 2 00 per gross. 50 per dozen. 50 per pound. 40 do	Brooklyn.
June 26	June 30	Plume & Co.	10,000 pounds best quality oakum 2,000 do do do 6 barrels tar 6 barrels pitch 100 pounds spelter solder 50 pounds refined borax 12 tons best quality tarred oakum 25 barrels tar 20 barrels pitch 15 barrels rosin	499 98 5.99 per pound. 1 20 per barrel. 1 20 do 20 per pound. 20 do 123 10 per ton.... 1 00 per barrel. 1 00 do 1 00 do	Charlestown. Washington. Kittery

June 26	June 30	Henshaw & Prescott	7 barrels fish oil.....	18 00	do	
			4,000 pounds dry white lead	5 $\frac{1}{2}$	per pound.	
			400 pounds litharge	6	do	
			500 pounds red lead	8	do	
			300 pounds yellow ochre	2	do	
			2,000 pounds Paris whiting	$\frac{3}{4}$	do	
			300 pounds lampblack	6	do	
			650 gallons linseed oil.....	70	per gallon.	
			100 gallons spirits of turpentine.....	45	do	
			10 gallons copal varnish	1 70	do	
June 26	June 30	C. Wilkins & Co.....	1,500 pounds flax sewing twine	22	per pound..	Brooklyn.
			500 pounds cotton sewing twine	21	do	
			200 pounds cotton whipping twine	24	do	
			25 pounds seine twine	25	do	
June 26	June 30	J. G. Kidder	500 gallons pure winter strained sperm oil.....	1 26	per gallon..	Charlestown.
			8,000 pounds pure sperm candles	36	per pound.	
June 27	June 30	McKim & Cutter.....	100 memorandum books, large	19	each.	
			100 memorandum books, small.....	12 $\frac{1}{2}$	do	
			20 blank books, 2 quires	56	do	
			20 blank books, 3 quires	70	do	
			10 order books, 4 quires	90	do	
			10 letter books, 4 quires	1 10	do	
			10 day books, 6 quires	1 25	do	
			10 requisition books, 4 quires	3 00	do	
			50 pieces India rubber	2	do	
			120 half-pint bottles black ink	10	per bottle.	
			24 half-pint bottles red ink	15	do	
			50 inkstands	20	each.	
			3 ink standishes	2 00	do	
			24 penknives	62 $\frac{1}{2}$	do	
			10 reams log paper	7 00	per ream.	
			20 reams foolscap paper	3 50	do	
			20 reams envelope paper	3 75	do	
			10 reams blotting paper	2 00	do	
			500 large envelopes	35	per 100.	
			500 small envelopes	20	do	
			60 sheets drawing paper	3	per sheet.	
			120 cards steel pens	20	per card.	
			10 parallel rulers	50	each.	

LIST OF CONTRACTS—Continued.

Date.	Expiration.	Name of contractor.	Articles.	Rates.	Navy-yard where deliverable.
1852. June 27	1853. June 30	McKim & Cutter—Cont'd..	10 round rulers	\$0 15 each.....	Charlestown,
			10 flat rulers.....	10 do	
			10 rolling rulers.....	20 do	
			50 dozen slate pencils.....	2 per dozen.	
			50 dozen lead pencils.....	33½ do	
			10 dozen camel's hair pencils.....	12 do	
			5,000 quills.....	3 00 per M.	
			20 sand boxes.....	10 each.	
			50 pounds sand.....	4 per pound.	
			20 log slates.....	70 each.	
			20 single log slates.....	15 do	
			5 boxes water colors.....	3 00 do	
			20 pounds wafers.....	40 per pound.	
			100 papers ink powders.....	5 per paper.	
			12 boxes pounce.....	20 each.	
			12 Gunter's scales.....	37½ do	
			12 wafer seals.....	15 do	
			10 dozen bolts red tape.....	36 per dozen.	
			2 dozen paper folders.....	2 00 do	
			5 boxes mathematical instruments.....	4 00 per box.	
			20 pounds sealing wax.....	80 per pound.	
			5 dozen bolts taste.....	1 50 per dozen.	
June 28	June 30	Lambert & Lane.....	6 erasing knives.....	30 each.....	Pensacola.
			6 ivory paper folders.....	40 do	
			24 Congress penknives.....	1 00 do	
			12 sand boxes.....	25 each.	
			12 wafer stamps.....	25 do	
			6 dozen pint bottles black ink.....	2 25 per dozen.	
			1 dozen half pint bottles carmine ink.....	2 00 do	
			2 dozen pint bottles blue ink.....	2 50 do	

			2 dozen pieces narrow silk taste.....	2 50	do	
			2 dozen pieces India rubber.....	75	do	
			6 gross Gillot's steel pens.....	1 50	per gross.	
			$\frac{1}{2}$ ream blotting paper.....	3 50	per ream.	
June 28	June 30	J. R. Anderson	259,000 pounds round, square, and flat iron.....	2.4	per pound.	Brooklyn
			20,000 pounds Livingston hammered iron.....	5	do	
			48,000 pounds boiler iron.....	4	do	
			34,000 pounds hoop iron.....	2.8	do	
			2,000 pounds Russia sheet iron.....	12	do	
			204,100 pounds round, square, and flat iron.....	2.3	do.....	Washington.
			21,600 pounds plate iron.....	4	do	
			21,000 pounds bar iron.....	3	do	
June 28	June 30	Horton, Hall, & Co.....	1,000 pounds $\frac{1}{2}$ -inch round iron.....	4	do.....	Charlestown.
			1,500 pounds 5-16 inch do.....	2	do	
			2,000 pounds $\frac{3}{8}$ -inch do.....	2	do	
			3,000 pounds $\frac{1}{2}$ -inch do.....	2	do	
			4,000 pounds $\frac{3}{8}$ -inch do.....	3 $\frac{1}{2}$	do	
			4,000 pounds hoop iron.....	3 $\frac{1}{2}$	do	
			6,000 pounds do.....	3 $\frac{1}{2}$	do	
			6,000 pounds do light.....	2	do	
			3,000 pounds do No. 17.....	3 $\frac{1}{2}$	do	
			5,000 pounds do No. 18.....	2	do	
			2,000 pounds do No. 19.....	2	do	
			2,000 pounds do No. 22.....	3 $\frac{1}{2}$	do	
			1,000 pounds do 9-16 inch.....	3 $\frac{1}{2}$	do	
			2,500 pounds Russia sheet iron.....	12	do	
			1,500 pounds English do.....	2	do	
			1,500 pounds Russia nail rods.....	2	do	
			1,000 pounds Russia spike rods.....	2	do	
			34,000 pounds 23-ounce sheathing copper.....	21 $\frac{1}{4}$	do	
			19,750 pounds 34-ounce do.....	19 $\frac{1}{4}$	do	
			2,475 pounds 44-ounce braziers' copper.....	23 $\frac{1}{2}$	do	
			900 pounds 32-ounce do.....	22 $\frac{1}{2}$	do	
			450 pounds 16-ounce do.....	20	do	
			5,000 pounds $\frac{3}{8}$ -inch bolt copper.....	23	do	
			2,500 pounds 11-16 inch bolt copper.....	19	do	
			500 pounds $\frac{3}{8}$ -inch bolt copper.....	23	do	
			2 dozen broad axes, handled.....	15 00	per dozen.	
			2 dozen narrow axes, handled.....	15 00	do	

LIST OF CONTRACTS—Continued.

Date.	Expiration.	Name of contractor.	Articles.	Rates.	Navy-yard where deliverable
1852. June 28	1853. June 30	Horton, Hall, & Co.—Cont'd.	1 dozen carpenters' adzes, handled 1 dozen hollow adzes, handled..... 1 dozen coopers' axes, handled..... 1 dozen coopers' adzes, handled..... 6 braces and bitts (48 bitts)..... 6 braces and bitts (20 bitts, iron)..... 10 dozen brass buttons on plates..... 6 steel-tongued bevils 6 bung borers..... 6 tap borers..... 6 Dearborn's patent balances..... 6 spring balances..... 50,000 brads..... 50,000 Randall's patent brads..... 100 pounds sheet brass..... 50 pounds copper bars, assorted..... 50 brass flush-bolts..... 1 dozen carpenters' compasses..... 1 dozen smiths' callipers..... 6 dozen coopers' callipers..... 4 dozen firmer chisels..... 4 dozen socket chisels..... 4 coopers' crows..... 4 small butchers' cleavers..... 2 large.....do.....do..... 12 brass locks..... 4 glaziers' diamonds..... 8 brass dividers..... 8 ratchet drills..... 20 pounds emery.....	\$24 00 per dozen .. 6 00 do 6 00 do 18 00 do 7 00 do 4 00 do 62 do 75 each. 1 25 do 50 do 3 50 do 1 50 do 12 per M. 10 do 28 per pound. 10 do 8 each. 2 25 per dozen. 10 00 do 1 25 each. 3 75 per dozen. 5 00 do 1 25 each. 1 25 do 7 00 do 1 25 do 4 50 do 25 do 12 00 do 10 do	Charlestown.

10 dozen 6-inch hand-saw files	50 per dozen.
5 dozen 4-inch fine saw files	50 do
5 dozen 7-inch cross-cut files	50 do
5 dozen 1-inch whip-saw files	2 00 do
5 dozen 1-inch rat-tail files	3 00 do
5 dozen 12-inch flat and $\frac{1}{2}$ round fine-cut files	5 00 do
5 dozen 10-inch do do do	3 50 do
5 dozen 8-inch do do do	2 00 do
10 dozen 14-inch flat and $\frac{1}{2}$ bastard files	1 75 do
5 dozen 12-inch do do do	1 38 do
5 dozen 10-inch do do do	1 44 do
5 dozen 8-inch do do do	1 63 do
5 dozen diaphragm filters	3 00 each.
4 dozen firmer gouges, handled	4 00 per dozen.
4 dozen socket do do	4 00 do
6 dozen nail gimlets	75 do
6 dozen spike do	25 do
1 dozen carpenters' gauges	1 50 do
12 gridirons	75 each.
12 griddles	75 do
12 gross metallic gromets	3 00 per gross.
6 dozen brass hooks and eyes	50 per dozen.
6 dozen brass cabin-door hooks	3 50 do
500 fish hooks	1 each.
2 dozen hatchets	7 50 per dozen.
2 dozen claw hammers	7 00 do
1 dozen riveting hammers	1 00 do
1 dozen wrench hammers	5 00 do
4 dozen brass-butt hinges	10 00 do
4 do do do $2\frac{1}{2}$ by 2 inches	1 00 do
4 do do do 2 by 2 inches	1 00 do
4 do do do 3 by 3 inches	1 00 do
2 dozen brass secretary hinges and springs	12 00 do
2 dozen iron-butt hinges and springs, $3\frac{1}{2}$ by $3\frac{1}{2}$	1 25 do
2 dozen iron cut hinges, 3 by 3	1 25 do
2 do do do $2\frac{1}{2}$ by 2	1 25 do
2 do do do 2 by 2	1 00 do
5,000 tenter hooks	25 per M.
6 waffle irons	25 each.

LIST OF CONTRACTS—Continued.

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Date:	Expiration.	Name of contractor.	Articles:	Rates.	Navy-yard where deliverable.
1852. June 28	1853. June 30	Horton, Hall, & Co.—Cont'd.	4 marking irons 2 beak irons 12 plane irons 3 coopers' long jointers 3 coopers' short jointers 6 fish kettles 6 copper tea kettles 6 iron kettles 12 shoe knives 12 drawing knives 12 pallet knives 12 putty knives 6 hallowing knives 6 rounding knives 12 sail knives 12 butchers' knives 12 cheese knives 6 pitch kettles 6 glue kettles 6 gross blank keys 2 patent deep sea leads 2 patent logs 6 dozen iron cupboard locks 6 dozen brass do 6 dozen brass sideboard locks 6 dozen brass padlocks 6 dozen brass drawer locks 6 dozen iron drawer locks 6 dozen iron chest locks 1 turning lathe	\$0 75 each 7 00 do 12 do 5 00 do 3 00 do 3 50 do 4 00 do 1 50 do 12 do 1 00 do 42 do 20 do 50 do 50 do 20 do 50 do 20 do 1 00 do 25 do 50 per gross 2 50 each 20 00 do 3 00 per dozen 5 00 do 3 00 do 8 00 do 3 50 do 2 50 do 4 00 do 10 00 each	Charlestown.

H. Doc. 1.

1 set lathe tools	10 00 per set.
1 dozen globe lanterns	30 00 per dozen.
100 papers sewing needles	4 per paper.
200 sail needles	4 each.
200 seaming needles	1 do.
100 marline .. do	1 do.
100 8-thread .. do	1 do.
100 6-thread .. do	1 do.
100 4-thread .. do	1 do.
500 pounds iron cut nails	4 per pound.
500 pounds iron wrought nails	6 do.
50 pounds 4-penny cut copper nails	37 do.
100 pounds 8-penny .. do	8 do.
200 pounds 10-penny .. do	8 do.
20,000 scupper nails	1 00 per M.
50,000 clout nails	37 do.
6 iron pots	25 each.
12 fry pans	62 do.
12 bake pans	62 do.
12 stew pans	1 00 do.
12 pliers	25 do.
12 pincers	29 do.
1 ream sand paper	2 75 do.
1 ream emery paper	1 00 do.
6 smobthing planes	1 25 do.
6 grooving planes	63 do.
6 rabbit planes	25 do.
6 long jointers' planes	1 50 do.
6 short jointers' planes	1 25 do.
6 jack jointers' planes	1 25 do.
6 bead planes	75 do.
6 moulding planes	75 do.
6 plough planes	4 00 do.
6 astragal planes	75 do.
6 match planes	50 do.
2,000 pounds lead pipe	6½ per pound.
12 2-foot rule, 4-fold	50 each.
12 2-foot rule, 2-fold	50 do.
12 wood rasps	33 do.

LIST OF CONTRACTS—Continued.

Date.	Expiration.	Name of contractor.	Articles.	Rates.	Navy-yard where deliverable.
1852. June 28	1853. June 30	Horton, Hall, & Co.—Cont'd.	50 pounds copper boat rivets 100 pounds iron rivets, assorted..... 4 gauging rods 10 pounds hose rivets..... 4 dozen brass flush rings 20 cast-steel shovels 10 cast-steel spades 100 cast-steel scrapers..... 6 Gunter's scales..... 6 screw-drivers 6 steelyards 500 pounds iron spikes..... 6 bread sieves 6 butcher steels..... 6 sets tin scales 10 pounds brass solder..... 6 boxes XX tin plate 10 gross 1-inch iron screws 10 gross $\frac{3}{4}$ -inch do 10 gross $\frac{5}{8}$ -inch do 10 gross $\frac{1}{2}$ -inch do 10 gross $\frac{1}{4}$ -inch do 10 gross $\frac{1}{8}$ -inch do 10 gross $\frac{1}{16}$ -inch do 10 gross $\frac{1}{32}$ -inch do 10 gross $\frac{1}{64}$ -inch do 10 gross $\frac{1}{128}$ -inch do 10 gross $\frac{1}{256}$ -inch do 5 gross $\frac{1}{4}$ -inch do 5 gross $\frac{3}{8}$ -inch do 5 gross $\frac{1}{2}$ -inch brass screws	\$0 50 per pound .. 12 do 1 50 each. 40 per pound. 75 per dozen. 75 each. 75 do 33 do 10 do 62 do 1 25 do 5 per pound. 2 00 each. 33 do 4 00 per set. 5 per pound. 13 00 per box. 11 per gross. 24 do 22 do 15 do 19 do 20 do 86 do 50 do 13 do 13 do 18 do 1 25 do 18 do	Charlestown.

5 gross $\frac{3}{8}$ -inch.....do.....	22	do
10 gross $\frac{3}{8}$ -inch....do.....	24	do
5 gross $\frac{1}{2}$ -inch....do.....	31	do
5 gross $\frac{1}{2}$ -inch....do.....	46	do
5 gross $\frac{1}{2}$ -inch....do.....	35	do
5 gross $\frac{1}{2}$ -inch....do.....	75	do
5 gross $\frac{1}{2}$ -inch....do.....	1 00	do
5 gross $\frac{1}{2}$ -inch....do.....	3 50	do
5 gross 2-inch.....do.....	2 50	each.
2 jack screws.....		
1,000 pounds 4-pound sheet lead.....	5 $\frac{1}{2}$	per pound.
2,000 pounds 6-pound....do.....	3 $\frac{1}{2}$	do
6 bucket shaves.....	50	each.
6 spoke shaves.....	42	do
6 can shaves.....	1 00	do
6 in shaves.....	1 00	do
6 iron squares.....	50	do
6 try squares.....	50	do
6 brass squares.....	1 00	do
6 bread shovels.....	60	do
4 screw plates and taps.....	9 00	do
4 screw plates and taps, small.....	2 75	do
12 hand saws.....	50	do
3 pit saws.....	5 00	do
3 cross-cut saws.....	3 50	do
6 wood saws.....	1 00	do
6 sash saws.....	1 00	do
6 panel saws.....	1 25	do
6 compass saws.....	25	do
6 keyhole saws.....	33	do
6 pad saws.....	37	do
6 tennon saws.....	1 25	do
6 dovetail saws.....	1 00	do
6 sawsets.....	10	do
6 sets shovel and tongs.....	1 25	per set.
100,000 copper tacks.....	35	per M.
100,000 iron tacks.....	8	do
100,000 tinned tacks.....	5	do
3,000 pounds Banca tin.....	10	per pound.
24 sail rubbers.....	8	each.

LIST OF CONTRACTS—Continued.

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Date.	Expiration.	Name of contractor.	Articles.	Rates.	Navy-yard where deliverable.
1852. June 28	1853. June 30	Horton, Hall, & Co.—Cont'd.	400 pounds iron sheathing nails 200 pounds 8-penny finishing nails 6 coopers' vices..... 2 large bench vices..... 2 small bench vices..... 6 hand vices..... 4 sets iron weights, 1 to 4 pounds 6 sets iron weights, 4 to 28 do..... 4 sets zinc weights..... 150 pounds brass wire..... 100 pounds copper wire..... 200 pounds iron wire..... 100 pounds steel wire..... 500 pounds pig zinc..... 500 pounds sheet zinc..... 2,000 pounds 1½-inch composition sheathing nails..... 1,000 pounds 1½-inch do..... 500 pounds ¾-inch do..... 200 pounds 1-inch do..... 500 pounds 1-inch composition boat nails..... 10 dozen hickory brooms..... 10 dozen corn brooms..... 5 dozen whitewash brushes..... 5 dozen paint brushes..... 5 dozen sash tool brushes..... 5 dozen camels' hair brushes..... 10 dozen scrubbing brushes..... 2 dozen short-handled tar brushes..... 2 dozen long-handled tar brushes..... dozen dusting brushes.....	\$0 2¼ per pound.. 2¼ do 50 each. 6 00 do 3 00 do 50 do 1 00 per set. 50 do 1 00 do 26 per pound. 13 do 9 do 33 do 5 do 3 do 20 do 18 do 17½ do 18 do 10 do 2 00 per dozen. 2 50 do 12 00 do 7 00 do 1 75 do 25 do 3 00 do 30 do 40 do 30 do	Charlestown.

H. Doc. 1.

2 dozen varnish brushes.....	1 00	do
2 dozen rolls worsted binding.....	1 25	do
15 pieces blue bunting, 18 inches wide, 40 yards long.....	6 50	per piece.
10.....do.....13.....do.....do.....	1 25	do
5.....do.....9.....do.....do.....	1 25	do
5.....do.....6.....do.....do.....	1 00	do
15 pieces scarlet bunting, 18.....do.....do.....	7 00	do
10 pieces.....do.....13.....do.....do.....	4 75	do
5.....do.....9.....do.....do.....	4 00	do
5.....do.....6.....do.....do.....	1 00	do
15 pieces white bunting, 18.....do.....do.....	6 50	do
10.....do.....13.....do.....do.....	1 25	do
5.....do.....9.....do.....do.....	1 50	do
5.....do.....6.....do.....do.....	1 00	do
3 pieces yellow bunting, 18.....do.....do.....	1 00	do
2 pieces green bunting, 18.....do.....do.....	1 00	do
300 pounds cotton batting.....	5	per pound.
300 Bath bricks.....	1	each.
10 earthen bowls.....	3 50	do
10 silver calls.....	4 00	do
60 yards bleached cotton.....	10	per yard.
25 yards black broadcloth.....	1 00	do
60 yards fearnought.....	20	do
200 pounds China glue.....	5	per pound.
3 sets truss hooks.....	8 00	per set.
10 dozen mast hoops, 1,500 inches.....	2 $\frac{1}{2}$	per inch.
10,000 pounds ox hides.....	6 $\frac{1}{2}$	per pound.
100 feet 2 $\frac{1}{2}$ -inch leathern hose.....	65	per foot.
36 feet 2-inch suction hose.....	1 00	do
36 feet 3-inch.....do.....	50	do
1,800 pounds rigging leather.....	6	per pound.
400 pounds pump leather.....	20	do
140 pounds bellows leather.....	38	do
200 pounds hose leather.....	10	do
50 pounds lampwick yarn.....	10	do
20 gross lampwick.....	15	per gross.
20 life-preservers.....	2 50	each.
5 tape lines.....	3 00	do
50 fishing lines.....	3	do

LIST OF CONTRACTS—Continued.

Date	Expiration.	Name of contractor.	Articles.	Rates.	Navy-yard where deliverable.
1852. June 28	1853. June 30	Horton, Hall, & Co.—Cont'd	10 barrels lime..... 40 gallons neatsfoot oil..... 40 gallons tar oil..... 80 gallons whale oil..... 2 dozen mounted palms, roping..... 2 dozen mounted palms, seaming..... 50 pounds potash..... 5 oilstones..... 5 grindstones (500 pounds)..... 3 paint stones and mullers..... 700 pounds No. 1 extra soap..... 100 pounds Castile soap..... 20 pounds pulverized soapstone..... 20 pounds shoe-thread..... 30 pounds blue, white, and red thread..... 25 pounds seine twine..... 50 pounds whipping twine..... 50 pounds flax sewing twine..... 200 pounds cotton twine..... 600 pounds tallow..... 100 dozen Russia mats..... 400 barrels Suffolk tar..... 20 barrels rosin..... 20 barrels pitch..... 10 barrels turpentine..... 100 pounds yellow beeswax..... 50 pounds mop-yarn..... 1,000 sheets mica..... 1 cotton seine and bag, 40 fathoms..... 1 .....do.....do.....60 fathoms.....	\$1 00 per barrel . 20 per gallon. 50 do 80 do 7 80 per dozen. 7 80 do 10 per pound. 20 each. 3 per pound. 50 each. 6½ per pound. 17 do 1 do 12 do 85 do 10 do 10 do 30 do 10 do 10 do 1 50 per dozen. 2 00 per barrel. 1 50 do 2 00 do 3 50 do 40 per pound. 10 do 2 per sheet. 10 00 20 00	Charlestown.

June 28

June 30

R. Sands Tucker.....

20,000 pounds pure dry white lead.....
 5,000 pounds lampblack.....
 5,000 pounds whiting.....
 2,000 pounds Paris white.....
 3,000 pounds dry red lead.....
 1,000 pounds litharge.....
 30 pounds Chinese vermilion.....
 150 pounds chrome green.....
 30 pounds ultramarine blue.....
 1,000 pounds French yellow ochre.....
 500 pounds Venetian red.....
 150 pounds Turkey umber.....
 150 pounds gum shellac.....
 100 pounds cake pumice stone.....
 25 pounds terra de senna.....
 225 pounds India gum copal.....
 1,000 gallons raw Dutch linseed oil.....
 600 gallons spirits turpentine.....
 30 gallons alcohol.....
 12 pounds Chinese blue.....
 25 pounds rotten stone.....
 12 pounds chrome yellow.....
 500 lights, 6 by 8, double thick Redford glass.....
 500 .do. 7 by 9, .do. .do.....
 600 .do. 8 by 10, .do. .do.....
 600 .do. 10 by 14, .do. .do.....
 300 .do. 10 by 20, .do. .do.....
 300 .do. 16 by 20, .do. .do.....
 100 .do. 18 by 24, .do. .do.....
 50 tons Manilla hemp.....
 100 corn brooms.....
 100 hickory brooms.....
 100 whitewash brushes.....
 12 dusting brushes.....
 12 Turkey oilstones.....
 12 log slates.....
 12 dozen spools cotton.....
 50 yards fearnought.....
 400 sheets best lantern horn.....

6 per pound.
 5 do
 $\frac{3}{4}$ do
 $\frac{1}{2}$ do
 6 do
 3 do
 25 do
 25 do
 10 do
 $1\frac{1}{2}$ do
 $\frac{3}{4}$ do
 3 do
 16 do
 5 do
 8 do
 8 do
 70 per gallon.
 43 do
 75 do
 20 per pound.
 6 do
 25 do
 4 per light.
 6 do
 8 do
 10 do
 15 do
 18 do
 30 do
 234 88 per ton.
 21 each.....
 10 do
 50 do
 50 do
 2 00 do
 1 25 do
 62 $\frac{1}{2}$ per dozen.
 1 00 per yard.
 8 per sheet.

Pensacola.

LIST OF CONTRACTS—Continued

Date.	Expiration.	Name of contractor.	Articles.	Rates.	Navy-yard where deliverable.
1852. June 28	1853. June 30	R. Sands Tucker.....	20 pieces red bunting.....	\$5 50 per piece..	Pensacola.
			20 pieces white bunting.....	6 25 do	
			500 pounds hemp wiping stuff.....	9 per pound.	
			10 pounds white thread.....	1 00 do	
			10 pounds red thread.....	1 10 do	
June 29	June 30	S. G. Bogert.....	1,300 pounds milled sheet lead.....	6 per pound..	Washington.
			2 boxes XX tin.....	13 00 per box.	
			1,000 pounds best English or East India tin.....	21 per pound.	
			100 glasses for deck lights.....	2 00 per glass.	
			20.....do.....do.....	5 00 do	
			10,083 pounds cold-rolled sheathing copper.....	23 per pound..	Pensacola.
			780 pounds braziers' copper.....	26 do	
			4,500 pounds square and round copper.....	26 do	
			12 tin funnels.....	25 each.	
			12 carpenters' hatchets.....	75 do	
			12 glass globe lanterns.....	1 50 do	
			12 tin lamp-feeders.....	75 do	
			6 smoothing-planes.....	75 do	
			6 jointer-planes.....	1 00 do	
			6 jack-planes.....	1 00 do	
			6 lamp-scissors.....	50 do	
			6 hand-vices.....	1 00 do	
			6 6-inch iron rim knob locks.....	1 00 do	
			12 brass mortise locks.....	1 00 do	
			12 brass cupboard locks.....	50 do	
			24 brass padlocks.....	1 00 do	
			6 4½-inch dead locks.....	1 00 do	
			24 brass drawer locks.....	25 do	
			24 brass sash-pullies.....	10 do	
			60 iron shovels.....	1 00 do	

10 M 6-ounce copper tacks	15	per M.
20 M 8-ounce do	20	do
20 M 10-ounce do	25	do
20 M 12-ounce do	30	do
20 M 14-ounce do	35	do
20 M 16-ounce do	40	do
10 M 1 $\frac{1}{4}$ -inch do	50	do
20 M 8-ounce iron tacks	6	do
20 M 10-ounce do	8	do
20 M 12-ounce do	10	do
20 M 14-ounce do	12	do
20 M 16-ounce do	15	do
6 large tin bread-scales	1 50	each.
3 tin gallon measures	1 00	do
3 tin half-gallon measures	1 00	do
3 tin quart measures	75	do
3 tin pint measures	50	do
10 M $\frac{3}{4}$ -inch sprigs	25	per M.
20 M 1-inch sprigs	35	do
10 M 1 $\frac{1}{4}$ -inch sprigs	45	do
20 pounds 1-16th-inch copper wire	40	per pound.
20 pounds 1-32-inch copper wire	40	do
10 pounds No. 12 copper wire	40	do
50 pounds iron wire	10	do
2,500 pounds sheet lead	6	do
50 feet 1-inch lead pipe	20	per foot
50 feet $\frac{3}{4}$ -inch lead pipe	15	do
200 pounds best Banca block tin	22	per pound.
200 sheets XXX tin	30	per sheet.
1,800 pounds 1 $\frac{1}{4}$ -inch composition sheathing nails	22	per pound.
100 pounds 8d. copper-cut nails	28	do
100 pounds 10d. copper-cut nails	28	do
50 pounds 4d. iron finishing nails	10	do
100 pounds 5d. iron finishing nails	10	do
100 pounds 6d. iron finishing nails	10	do
1,000 pounds pure white lead	7	do
150 pounds green paint	28	do
1,000 pounds red lead	6	do
10 gallons spirits of wine	1 00	per gallon.

LIST OF CONTRACTS—Continued.

Date.	Expiration.	Name of contractor.	Articles.	Rates.	Navy-yard where deliverable.
1852. June 29	185 3. June 30	S. G. Bogert—Continued	100 gallons spirits of turpentine	\$0 50 per gallon..	Pensacola.
			10 gallons Japan varnish	1 00 do	
June 29	June 30	John P. Wetherell, jr.	200 feet double-thick 12 by 16 glass	12 per foot.	
June 29	June 30	Robert Todd	100 cords mixed oak wood	7 30 per cord...	Charlestown.
June 29	June 30	Störer & Stephenson	3 carpenters' adzes, handled	50 each	Brooklyn.
			1 carpenters' hollow-adze, handled	50 do	
			6 coopers' adzes, handled	2 00 do	
			12 carpenters' broadaxes, handled	5 00 do	
			4 coopers' broadaxes, handled	3 00 do	
			60 cast steel wood axes, handled	2 00 do	
			120 brad awls, assorted	4 do	
			50 shoe awls, assorted	4 do	
			180 pounds anti-attribution metal	36 per pound.	
			6 carpenters' braces (48 bits)	5 00 each.	
			4 iron braces (20 bits)	5 00 do	
			6 carpenters' bevils, steel-tongued	50 do	
			25 Bristol bricks	5 do	
			200 fire bricks	5 do	
			300 10-inch cylinder bricks	1 do	
			300 13-inch cylinder bricks	1 do	
			300 14-inch cylinder bricks	1 do	
			300 16-inch cylinder bricks	1 do	
			100 dozen corn brooms	3 00 per dozen.	
			75 dozen hickory brooms	1 50 do	
			42 pounds brass, No. 7	25 per pound.	
			144 pounds brass, No. 12	25 do	
			132 pounds brass, No. 22	25 do	
			12 bells and fixtures	2 00 each.	
			8 dozen 2-inch brass plate buttons	2 00 per dozen.	
			4 dozen 1½-inch brass plate buttons	1 50 do	

4 dozen 1½-inch brass plate buttons.....	1 00	do
180 pounds iron borings.....	2	per pound.
6 bung borers.....	2	each.
6 tap borers.....	2	do
3 dozen 4-inch brass flush bolts.....	2 00	per dozen.
2 dozen 9-8 lip-plugging bitts.....	3 00	do
1 dozen 8-8 lip-plugging bitts.....	5 00	do
20 pieces worsted binding.....	5	per piece.
24 scale beams, 24 inches.....	2 50	each.
24 scale beams, 22 inches.....	2 00	do
24 scale beams, 18 inches.....	75	do
24 carpenters' compasses.....	20	do
60 firmer chisels.....	10	do
48 socket chisels.....	2 00	do
240 yards iron jack chain.....	20	per yard.
120 yards brass jack chain.....	10	do
30 dozen candlestick slides.....	25	per dozen.
5 dozen 1½-inch brass fixed-wheel table castors.....	10	do
6 yards black cloth.....	2 50	per yard.
30 yards hair cloth, 24 inches wide.....	2 50	do
50 yards hair cloth, 30 inches wide.....	1 50	do
700 pounds white chalk.....	1	per pound.
5 pounds French chalk.....	10	do
5 pounds red chalk.....	10	do
6 brass bibb-cocks, ¾ inch.....	10	each.
6 brass bibb-cocks, ½ inch.....	10	do
6 brass bibb-cocks, 1 inch.....	10	do
24 oil-can cocks.....	3 00	do
6 stop-cocks.....	7 00	do
3 mast callipers.....	2 00	do
6 coopers' compasses.....	50	do
6 coopers' crow's.....	10	do
50 halter chains.....	1 40	do
3 glaziers' diamonds.....	10	do
3 brass dividers.....	1 00	do
6 dozen brass eyes.....	25	per dozen.
3 coopers' frows.....	10	each.
5 dozen brass table-fastenings.....	3 00	per dozen.
1 dozen 14-inch half-round smooth files.....	5 00	do

LIST OF CONTRACTS—Continued

Date.	Expiration.	Name of contractor.	Articles.	Rates.	Navy yard where deliverable
1852. June 29.	1853. June 30.	Storer & Stephenson—Continued.	1 dozen 12-inch half-round smooth files..... 1 dozen 10-inch do 2 dozen 14-inch fine flat files..... 2 dozen 12-inch do 2 dozen 10-inch do 2 dozen 8-inch do 2 dozen 14-inch flat bastard files..... 2 dozen 12-inch do 2 dozen 10-inch do 2 dozen 8-inch do 2 dozen 14-inch half-round bastard files..... 2 dozen 12-inch do 2 dozen 10-inch do 2 dozen 8-inch do 2 dozen 10-inch round files..... 2 dozen 8-inch do 2 dozen 6-inch do 2 dozen 5-inch do 2 dozen 4-inch do 2 dozen 3-inch do 2 dozen 8-inch square files..... 2 dozen 6-inch do 3 dozen 8-inch taper saw files..... 6 dozen 7-inch do 6 dozen 6-inch do 4 dozen 5-inch do 4 dozen 4-inch do 4 dozen 3-inch do 2 dozen 14-inch wood rasps..... 8 drop grates for 10-inch cylinders.....	\$5 00 per dozen.. 3 00 do 5 00 do 5 00 do 3 00 do 3 00 do 5 00 do 5 00 do 3 00 do 3 00 do 6 00 do 5 00 do 4 00 do 3 00 do 3 00 do 2 00 do 2 00 do 2 00 do 2 00 do 1 00 do 1 00 do 2 00 do 2 00 do 3 00 do 2 00 do 2 00 do 1 00 do 1 00 do 1 00 do 5 00 do 50 each.	Brooklyn.

8.....do.....13.....do.....	50	do
8.....do.....14.....do.....	50	do
8.....do.....15.....do.....	50	do
60 square grates.....	50	do
150 pounds Cooper's best glue.....	40	per pound.
8 60-pound sand glasses.....	1 00	each.
4 30-pound.....do.....	1 00	do
6 dozen nail gimlets.....	1 00	per dozen.
3 dozen spike gimlets.....	2 00	do
4 dozen firmer gouges.....	10	do
3 dozen socket gouges.....	19 00	do
1 dozen carpenters' gouges.....	2 00	do
1 dozen rivet hammers.....	5 00	do
10 dozen claw hammers.....	6 00	do
1 dozen coppering hammers.....	10 00	do
1 dozen screw wrench hammers.....	1 00	do
6 dozen hatchets.....	20 00	do
12 dozen brass cabin hooks.....	2 50	do
2 dozen brass lamp hooks.....	1 00	do
20 sets brass secretary hinges.....	5	per set.
2 dozen coopers' hammers.....	5 00	per dozen.
2 dozen iron chest handles.....	1 00	do
3 dozen pairs 2½-inch brass butt hinges.....	1 00	do
8 dozen pairs 2½ by 2½-inch brass butt hinges.....	4 00	do
8 dozen pairs 3 by 3-inch.....do.....	50	do
8 dozen pairs 4½-inch.....do.....	10 00	do
2 dozen pairs 3 by 3-inch iron butt hinges.....	3 00	do
2 dozen pairs 4½-inch.....do.....	2 00	do
800 feet leather hose.....	85	per foot.
150 feet suction hose.....	5 00	do
6 coopers' marking irons.....	50	each.
6 coopers' beck irons.....	1 00	do
2 dozen shoemakers' knives.....	3 00	per dozen.
3 dozen sailmakers' knives.....	3 00	do
½ dozen drawing knives.....	2 00	do
1 dozen putty knives.....	2 00	do
1 dozen butchers' knives.....	5 00	do
1 dozen cheese knives.....	5 00	do
½ dozen pallet knives.....	6 00	do

LIST OF CONTRACTS—Continued.

Date.	Expiration.	Name of contractor.	Articles.	Rates.	Navy yard where deliverable.
1862. June 29	1853. June 30	Storer & Stephenson—Continued.	6 glue kettles, copper..... 3 pitch kettles, iron..... 20 dozen $\frac{3}{4}$ -inch brass shutter knobs..... 10 dozen $\frac{3}{4}$ -inch brass knobs..... 12 dozen blank composition door-lock keys..... 12 dozen blank iron..... do..... 12 dozen blank cupboard keys..... 12 dozen blank drawer keys..... 18 dozen black walnut knobs..... 6 dozen $2\frac{1}{4}$ -inch iron drawer locks..... 6 dozen 3-inch..... do..... 6 dozen $3\frac{1}{2}$ -inch brass cupboard locks..... 6 dozen $\frac{3}{4}$ -inch..... do..... 7 dozen $3\frac{1}{2}$ inch iron chest locks..... 12 dozen $2\frac{1}{4}$ -inch iron padlocks..... 12 dozen 3-inch..... do..... 6 dozen 3-inch brass padlocks..... 4 dozen $4\frac{1}{2}$ -inch mortise locks..... 2 dozen 6-inch iron dead locks..... 6 tape lines of 100 feet..... 6..... do..... 50 feet..... 3 dozen chalk lines..... 50 pounds British lustre..... 12 gross waven lamp wicks..... 50 pounds lamp-wick yarn..... 12 solar lamps and reflectors..... 12 lamp chimneys..... 2 turning lathes and tools..... 2,500 sewing needles..... 6,000 pounds pressed spikes.....	\$3 00 per dozen. 2 00 do 50 do 50 do 3 00 do 2 50 do 2 00 do 2 00 do 20 do 10 do 10 do 6 00 do 6 00 do 3 00 do 3 50 do 5 00 do 10 00 do 1 00 do 24 00 do 3 00 each. 2 00 do 50 per dozen. 10 per pound. 1 00 per gross. 15 per pound. 7 50 each. 10 do 50 00 do 4 per 100. 4 per pound.	Brooklyn.

100 pounds 20-penny wrought iron boat nails.....	9	do
200 pounds 12-penny..... do.....	10	do
200 pounds 10-penny..... do.....	7	do
200 pounds 8-penny..... do.....	10	do
300 pounds 6-penny..... do.....	8	do
300 pounds 4-penny..... do.....	10	do
300 pounds 8-penny..... do.....	10	do
300 pounds 10-penny..... do.....	10	do
300 pounds 12-penny..... do.....	10	do
50 pounds 1½-inch wrought iron clout nails.....	20	do
200 pounds 1-inch..... do.....	10	do
50 pounds ¾-inch..... do.....	20	do
300 pounds 30-penny iron cut nails.....	5	do
600 pounds 20-penny..... do.....	5	do
1,000 pounds 12-penny..... do.....	4½	do
1,000 pounds 10-penny..... do.....	4½	do
1,000 pounds 8-penny..... do.....	4½	do
600 pounds 6-penny..... do.....	5	do
200 pounds 4-penny..... do.....	5	do
100 pounds 3-penny..... do.....	6	do
50 pounds scupper nails.....	20	do
40 pounds 1½-inch finishing nails.....	10	do
60 pounds 1½-inch finishing nails.....	10	do
30,000 8-ounce iron cut tacks.....	10	per M.
40,000 10-ounce..... do.....	10	do
20,000 12-ounce..... do.....	10	do
20,000 ¾-ounce cut copper tacks.....	40	do
80,000 ¾-ounce..... do.....	40	do
5,000 ¾-ounce wrought copper tacks.....	20	do
5,000 ¾-ounce..... do.....	20	do
5,000 ½-ounce..... do.....	20	do
10,000 ¾-ounce iron cut brads.....	10	do
20,000 ¾-ounce..... do.....	10	do
10,000 1½-ounce..... do.....	10	do
5,000 1½-ounce..... do.....	20	do
300 pounds 20-penny copper cut nails.....	30	per pound.
300 pounds 12-penny..... do.....	30	do
200 pounds 10-penny..... do.....	35	do
400 pounds 8-penny..... do.....	30	do

LIST OF CONTRACTS—Continued.

422

Date.	Expiration.	Name of contractor.	Articles.	Rates.	Navy yard where deliverable.
1852. June 29	1853. June 30	Storer & Stephenson—Continued.	100 pounds 6-penny copper cut nails 200 pounds 5-penny do 100 pounds 4-penny do 12 smoothing planes 6 rabbet planes 6 long-jointer planes 12 short-jointer planes 12 jack planes 6 plough planes and bits 6 astrigal planes 3 pairs match planes 4 block coopers' planes 2 belt punches 24 carpenters' pincers 12 carpenters' plyers 1 ream sand-paper 4 reams emery-paper 1 dozen brass curtain pins 2,000 1½-inch iron sheave rivets 2,000 1¼-inch do 2,000 1⅜-inch do 2,000 2¼-inch do 30,000 American iron coopers' rivets 200 pounds copper rivets 50 pounds boat rivets 100 pounds prepared copper rivets for oil-tanks 6 pounds copper rivets and burrs for belts 2,000 iron-tinned rivets 10,000 iron blacked rivets 1,000 iron truss hoop-rivets	\$0 40 per pound... 30 do 10 do 1 00 each. 1 00 do 1 50 do 1 50 do 1 00 do 3 00 do 1 00 do 1 00 do 1 00 do 50 do 25 do 25 do 2 00 per ream. 5 00 do 3 00 per dozen. 3 00 per M. 3 00 do 4 00 do 5 00 do 1 50 do 50 per pound. 50 do 50 do 50 do 50 per M. 50 do 1 00 do	Brooklyn.

H. Doc. 1.

40 dozen brass curtain rings	5 per dozen.
3 dozen 2-foot rules	6 00 do
1 dozen gauging rods	5 00 do
1 dozen 1-inch brass screw rings	1 00 do
10 gross $\frac{5}{8}$ -inch iron screws, assorted numbers	5 per gross.
10 gross $\frac{3}{4}$ -inch	10 do
10 gross 1-inch	5 do
10 gross $1\frac{1}{4}$ -inch	10 do
10 gross $1\frac{1}{2}$ -inch	5 do
10 gross $1\frac{3}{4}$ -inch	10 do
10 gross 2-inch	5 do
5 gross $2\frac{1}{4}$ -inch	20 do
5 gross $2\frac{1}{2}$ -inch	20 do
5 gross $2\frac{3}{4}$ -inch	20 do
30 gross 3-inch	1 00 do
6 gross $3\frac{1}{2}$ -inch	2 00 do
6 gross 4-inch	2 00 do
5 gross $\frac{3}{4}$ -inch brass screws	20 do
5 gross 1-inch	20 do
5 gross $1\frac{1}{4}$ -inch	20 do
5 gross $1\frac{1}{2}$ -inch	20 do
5 gross $1\frac{3}{4}$ -inch	20 do
5 gross 2-inch	20 do
5 gross $2\frac{1}{4}$ -inch	20 do
5 gross $2\frac{1}{2}$ -inch	20 do
5 gross $2\frac{3}{4}$ -inch	20 do
10 gross 3-inch	5 00 do
30 gross lamp screws	50 do
6 gross lamp screws, small	25 do
10 gross lamp-filling screws	20 do
$\frac{1}{2}$ gross scissors, for trimming lamps	3 00 do
1 gross Gunter's scales	10 00 do
40 pounds spelter solder	30 per pound.
200 pounds soft solder	1 do
2 dozen sash springs	10 per dozen.
2 dozen c. s. shovels	10 00 do
6 dozen c. s. coal shovels	22 00 do
4 dozen c. s. spades	9 00 do
1 dozen bread shovels	6 00 do

LIST OF CONTRACTS—Continued.

424

Date.	Expiration.	Name of contractor.	Articles.	Rates.	Navy yard where deliverable.
1852. June 29	1853. June 30	Storer & Stephenson—Continued.	1 dozen steelyards..... ½ dozen patent balances..... 2 spring balances..... 12 screwdrivers..... 24 hand saws..... 4 whip saws..... 6 crosscut saws..... 12 wood saws and frames..... 6 sash saws..... 6 panel saws..... 6 compass saws..... 6 keyhole saws and pads..... 12 tennon saws..... 6 dovetail saws..... 6 jackscrews..... 12 spokeshaves..... 6 Turkey oil-stones..... 6 grindstones..... 6 trying squares..... 12 C. S. squares..... 12 saw sets..... 4 sailmakers' brass squares..... 12 bread sieves..... 12 butchers' steels..... 1,000 pounds best cast steel..... 500 pounds German steel..... 500 pounds blister steel..... 60 pounds linen thread..... 50 pounds shoe thread..... 4 bench vices.....	\$24 00 per dozen .. 60 00 do 3 00 each. 10 do 2 00 do 50 do 2 00 do 1 00 do 1 00 do 1 00 do 1 00 do 50 do 1 50 do 1 00 do 25 00 do 75 do 10 do 3 00 do 50 do 50 do 50 do 1 00 do 50 do 25 do 17 per pound. 14 do 10 do 1 00 do 60 do 10 00 each.	Brooklyn.

H. Doc. 1.

4 hand vices	1 00	do
4 coopers' vices	1 00	do
50 pounds $\frac{1}{4}$ -inch copper wire	40	per pound.
15 pounds small wire for bells	60	do
120 pounds $\frac{1}{4}$ -inch brass wire	25	do
50 pounds No. 1.....do.....	25	do
50 pounds No. 2.....do.....	25	do
150 pounds No. 8 iron wire	6	do
100 pounds No. 10.....do.....	7	do
100 pounds No. 12.....do.....	3	do
100 pounds No. 14.....do.....	8	do
12 sets lead weights, 1 ounce to 1 pound	60	per set.
12 sets iron weights, 1 pound to 28 pounds	2 00	do
46 sets black walnut chair trimmings	50	do
12 pounds cane seating	50	per pound.
3 pounds cane binding	50	do
100 yards white figured curtain muslin	20	per yard.
450 yards black muslin	10	do
12 sets cornice ornaments	6 00	per set.
100 pounds pure curled hair	35	per pound.
25 spools sewing cotton	3	per spool.
5 gross worsted frogs for sofas	20	per gross.
5 pounds worsted yarn	2 00	per pound.
40 yards green baize	50	per yard.
10 yards satinett	1 00	do
900 yards best quality white muslin	10	do
20 woolen table covers	5 00	each.
20 hanging lamps	10 00	do
5 sets best dish covers, 12 in a set	10 00	per set.
7 sets.....do.....8.....do.....	15 00	do
8 sets.....do.....6.....do.....	5 00	do
30 gridirons	90	each.
20 griddles	1 00	do
50 iron teakettles	80	do
15 fish kettles, with strainers	1 20	do
20 iron ladles for cooks	1 25	do
50 frying pans, assorted	1 00	do
100 stew pans	50	do
20 iron pots for camp kettles	2 50	do

LIST OF CONTRACTS—Continued.

Date.	Expiration.	Name of contractor.	Articles.	Rates.	Navy yard where deliverable.
1852. June 29	1853. June 30	Storer & Stephenson—Continued.	12 shovel, tongs, and pokers	\$1 00 each.....	Brooklyn.
			20 waffle irons	1 00 do	
			5 sides rigging leather.....	3 00 per side....	Philadelphia.
			14 sides bellows leather	2 50 do	
			361 pounds sewing twine	40 per pound.	
			25 pounds whipping twine	25 do	
			311 pounds flax twine	1 do	
			90 pounds cotton twine.....	30 do	
			80 pounds beeswax	30 do	
			240 pounds tallow	10 do	
			150 iron thimbles	2 00 per hundred.	
			42 iron clews	5 each.	
			1 barrel oil of tar	16 00 per barrel.	Brooklyn.
			12 barrels tar	2 50 do	
			5,000 pounds sheet lead	5½ per pound..	
			1,600 pounds..... do	6 do	
			1,500 pounds medium lead pipe.....	6 do	
			1,400 pounds..... do..... do.....	6 do	
			1,800 pounds..... do..... do.....	6 do	
			10,000 pounds New Orleans pig lead	5 do	
			1,000 pounds India tin	20 do	
			5 boxes I. C. tin	2 00 per box.	
			5 boxes I. X. tin	2 00 do	
			16 boxes S. D. X. tin	20 00 do	
			10 boxes D. X. X. tin.....	14 00 do	
		6,000 pounds 1½-inch composition sheathing nails	24 per pound.		
		600 pounds ¾-inch..... do..... do	5 do		
		100 pounds 1-inch..... do..... do	18 do		
		250 pounds 1-inch composition boat spikes.....	5 do		
		250 pounds 2-inch..... do..... do	5 do		

250 pounds 2½-inch.....do.....do.....	5	do
250 pounds 2½-inch.....do.....do.....	3	do
100 pounds 2-inch composition stem-lead spikes.....	18	do
18 magazine lenses, various sizes.....	6 00	each.
24 lights plate glass.....	75	do
50 glass globe lanterns and lamps.....	2 00	do
48 deck lights, various sizes.....	1 00	do
500 feet Redford crown glass, various sizes.....	15	per foot.
500 feet.....do.....do.....do.....	20	do
100 feet.....do.....do.....14 by 20.....	30	do
27 lights plate glass for lanterns.....	2 00	each.
9 red lights plate glass for lanterns.....	1 00	do
9 green lights plate glass for lanterns.....	1 00	do
12 circular lense plate glass.....	3 00	do
200 cords young hickory wood.....	9 30	per cord.
200 cords young oak wood.....	4 00	do
300 sides best bellows leather.....	3 00	per side.
500 sides best rigging leather.....	2 00	do
1,500 pounds best tanned pump leather.....	24	per pound.
1,250 pounds best tanned sole leather.....	2	do
100 pounds best heavy oiled pump leather.....	20	do
4 sides best belt leather.....	5 00	per side.
2 sides best lacing leather.....	1 00	do
25 dozen extra whitewash brushes.....	15 00	per dozen.
6 dozen long-handled tar brushes.....	3 00	do
6 dozen short-handled tar brushes.....	2 00	do
2 dozen varnish brushes.....	5 00	do
2 dozen painters' dusting brushes.....	5 00	do
2 dozen hand brushes.....	5 00	do
10 dozen 000000 paint brushes.....	12 00	do
6 dozen 0000.....do.....	7 00	do
6 dozen 000.....do.....	6 00	do
3 dozen 00.....do.....	5 00	do
6 dozen No. 6 sash tools.....	2 00	do
12 dozen clamp scrub brushes.....	3 50	do
12 dozen hand brushes.....	2 50	do
12 dozen camel's hair brushes.....	30	do
6 flue brushes.....	1 00	each.
4 pounds best Russia bristles.....	1 00	per pound.

LIST OF CONTRACTS—Continued.

Date.	Expiration.	Name of contractor.	Articles.	Rates.	Navy yard where deliverable.
1852. June 29.	1853. June 30.	Storer & Stephenson—Continued.	20 pounds sal amoniac 20 pounds refined borax..... 6,000 yards twilled bagging..... 6,500 yards flax bagging..... 700 pounds beeswax..... 50 coal baskets 50 pieces 18-inch scarlet bunting..... 30 pieces 12-inch..... do..... 30 pieces 9-inch..... do..... 15 pieces 4½-inch..... do..... 50 pieces 18-inch white bunting..... 30 pieces 12-inch..... do..... 30 pieces 9-inch..... do..... 15 pieces 4½-inch..... do..... 50 pieces 18-inch blue bunting..... 20 pieces 12-inch..... do..... 20 pieces 9-inch..... do..... 10 pieces 18-inch green bunting..... 20 pieces 18-inch yellow bunting..... 20 silver calls..... 2,400 pounds ¾-inch short link proof-chain..... 1,100 pounds 5-16-inch..... do..... 1,000 pounds 4-16-inch..... do..... 900 pounds 3-16-inch..... do..... 12 water-closet bowls and fixtures..... 1,000 pounds spun cotton..... 250 pounds ball cotton..... 4 bushels fire clay..... 200 pounds packing cotton..... 30 bolts ravens duck, light.....	\$0 10 per pound. 20 do 21 per yard. 26 do 27 do 1 00 each. 4 00 per piece. 5 00 do 4 00 do 3 00 do 4 00 do 5 00 do 4 00 do 3 00 do 6 00 do 5 00 do 3 00 do 6 00 do 6 00 do 3 00 each. 1 per pound. 6 do 7 do 8 do 10 00 per set. 1 per pound. 12½ do 1 00 per bushel. 15 per pound. 6 50 per bolt.	Brooklyn.

5 bolts Russia canvass	2 00	do
70 pounds emery	10	per pound.
50 yards fearnought	2	per yard.
200 yards filtering, for boilers	50	do
100 pounds gum elastic packing	1 00	per pound.
600 sheets large middle horn	8	per sheet.
3,000 inches mast hoops	1½	per inch.
300 fish hooks, assorted	3 00	per 100.
30 hydrometers	1 00	each.
2,000 pounds houseline	15	per pound.
2,000 pounds hambroline	15	do
2,000 pounds marline	18	do
2,000 pounds roundline	20	do
300 fishing lines	40	do
600 pounds signal halyards	5	do
2,500 pounds deep-sea lines	1	do
1,500 pounds .. do .. 1½ inch	2	do
2,000 pounds coasting lines	1	do
1,000 pounds hand lead lines	2	do
200 log lines	1 00	each.
5 patent logs	25 00.	do
5 patent sounding leads	1 00	do
50 barrels Seely's mountain lime	1 50	per barrel.
150 pounds mercury	80	per pound.
5 pounds mica	10	do
2,000 sail seaming needles	2 00	per 100.
1,000 roping needles	5 00	do
300 gallons tar oil	50	per gallon.
200 gallons whale oil	75	do
20 gallons Florence oil	1 00	do
20 gallons neatsfoot oil	1 00	do
3 paint-stones and mullers	10	each.
50 wood hand-pumps	30	do
250 mounted palms	40	do
100 barrels best quality pitch	2 00	per barrel.
200 pounds potash	10	per pound.
5 M white oak deck-plugs	2 00	per M.
1,000 yellow pine .. do .. 1½ inch	2 00	do
5,000 .. do .. do .. 1 .. do	2 50	do

LIST OF CONTRACTS—Continued.

Date.	Expiration.	Name of contractor.	Articles.	Rates.	Navy yard where deliverable.
1852. June 29.	1853. June 30.	Storer & Stephenson—Continued.	2,000 yellow pine deck-plugs, $\frac{7}{8}$ -inch 1,000 do do do do 25 barrels rosin 50 dozen cast steel ship-scrapers 100 pounds flour of sulphur 250 pounds brown soap 100 pounds pulverized soapstone 3 flax seines 50 barrels best thin tar 100 barrels white turpentine 6,000 pounds beef tallow 12 thermometers 200 pounds thrums 50 glass water-tubes 5 barrels coal tar 3,700 pounds white hemp wiping stuff 2,500 pounds packing yarn 20,000 pounds prime dry white lead 1,000 pounds lampblack 5,000 pounds red lead 500 pounds French ochre 300 pounds chrome green 50 pounds chrome yellow 10 pounds Chinese vermilion 3 pounds Chinese blue 1,000 pounds Spanish brown 2,000 pounds Spanish whiting 5 pounds India red 200 pounds Turkey umber 8 pounds Prussian blue	\$3 00 per M. 2 00 do 1 50 per barrel. 3 50 per dozen. 6 per pound. 5 do 1 do 10 00 each. 2 50 per barrel. 3 50 do 10 per pound. 1 00 each. 25 per pound. 1 00 per tube. 3 00 per barrel. 8 per pound. 15 do 8 do 2 do 7 do 1 do 25 do 18 do 1 50 do 10 do 1 do 1 do 10 do 5 do 60 do	Brooklyn.

200 pounds patent drier.....	10	do
2,500 gallons pure linseed oil.....	40	per gallon.
500 gallons spirits of turpentine.....	40	do
20 gallons Japan varnish.....	10	do
20 gallons harness varnish.....	2	do
6 gallons coach varnish.....	4	do
20 gallons brown japan.....	1	do
10 gallons alcohol.....	1	do
10 pounds rotten stone.....	10	per pound.
10 pounds pumice stone.....	5	do
250 pounds litharge.....	6	do
500 pounds zinc paint.....	10	do
3,000 gallons pure sperm oil.....	1	do per gallon.
8,000 pounds pure sperm candles.....	463	per pound.
7 dozen wood axes.....	12	do per dozen.
1 dozen coopers' adzes.....	24	do
10 dozen sewing awls.....	25	do
10 dozen wire awls.....	25	do
6 dozen patent augers.....	20	do
8 dozen clamp brushes.....	3	do
25 dozen hand scrubbing brushes.....	3	do
4 dozen long-handled tar brushes.....	3	do
4 dozen short-handled tar brushes.....	3	do
20 dozen extra whitewash brushes.....	15	do
2 dozen dusting brushes.....	5	do
10 dozen 0000 paint brushes.....	18	do
10 dozen 0000 paint brushes, coarse ground.....	1	do
6 dozen sash tool brushes.....	2	do
3 dozen camel's hair brushes.....	1	do
46 dozen hickory brooms.....	1	do
50 dozen corn brooms.....	1	do
1 dozen iron braces and bits, (20 bits)	2	do
1 dozen steel-tongued bevels.....	36	do
500 Bath bricks.....	6	do
2 dozen butcher's steels.....	2	each.
20 dozen brass buttons.....	3	do per dozen.
4 dozen firmer chisels.....	1	do
2 dozen silver calls.....	24	do
4 dozen composition bib cocks, assorted.....	15	do

Gosport.

LIST OF CONTRACTS—Continued.

Date.	Expiration.	Name of contractor.	Articles.	Rates.	Navy yard where deliverable.
1852. June 29	1853. June 30	Storer & Stephenson—Continued.	2 dozen spring compasses 30 pounds crocus mortis 11 dozen glass chimneys for lamps 3 sets dies, letters and figures 2 dozen iron dividers 2 dozen hand drills 6 dozen 10-inch half-round files 10 dozen nail gimlets 2 dozen firmer gouges 6 dozen iron grates 4 dozen claw hammers 2 dozen cooper's hammers 25 dozen brass flat hooks and eyes 3 dozen hatchets 300 fishing hooks 2,000 sheets horn 14 dozen brass clothes hooks 250 pairs 3-inch brass butt hinges 200 pairs 1½-inch do 2 dozen shoemaker's knives 3 dozen butcher's knives 2 dozen sail knives 12 dozen table catches 6 dozen fishing lines 2 dozen lamps and reflectors 3 dozen hand lead lines 8 dozen log lines 3 dozen 7-inch iron case locks 64 dozen iron cupboard locks 5 dozen brass drawer locks	\$1 00 per dozen. 4 per pound. 1 00 per dozen. 1 00 per set. 3 00 per dozen. 1 00 do 1 00 do 1 00 do 10 00 do 5 00 do 5 00 do 1 00 do 4 do 20 00 do 2 00 per 100. 8 per sheet. 10 per dozen. 30 00 per 100 p'r 10 00 do 2 00 per dozen. 3 00 do 2 00 do 1 00 do 1 00 do 36 00 do 24 00 do 12 00 do 10 00 do 3 00 do 5 00 do	Gosport.

2 dozen brass padlocks.....	1 00	do
40 dozen iron padlocks.....	4 00	do
4 dozen iron latches.....	1 00	do
10 dozen life-preservers.....	24 00	do
1,400 seaming needles.....	1 50	per 100.
20 papers sewing needles.....	10	per paper.
500 pounds 3-penny iron cut nails.....	4	per pound.
600 pounds 4-penny..... do.....	4	do
1,000 pounds 6-penny..... do.....	4	do
1,200 pounds 8-penny..... do.....	5	do
1,200 pounds 10-penny..... do.....	6	do
1,700 pounds 20-penny..... do.....	4	do
600 pounds 30-penny..... do.....	4	do
200 pounds 6-penny iron wrought nails.....	10	do
200 pounds 8-penny..... do.....	5	do
200 pounds 10-penny..... do.....	10	do
200 pounds 3-penny copper cut nails.....	30	do
500 pounds 4-penny..... do.....	20	do
500 pounds 6-penny..... do.....	30	do
500 pounds 20-penny..... do.....	30	do
300 pounds 30-penny..... do.....	30	do
600 pounds copper cut nails.....	30	do
20,000 pounds 1½-inch clout nails.....	1	do
75,000 scupper nails.....	1 00	per M.
4 dozen roping palms.....	5 00	per dozen.
6 dozen seaming palms.....	10 00	do
3 dozen sail prickers.....	3 00	do
2 dozen smoothing planes.....	10 00	do
1 dozen grooving planes.....	10 00	do
2 dozen jack planes.....	83	each.
10 dozen brass flush rings.....	1 00	per dozen.
2 dozen sail rubbers.....	3 00	do
1 dozen bread sieves.....	6 00	do
2 dozen wooden bread shovels.....	5 00	do
3 dozen iron shovels.....	1 00	do
10 dozen steel scrapers.....	5 00	do
2 dozen handsaws.....	24 00	do
2 dozen compass saws.....	1 00	do
1 dozen key-hole and pad saws.....	1 00	do

LIST OF CONTRACTS—Continued.

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Date.	Expiration.	Name of contractor.	Articles.	Rates.	Navy yard where deliverable.
1852. June 29	1853. June 30	Storer & Stephenson—Continued.	2 dozen hack saws..... 2 dozen iron squares..... 1 dozen oil-stones..... 100,000 1½-inch iron cut sprigs..... 80,000 1-inch iron cut sprigs..... 60,000 ¾-inch iron cut sprigs..... 20,000 ½-inch iron cut sprigs..... 1 dozen small screw plates..... 1 dozen hand shears..... 4 dozen sail stabbers..... 20 pounds sal amoniac..... 200 pounds brass solder..... 376 gross assorted screws, iron..... 277 gross assorted brass screws..... 65,000 1-inch iron sprigs..... 1,000 iron welded thimbles..... 150,000 16-ounce iron cut pump tacks..... 50,000 14-ounce.....do..... 45,000 12-ounce.....do..... 90,000 16-ounce.....do..... 160,000 1-inch copper cut tacks..... 100,000 ¾-inch.....do..... 100,000 ½-inch.....do..... 90,000 ¼-inch.....do..... 1 dozen large tin bread scales..... 1 dozen flat meat scales..... 1 dozen sets zinc weights, 1 ounce to 1 pound..... 1 dozen sets iron weights, 1 ounce to 4 pounds..... 40 gross lamp wick..... 100 pounds lamp wick, spun.....	\$1 00 per dozen. 1 00 do 10 00 do 5 per M. 6 do 7 do 8 do 1 00 per dozen. 1 00 do 3 00 do 10 per pound. 40 do 1 50 per gross. 2 50 do 2 per M. 2 00 per 100. 2 per M. 10 do 10 do 20 do 2 do 40 do 40 do 40 do 1 00 per dozen. 5 00 do 1 00 do 1 00 do 10 per gross. 20 per pound.	Gosport.

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105 pounds copper wire, various numbers.....	50	do
100 pounds brass..... do..... do.....	25	do
235 pounds iron..... do..... do.....	10	do
300 pounds cast steel.....	25	do
2 dozen copper kettles.....	1 00	per dozen.
1 dozen fish kettles.....	17 00	do
3 dozen stewpans.....	10 00	do
2 dozen fryingpans.....	10 00	do
2 dozen bakepans.....	10 00	do
2 dozen gridirons.....	10 00	do
2 dozen griddles.....	15 00	do
1,400 pounds 3-16 chain for launches.....	10	per pound.
1,600 pounds 4-16..... do.....	10	do
2 dozen 2 feet folding-rules.....	5 00	per dozen.
100 gallons best winter-strained sperm oil.....	1 00	per gallon..
200 pounds best sperm candles.....	46	per pound.
1,600 pounds flax sewing twine.....	25	do.....
700 pounds cotton..... do.....	10	do
200 pounds whipping twine.....	10	do
800 pounds flax seine twine.....	37	do
25,000 pounds pure dry white lead.....	6½	do
5,000 pounds pure dry red lead.....	11	do
500 pounds pure litharge.....	6	do
1,000 pounds best dry red ochre.....	1	do
1,200 pounds best dry yellow ochre.....	1	do
10 pounds Chinese vermilion.....	1 50	do
250 pounds chrome green.....	25	do
15 pounds Prussian blue.....	65	do
4,000 pounds Spanish whiting.....	1	do
15 pounds chrome yellow.....	20	do
100 pounds gum shellac.....	5	do
100 pounds Turkey umber.....	1	do
15 pounds pumice stone.....	6	do
5 pounds terra de sienna.....	10	do
100 pounds gum copal, East India.....	50	do
100 pounds..... do..... South American.....	25	do
3,000 gallons pure raw flaxseed oil.....	50	per gallon.
200 gallons neatsfoot oil.....	1 00	do
200 gallons tar oil.....	50	do

Washington.

Gosport.

LIST OF CONTRACTS—Continued.

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Date.	Expiration.	Name of contractor.	Articles.	Rates.	Navy yard where deliverable.
1852. June 29	1853. June 30	Storer & Stephenson—Continued.	500 gallons spirits turpentine	\$0 45 per gallon.	Gosport,
			300 gallons fish oil	50 do	
			10 gallons spirits wine	50 do	
			50 gallons Japan drying	1 00 do	
			1,000 gallons best winter-strained sperm oil	1 10 do	
			3,000 pounds best sperm candles	45 per pound.	
			2,000 pounds do do	43 per pound..	Pensacola.
June 29	June 30	Wetherell & Brother	300 gallons best winter-strained sperm oil	1 10 per gallon.	
			8,000 pounds dry white lead	6 per pound..	Philadelphia.
			500 pounds dry red lead	5½ do	
			300 pounds litharge	5½ do	
			20 pounds sugar of lead	12 do	
			400 pounds yellow ochre	0½ do	
			250 pounds Spanish brown	1 do	
			250 pounds lampblack	9 do	
			1½ pound vermilion	1 50 do	
			72 pounds chrome green	21 do	
			12 pounds chrome yellow	20 do	
			4 pounds Prussian blue	70 do	
			2,000 pounds whiting	0.60 do	
			3 pounds umber	8 do	
			5 pounds terra sienna	10 do	
			15 pounds shellac	14 do	
			50 pounds black lead	5 do	
			12 pounds beeswax	30 do	
			6 pounds pumice stone	8 do	
			800 gallons linseed oil	62 per gallon.	
			100 gallons spirits of turpentine	45 do	
			12 gallons copal varnish	1 50 do	
			30 gallons bright varnish	30 do	

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July 1 June 30

Botsal & Brother.....

20 gallons Japan varnish	1 00	do
500 pounds pure white oxide of zinc.....	9	per pound..
500 pounds pure white lead.....	6	do
500 pounds pure white lead, dry.....	7	do
1,000 pounds pure red lead.....	5 $\frac{1}{2}$	do
150 pounds pure litharge.....	5 $\frac{1}{2}$	do
50 pounds pure lampblack.....	9	do
200 pounds pure Spanish brown.....	1	do
120 gallons linseed oil.....	62	per gallon.
30 gallons best spirits of turpentine.....	45	do
10 gallons copal varnish.....	1 50	do
2,000 pounds 7-inch wrought iron spikes.....	4 $\frac{1}{2}$	per pound.
2,000 pounds 6-inch..... do.....	4 $\frac{1}{2}$	do
500 pounds 6-penny wrought iron nails.....	6	do
200 pounds 10-penny..... do.....	6	do
400 pounds 12-penny cut iron nails.....	3 $\frac{1}{2}$	do
300 pounds 10-penny..... do.....	3 $\frac{1}{2}$	do
300 pounds 9-penny..... do.....	3 $\frac{1}{2}$	do
300 pounds 6-penny..... do.....	3 $\frac{1}{2}$	do
1 box 2-inch (Randall's) finishing brads.....	5 00	
1 box 1 $\frac{1}{2}$ -inch..... do.....	5 00	
1 box 1 $\frac{1}{4}$ -inch..... do.....	5 00	
$\frac{1}{2}$ box 1-inch..... do.....	2 50	
$\frac{1}{2}$ box $\frac{3}{4}$ -inch..... do.....	2 50	
6 gross 1-inch No. 12 iron screws.....	50	per gross.
6 gross 1 $\frac{1}{4}$ -inch No. 12..... do.....	60	do
6 gross 1 $\frac{1}{2}$ -inch No. 12..... do.....	70	do
3 gross 2-inch No. 14..... do.....	80	do
5 gross 2 $\frac{1}{4}$ -inch No. 14..... do.....	90	do
2 gross 3-inch No. 16..... do.....	1 00	do
10 papers $\frac{3}{8}$ -inch copper tacks.....	60	per paper.
25 papers $\frac{3}{8}$ -inch iron tacks.....	8	do
25 papers $\frac{1}{4}$ -inch iron tacks.....	8	do
3 dozen 3-inch till locks.....	2 00	per dozen.
3 dozen 4-inch closet locks.....	4 00	do
2 dozen 6-inch..... do.....	6 00	do
2 dozen 3-inch chest locks.....	2 00	do
2 dozen 3-inch brass hooks and eyes.....	1 50	do
2 dozen iron padlock keys.....	1 00	do

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LIST OF CONTRACTS—Continued.

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Date.	Expiration.	Name of contractor.	Articles.	Rates.	Navy yard where deliverable.
1852, July 1	1853, June 30	Bonsal & Brother—Cont'd.	1 dozen brass padlock keys	\$1 00 per dozen..	Washington.
			9,600 pounds composition sheathing nails, copper	20.40 per pound.	Gosport.
			1,300 feet double thick glass	10.45 per foot.	
			100 barrels bright tar	1 80 per barrel.	
			75 barrels black tar	1 60 do	
			75 barrels pitch	2 00 do	
			50 barrels soft turpentine	2 50 do	
			3,500 pounds best clean tallow	10 per pound.	
			1,000 pounds beeswax	25 do	
			3,000 pounds spun cotton	12½ do	
			250 pounds cotton	16 do	
			10 bundles coopers' flags, 5 pounds each	50 do	
			40 hanks cod line	50 per hank.	
			25 hanks cod line, fine	50 do	
			10 barrels coal tar	3 50 per barrel.	
			150 pounds Castile soap	12 per pound.	
			300 pounds best white glue	15 do	
July 3	June 30	W. B. Davis	150 cords sound oak wood	2 73 per cord...	Pensacola.
			100 cords pine light wood	2 65 do	
			100 bushels charcoal	16 per bushel.	
July 3	June 30	Wm. Mason & Son	100 bolts No. 1 cotton canvas	8 55 per bolt....	Charlestown.
			25 bolts No. 10	4 92 do	
			150 bolts hammock stuff	19 00 do	
			100 bolts bag stuff	14 25 do	
			2 bolts No. 1 cotton canvas	8 55 do.....	Philadelphia.
			10 bolts No. 2	7 98 do	
			108 bolts No. 4	7 22 do	
			21 bolts No. 5	6 84 do	
			18 bolts No. 6	6 46 do	
			10 bolts No. 8	5 70 do	

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			14 bolts bagging	14 25	do	
			36 bolts hammock stuff	19 00	do	
			11 bolts cot stuff	9 50	do	
			10 bolts ravens duck	4 75	do	
			25 bolts No. 1 cotton canvas	8 55	do	Brooklyn.
			10 bolts No. 2..... do	7 98	do	
			40 bolts No. 3..... do	7 60	do	
			100 bolts No. 4..... do	7 22	do	
			150 bolts No. 5..... do	6 84	do	
			120 bolts No. 6..... do	6 46	do	
			25 bolts No. 7..... do	6 08	do	
			25 bolts No. 8..... do	5 70	do	
			10 bolts No. 9..... do	5 32	do	
			50 bolts No. 10..... do	4 92	do	
			100 bolts hammock stuff	19 00	do	
			50 bolts bag stuff	14 25	do	
			50 bolts cot canvas	9 50	do	
			300 bolts No. 4 cotton canvas	7 22	do	Gosport.
			200 bolts No. 5..... do	6 84	do	
			50 bolts No. 7..... do	6 08	do	
			50 bolts No. 8..... do	5 70	do	
			50 bolts No. 9..... do	5 34	do	
			50 bolts No. 10..... do	4 92	do	
			100 bolts hammock canvas	19 00	do	
			100 bolts bag canvas	14 25	do	
July 6	June 30	Benj. T. Wilson	50 lights double crown glass 12 by 18	43	per light. ...	Kittery
			100 lights double crown glass 10 by 14	23	do	
			100 lights double crown glass 8 by 10	6	do	
			$\frac{1}{2}$ gross deck lights	75	do	
July 7	June 30	Wm. Lang.....	107,500 pounds round, square, and flat iron	2.29	per pound.	Philadelphia
			16,300..... do..... do	2 $\frac{1}{2}$	do	Pensacola.
			182,000 pounds square, round, and flat iron	2.30	do	Gosport.
			3,000 pounds plate iron	4	do	
			4,400 pounds sheet iron	4	do	
			4,500 pounds hoop iron	3 $\frac{1}{2}$	do	
			1,150 pounds Russia iron	14	do	
July 12	June 30	George Adams.....	6 sets composition water closets	25 00	per set	Kittery
			120 pounds brazier's copper	25	per pound.	
			8 gross composition screws	1 75	per gross.	

Aug. 3	Dec. 30	William C. Borroughs.....	50 capstan bars.....	2 49	each.....	Kittery.
			4,000 feet board measure 1 inch cypress boat boards.....	35 00	per M.	
Aug. 3	Dec. 30	F. A. Southmayd	2,000 feet board measure 1 1/4 inch cypress boat plank.....	35 00	do	Brooklyn.
			2,000 inches black spruce spars.....	30	per inch.....	
			75 spars, from 47 to 57 feet long.....	19 50	each.	
			150 poles, assorted.....	90	do	
			200 rough hickory bars, 12 feet long.....	65	do	
Aug. 4	Dec. 30	S. G. Bogert.....	200 rough hickory bars, 6 feet long.....	25	do	Gosport.
			22,600 feet white ash oars.....	5	per foot.	
			5,000 feet baywood mahogany.....	125 00	per M feet..	
			6,000 feet Susquehanna black walnut.....	50 00	do	
			2,000 feet cherry boards.....	50 00	do	
			23,000 feet white ash plank and boards.....	38 00	do.....	
			3 tons lignumvitæ.....	50 00	per ton.....	
			500 cubic feet white ash butt pieces.....	40	per foot.....	
			14,000 feet white ash plank.....	35 00	per M.	
			4,000 feet black walnut plank.....	60 00	do	
			1,000 feet cherry plank.....	60 00	do	
			14,000 feet red elm plank.....	50 00	do	
			800 feet red elm timber.....	50	per cubic ft.	
			500 feet yellow locust.....	1 40	do	
			1,000 feet cedar boards.....	30 00	per M.	
			60 feet red cedar.....	50	per cubic ft.	
			5 cords best quality hickory butts.....	20 00	per cord.	
			15,050 lineal feet white ash oar rafters.....	6	per foot.	
			2 tons lignumvitæ, 4 inches diameter.....	30 00	per ton.	
			3.....do.....5.....do.....	30 00	do	
			2.....do.....7.....do.....	30 00	do	
			5.....do.....8.....do.....	40 00	do	
			5.....do.....9.....do.....	40 00	do	
			1.....do.....12.....do.....	50 00	do	
			1.....do.....14.....do.....	50 00	do	
			17,000 feet 1-inch clear white pine boards.....	36 00	per M feet..	
			2,000 feet 1/2-inch.....do.....do.....	36 00	do	
			2,000 feet 3/4-inch.....do.....do.....	36 00	do	
12,000 feet 1-inch clear white pine box boards.....	15 00	do				
5,000 feet 1-inch merchantable boards.....	25 00	do				
3,000 feet 3/4-inch merchantable boards.....	25 00	do				
1,000 feet 2-inch white wood plank.....	30 00	do				

Pensacola
Kittery.
Charlestown.

Brooklyn

LIST OF CONTRACTS—Continued.

Date.	Expiration.	Name of contractor.	Articles.	Rates.	Navy yard where deliverable.
1852. Aug. 4	1853. Dec. 30	S. G. Bogert—Continued....	12,000 feet ash plank, various sizes.....	\$9 03½ per foot....	Washington.
			8,000 feet elm plank and boards.....	40 00 per M feet..	Gosport.
			22,500 feet cypress plank and boards.....	30 00 do	
Aug. 5	Dec. 30	Jos. Temple.....	10,000 cubic feet white oak plank stocks.....	37 per foot....	Philadelphia.
			1,000 cubic feet white oak promiscuous timber.....	30 do	
Aug. 6	Dec. 30	Storer & Stephenson.....	30,000 cubic feet white oak plank stocks.....	40 do.....	Charlestown.
			1,000 cubic feet white oak butt pieces.....	40 do	
			1,000 cubic feet white oak curve timber.....	1 50 do	
			850 cubic feet white oak timber.....	50 do	
			210 inches white oak cheek knees.....	1 50 per inch.	
			140 inches white oak knees for cat-heads.....	1 50 do	
			1,000 cubic feet pasture white oak butt pieces.....	35 per cubic ft.	
			500 cubic feet white oak timber.....	40 do	
			100 white oak boat-knees.....	2 00 each.	
			55,000 feet white pine boards and plank.....	29 00 per M feet.	
			20,000 cubic feet white oak plank.....	41 per cubic ft.	Brooklyn.
			10,810 feet white oak dimension stuff.....	50 00 per M feet.	
			2,500 inches white oak boat-knees.....	20 per inch.	
			11,000 feet white oak boards.....	35 00 per M feet.	
			12,500 cubic feet white oak plank stocks.....	35 per foot....	Washington.
			160,000 feet white oak plank.....	46 00 per M feet.	
			4,500 feet black walnut.....	50 00 do	
			1,000 feet mahogany.....	150 00 do	
			72 inches white oak knees.....	2 00 per inch...	Pensacola.
			330 cubic feet white oak rudder stocks.....	1 00 per foot.	
			155 cubic feet do do.....	75 do	
Aug. 9	Dec. 30	James Bigler.....	70,000 feet white pine panel boards.....	38 00 per M. feet.	Philadelphia
			20,000 feet white ash boards.....	29 00 do	
			4,500 feet black walnut boards.....	44 00 do	
			4,000 feet cherry boards and plank.....	40 00 do	

			3,000 feet poplar plank	40 00	do	
			1,000 feet maple plank	40 00	do	
			68,000 feet white pine lumber	20 00	do	Washington.
			3,000 feet white ash plank	29 00	do	Gosport.
			25,000 do	29 00	do	
			196,600 feet white pine plank and boards	37 00	do	
			20,000 feet second quality white pine plank and boards	25 00	do	
Aug. 9	Dec. 30	Edward H. Herbert	25,000 cubic feet white oak plank stocks	22	per cubic ft.	
			2,760 do do	50	do	
			972 do do rudder stocks	50	do	
			456 do do do	50	do	
			12,360 do do butt cuts	50 00	per M. feet.	
			50 white oak boat-knees	3 00	each.	
			185 cubic feet locust	1 00	per cubic ft.	
			30,000 cubic feet yellow pine plank stocks	22	do	
			3,900 do do spars	35	do	
			3,790 do do do	35	do	
Aug. 10	Dec. 30	Samuel B. Grice	25,000 cubic feet yellow pine plank stocks	29.8	do	Washington.
Aug. 12	Dec. 30	Wm. Lang	100 hackmatack knees	2 00	each.	Gosport.
			1,030 inches black spruce spars	40	per inch.	
			15 piece sticks	30 00	each.	
			12 do	18 00	do	
			200 spruce poles	50	do	
Aug. 14	Dec. 30	Wm. Miller	15,000 feet yellow pine boards and planks	15 75	per M. feet.	Pensacola.
Aug. 16	Dec. 30	Samuel P. Brown	20,000 do plank stocks	27½	per cubic ft.	Charleston
			2,000 do promiscuous timber	43	do	
			8 pieces do 64 feet long, 1,800 feet	55	do	Brooklyn
			8 do do 57 do 1,400 feet	50	do	
			10,000 feet yellow pine plank stocks	28	do	
			5,000 feet 1½-inch yellow pine plank	25 00	per M. feet.	
			2,000 feet 1½ do	25 00	do	
			400 feet Long Island locust	90	per cubic ft.	
			200 feet beach plank	3 00	per 100 feet.	
			2,000 feet cypress boards	30 00	per M. feet.	
			500 feet black walnut boards	50 00	do	
			10,000 cubic feet yellow pine plank stocks	28	per cubic ft.	Philadelphia
Aug. 21	Dec. 30	George L. Mardre	10 white hickory butts, 14 feet long	1 30	each.	Gosport.
			60 do 10 do	1 00	do	
			300 do handspikes	25	do	

LIST OF CONTRACTS—Continued.

Date.	Expiration.	Name of contractor.	Articles.	Rates.	Navy yard where deliverable.
1852. Aug. 21	1853. Dec. 30	George L. Mardre	100 white ash oar rafters	\$0 75 each.....	Gosport.
			200 do do	70 do	
Sept. 10	Dec. 30	S. G. Bogert	5,310 feet white ash oar rafters	5½ per foot. ..	Philadelphia.
			200 cubic feet locust timber	1 50 do	
			50 white oak knees, 400 inches	1 50 per inch. ...	Washington.
			90 do do 675 inches	1 40 do	
			160 do do 1,120 inches	1 30 do	
			80 do do 520 inches	1 20 do	
			50 do do 300 inches	1 10 do	

No. 3.

An abstract of the annual report from the Bureau of Ordnance and Hydrography, connected with the estimates for the fiscal year ending June 30, 1854, as required by resolution of the Senate of the United States, dated August 26, 1852.

The total amount of the estimate is \$510,774; the items of which are:

A. For pay and contingent expenses of bureau	\$10,150
B. For pay of officers on ordnance duty	22,200
C. For ordnance and ordnance stores	230,000
F. For the purchase of articles and incidental expenses connected with the Hydrographical Office and Naval Observatory	51,900
G. For pay of superintendent and officers on duty at the Naval Observatory	34,000
H. For the erection, repair, &c., of buildings, and for contingent expenses of the Naval Academy	46,059
H 1. <i>Special estimate</i> for ground, &c., Naval Academy....	38,000
I. For pay of officers at the Naval Academy	78,465
	510,774

- D. Statement of value of stores on hand, and values received and expended from July 1, 1851, to June 30, 1852.
- E. Statement of amount and cost of labor from July 1, 1851, to June 30, 1852.
- J. Statement of contracts for the year ending June 30, 1852.

The letter which accompanied the estimates is brief. It gives the reasons which induced the requests for an increased appropriation for ordnance and ordnance stores; for the means of obtaining an extension of the present grounds of the Naval Academy, and for heating the buildings connected with it; and for lighting the Observatory with gas. It also states in general terms the satisfactory manner in which the duties have been performed, and useful results secured by the officers who superintended, or have been connected with the Naval Academy, the Observatory, and upon ordnance duties at the several navy yards.

C. MORRIS, *Chief of Bureau.*

BUREAU OF ORDNANCE AND HYDROGRAPHY,
September 13, 1852.

SIR: I have the honor to present, herewith, estimates for the amounts which will be required for objects placed under the general superintendence of this bureau, during the fiscal year commencing on the first of July, 1853.

A careful reference to the supplies on hand of various articles connected with the armament and ordnance equipment of the navy, has induced a larger estimate for those objects than was appropriated for the present fiscal year. The supply of some important articles has been found barely sufficient for the current wants of the service, leaving no means for meeting any unusual demand.

The purchase of some ground contiguous to the present grounds of the Naval Academy has been recommended, to obtain more space for the exercises of the midshipmen, and a better site for a hospital than the present grounds afford. A *special* estimate for this purpose is submitted, in addition to the ordinary estimate, and also for a sum which will be necessary, in addition to the amount already appropriated, to build and furnish a hospital of the size which the medical bureau now considers to be necessary.

The estimates for the officers and others to be employed on ordnance duty, and at the Observatory and Naval Academy, give the full amount of their compensation. The "waiting orders" pay for those belonging to the navy should be deducted from each estimate, to show the real expenses properly chargeable to the respective objects.

The proposed mode of heating the buildings at the Naval Academy with hot water, and of lighting the Observatory with gas, are recommended by their superior safety and eventual economy. The additional watchman for the Observatory is necessary for the protection of the public property.

The hydrographical duties have been carefully performed at the Observatory. A new edition of Sailing Directions, to accompany the wind and current charts, has been prepared by the superintendent, and many copies, with the charts and abstract logs, have been distributed to masters of vessels, with a view to the collection of further information from them.

Information has been collected in relation to doubtful dangers, currents, temperatures, and other subjects in the Atlantic ocean, between latitude 30° north and 6° south, by Lieut. S. P. Lee, in the U. S. brig "Dolphin," but his detailed report has not yet been completed.

The duties of the Naval Academy have been well performed, discipline properly sustained, and the general results of the year's instruction very satisfactory.

The arrangements at navy yards for placing articles, procured under the direction of this bureau, in the special charge of the inspectors of ordnance, have proved to be advantageous. These officers have been able to give more particular attention to their preservation, and can better determine when repairs are required than could be done by the storekeepers, in addition to their other numerous duties.

Vessels which have been fitted for sea, and not previously provided with sights and improved locks, have been supplied with them, and all their ordnance equipments have been superintended by the officers on ordnance duty.

At the navy yard Washington, the experiments for determining the ranges and powers of the different classes of guns used in the navy, and of others that have been proposed, have been continued. A number of boat and field guns have been made and distributed. These,

and all the laboratory stores for the navy, are prepared at that yard, and are of the most satisfactory character and quality.

A belief that the specific gravity and tensile strength of the metal from which guns are made might be advantageously used with other proofs, to secure greater safety in their use, induced the adoption of measures, some time since, to secure a certain amount of each. Both have been much increased, and with the approbation of the department, experiments are now about to be made to ascertain the limits within which the greatest endurance may be given to guns when exposed to long-continued use in action.

With much respect, I am, sir, your obedient servant,

C. MORRIS,

Chief of Bureau.

Hon. JOHN P. KENNEDY,
Secretary of the Navy.

*Summary of the estimates from the Bureau of Ordnance and Hydrography,
for the fiscal year ending June 30, 1854.*

For what objects.	Amount estimated for year ending June 30, 1854.	Am't appropriated for year ending June 30, 1853.
A.—For pay and contingent expenses of the bureau.....	\$10,150	\$11,330
B.—For pay of officers on ordnance duty.....	22,200	26,100
C.—For ordnance and ordnance stores	230,000	125,000
F.—For the purchase of articles, and for incidental expenses connected with the Hydrographical Office and Naval Observatory.....	51,900	49,470
G.—For pay of superintendent and offi- cers on duty at the Naval Observatory	34,000	36,364
H.—For the erection, repair, &c., of buildings, and for contingent ex- penses of Naval Academy.....	46,059	124,700
H. 1.—Special estimate for ground, &c., for Naval Academy.....	38,000	.....
I.—For pay of officers at the Naval Academy.....	78,465	78,434
	510,774	451,398

D.—Statement of value of stores on hand and values received and ex-
pended from July 1, 1851, to June 30, 1852.

E.—Statement of amount and cost of labor from July 1, 1851, to June 30, 1852.

J.—Statement of contracts for year ending June 30, 1852.

C. MORRIS,
Chief of Bureau.

BUREAU OF ORDNANCE AND HYDROGRAPHY,
September 13, 1852.

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A.

Estimate of the amount required for the support of the Bureau of Ordnance and Hydrography for the year ending June 30, 1854, under acts of August 31, 1842, and March 3, 1847.

Object.	Amount.
For salary of chief of bureau	\$3,500
For salary of chief clerk	1,200
For salary of second clerk	1,000
For salary of third clerk	1,000
For salary of fourth clerk	1,000
For salary of draughtsman	1,000
For salary of messenger	700
Total.....	9,400
Amount appropriated for year ending June 30, 1853...	9,400
Amount of twenty per cent. in addition.....	1,180
Total.....	10,580
<i>Contingent.</i>	
For blank books and stationery	\$500
For miscellaneous items and labor.....	250
	750
Amount appropriated for year ending June 30, 1853....	750

C. MORRIS,
Chief of Bureau.

BUREAU OF ORDNANCE AND HYDROGRAPHY,
September 13, 1852.

B.

Estimate of pay required for officers proposed to be employed on ordnance duty for the year ending June 30, 1854.

Officers.	Amount.
1 captain, as inspector.....	\$3,500
2 commanders, as assistant inspectors.....	4,200
1 lieutenant, as assistant inspector, charged with experiments in gunnery at the navy yard, Washington....	2,500
8 lieutenants, as assistant inspectors, at \$1,500 each...	12,000
Total.....	22,200
Amount appropriated for year ending June 30, 1853...	26,100

The difference between this estimate and that for the year ending 30th June, 1853, arises from the employment of fewer officers upon this duty.

BUREAU OF ORDNANCE AND HYDROGRAPHY,
September 13, 1852.

C. MORRIS,
Chief of Bureau.

C.

Estimate of the ordnance and ordnance stores required for the navy, and for contingent expenses, for the year ending June 30, 1854.

Object.	Amount.
For cannon	\$50,000
For boat-guns and equipments	15,000
For gunpowder	27,000
For shot and shells	20,000
For powder tanks	30,000
For gun-carriages and materials	20,000
For laboratory stores and for articles of equipment for guns	18,000
For small-arms, swords, &c.	10,000
For labor not included in the above	20,000
For contingent expenses, viz: printing, binding, adver- tising, freight and transportation, portorage, storage, and agencies, experiments for endurance, range, &c., of cannon	20,000
Total	230,000
Appropriated for the year 1853	125,000
Excess	105,000

This excess accrues from the desire to increase the supply of cannon, boat-guns, gunpowder, materials for gun-carriages, powder tanks, and articles of equipment, beyond the numbers or quantities on hand, to meet sudden demands.

BUREAU OF ORDNANCE AND HYDROGRAPHY,
September 13, 1852.

C. MORRIS,
Chief of Bureau.

D.

Statement of cost or estimated value of stores on hand at the several navy yards, July 1, 1851, of articles received and expended from June 30, 1851, to June 30, 1852, and of those remaining on hand July 1, 1852, which are under the direction of the Bureau of Ordnance and Hydrography.

Navy yards	On hand July 1, 1851.	Receipts.	Expenditures.	On hand July 1, 1852.
Portsmouth	\$89, 119 90	.....	\$61 50	\$89, 058 40
Charlestown	556, 000 90	\$144, 615 53	134, 069 74	566, 546 69
Brooklyn	706, 435 71	185, 688 09	255, 786 81	636, 336 99
Philadelphia	59, 768 47	898 22	28, 576 61	32, 090 08
Washington	163, 288 28	84, 385 17	78, 360 03	169, 313 42
Gosport	550, 666 81	333, 388 46	98, 117 07	785, 938 20
Pensacola	137, 486 09	1, 059 20	1, 521 25	137, 024 04
Memphis	2, 714 33	15 76	15 76	2, 714 33
On the lakes	38, 746 48	.....	.....	38, 746 48
Total	2, 304, 226 98	750, 050 43	596, 508 77	2, 454, 768 64

BUREAU OF ORDNANCE AND HYDROGRAPHY, September 13, 1852.

C. MORRIS, Chief of Bureau.

E.

Statement of the number of days' labor, and cost thereof, from July 1, 1851, to July 1, 1852, at the respective navy yards, chargeable to the Bureau of Ordnance and Hydrography.

Navy yards.	No. of days' labor.	Cost of labor.	Average per day.
Portsmouth .....	.....	.....	.....
Charlestown	8,713	\$13,738 30	\$1 57 $\frac{6}{10}$
Brooklyn	9,161	13,273 67	1 44 $\frac{9}{10}$
Philadelphia	397 $\frac{1}{2}$	597 23	1 50
Washington	30,129	41,805 36	1 38 $\frac{7}{10}$
Gosport	18,440 $\frac{1}{2}$	27,043 47	1 46 $\frac{6}{10}$
Pensacola	189 $\frac{1}{2}$	382 17	2 01 $\frac{6}{10}$
Memphis .....	.....	.....	.....
Total	67,030 $\frac{1}{2}$	96,840 20	1 44 $\frac{4}{10}$

C. MORRIS, Chief of Bureau.

BUREAU OF ORDNANCE AND HYDROGRAPHY,
September 13, 1852.

F.

Estimate of the amount required for the Hydrographical Office and United States Naval Observatory for the year ending June 30, 1854.

For the purchase of nautical instruments required for the use of the navy, for repairs of the same, and for repairs of astronomical instruments.	\$11,000
For the purchase of nautical books, maps, and charts, and for backing and binding the same.	12,500
For printing and publishing sailing directions, hydrographical surveys, and astronomical observations.	5,500
For continuing the publication of the series of wind and current charts, and for defraying all expenses connected therewith.	10,000
For pipes for conveying from the intersection of 21st and F streets, gas to, and fixtures for lighting with it, the Observatory and house of superintendent.	2,500
For models, drawings, and copying; for postage, freight, and transportation; for working lithographic press, including chemicals; for keeping grounds in order; for fuel and lights; for repairs of buildings, and for all other contingent expenses of the Hydrographical Office and United States Naval Observatory.	7,240
For the wages of persons proposed to be employed at the Observatory and Hydrographical Office, viz:	
One lithographer.	\$900
One instrument maker.	900
Two watchmen, at \$500 each.	1,000
One porter.	360
	3,160
The wages of these persons have been included in former estimates in the item for contingencies.	
Total amount.	51,900
Amount appropriated for the year ending June 30, 1853.	49,470

The difference between this estimate and the appropriation for the year ending June 30, 1853, arises principally from the item for introducing gas.

BUREAU OF ORDNANCE AND HYDROGRAPHY,
September 13, 1852.

C. MORRIS,
Chief of Bureau.

G.

Estimate of the amount required for the pay of officers, &c., proposed to be employed at the Hydrographical Office and United States Naval Observatory, for the year ending June 30, 1854; chargeable to the general appropriation for pay of the navy.

1 lieutenant, as superintendent.....	\$3,000 00
9 lieutenants, at \$1,500 each.....	13,500 00
8 passed midshipmen, at \$750 each.....	6,000 00
6 professors of mathematics, at \$1,500 each.....	9,000 00
1 assistant observer, (civil,) at \$1,500.....	1,500 00
1 clerk, (civil,) at \$1,000.....	1,000 00
	34,000 00
Amount appropriated for year ending June 30, 1853.	36,364 00

The difference under this head and the appropriation for 1852-'53, arises from the discontinuance of the employment of one lieutenant and four petty officers.

BUREAU OF ORDNANCE AND HYDROGRAPHY,
September 13, 1852.

C. MORRIS,
Chief of Bureau.

H.

Estimate of amounts required for the erection, warming and repairs of buildings, and for the improvement and preservation of the grounds, and for contingencies, at the Naval Academy, for the year ending June 30, 1854.

Object.	Amount.	Total.
For a building for officers' quarters, as per ground plan No. 1, annexed.....	\$8,000	
For steam-boilers and necessary fixtures for warming by steam the midshipmen's quarters, recitation and mess-halls, chapel and observatory, and to afford steam for cooking, washing and drying clothes.....	10,000	
For repairs of all kinds.....	5,000	
For levelling grounds, planting trees, and keeping grounds in order.....	5,000	
		\$28,000
FOR THE WAGES OF THE FOLLOWING PERSONS:		
For six watchmen, at \$1 per day each.....	2,190	
For one boat keeper, at \$1 per day.....	365	
For one steward for midshipmen's mess.....	288	
For one cook for midshipmen's mess.....	216	
For twelve laborers to attend to boats, furnace, recitation halls, lyceum, and midshipmen's quarters, at wages from ten to fifteen dollars per month.....	2,000	
		5,059
(The wages of these persons were formerly included under the head of contingent expenses.)		
CONTINGENT EXPENSES.		
For purchase and repairs of philosophical and mathematical instruments and apparatus....	2,000	
For the purchase of books.....	2,000	
For blank books and stationery.....	500	
For furniture and fixtures for public buildings..	5,000	
For fuel and lights.....	2,500	
For other incidental and unforeseen expenses..	1,000	
		13,000
Total amount.....		46,059
Amount appropriated for the year ending June 30, 1853.....		\$124,700

H—1.

Special estimate.

Object.	Amount.
For the purchase of land to give an extension to the present grounds connected with the Naval Academy at Annapolis, Maryland, as per sketch No. 2, attached.....	\$20,500
For extending the walls, and making new roads and wharf to the ferry across the river Severn.....	7,500
For additional amount to former appropriation of \$6,000 for building and furnishing a hospital, of larger dimensions than formerly proposed.....	6,000
For changing the fronts of houses.....	4,000
Total.....	38,000

C. MORRIS, *Chief of Bureau.*

BUREAU OF ORDNANCE AND HYDROGRAPHY,
 September 13, 1852.

I.

Estimate of the amount required for the pay of officers and others, proposed for duty at the United States Naval Academy, for the year ending June 30, 1854, and which may be chargeable to the general appropriation for pay of the navy.

Object.	Amount.
1 commander, as superintendent.....	\$2,500
1 lieutenant, executive officer, and commanding school-ship.....	1,800
1 surgeon.....	1,800
1 chaplain.....	1,500
1 master, assistant to executive officer.....	1,000
1 master, inspector of mess-halls, and assistant professor.....	1,000
1 professor of mathematics.....	1,500
1 professor of ethics and English studies.....	1,500
1 professor of natural and experimental philosophy.....	1,500
1 professor of gunnery and infantry tactics.....	1,500
1 professor of the French language.....	1,500
1 professor of the Spanish language.....	1,200
1 professor of drawing and teacher of the art of defence.....	1,500
3 assistant professors of mathematics, passed midshipmen, at \$750 each.....	2,250
2 assistant professors of ethics, at \$1,000 each.....	2,000
1 assistant professor of French.....	1,000
1 assistant professor of Spanish (passed midshipman).....	750
1 secretary.....	1,250
1 clerk to superintendent.....	500
1 carpenter.....	700
140 midshipmen, as students, at \$350 each.....	49,000
1 gunner's mate.....	300
1 hospital steward.....	360
	77,910
1 bugler, 1 drummer, and 1 fifer, payable from the appropriation for marine corps.....	555
Total amount.....	78,465
Amount appropriated for year ending June 30, 1853.....	78,434

The pay of chaplain and secretary was increased by the appropriation for the year ending June 30, 1853; and other slight changes have been made in the estimate for petty officers, seamen, and musicians.

C. MORRIS, *Chief of Bureau.*

BUREAU OF ORDNANCE AND HYDROGRAPHY,

September 13, 1852.

J.

Statement of contracts entered into by the Bureau of Ordnance and Hydrography during the year ending June 30, 1852.

Names of contractors.	Articles contracted for.	Place of delivery.	Date of contract.	Expiration of contract.	Price.	Amount of contract.
Cyrus Alger & Co.....	30 8-inch cannon of 55 cwt.....	Navy-yard at Boston....	July 30, 1851	May 31, 1852	6½ cents per pound...	\$12,285 00
Junius L. Archer.....	30 32-pounder cannon of 57 cwt.....	Navy-yard at Norfolk...	Aug. 2, 1851	.....do.....	6½ cents per pound...	12,675 00
J. R. Anderson.....	20 32-pounder cannon of 57 cwt.....	Navy-yard at Norfolk....	July 22, 1851	.....do.....	6½ cents per pound...	8,450 00
R. P. Parrott.....	38 8-inch cannon of 63 cwt.....	Navy-yard at New York.	July 21, 1851	.....do.....	6½ cents per pound...	17,225 00
F. B. Deane, jr.....	12,000 32-pounder solid shot.....	Navy-yard at Norfolk...	Aug. 13, 1851	July 1, 1852	3 cents per pound...	11,880 00

BUREAU OF ORDNANCE AND HYDROGRAPHY, September 12, 1852.

C. MORRIS, Chief of Bureau.

RECAPITULATION OF ESTIMATES.

<i>Civil.</i>	
Salaries	\$9,400
Contingent.....	750
<i>Navy.</i>	
Pay of the navy.....	\$134,110
Ordnance, and ordnance stores.....	230,000
<i>Special.</i>	
Nautical books, Hydrographical Office.....	\$51,900
Naval Academy.....	84,059

 No. 4.

An abstract of the annual report of the chief of the Bureau of Yards and Docks, to the Secretary of the Navy, dated October 14, 1852.

Submits estimates for the fiscal year ending 30th June, 1854; states why schedules of contracts for materials are not furnished; the delays in procuring materials according to law; views of the bureau in regard to improving our navy yards; the order in which the various subjects are treated.

Details objects completed and in progress at Portsmouth, New Hampshire; those for which estimates are submitted, stating their use and importance; the same in reference to the Boston and New York yards; refers to the location of the latter, its limited area, what has been done to extend it, and the difficulty of obtaining jurisdiction over the land purchased.

Enumerates works in progress, and those estimated for, at Philadelphia; recommends an enlargement of the yard.

At Washington, states what works are in progress, and what are embraced in the estimates; urges the importance of the yard as a manufacturing establishment.

At Norfolk, enumerates objects under construction; those embraced in the estimates, stating their importance; recommends purchase of a site for marine barracks.

At Pensacola, names works in progress; the improvements asked for, their importance, &c.

At Memphis, details works in progress, and those submitted in the estimates; refers to the report of the commission appointed to examine the yard.

At California, submits estimates for certain improvements named; refers to proposed site for a navy-yard; what works should be first constructed; probable cost, &c.

Notifies the character, state, and condition of the dry docks at Portsmouth, Boston, New York, Philadelphia, Norfolk, Pensacola, and San

Francisco, in the order named; refers to contract for leasing the dock at San Francisco.

Treats of the Naval Asylum, character of the inmates, its location, annual expense, &c.

Refers to subject of protection to public timber; depredations greatly lessened, &c.

BUREAU OF YARDS AND DOCKS,
October 14, 1852.

SIR: In compliance with your directions of the 13th July and 11th September last, I have the honor to submit the estimates from this bureau for the fiscal year ending 30th June, 1854, with such brief remarks as I think are necessary to explain them.

Owing to the lateness of the season when the appropriations for the current year were made by Congress, and the forms required by law for procuring materials, the bureau is unable to comply with the laws of 21st April, 1808, and 3d March, 1843, requiring a schedule of the contracts and offers made for materials to be submitted to Congress from this bureau. Advertisements in conformity with the laws referred to cannot be issued until the appropriations are made; and after they are made, the process required occupies from four to five months before deliveries of materials will be made; so that it will be seen the best part of this fiscal year will have passed away before the work on objects authorized can be commenced.

In preparing estimates for the next fiscal year, the chief of the bureau, not doubting that Congress intends that all the yards it has established shall be kept in a proper and efficient state for the purposes for which they were designed, has been governed in judgment by what he considers the several navy yards require for gradual improvements and necessary repairs, endeavoring to keep pace with the improvements of the age in the works proposed. Under the head of each yard, I shall note works completed since my last annual report; the progress made on those authorized, and the amount expended on them, during the past fiscal year; the objects for which funds are asked for the next fiscal year, with the reasons why they are considered necessary; commencing with

PORTSMOUTH, NEW HAMPSHIRE.

The works completed at this yard during the last fiscal year are the commander's quarters, lime-house, coal-house, and brick stables.

Satisfactory progress has been made upon other authorized improvements, viz: filling in behind wall west of timber sheds; wall and filling east of No. 4; machinery and tools for smithery; pavements around timber sheds; magazine wharf; engine-house; quay walls; filling in low grounds, &c., &c. There has been expended upon these works during the past year the sum of \$32,155 55.

Estimates and plans are submitted for the next fiscal year for the following objects, viz: For cooper's shop and watchman's quarters;

foundation of ways in ship-house for launching and hauling up ships; dredging in front of and pointing and puddling stone basin; boiler-room, boilers, engine, and machinery; reservoir near engine-house, pipes, gutters, drains, and cisterns; chapel; removing ledge and grading yard near dry-dock and railway, and for repairs of all kinds, including care of floating-dock; amounting to the sum of \$80,893.

All the above named improvements are considered necessary for the safe and economical preservation of the valuable public property in the yard, and to afford the required increased facilities for the execution of the naval works. The cooperage and watchman's quarters are much required, as the coopers' work has been temporarily done in part of the steam-house, which is now needed for its own legitimate purposes. The drains and cisterns are necessary as conducive to the health and convenience of the yard. As this yard is located on an island, a chapel is much needed. The engine-house being too contracted for containing the boiler conveniently or safely, renders this building necessary; and the amount asked for repairs of all kinds is required for the preservation of the public property.

The floating *balance* dock, basin, and railway ordered by Congress for this yard, will require a considerable outlay to deepen the water in front of the basin preparatory to their efficient use; to fill in around the sides of the basin; to pave the ground and cover the railway; build pier for working the dock, and necessary expenses in the care of the machinery, dock, basin, and railway.

There is a large quantity of valuable timber material in this yard; and although much of it is under cover, it requires great care and attention for its preservation.

BOSTON.

Most of the improvements at this yard are on a permanent scale, and are of a most substantial character, affording perhaps the most ready facilities for general purposes of any of our navy yards.

The works completed during the year are stone skids to timber shed No. 33; mast maker's shed; drains between timber sheds; sail-loft and cordage store; anchor hoy; paving avenue 63; wall and filling in south-west side of ship-house H; coal-house near smithery; and rain-water cistern, site No. 30.

The following works heretofore authorized are in progress, viz: Storehouse No. 36, pitch-house, oakum loft, and muster-office. There has been expended during the year the sum of \$25,326 55.

Plans and estimates are submitted for the next fiscal year for the following objects, viz: For machine shop and foundry; rebuilding smithery; cooperage and packing house; coal-house for ropewalk engines; chapel; stone wall west side of timber dock; rebuilding battery, shear-wharf, hauling slip, gutters, &c.; grading and paving timber shed No. 31, and for repairs of all kinds; amounting to the sum of \$119,860.

Among the first objects, as regards importance, are the extension of the machine shop and foundry, in order to have the proper facilities for repairing the machinery of steam-vessels and for other heavy work; re-

building the smithery—the old one being badly ventilated and not worth repairing. The cost of rebuilding would soon be saved by introducing the improvements of the present day. The cooperage and packing house is greatly needed, as there is no proper building for such work; the coal-house for the ropewalk engines is also much wanted; the chapel is required for service to be performed for the benefit of the officers, marines, and other persons confined to the yard, and was recommended on the original plan of the yard. The stone wall north-west side of timber dock is required to prevent the bank caving in, and the consequent filling up of the dock; the paving and gutters, &c., and the repairs of all kinds, are needed for the preservation of the buildings and public property.

NEW YORK.

There has been expended during the past fiscal year, at this yard, the sum of \$51,191 49 on the following objects, viz: Dredging channels; commander's house; quay wall; sewer; paving, gutters, and flagging; cob-wharf; cistern; filling in low places, and in repairs of all kinds.

Plans and estimates are submitted for the next fiscal year for the following objects, viz: For completing commander's house; smithery; timber shed; lime, pitch, and coal-house; continuing quay wall; muster-office; cob-wharf; dredging channel; completing engine-house, culvert, and removing piles in front of dock; filling in timber pond and low places; paving gutters and flagging, and for repairs of all kinds; amounting to the sum of \$249,320.

Estimates for the smithery have been made for several years; and are again submitted, as the old shop cannot furnish the work required, and consequently the public interest suffers. The commander's house remains unfinished and unoccupied for the want of the necessary funds asked to complete it. All the improvements asked for at this yard are considered very necessary—more especially the timber shed, to house ship-building materials; though it is more desired, in my opinion, that these materials should be used in the construction of ships than to be stored.

This is a central navy-yard, near the greatest commercial city of the United States. It is to be regretted that the old works—especially the cob-wharves—had not been constructed in a more substantial manner. It is a location where very much is required to be done, and which, of course, will require a corresponding outlay of money. The working ground on this yard is quite limited, and hence the annual expense of filling in timber ponds, &c. To increase the area of the ground, and to stop encroachment on the premises by the opening of streets and the erection of buildings, &c., the United States, by authority of law, in 1848, purchased the ground lying between the navy-yard and navy hospital. Upon this purchase of land, the city of Brooklyn planned and designed to make and open streets to the channel of the Wallabout waters, and has levied, and continues to levy upon it onerous assessments to make improvements for the benefit of Brooklyn. The Navy Department has applied to the legislature of New York.

through the governor of the State, three successive years, for the usual jurisdiction to the United States over these premises; but, up to this time it has not been granted. If the lands of the United States, occupied for public purposes, are, under such circumstances, to be subjected to such levies by local authorities, *the whole of these premises* (purchased in 1848) may, and probably will, be *absorbed in assessments* by the city of Brooklyn for the *benefit of that city*, and to the great detriment of the interest of the United States.

PHILADELPHIA.

There has been expended at this yard during the year the sum of \$64,995 36 on the following works, viz: Extending ship-houses C and F; wharves Nos. 1, 2, 3, and 4; dredging machine; culverts; moving shears; raising timber-shed No. 5; raising wall; and repairs of all kinds.

Estimates are submitted for the next fiscal year for the following objects, viz: For extending wharf No. 4, and dredging; completing paving, &c., and for repairs of all kinds, including floating dock; amounting to the sum of \$23,925.

This is one among the first established navy yards; its remoteness from the sea and shoalness of water at some points of the river, render it less desirable for building ships and the general purposes of a naval establishment than some others. It is, however, well calculated for building and repairing steam-vessels. It is limited in dimensions to fifteen and three-eighths acres, and I earnestly recommend its enlargement, if it can be done on reasonable terms.

The floating dock, basin, and railways, ordered by Congress to be constructed at this yard, will cause a considerable expense for dredging, building piers, &c., (which are essential for the accommodation of the dock,) and for the superintendence and care of these works.

WASHINGTON.

There has been expended at this yard, during the past year, the sum of \$95,163 66, upon the following objects, viz: Stone wharf for the slip at ship-house T; paint shop and wharf crane; large slide-lathes; copper-rolling establishment; filling up timber dock; saw-mill and machinery; ordnance building; marine railway, &c.

Plans and estimates are submitted for the next fiscal year for the following objects: For filling in timber dock; commander's quarters; conveying water into navy yard and reservoir; extending boiler shop, &c.; converting old ordnance shop into machine shop; steam-engine and other machinery for ordnance works; ordnance foundry for casting brass guns, &c.; gas fixtures and gas for lighting yard; railway from anchor and boiler shop to wharves; quay wall south front of yard; and for repairs of all kinds; amounting to the sum of \$200,512.

At this yard there are an iron and brass foundry, and anchor and chain-cable works, which furnish the navy with the requisite supplies under these heads. It also has some machinery for steam-boilers and engines. A railway for hauling up steamers is in progress, and very

valuable facilities have been prepared, and are still preparing, for ordnance and gunnery experiment, and for the preparation and supplies of ordnance stores. An increase and continuation of those facilities is proposed. It is believed this yard can be made a valuable manufacturing establishment, where the best work can be done and supplies furnished on an economical scale, the yard being under the immediate eye of the government. It is recommended that the works here be limited chiefly to manufacturing and experimenting purposes, and repairs of steam vessels. To carry on all the before-mentioned works considerable appropriations will be required, and the area of the yard should be enlarged.

All the objects estimated for this yard are deemed essentially necessary, and I cannot too strongly recommend that provision be made for the introduction of pure water into the yard.

NORFOLK.

There has been expended, during the last year, on the following objects, the sum of \$64,867 02, viz: Storehouse 19; gateway; engine-house to smithery and machinery; launching slip; extension of quay walls; paving and filling in low grounds; water cisterns; saw shed; cylinders, exhaust-pump, &c.; gun-place; landing wharf, and seawall.

Estimates and plans are submitted for the next fiscal year for the following objects, viz: For extending quay wharves; completing timber dock; carpenter's workshop and cart-shed; building for muster and other offices; machinery for engine, machine, and armorer's shops; dredging, filling in low grounds, grading, &c.; completing magazine and keeper's house at Fort Norfolk; hauling-up slips and mud scows; and for repairs of all kinds; amounting to the sum of \$160,600.

At this station more vessels-of-war arrive, depart, and undergo repairs and equipment, than at any other of our navy yards, and it is considered of the first importance that the works of improvement asked for at this yard should be authorized by Congress, with the necessary appropriations for their construction.

A plat of ground adjoining the yard can now be purchased on reasonable terms for marine barracks, which I deem necessary, and recommend to your favorable consideration.

PENSACOLA.

The sum of \$145,933 20 has been expended at this yard, during the past year, on the following objects, viz: For timber-shed No. 31; first and second class houses, out-buildings, and fences; permanent wharf; smith and machine shop; guard-house; paint shop and cooperage; rail-tracks; lime house; pitch, oil, and shell houses; and dredging and wharf near storehouse No. 26.

Plans and estimates are submitted for the next fiscal year for the following objects, viz: For permanent wharf; paint shop and cooperage; construction of deep basin, and dredging; rebuilding central wharf, and wharves I and C; smoke-stack, and extending machine

shop; mooring-anchors, cables, and fixtures for moving and operating floating-dock; and for repairs of all kinds; amounting to the sum of \$261,505.

This is the only naval depot on the waters of the Gulf of Mexico. The works in progress, and those proposed, are of the utmost importance. These works are more expensive than those at other stations on the Atlantic, but are indispensable in a national view.

At this yard is a *balance* floating-dock, basin, and railway, ordered by Congress, and nearly completed; but which will require a considerable outlay to prepare for their care and safe-keeping, as well as for their proper working, to dock and haul on and off vessels of the navy requiring repairs.

MEMPHIS.

There has been expended during the year the sum of \$59,048 68, on the following objects, viz: Tarring-house; ropewalk; cisterns; commandant's house; excavation and embankment; wing of storehouse; blacksmith's shop; pavements, drains, and ditches; hemp-house, &c.

Estimates are submitted for the next fiscal year for the following objects, viz: For excavation, embankment, and grading; completing hemp-house; completing blacksmith's shop and office building; cisterns for ropewalk; culvert from ropewalk to river; pavements, drains, ditches, &c.; and for repairs of all kinds; amounting to the sum of \$126,468 05.

I beg to refer to the report of a board of commissioners ordered to examine the premises, which report was printed in Executive Document No. 2, House of Representatives, of the last session of Congress, for information regarding the location of this yard as suitable for navy purposes. The estimates submitted are for the gradual improvement of the yard. They are, however, very much reduced below those furnished from that yard.

CALIFORNIA.

Plans and estimates are submitted for the following objects of improvement, named in the law making appropriations for the navy at the last session of Congress, viz: For a foundry; machine shop; blacksmith's shop; boiler shop; engine-house and pattern shop; carpenter's shop; storehouse; wharf; steam-engine and machinery, (including transportation of machinery,)—amounting to \$419,851. As these estimates are based upon Washington prices, there is added for difference in prices of materials and labor in California for the buildings, the sum of \$555,000—making in the aggregate, \$974,851; which, however, can only be considered as approximating to correctness.

At this place there has been a *sectional* floating-dock contracted for, but no site has yet been procured for a navy yard. A commission was ordered to proceed to California and make certain examinations and inquiries with reference to the selection of a site for a navy yard. The commission has returned, but their report will not be made, as I learn, in time to accompany these estimates. I understand, however, that

the site the commission will recommend is on Mare island, which is some twenty miles from San Francisco, and six from Benicia.

If this site should be approved, the first work to be done should be to prepare accommodations for officers, overseers, and workmen, before permanent works can be commenced and carried on to advantage.

There are, as I understand, but few dwellings or buildings of any kind within the vicinity of the proposed site. Permanent works of dock yards are always costly structures in places where labor and materials are readily obtained; and under the disadvantages before named, large appropriations for works at this place must necessarily be made, to secure the efficiency of the establishment. I would say that half a million of dollars per annum, for ten years, is not more than will be required to put this navy yard in an efficient state for operations.

DRY DOCKS.

Of these structures I have to say, that the balance floating-dock, basin, and railway at Portsmouth, New Hampshire, are completed, with the exception of some small matters which the contractors are required to do. This dock has taken up the Franklin 74, and she has been hauled on and off the railways successfully. Owing, however, partly to the want of sufficient depth of water at the entrance of the basin, as well as proper piers, the operation was performed at considerable expense and hazard, and occupying much time.

At Boston, the dock is a permanent stone structure, which requires occasionally some repairs on the floating gates, which are of wood, but nothing on the stone work.

At New York, the permanent stone dock is the largest of its kind, as it has been the most costly in its construction. The character of the soil is not suited for such a structure, though it is to be hoped its permanency will not be disturbed or injured from the nature of the bottom or powerful springs at its foundation. A considerable leak in the draining culvert was discovered this autumn, which it is not difficult, in the opinion of the engineer, to remedy. This dock has been actively in use since its completion, and works well thus far.

At Philadelphia, the sectional floating dock, with basin and railways, was completed in July, 1851. It has been tested and received. As it has been decided that the United States are bound to find the depth of water to work it, a considerable expense was incurred to dredge out in front of the basin to take up the steamer selected for the test, and an appropriation is now asked to dredge still deeper in order to make the dock available for vessels of greater draught, and for the extension of piers, for the care of and for working the dock and railways.

At Norfolk, the dock is a permanent stone structure, built some nineteen years ago: the only repairs on it since, of any consequence, have been on the gates, which are of wood.

At Pensacola, there is a balance floating dock, with basin and railway, nearly completed; but as much work must be done to deepen the water and make a wet basin before it can be tested, a year will proba-

bly pass before it will be tried and received. Here, also, the outlay for the necessary preparations for working and safe-keeping the dock, &c., will necessarily be much larger than at any other of the yards for similar structures, as the basin near its entrance is much more exposed to the sea than are the basins of the other docks.

At California, a sectional floating dock was, by authority of law, contracted for without basin and railways; all the materials and machinery for which are probably now at San Francisco, and ready to be set up.

A subsequent contract, by authority of law, was made with the contractors, requiring them to prepare piers and safe accommodations for, and allowing them to use the dock, under certain restrictions, for three years, or until the United States shall resume its control and prepare a place for its accommodation and safe-keeping.

NAVAL ASYLUM, PHILADELPHIA.

This establishment is now under good government, and the beneficiaries, with some exceptions, are orderly, and duly appreciate the liberality of the government in providing such liberal accommodations and snug harbor for them. The ejection of one or two very vicious ones of their number from the institution, has had a salutary effect.

I never have, and do not now, consider the location of the asylum a proper one for such an institution. I submit the estimates, however, for improvements, as though the asylum was permanently located. By the grant of this site, the United States are bound to make certain improvements on a street which has, or is to be, opened through these grounds, and therefore the estimates are larger this year than heretofore.

The number of beneficiaries is 159; attendants and laborers, 23. The cost of the house for the past year, exclusive of the pay of officers, &c., is \$37,601 36.

Of the live oak and other timber growing on the public lands placed under the charge of this bureau, I am gratified to state, that the extensive depredations (for purposes of traffic) which were formerly committed upon the public timber in some of the southern States, especially upon the live oak, red cedar, and long-leaf yellow pine, so justly regarded as being valuable for naval purposes, is still lessened, owing to the vigilance and activity of those whose duty it has been to look after this important interest of the government.

I have the honor to be, with great respect, your obedient servant,
JOS. SMITH.

Hon. JOHN P. KENNEDY,
Secretary of the Navy.

Schedule of papers which accompany the report of the chief of the Bureau of Yards and Docks, to the Secretary of the Navy, for the year ending June 30, 1854.

- Y. & D.—A. General estimate from yards and docks.
- Y. & D.—No. 1. Estimate for the support of the bureau.
- Y. & D.—No. 2. Recruiting stations.
- Y. & D.—No. 3. Officers and others at yards and stations.
- Y. & D.—No. 4. Improvements and repairs at yards and stations.
- Y. & D.—No. 5. Statement showing the sums which make up the first item in paper Y. & D.—A.
- Y. & D.—No. 6. Improvements and repairs at hospitals, and asylum.
- Y. & D.—No. 7. Improvements and repairs of magazines.

JOS. SMITH.

BUREAU OF YARDS AND DOCKS,
October 14, 1842.

Y. & D.—A.

General estimate from the Bureau of Yards and Docks for the year ending June 30, 1854, in addition to the balances that may remain in the treasury on the 1st day of July, 1853.

	Estimated for the year ending 30th June, 1854.	Estimated for the year ending 30th June, 1853.
1. For the pay of commission, warrant, and petty officers.	\$268, 532 00	\$248, 266 00
2. For the pay of superintendents, naval constructors, and all the civil branches at the yards and stations..	108, 650 00	90, 960 00
3. For improvements and repairs of yards and stations..	2, 197, 934 05	1, 399, 359 99
4. For hospital buildings and dependencies	56, 493 93	67, 080 90
5. For navy magazines.....	17, 235 00	
6. For contingent expenses which may accrue during the year for the following purposes, viz: for the freight and transportation of materials and stores for yards and docks; for printing and stationery; for books, maps, models, and drawings; for the purchase and repair of fire-engines; for machinery of every description, and for the patent-right of using the same; for repairing steam-engines, and attendance on the same in navy-yards; for the purchase and maintenance of horses and oxen, and driving teams; for carts, timber-wheels, and workmen's tools of every description, and repairing the same; for office-rent and postage of letters on public service; for furniture for government houses; for coals and other fuel; for candles and oil for yards and stations; for cleaning and clearing-up yard; for flags, awnings, and packing-boxes; for watchmen; and for incidental labor not applicable to any other appropriation	335, 500 00	302, 840 00
Total.....	2, 984, 344 98	2, 108, 506 89

BUREAU OF YARDS AND DOCKS, October 14, 1852.

JOS. SMITH

Y. & D.—No. 1.

Estimate of the expenses of the Bureau of Yards and Docks, for the year ending June 30, 1854.

	Per acts of August 31, 1842, August 12, 1848, and March 3, 1851.	Submitted to equalize the salaries with those of the clerks of other bureaus of the Navy Department.
For compensation to the chief of the bureau.....	\$3,500 00	\$3,500 00
For chief clerk.....	1,600 00	1,700 00
For one clerk.....	1,000 00	1,400 00
Do.....	1,000 00	1,300 00
Do.....	1,000 00	1,200 00
Do.....	800 00	1,100 00
For one messenger.....	700 00	700 00
For one civil engineer.....	2,000 00	2,500 00
For one draughtsman.....	1,000 00	1,400 00
Total.....	12,600 00	14,800 00

Contingent expenses of the bureau, viz :

For labor.....	\$360 00
For stationery, books, plans, drawings, and incidental items.....	800 00
Total contingent.....	1,160 00

BUREAU OF YARDS AND DOCKS, October, 1852.

JOS. SMITH.

Y. & D.—No. 2.

Estimate of the pay of officers attached to the recruiting stations for the year ending June 30, 1854.

	Boston.	New York.	Philadelphia.	Baltimore.	Norfolk.	New Orleans.	Total.	Aggregate amount.
Commanders.....	1	1	1	1	1	1	6	\$12,600
Lieutenants.....	1	1	1	1	1	1	6	9,000
Surgeons.....	1	1	1	1	1	1	6	10,500
Passed mishipmen.....	1	1	1	1	1	1	6	4,500
Total.....	4	4	4	4	4	4	24	36,600

BUREAU OF YARDS AND DOCKS, October 14, 1852.

JOS. SMITH.

Y. & D.—No. 3.

Estimate of the pay of officers and others at navy yards and stations for the year ending June 30, 1854.

PORTSMOUTH, N. H.

No	Officers, &c.	Pay.	Aggregate.
<i>Naval.</i>			
1	Captain	\$3,500	
1	Commander	2,100	
1	Lieutenant	1,500	
1	Master	1,000	
1	Surgeon	1,800	
1	Purser	2,000	
1	Chaplain	1,500	
2	Passed midshipmen, at \$750 each	1,500	
1	Boatswain	700	
1	Gunner	700	
1	Carpenter	700	
1	Sailmaker	700	
1	Steward, assistant to purser, when performing duties of clerk also	750	
1	Steward (surgeon's)	288	
			\$18,738
<i>Ordinary.</i>			
1	Passed midshipman	750	
1	Carpenter's mate	228	
6	Seamen, at \$144 each	864	
12	Ordinary seamen, at \$120 each	1,440	
			3,282
<i>Civil.</i>			
1	Storekeeper	1,400	
1	Naval constructor	2,300	
1	Civil engineer	1,500	
1	Superintendent of floating dock and machinery	1,000	
1	Foreman and inspector of timber	900	
1	Clerk of the yard	900	
1	Clerk to the commandant	900	
1	Clerk to the storekeeper	750	
1	Clerk to the naval constructor	650	
1	Porter	360	
			10,660
Total			32,680

BOSTON.

<i>Naval.</i>			
1	Captain	\$3,500	
1	Commander	2,100	
2	Lieutenants, at \$1,500 each	3,000	
1	Master	1,000	
1	Surgeon	1,800	

BOSTON—Continued.

No.	Officers, &c.	Pay.	Aggregate.
1	Purser	\$2,500	
1	Chaplain	1,500	
2	Passed midshipmen, at \$750 each	1,500	
1	Boatswain	800	
1	Gunner	800	
1	Carpenter	800	
1	Sailmaker	800	
1	Gunner (keeper of magazine)	800	
1	Clerk to purser	500	
1	Steward (assistant to purser)	360	
1	Steward (surgeon's)	360	
			\$22,120
	<i>Hospital.</i>		
1	Surgeon	2,000	
1	Assistant surgeon	1,150	
1	Steward	360	
1	Matron	180	
2	Nurses, at \$144 each	288	
1	Cook	180	
1	Washer	120	
3	Watchmen, at \$240 each	720	
			4,998
	<i>Civil.</i>		
1	Storekeeper	1,700	
1	Naval constructor	2,300	
1	Civil engineer	1,500	
1	Measurer and inspector of timber	1,050	
1	Clerk of the yard	900	
1	Clerk to the commandant	1,000	
1	Clerk (2d) to the commandant	800	
1	Clerk to the storekeeper	1,050	
1	Clerk (2d) to the storekeeper	750	
1	Clerk (3d) to the storekeeper	650	
1	Clerk to the naval constructor	650	
1	Porter	360	
			12,710
	Total		39,828
	NOTE.—The surgeon of the yard is to be required to attend to the marines also.		

NEW YORK.

<i>Naval.</i>			
1	Captain	\$3,500	
1	Commander	2,100	
2	Lieutenants, at \$1,500 each	3,000	
1	Master	1,000	

Y. & D.—No. 3—Continued.

NEW YORK—Continued.

No.	Officers, &c.	Pay.	Aggregate.
1	Surgeon.....	\$1,800	
1	Purser.....	2,500	
1	Chaplain.....	1,500	
2	Passed midshipmen, at \$750 each.....	1,500	
1	Boatswain.....	800	
1	Gunner.....	800	
1	Carpenter.....	800	
1	Sailmaker.....	800	
1	Gunner (keeper of magazine).....	800	
1	Clerk to the purser.....	500	
1	Steward (assistant to purser).....	360	
1	Steward (surgeon's).....	360	
			\$22,120
	<i>Hospital.</i>		
1	Surgeon.....	2,250	
2	Assistant surgeon, at \$1,150 each.....	2,300	
1	Apothecary.....	420	
1	Hospital steward.....	360	
1	Matron.....	180	
4	Nurses, at \$120 each.....	480	
2	Cooks, at \$144 each.....	288	
2	Washers, at \$120 each.....	240	
1	Porter.....	144	
1	Gate-keeper.....	360	
1	Gardener.....	240	
1	Assistant at laboratory.....	120	
			7,382
	<i>Civil.</i>		
1	Storekeeper.....	1,700	
1	Naval constructor.....	2,300	
1	Civil engineer.....	2,400	
1	Inspector and measurer of timber.....	1,050	
1	Clerk of the yard.....	900	
1	Clerk to the commandant.....	1,000	
1	Clerk (2d) to the commandant.....	800	
1	Clerk to the storekeeper.....	1,050	
1	Clerk (2d) to the storekeeper.....	750	
1	Clerk (3d) to the storekeeper.....	650	
1	Clerk to the naval constructor.....	650	
1	Porter.....	360	
			13,610
	Total.....		43,112
	NOTE.—The surgeon of the yard is to be required to attend to the marines also.		

PHILADELPHIA.

No.	Officers, &c.	Pay.	Aggregate.
<i>Naval.</i>			
1	Captain.....	\$3,500	
1	Commander.....	2,100	
1	Lieutenant.....	1,500	
1	Master.....	1,000	
1	Surgeon.....	1,800	
1	Purser.....	2,000	
1	Chaplain.....	1,500	
1	Passed midshipman.....	750	
1	Boatswain.....	700	
1	Gunner.....	700	
1	Carpenter.....	700	
1	Sailmaker.....	700	
1	Steward, assistant to purser, when performing the duties of clerk also.....	750	
1	Steward (surgeon's).....	288	
			\$17,988
<i>Naval asylum and hospital.</i>			
1	Captain.....	3,500	
1	Commander.....	2,100	
1	Lieutenant.....	1,500	
1	Surgeon.....	2,250	
1	Passed assistant surgeon.....	1,150	
1	Chaplain.....	1,500	
1	Secretary.....	900	
1	Steward to the asylum.....	360	
1	Steward (surgeon's).....	360	
1	Steward (purser's).....	480	
1	Matron.....	180	
1	Nurse.....	120	
2	Cooks, at \$144 each.....	288	
1	Assistant cook.....	96	
6	Laundresses and nurses, at \$96 each.....	576	
			15,360
<i>Civil.</i>			
1	Storekeeper.....	1,250	
1	Naval constructor.....	2,300	
1	Civil engineer.....	2,350	
1	Superintendent of floating dock and machinery.....	1,000	
1	Measurer and inspector of timber.....	900	
1	Clerk of the yard.....	900	
1	Clerk to the commandant.....	900	
1	Clerk to the storekeeper.....	750	
1	Clerk to the naval constructor.....	650	
1	Porter.....	360	
			11,360
Total.....			44,708
<p>NOTE.—The surgeon of the yard is to attend to the marines and to the receiving vessel.</p>			

Y. & D.—No. 3—Continued.

WASHINGTON.

No.	Officers, &c.	Pay.	Aggregate.
	<i>Naval.</i>		
1	Captain.....	\$3,500	
1	Commander.....	2,100	
1	Lieutenant.....	1,500	
1	Master.....	1,000	
1	Surgeon.....	1,800	
1	Purser.....	2,000	
2	Chaplain.....	1,500	
1	Passed midshipmen, at \$750 each.....	1,500	
1	Boatswain.....	700	
1	Gunner.....	700	
1	Carpenter.....	700	
1	Steward, assistant to purser when performing the duties of clerk also.....	750	
	Steward (surgeon's).....	360	
	<i>Ordinary.</i>		\$18,110
1	Passed midshipman.....	750	
1	Boatswain's mate.....	228	
1	Carpenter's mate.....	228	
1	Steward.....	288	
10	Ordinary seamen, at \$120 each.....	1,200	
	<i>Civil.</i>		2,694
1	Storekeeper.....	1,700	
1	Civil engineer.....	1,800	
1	Inspector and measurer of timber.....	900	
1	Clerk of the yard.....	900	
1	Clerk to the commandant.....	900	
1	Clerk (2d) to the commandant.....	750	
1	Clerk to the storekeeper.....	900	
1	Clerk (2d) to the storekeeper.....	750	
1	Steam engineer and machinist.....	2,000	
1	Master tank and camboose maker.....	1,250	
1	Master chain cable and anchor maker.....	1,250	
1	Pyrotechnist.....	1,500	
1	Keeper of the magazine.....	480	
1	Porter.....	360	
	Total		15,440
			36,244
	NOTE.—The surgeon of the yard is to be required to attend to the marines also.		

NORFOLK.

	<i>Naval.</i>		
1	Captain.....	\$3,500	
1	Commander.....	2,100	
2	Lieutenants, at \$1,500 each.....	3,000	
2	Masters, at \$1,000 each.....	2,000	

NORFOLK—Continued.

No.	Officers, &c.	Pay.	Aggregate.
1	Surgeon	\$1,800	
1	Purser	2,500	
1	Chaplain	1,500	
2	Passed midshipmen, at \$750 each	1,500	
2	Boatswains, at \$800 each	1,600	
2	Gunners, at \$800 each	1,600	
2	Carpenters, at \$800 each	1,600	
1	Sailmaker	800	
1	Clerk to the purser	500	
1	Steward, assistant to purser	360	
1	Steward, (surgeon's)	360	
	<i>Hospital.</i>		\$24,720
1	Surgeon	2,000	
1	Passed assistant surgeon	1,150	
1	Assistant surgeon	950	
1	Steward	360	
1	Matron	180	
3	Nurses, at \$120 each	360	
2	Cooks, at \$144 each	288	
2	Washers, at \$120 each	240	
4	Boatmen, at \$120 each	480	
1	Boy	96	
	<i>Civil.</i>		6,104
1	Storekeeper	1,700	
1	Naval constructor	2,300	
1	Civil engineer	1,800	
1	Inspector and measurer of timber	1,200	
1	Clerk of the yard	900	
1	Clerk to the commandant	1,000	
1	Clerk (2d) to the commandant	800	
1	Clerk to the storekeeper	1,050	
1	Clerk (2d) to the storekeeper	750	
1	Clerk (3d) to the storekeeper	650	
1	Clerk to the naval constructor	650	
1	Keeper of the magazine	480	
1	Porter	360	
	Total		13,640
			44,640
NOTE.—The surgeon of the yard is to be required to attend to the marines also.			

PENSACOLA.

<i>Naval.</i>			
1	Captain	\$3,500	
	Commander	2,100	
2	Lieutenants, at \$1,500 each	3,000	

Y. & D.—No. 3—Continued.

PENSACOLA—Continued.

No.	Officers, &c.	Pay.	Aggregate.
1	Master	\$1,000	
1	Surgeon	1,800	
1	Purser	2,500	
1	Chaplain	1,500	
2	Passed midshipmen, at \$750 each	1,500	
1	Boatswain	800	
1	Gunner	800	
1	Carpenter	800	
1	Sailmaker	800	
1	Steward, assistant to purser when performing the duties of clerk also	750	
1	Steward, (surgeon's)	360	
	<i>Ordinary.</i>		
1	Lieutenant	1,500	
1	Carpenter's mate	228	
2	Boatswain's mates, at \$228 each	456	
10	Seamen, at \$144 each	1,440	
60	Ordinary seamen, at \$120 each	7,200	
	<i>Hospital.</i>		
1	Surgeon	2,250	
2	Assistant surgeons, at \$950 each	1,900	
1	Steward	360	
1	Matron	250	
3	Nurses, at \$120 each	360	
2	Cooks, at \$144 each	288	
3	Washers, at \$120 each	360	
1	Baker	420	
1	Carter	120	
1	Messenger	144	
3	Watchmen, at \$360 each	1,080	
1	Gardener	250	
	<i>Civil.</i>		
1	Storekeeper	1,700	
1	Naval constructor	2,300	
1	Civil engineer	3,000	
1	Inspector and measurer of timber	1,000	
1	Superintendent of floating-dock and machinery	900	
1	Clerk of the yard	900	
1	Clerk to the commandant	900	
1	Clerk (2d) to the commandant	750	
1	Clerk to the storekeeper	1,050	
1	Clerk (2d) to the storekeeper	750	
1	Clerk (3d) to the storekeeper	650	
1	Porter	360	
	Total		14,260
			54,076

NOTE.—The surgeon of the yard is to attend to the marines near the yard, and to such persons in the yard as the commandant may direct.

MEMPHIS.

No.	Officers, &c.	Pay.	Aggregate.
<i>Naval.</i>			
1	Captain	\$3,500	
1	Lieutenant	1,500	
1	Master	1,000	
1	Surgeon	1,800	
1	Purser	2,000	
1	Passed midshipman	750	
1	Steward, assistant to purser, when performing duties of clerk also	750	
			\$11 300
<i>Civil.</i>			
1	Storekeeper	1,250	
1	Civil engineer	2,500	
1	Superintendent of ropewalk	1,500	
1	Clerk of the yard	900	
1	Clerk to the commandant	900	
1	Clerk to the storekeeper	650	
1	Porter	360	
			8,060
	Total		19,360

SACKETT'S HARBOR.

<i>Naval.</i>			
1	Commander	\$2,100	
1	Master	1,000	
			\$3,100
	Total		3,100

CALIFORNIA.

<i>Naval.</i>			
1	Captain	\$3,500	
1	Commander	2,100	
1	Lieutenant	1,500	
1	Master	1,000	
1	Surgeon	1,800	
1	Purser	2,000	
1	Passed midshipman	750	
1	Boatswain	700	
1	Steward, (assistant to purser)	750	
			\$14,100

Y. & D.—No. 3—Continued.

CALIFORNIA—Continued.

No.	Officers, &c.	Pay.	Aggregate.
<i>Civil.</i>			
1	Storekeeper	\$1,700	
1	Civil engineer.....	4,000	
1	Clerk of the yard	900	
1	Clerk to the commandant	900	
1	Clerk to the storekeeper.....	1,050	
1	Porter	360	
	Total		\$8,910
			23,010

RECAPITULATION.

Navy yards.	Naval.	Ordinary.	Hospital.	Civil.	Aggregate.
Portsmouth, New Hampshire	\$18,738	\$3,282	.....	\$10,660	\$32,680
Boston	22,120	.....	\$4,998	12,710	39,828
New York	22,120	.....	7,382	13,610	43,112
Philadelphia	17,988	.....	15,360	11,360	44,708
Washington	18,110	2,694	.....	15,440	36,244
Norfolk	24,720	.....	6,104	13,640	44,464
Pensacola	21,210	10,824	7,782	14,260	54,076
Memphis	11,300	.....	.....	8,060	19,360
Sackett's Harbor.....	3,100	.....	.....	.....	3,100
California	14,100	.....	.....	8,910	23,010
Total	173,506	16,800	41,626	108,650	340,582

JOS. SMITH.

BUREAU OF YARDS AND DOCKS, October 14, 1852.

Estimate of the amount that will be required towards the construction, extension, and completion of works, and for the current repairs at the several navy yards, for the fiscal year ending 30th June, 1854.

PORTSMOUTH, N. H.

For cooper's shop and watchman's quarters; foundation ways for launching and hauling up; dredging in front, and pointing and puddling stone basin; boiler-room, boilers, engine, and machinery; reservoir for engine-house; pipes, gutters, drains, and cisterns; removing ledge and grading yard, near dry-dock and railway; chapel; and for repairs of all kinds, including care of floating-dock..... \$80,893 00

BOSTON.

For machine shop and foundry; rebuilding smithery; cooperage and packing-house; coal-house for rope-walk engines; chapel; stone wall west side of timber-dock; rebuilding battery; shear-wharf, hauling-slip, gutters, &c.; grading and paving timber shed 31; and for repairs of all kinds..... 119,860 00

NEW YORK.

For completing commander's house; smithery; timber shed; lime, pitch, and coal house; continuing quay wall; muster office; cob-wharf; dredging channel and piers; completing engine-house, culvert, and removing piles in front of dock; filling in timber pond and low places; paving gutters and flagging, and for repairs of all kinds..... 249,320 00

PHILADELPHIA.

For extending wharf No. 4, and dredging; completing paving, &c.; and for repairs of all kinds, including floating dock..... 23,925 00

WASHINGTON.

For filling in timber-dock (completion of); commander's quarters; conveying water into navy yard and reservoir; extending boiler shop, &c.; converting old ordnance shop into machine shop; steam engine and other machinery for ordnance works; ordnance foundry for casting brass guns, &c.; gas fixtures, and gas for lighting yard; railway from anchor and boiler shop to wharves; quay-wall south front of yard; and for repairs of all kinds..... 200,512 00

NORFOLK.

For extending quay wharves; completing timber dock; carpenter's workshop and cart-shed; building for muster and other offices; machinery for engine, machine, and armorer's shops; dredging, filling in low grounds, grading, &c.; completing magazine and keeper's house, Fort Norfolk; hauling-up slips and mud-scows; and for repairs of all kinds..... \$160,600 00

PENSACOLA.

For permanent wharf; paint-shop and cooperage; construction of deep basin and dredging; rebuilding central wharf, and wharves I and C; smoke-stack, and extending machine shops; mooring-anchors, cables, and fixtures, for mooring and operating floating-dock; and for repairs of all kinds..... 261,505 00

MEMPHIS.

For excavation, embankment, and grading; completing hemp-house; completing blacksmith's shop; and office building; cisterns for ropewalk; culvert from ropewalk to river; pavements, drains, ditches, and privies; and for repairs of all kinds..... 126,468 05

CALIFORNIA.

For a foundry; machine shop; blacksmith shop; boiler shop; engine-house, and pattern shop; carpenter's shop; storehouse; wharf; and for a steam-engine and machinery, including transportation..... \$419,851 00

The above estimates being based upon Washington prices, there is added for difference in prices of materials and labor in California..... 555,000 00

Total..... 974,851 00

RECAPITULATION.

Portsmouth, New Hampshire.....	\$80,893 00
Boston.....	119,860 00
New York.....	249,320 00
Philadelphia.....	23,925 00
Washington.....	200,512 00
Norfolk.....	160,600 00
Pensacola.....	261,505 00
Memphis.....	126,468 05
California.....	974,851 00,

Total..... 2,197,934 05

JOS. SMITH.

BUREAU OF YARDS AND DOCKS, *October 14, 1852.*

Statement showing the several sums which make up the amounts of the first item in the general estimate from the Bureau of Yards and Docks, marked Y. and D.—A, for the year ending June 30, 1854.

For recruiting stations.....	\$36,600 00
For naval branch at yards and stations.....	173,506 00
Hospital branch at yards and stations.....	41,626 00
Ordinary branch at yards and stations.....	16,800 00
Total.....	<u>268,532 00</u>

JOS. SMITH.

BUREAU OF YARDS AND DOCKS, October 14, 1852.

Y. & D.—No. 6.

For Hospitals and Magazines.

HOSPITALS.

At Boston: For repairs of all kinds.....	\$600 00	
At New York: For repairs of all kinds.....	300 00	
At Philadelphia: For paving Shippen street (required by State law).....	\$2,500 00	
For walls on Shippen street and iron railing..	2,100 00	
Tinning roof of asylum; laying water-pipes, furnaces, grates, and ranges; pavements and gutters.....	5,000 00	
Repairs of all kinds.....	1,000 00	
		<u>10,600 00</u>
At Norfolk: For walls to enclose a grave yard, including excavation, &c.....	6,168 93	
For repairs of all kinds.....	2,500 00	
		<u>8,668 93</u>
At Pensacola: For wall around hospital grounds.....	22,500 00	
For draining and filling ponds.....	2,650 00	
Repairs of all kinds.....	11,175 00	
		<u>36,325 00</u>
Total for hospitals.....		<u>56,493 93</u>

Y. & D.—No. 7.

Magazines.

At Boston: For beds to stow shot.....	\$1,500 00	
For arrangements for bouching, filling and un- loading shells.....	750 00	
For repairs of all kinds.....	550 00	
		\$2,800 00
At New York: For fitting store-rooms, work- shops, and machinery, for ordnance purposes	1,210 00	
For gun-skids, gravelling ordnance grounds, &c.....	2,375 00	
For repairs of all kinds.....	700 00	
		4,285 00
At Washington: For foundation for stowing shot and protection of shells.....	3,000 00	
For powder magazine, new floor.....	1,000 00	
For repairs of all kinds.....	700 00	
		4,700 00
At Norfolk: For foundation of guns and shells	3,000 00	
For machinery, &c., for bouching shells, and preparing and filling tank-houses.....	1,000 00	
For repairs of all kinds.....	500 00	
		4,500 00
At Pensacola: For preparing platform for salu- ting battery.....	750 00	
For repairs of all kinds.....	200 00	
		950 00
Total for magazines.....		17,235 00

JOS. SMITH.

BUREAU OF YARDS AND DOCKS, *October 14, 1852.*

RECAPITULATION.

Civil.

Salaries.....	12,600 00
Contingent.....	1,160 00

Navy.

Pay of the navy.....	268,532 00
Contingent.....	335,500 00

Special.

Pay of superintendents.....	108,650 00
Improvements of navy yards.....	2,197,934 05
Do. hospitals.....	56,493 93
Do. magazines.....	17,235 00

Abstract of the annual report from the Bureau of Provisions and Clothing, dated October 28, 1852.

Transmits the estimates for the fiscal year ending June 30, 1854, and submits, under the instruction of the department, an estimate for contingent to defray the expenses of transportation, &c., &c., and reasons therefor; refers to suggestions contained in its annual reports of November 16, 1850, and November 17, 1851, which were approved and recommended by the department to the favorable notice of Congress, in relation to the establishment of a public bakery; the exemption of certain articles of provisions from the operation of the law requiring supplies to be furnished by contract with the lowest bidder; the expediency of vesting in the department a discretionary power to modify the ration, by availing itself of the scientific discoveries of the day, in the preservation of animal and vegetable alimentary substances, some of which are used in foreign navies; objection to the contract system and to lowest bids; failure of a contractor for beef and pork to make deliveries, and the probable cause thereof; that the prepared vegetables, referred to in report of November last, imported from France and England, have been examined and tested satisfactorily by two boards of officers; that the reports have been printed, and are at the disposal of the department; that on the recommendation of the boards, an additional supply has been ordered, and will be put on board vessels bound on long cruises, with a view to test more practically their adaptation for use at sea.

The returns of navy agents, pursers and storekeepers, at home and abroad, have been promptly rendered; notices the shipments of stores to foreign stations, since 1st July ultimo; the ration in some of its component parts requires revision, and the reasons therefor, and that some prescribed limit should be made to the commutation of rations.

Proper economy has been enforced; our squadrons abroad have been well supplied with the best stores, and the funds on hand of the appropriation for provisions and clothing are ample to meet all legitimate demands; renewed recommendation, in former reports, in favor of giving increased compensation to the clerks and assistants of the pay department of the navy.

BUREAU OF PROVISIONS AND CLOTHING,
October 28, 1852.

SIR: I have the honor to transmit herewith, in compliance with your instructions, estimates for the fiscal year ending June 30, 1854, and the statements and abstracts required by the acts of Congress of April 21, 1808, March 3, 1809, and March 3, 1843, marked from A to N, inclusive.

The estimate for "contingent," to defray the expenses of transportation, &c., has been made under the instruction of the department. These expenses have heretofore been paid out of the general appro-

priation for contingencies estimated for by the department and the other bureaus; but as the appropriation has frequently been nearly exhausted before the close of the fiscal year, no doubt induced the department to direct the present estimate to be submitted, in order to guard against a deficiency. The bureau begs leave to refer to the suggestions contained in its annual reports of November 16, 1850, and November 17, 1851, which received the approval of your predecessor, and which he recommended to the favorable notice of Congress, in relation to the establishment of a bakery at the navy yard in New York, for the preparation of bread for the use of the navy; the expediency of exempting certain articles of provisions, as is now the case with regard to cheese, butter, and tobacco, from the operation of the law requiring supplies to be furnished on contract with the lowest bidder, and to vest in the department a discretionary power to modify the ration, and to avail itself of the scientific discoveries of the day, in the preservation of animal and vegetable alimentary substances, many of which are used in the British and French navies.

Longer experience tends to impress more forcibly on the conviction of the bureau, that the contract system, and of lowest bids for many articles of provisions of a perishable nature, but necessary to the health and comfort of our seamen, are of no advantage to the government, and are injurious to the service. Such articles could be procured by open purchase, under proper regulations, of a better quality, and on equally favorable terms to the government as by contract.

The contractor for pork to be delivered at Boston, New York and Norfolk, and for beef at the latter place, has failed to deliver a barrel, and the bureau will be compelled to make purchases on his account; and the consequence will be, the institution of a suit, at great expense to the government, to recover any excess that may be paid beyond the contract prices. The failure to deliver is no doubt caused by the enhanced value of the articles since the contracts were made; and such, it may be anticipated, will recur under similar circumstances. The government is thus precluded from availing itself of low prices, and must generally be content to pay higher than others for its supplies.

The bureau respectfully renews its recommendation, that the department be vested with the power to reject the bids of all persons who may have failed to execute promptly such contracts as may have been previously entered into by them.

The bureau, however, takes much pleasure in stating that an old and respectable contractor, who had engaged to deliver beef at New York and Boston, has faithfully met his obligations to the entire satisfaction of the inspecting officers, without regard to cost.

The prepared vegetables imported from France and England, as mentioned in the bureau's report of last November, have been examined and tested by two separate boards convened by order of your predecessor; the reports have been published, and copies of them are placed at your disposal. A further supply of the vegetables have been ordered, with the sanction of the department, on the recommendation of the boards, with the view of testing more practically their adaptation for use at sea, and will be placed on board some of our vessels bound on long cruises.

The bureau has much satisfaction in bearing testimony to the punctuality and correctness of the navy agents, pursers, and storekeepers, at home and on foreign stations, in forwarding their respective returns; and the inspectors of the different yards have carried out the wishes and instructions of the bureau in the most satisfactory manner, and have acted with impartiality and justice between the government and the contractors.

In addition to the shipments made, (per statement E) the bureau has forwarded, since 1st July, in the chartered barque Star, sailed 25th September to the Mediterranean, supplies amounting to \$22,521 06; in the chartered brig Chesapeake, sailed 7th October to Porto Praya, \$13,277 33; in the United States storeship Relief, sailed 27th September to Rio de Janeiro, \$20,496 29.

The United States storeship Southampton is now loading in New York for Valparaiso and Macao, and will sail in a few days; and the bureau has shipped on board the ship Talbot, chartered to transport coal to Macao, and on the eve of sailing from New York, six hundred barrels of beef and pork.

The ration of the navy requires revision, and might be reduced in some respects to the great advantage of the government and men. Some of the articles are a source of great loss, and are seldom used entirely by the men, but are frequently thrown overboard by them. The allowance of such articles might be reduced one-half, or entirely discontinued, and in lieu of them some addition to other more acceptable parts of the ration might be made.

It is recommended that a fixed limit be placed as to the number of rations that may be commuted. This should not be left to the discretion of any person; and unless this is done, it will be in vain, as experience has demonstrated, to endeavor to keep the expenditures within the appropriation; more particularly as we may probably have to pay in future high prices for our beef and pork, and perhaps for other articles of provisions.

The bureau has made it its duty to carry out the wishes of the department, to enforce a proper economy in all its disbursements for supplies, without interfering with the legitimate wants or obstructing the movements of our vessels; and it will be found that our squadrons on foreign stations have had all their wants fully and amply provided for with the best of stores.

The funds on hand of the appropriations for provisions and clothing are amply sufficient for all demands that may be legitimately made on them.

The bureau begs leave to call your attention to its former reports in relation to the inadequacy of the compensation of the clerks and assistants of the pay department of the navy. The compensation of that class of subordinates at yards and on board vessels requires revision, and it is hoped that Congress may be induced to take into consideration the claims of those persons whose services are indispensable, on whose fidelity and character much depends, and whose duties require as much talent and knowledge as are requisite in clerks in other situations of much less responsibility, but who are more liberally compensated.

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

WM. SINCLAIR.

HON. JOHN P. KENNEDY, *Secretary of the Navy.*

Reports of two Boards of Navy Officers, convened by order of the Hon. William A. Graham, Secretary of the Navy, at the United States navy yard, New York, in November, 1851, and at Washington city, in May, 1852, to examine certain desiccated alimentary vegetable substances, prepared after the process of M. Masson, chief gardener of the Central Society of Horticulture of France, by Chollet & Co., No. 5 Rue Marbeuf, Paris, and after the process of Dr. J. N. Gannal, No. 6 Rue de Seine, Paris, by Peyrusset, Moller & Co.; the conserve of milk, prepared by M. de Lignac, Chateau de Moulevede, Près Guéret, (Creuse;) and also the preserved potato of D. and H. Edwards & Co., No. 1 Bishops-gate street, London.

NAVY DEPARTMENT,
Bureau of Provisions and Clothing, July, 1852.

The attention of the bureau was drawn to the subject of the "desiccated vegetables" by the following notice in a newspaper in May, 1851:

Important Discovery.—At the last meeting of the Horticultural Society, London, various dried vegetables, such as peas, haricot beans, Brussels sprouts, carrots, turnips, &c., were exhibited from Peyrusset, Moller & Co., of Paris. These were stated to have been dried by a process peculiar to Dr. Gannal, the celebrated chemist and embalmer of animal substances. This process is understood briefly to consist in dividing the larger vegetables into pieces, and placing them in an apparatus into which dried air is driven, until they have parted with all the water, and have become perfectly dry. In this condition they may be preserved for any length of time; and it is said that their flavor is not at all interfered with, inasmuch as nothing is taken from them except the water they contained, and that, after they are cooked, they are just as good as when fresh gathered. If these facts, therefore, are borne out by experience, the discovery is a very important one, even as regards vegetables, more especially to ship-owners, for they can be furnished in this state in quantity, and at a very cheap rate; but in addition to vegetables, fruits, as apples, pears, apricots, &c., and even flowers, may be dried and preserved by the same process; and owing to the rapidity with which the drying is conducted, the latter retain their natural colors almost as brightly as when first obtained from the garden."

Desirous of availing itself of every discovery which might be the means of introducing new elements of comfort and health for the benefit of our seamen, it was the intention of the bureau to request a friend to make inquiries on the subject, and to procure some of the articles; but unexpected circumstances, of a private nature, having made it necessary for its chief to visit France in July last, the Secretary of the Navy, in the kindest manner, granted him leave of absence for a few weeks. On arriving in Paris he sought out Dr. Gannal, had frequent interviews with him, found him intelligent, frank and communicative, and received from him much valuable and interesting information. In looking over a report of a commission of the Academy of Sciences of the Institute of France, on a communication of the Doctor in relation to his process of drying and preserving plants for an herbal, an allusion was found to a process on a different principle, discovered by M. Masson, for the

preservation of vegetables. Wishing to obtain all the information possible on this interesting subject, it was intended to see M. Masson, but that was rendered unnecessary by an introduction with which he was favored by H. S. Sanford, esq., secretary of legation, (our minister, Mr. Rives, being absent from the city,) to M. Jurien, director of the administrative services of the French marine, with whom he had several interviews, and by whom he was furnished with samples of the vegetables prepared by Chollet & Co., after Masson's process, which are used in the French navy. M. Jurien, in the most courteous manner, sent him copies of several reports which had been made on the subject by various naval boards to the minister of marine, and other documents.

Advantage was taken on several occasions to make personal examination of the very simple process of preparing the vegetables at the establishment of Chollet & Co.

The connexion of Dr. Gannal with Peyrusset, Moller & Co., who had prepared the vegetables after his process, having been discontinued, and his own establishment not having been completed, no opportunity offered for its examination. The bureau has lately observed, with regret, in the papers, a notice of the death of Dr. Gannal, but has been informed that his establishment had been completed, and will probably be continued by his sons. The Doctor had also been engaged for some time in making experiments in relation to the preservation of fresh meats, and with decided success. On returning to the United States, via London, the occasion was embraced to see the Messrs. Edwards, the patentees of the "preserved potato," which has been so favorably recommended by many eminent scientific men, and by officers of the British navy, in which service it constitutes a part of the ration.

Although the four cases examined by the boards have not proved satisfactory, this is probably owing to the patentees having been deceived by the persons in their employ in the quality of the potato in the specimens furnished. A most favorable report has, however, been received from the United States ship Relief, (just returned from the coast of Brazil,) on board of which four cases, of twenty-eight pounds each, had been placed in December last. (See page 541.)*

An assortment of the articles was brought to the United States, and the result of their examination will be found in the following reports.

In view of the fact that vegetables, thus prepared, may be taken in large quantities, on account of the little space which they require, and in view also of the beneficial results that would be produced in the preservation of the health of both the officers and the crews of our vessels, together with their comparative cheapness, (the cost being little more than that of fresh vegetables,) it is confidently believed that eventually they will be generally used on board of our naval and merchant vessels.

* Officers recently returned from the East Indies and the coast of Africa, speak in like favorable terms of "Edwards's potato," which they had obtained on those stations, and used in their messes.

A table of the quantity of different dried vegetable substances produced from one hundred kilogrammes of the fresh, according to Dr. Gannal.

Name.	Weight of vegetable.	Weight when dried.
Potato	100 kilogrammes.	25 kilogrammes.
Cabbage	100 " "	7½ " "
Carrots.....	100 " "	10 " "
Turnips	100 " "	8 " "
Succory	100 " "	8 " "
Sorrel	100 " "	8 " "
Cauliflowers.....	100 " "	10 " "
Brussels cabbage.....	100 " "	6 " "
Spinage	100 " "	8 " "
Green peas.....	100 " "	10 " "
String beans.....	100 " "	10 " "
Truffles	100 " "	22 " "
Beans, flageolets.....	100 litres.	50 litres.

Comparison of some French weights and measures with the standards of the United States, expressed to the nearest fraction of the lowest denominations of the latter.

LINEAR MEASURES.

[U. S. standard, 1 yard = 3 feet: 1 foot = 12 inches: 1 inch = 12 lines.]

FRENCH.					UNITED STATES.			
Metre.	Decimetre.	Centimetre.	Millimetre.	=	Yard.	Foot.	Inch.	Line.
1	10	100	1,000	=	1	0	3	4½ + nearly.
	1	10	100	=	0	0	3	11½ — " "
		1	10	=	0	0	0	4¾ — " "
			1	=	0	0	0	½ — " "

WEIGHTS.

[U. S. standard, 1 lb. = 16 ounces: 1 ounce = 16 drachms: 1 drachm = 27½ grains nearly.]

FRENCH.					UNITED STATES.				
Kilogramme.	Hectogramme.	Decagramme.	Gramme.	Decigramme.	Lb.	Oz.	Dr.	Gr.	
1	10	100	1,000	10,000	=	2	3	4½ + nearly.	
	1	10	100	1,000	=	0	3	8⅞ + " "	
		1	10	100	=	0	0	5⅝ + " "	
			1	10	=	0	0	0⅞ — " "	
				1	=	0	0	0	1½ + " "

LIQUID—CAPACITY MEASURES.

[U. S. standard, 1 gallon = 4 quarts: 1 quart = 2 pints: 1 pint = 4 gills.]

FRENCH.					UNITED STATES.				
Hectolitre.	Decalitre.	Litre.	Decilitre.	Centilitre.	=	Gallon.	Quart.	Pint.	Gill.
1	10	100	1,000	10,000	=	26	1	1	$0\frac{7}{10}$ —
	1	10	100	1,000	=	2	2	1	$0\frac{1}{2}$ +
		1	10	100	=	0	1	0	$0\frac{1}{4}$ —
			1	10	=	0	0	0	$0\frac{1}{2}$ —
				1	=	0	0	0	$0\frac{1}{5}$ —

NOTE.—The sign + following certain of the United States equivalents, means that they are inexact in the sense of being too small; while the sign — signifies their being too large.

The English equivalents in the following table are those obtained by Mr. Hassler, late superintendent of weights and measures:

Length.

				Inches.
10 Millimètres	=	1 Centimètre	=	0.39381
10 Centimètres	=	1 Decimètre	=	3.93809
10 Decimètres	=	1 Mètre	=	39.38092

Weights.

			Lbs. Avr.		Troy Grains.
10 Centigrammes	=	1 Décigramme	= .0002	=	1,543
10 Décigrammes	=	1 Gramme	= .0022	=	15,433
10 Grammes	=	1 Décigramme	= .0221	=	154,332
10 Décigrammes	=	1 Hectogramme	= .2205	=	1543,316
10 Hectogrammes	=	1 Kilogramme	= 2.2047	=	15433,159

Liquid Measures.

			Wine Galls.		Wine Quarts.
10 Centilitres	=	1 Décilitre	= 0.026	=	0.106
10 Décilitres	=	1 Litre	= 0.264	=	1.057
10 Litres	=	1 Décalitre	= 2.642	=	10.567
10 Décalitres	=	1 Hectolitre	= 26.418	=	105.673

NAVY DEPARTMENT,

October 30, 1851.

SIR: The chief of the Bureau of Provisions and Clothing having reported to the department that certain alimentary vegetable substances adopted in the French navy, also a preparation of milk used in the navies and hospitals of that country and England, and a preparation of potatoes used in that of the latter, have been procured with a view to their introduction into the American navy, if they shall be found to be adapted thereto, I have deemed it proper to constitute a board of offi-

cers for the purpose of testing the qualities of the articles referred to, and their adaptation as a part of the navy rations.

The samples to be tested and examined, with certain observations in relation to experiments to be made, will be sent to you by the chief of the Bureau of Provisions and Clothing, all of which you will be pleased to have placed in the possession of the board of officers, to consist of Captain Breese, Commander Carpenter, Commander Wilson, Surgeon Bache, and Purser Dunn.

The report of the board will be forwarded direct to the department.

Very respectfully, your obedient servant,

C. M. CONRAD,

Acting Secretary of the Navy.

Captain Wm. D. SALTER,

Commandant Navy Yard, New York.

NAVY DEPARTMENT,

October 30, 1851.

GENTLEMEN: You will be pleased to convene at the navy yard, New York, on the 10th of November next, or as soon thereafter as practicable, as a board of officers of the navy, for the purpose of examining and testing certain alimentary vegetables, and prepared milk, with a view to their adoption as a part of the navy ration.

The board will examine and test, with the greatest care, each of the articles procured, as to its quality, state of preservation, retention of properties, and its adaptation as a means of improving the diet of seamen. The department desires that the board will make accurate and minute experiments on such articles as may be presented by the commandant of the New York navy yard, who will furnish also certain observations in relation to the experiments to be made.

The result of the experiments and the opinion of the board will be transmitted direct to the department.

Very respectfully, your obedient servant,

C. M. CONRAD,

Acting Secretary of the Navy.

Captain S. L. BREESE, Commander E. W. CARPENTER, Commander

S. B. WILSON, Surgeon B. F. BACHE, Purser E. T. DUNN,

U. S. Navy, New York.

Report of a board, composed of Captain S. L. Breese, Commanders E. W. Carpenter and S. B. Wilson, Surgeon B. F. Bache, and Purser E. T. Dunn, convened by order of the Secretary of the Navy, at the United States navy yard, New York, in November 1851, for the purpose of examining and testing certain alimentary vegetable substances, and prepared milk.

U. S. NAVY YARD, NEW YORK,
Monday, November 10, 1851.

Minutes of the proceedings of a board convened by order of the Hon. Secretary of the Navy, dated October 30, 1851, for the purpose of examining and testing certain alimentary vegetables, and prepared milk, with a view to their adoption as part of the navy ration.

All the members being present, and the board organized, the order of the Secretary of the Navy was read, together with the various reports and papers which had been communicated by the commandant of the New York naval station, for the information and guidance of the board; after which it was determined to remove the articles to be reported upon to the Naval Hospital for experiment, that place furnishing greater facilities for the purpose than the navy yard. Board adjourned, to meet to-morrow at 10 a. m.

TUESDAY, November 11, 1851.

Board met, pursuant to adjournment. All present.

It proceeded to inspect the contents of the boxes submitted, which were found to agree with the list supplied by the Bureau of Provisions and Clothing, with the exception, that a paper of potatoes, prepared by Masson's process,* was not found. The several packages were in good order, except that two bottles were found broken, viz: one of carrots, and one of mushrooms. Their contents, however, appeared to have sustained no loss as to quantity, nor deterioration as to quality, from this cause. The board then proceeded to examine and to experiment upon the articles submitted to it, commencing with those prepared by Masson's process.

Experiment 1.—A tablet of choux (cabbages) of five rations, put up in tin foil, presented the appearance of a consolidated mass of leaves of a pale straw color, variegated with green, having a pungent, peculiar, and unpleasant odor, not resembling that of the fresh plant; it weighed four ounces twelve drachms avoirdupois; after soaking in two pints of water at ninety-two degrees of Fahrenheit for seventy minutes, in a covered vessel, it weighed twenty-two ounces eight drachms, having gained by the process one pound one ounce twelve drachms; the quantity of water remaining not absorbed was seven-eighths of a pint. This water was yellowish, and had the taste and odor of boiled cabbage. The time of soaking in this instance was more protracted, because, after it had been carried on for a considerable time, it was found, that in consequence of the density of the tablet, the water had not penetrated into the interior. The tablet was then broken up, by removing successively the layers of leaves, and the soaking was then continued,

until the purpose to be attained was supposed to be effected. The cabbage was placed then in a covered saucepan, the water drained from it returned, together with an additional quantity, amounting in all to eight and a half pints. The vessel was placed on a cooking range, over a good anthracite fire, when it was speedily brought to the boiling point, at which it was maintained until it was considered to be prepared for eating. The time employed in cooking was two hours and fifty-one minutes; it was then removed and carefully drained, after which its weight was found to be two pounds five and a half ounces.

The article had now assumed very nearly the appearance of boiled fresh cabbage, with which it was compared. The odor and taste were similar; it differed from it only in being yellower, tougher, and more saccharine. After having been seasoned with butter, pepper and salt, it was found to be an agreeable article of food.

Experiment 2.—A tablet of carrots (carottes) of five rations, enclosed in tin foil, on being uncovered, presented neither the color nor odor of the recent root: the color was too pale; the odor differing but slightly from that of the cabbage, (Ex. 1.) The management with this article was similar to the preceding; and the various facts connected with it will be found noted in the annexed table, form A. After cooking, this vegetable was found to have resumed its color, odor, and taste, nearly; the color not so bright as in the fresh root—the taste more saccharine. Having been seasoned, the article was agreeable to the taste.

Experiment 3.—A tablet of turnips (navets—Masson) of five rations, the foil being removed, showed a dense mass of transverse slices of the root pressed together—whitish, with an odor much resembling the preceding articles. The experiments with it were conducted on the same plan, (see table A.) After soaking, the water remaining was colored yellow; after cooking, the slices had a faint taste of the turnip, and were tough and leathery. From their appearance when filled out by absorbed water, they were supposed to be taken from a small and inferior species of the root. When seasoned, they were not as palatable as the preceding vegetables.

Experiment 4.—A tablet of julienne (Masson) of five rations, cased in foil, when uncovered, presented nothing worthy of note; it was treated as the preceding, (see table A.) The water remaining after soaking had the color, flavor, and odor of the julienne prepared from fresh roots. The mass appeared to consist of carrots, cabbage, and turnips, only. After the soup was cooked, it differed from the julienne, with which the board was familiar, in the absence of meat only.

Board adjourned, to meet to-morrow at 10 a. m.

U. S. NAVAL HOSPITAL,
Wednesday, November 12, 1851.

Board met, pursuant to adjournment. All present.

Experiment 5.—A tablet of chicorée (succory—Masson) of five rations, cased in foil, was uncovered. It was of the color of straw-paper, variegated with green. It was treated similarly to the preceding vegetables, (table A.) After soaking it did not recover its fresh appearance; the water remaining was brown and imbued with the bitter

flavor of the plant. After protracted boiling, it remained tough, yellowish, unpalatable, and unfit for food.

Experiment 6.—A tablet of persil (parsley—Masson) put up in foil, when uncovered, resembled a mass of dead leaves of the plant. The odor, although resembling that of the preceding preparations, retained the character of the fresh plant sufficiently to distinguish it. The tablet was of a uniform dark green. After soaking, it regained the appearance of the recent leaf, with but little of its flavor. The water remaining was strongly imbued with the taste and odor of ordinary parsley; the leaves, when filled out by absorbed water, were found to be of an inferior variety of the plant. (Table A.)

Experiment 7.—A tablet of haricots verts (string-beans—Masson) put up in foil, when opened, was of a dark green color, with a peculiar, but not unpleasant smell. After long soaking, they had not resumed the appearance of the fresh bean, and it was only after protracted boiling that they became tender. They were then seasoned, and were found palatable and well tasted, although inferior in flavor and tenderness to the recent bean. (Table A.)

Experiment 8.—A bottle of petit pois (green peas—Masson) of five rations. The contents had an obscure dark green color, and were contracted; not so much so, however, as to promise a very great increase from the absorption of water. After long soaking and cooking, they were filled out, and were found to be agreeable and palatable, but less highly flavored, and somewhat tougher, than the fresh pea.

Board adjourned, to meet to-morrow at 10 a. m.

U. S. NAVAL HOSPITAL,
Thursday, November 13, 1851.

Board met, pursuant to adjournment. All present.

All the preparations by Masson's process having been submitted to experiment—soaking them in water as a preparatory step to cooking, with a view to test the practical value of this preliminary maceration, it was determined to proceed with portions of some of the articles prepared by this process, by simply placing them in cold water, and exposing them to heat over the cooking range—placing them for the first half hour over the end of the range, when the temperature would not reach quite as high as the boiling point, and removing them afterwards to the middle of the range, until the vegetable should be perfectly cooked.

Experiment 9.—A tablet of choux (cabbages—Masson) of five rations, in all respects similar to that used in the first experiment, was treated in the manner described above. It weighed, on being uncovered, 5 oz., and was placed in a saucepan with six pints of water at the temperature of the air—about 58°. In two hours and thirty minutes from the time of immersion, it was considered to be sufficiently cooked. In color, taste, and tenderness, it was much superior to that in which the preliminary soaking had been used. (Table A.)

Experiment 10.—A tablet of carottes (carrots—Masson) of five rations, similar to that used in the experiment No. 2, was treated as in the preceding experiment. The contrast between the result obtained from this method and those of experiment 2 was very striking—so much so, indeed, as to give the impression to the board that the quality of the

tablets must be different. The cooked carrot, furnished by this experiment, could in no respect be distinguished from the well prepared recent root. (Table A.)

The board proceeded to examine the Gannal preparations.

Experiment 11.—The contents of a bottle of champignons (mushrooms—Gannal) which had been found broken in the box, but to all appearance unchanged, were put into boiling water and soaked for ten minutes—care being taken to preserve the temperature from much depression. At the end of this time the remaining water was of a dark-brown color—with the taste and odor of the mushroom—which also had their natural taste in some degree, but were quite tough. They were then cooked for an hour and a half, when they were found to be still tough—flavor natural but faint—color good. (Table A.)

Experiment 12.—Tapioca Français (pure potato—Gannal) had a whitish yellow appearance, with short cylindrical portions, as if the mass from which it was prepared had, before drying, been forced through circular orifices. Seven ounces of the tapioca were put into two and one-fifth pints of boiling water, well stirred, and then boiled for ten minutes. There resulted a semi-fluid, resembling in color and consistence thin mush, made from yellow corn-meal. The taste resembled that of the fresh root, but could be distinguished from it. (Table A.)

Experiment 13.—This article was then treated in the same quantity, (seven ounces) with one pint of water, with the view of obtaining it, when cooked, of the consistency of ordinary mashed potato. The process was conducted in the same manner. The result was better, and more nearly resembled mashed potato: a portion of the mass, which was in contact with the bottom of the vessel, was slightly burned. (Table A.)

Experiment 14.—For the purpose of comparing the two preparations, Edwards's preserved potato was next experimented upon. It presented the appearance of a coarse white powder, with a darkish green tinge, with some black specks in it. Twelve ounces of it were added to a quart of boiling water, and well stirred, and the vessel was kept warm for ten minutes. The result was a semi-fluid of the consistence of thin mush, made of white corn-meal, interspersed with dark specks and spots. It had an uncooked and unpleasant taste, like that of decayed potato. (Table A.)

Experiment 15.—Twelve ounces of the same preparation were added to a pint of boiling water, to obtain a thicker product. The resulting mass was too thick and tenacious, and had the same unpleasant taste and bad color. The impression of the board from these two experiments was that the sample of Edwards's preserved potato, submitted to them, had been prepared from diseased or decayed material.

Experiment 16.—A tin case of conserve of milk (de Lignac) was opened, and found to contain a white, soft, solid mass. A portion was diluted with five times its bulk of warm water. It formed a milk-like fluid, with the flavor of rich boiled milk, much sweetened. A portion of the conserve, sufficient to make half a pint of milk, was set apart to be analyzed, in order to compare the result with that obtained from an equal quantity of cows' milk. (See paper B.) A portion was set aside, to observe the effect of being kept exposed to the air.

Experiment 17.—A portion of a tablet of consolidated milk, which was received from the navy yard, two months ago, for trial, was examined. It had been exposed to the atmosphere ever since it had been at the hospital, and appeared to be in no degree rancid, or impaired from that cause. A quantity of it was grated, and the powder dissolved in warm water. The resulting liquid was thought more closely to resemble unboiled milk than the preceding, and to have less artificial sweetening. The analysis of 100 grains troy of this article will be found in paper marked B.

Board adjourned, to meet to-morrow at 10 a. m.

UNITED STATES NAVAL HOSPITAL,
November 14, 1851.

Board met, pursuant to adjournment. All present.

Experiment 18.—A tablet of carottes (carrots—Masson) of five rations, in all respects like those used in experiments 2 and 10, was treated by the mode laid down by Gannal: it was soaked in salted water, of the temperature of the air, for seven hours, and then boiled for an hour. The result could in no respect be distinguished from the properly-cooked recent root. (Table A.)

Experiment 19.—A tablet of navets (turnips—Masson) of five rations was treated in the same manner. The result was watery, tasteless, and without odor. The root from which the preparation had been made seemed, as in the other experiments, to be of an inferior kind. (Table A.)

Experiment 20.—A tablet of choux, (cabbages—Gannal,) covered with paper, was opened. It was a mass of large, dull, yellow-colored leaves, not so tightly pressed as those of Masson. The odor was very unpleasant. On separating the leaves, it appeared to be carelessly prepared. An entire carrot and a large piece of cotton string were found in the interior of the package. The inner part was moist, and thought to be slightly mildewed. One hundred grains of the leaves, taken from the interior of the package, after having been exposed to a temperature of eighty-eight degrees for twenty-four hours, was found to have lost six and a half grains in weight. The package weighed one pound ten ounces. It was soaked for two hours in six pints of water at ninety-six degrees, and afterwards boiled in twenty-eight and two-sixteenths pints for an hour and fifty-five minutes, when it appeared to be well cooked. It was found to be tender, but with little taste. Its color was yellowish-white. (Table A.)

Experiment 21.—The contents of a bottle marked julienne, composed of ten varieties of vegetables, (Gannal,) for twenty-four persons, weighed one pound two ounces. It was boiled for two hours and three-quarters in a mixture of twelve pints of stock soup, with thirteen pints nine and a half ounces of water. The soup had the flavor, in a high degree, of the vegetables of which it was composed, and was agreeable. The vegetables, except the cauliflower, were tough, and did not improve in this respect from protracted boiling. (Table A.)

Experiment 22.—A package of oseille, (sorrel—Gannal,) put up in paper, was of a yellowish-green color. The leaves were packed in layers, with slips of paper intervening. It had a peculiar, unpleasant

odor. Three ounces and two drachms were put into cold salted water and boiled for fifty-two minutes, when it was found to be perfectly cooked; the dark-green color of the leaf was restored; it was tender, and had the taste of the vegetable, but not in a high degree. (Table A.)

Experiment 23.—The contents of a bottle of chou fleur (cauliflower—Gannal) was of a yellowish-white appearance. Two ounces and two drachms were put into four and an eighth pints of water, at the temperature of the air, and boiled for fifty minutes, when it was found to be well cooked. It was tender and palatable, much resembling the recent vegetable in these respects. The color was unchanged. (Table A.)

Experiment 24.—The contents of a bottle of haricots verts flageolets (bunch beans—Gannal) had very much the appearance of the ordinary bunch bean when matured, but were lighter. Ten and a quarter ounces were put into five pints of cold water and boiled for two hours and forty minutes, when they were found to be tender and palatable—nearly as much so as the fresh bean. (Table A.)

Experiment 25.—The betteraves (beets—Gannal) consisted of several transverse sections of the root, of a deep-red color, very light, from exsiccation. They were loosely wrapped in paper, and had some minute fragments of glass adhering to them—from which it was inferred they had originally been packed in a bottle which had been broken. Two ounces and nine drachms were put into a mixture of cider-vinegar and water, a pint of each, at the temperature of the air. It was soaked for thirteen and a half hours; the color of the root was freely imparted to the acidulated water; the root was tender and pleasant to the taste, but resembling in appearance and flavor beets that had been kept out of the ground for a length of time. (Table A.)

Board adjourned, to meet on Monday, the 17th instant, at 10 a. m.

UNITED STATES NAVAL HOSPITAL,
Monday, November 17, 1851.

Board met, pursuant to adjournment. All present.

Experiment 26.—The contents of a bottle of carottes (carrots—Gannal) which was found broken in the box, consisted of longitudinal split portions of the dried root, retaining its natural color and taste. Five ounces of it were soaked in two and a half pints of salted water, at fifty-eight degrees, for fourteen hours and fifty minutes; the weight after maceration was one pound five ounces and four drachms; the water remaining measured one pint and seven-sixteenths. They were then cooked for an hour and ten minutes in four pints and seven-sixteenths of water, when they were found to weigh one pound nine and a half ounces. They had recovered very nearly the natural appearance and flavor of the cooked recent root. (Table A.)

Experiment 27.—The contents of a bottle of navets (turnips—Gannal) consisted of longitudinal portions of the root dried and contracted. Six ounces were soaked in two and a half pints of salted water, at fifty-eight degrees, for eight hours; they imparted a dull orange color, with the odor of the root to the water remaining, which amounted to one pint and seven-sixteenths. The weight of the root when soaked was one pound five ounces and a half; it was then cooked in two pints and seven-sixteenths of water for thirty-five minutes, when, being suffi

ciently done, its weight was found to be one pound eight ounces and a quarter. The flavor was good and they were tender. (Table A.)

Experiment 28.—The contents of a bottle of chicorée (succory—Gannal) consisted of small fragments of leaves of a pale greenish-yellow appearance; they were boiled in cold water until cooked: they were tender; color unchanged; taste unpleasant. (Table A.)

Experiment 29.—A package of persil (parsley—Gannal) consisted of thin layers of pressed bunches of sprigs of the plant, separated by slips of paper; color dull yellowish-green. A portion was soaked in cold water for three hours; the water restored the size of the leaves, but they did not recover their odor, taste, nor color. (Table A.)

Experiment 30.—The contents of a bottle of choux de bruxelles (Brussels cabbages—Gannal) consisted of a number of small heads of the vegetable of their natural form. A portion was cooked in cold salted water; it recovered its color; was tender, except the cut part of the stem, and was very palatable and pleasant. (Table A.)

Experiment 31.—The contents of a bottle of epinards (spinage—Gannal) consisted of a coarse powder of the leaf, of a green color. A portion was boiled in salted water till it was well cooked; it had the color and taste of the cooked recent plant. (Table A.)

Experiment 32.—A quantity of ognon (onion—Gannal) was loosely enveloped in paper, retaining its natural appearance, with some of the odor. After soaking, the odor was much stronger; when cooked, the odor and taste were strong; but they were stringy and tough. (Table A.)

**Experiment 33.*—To ascertain whether these desiccated vegetables could not be supplied with water, and cooked by the vapor arising from sea-water, in the process of cooking salted meats, thereby saving fresh water and fuel, and preserving the sapid and soluble matters, which were found to be in some degree lost by maceration and coction, a portion of choux (cabbages—Masson) was exposed to a current of steam in the dry state, upon a perforated metallic plate, in a large vessel connected with a still; at the end of an hour some of the leaves were found to be cooked, while the remainder were softened and turned brown, but had absorbed but little water. At the end of five hours and thirty-five minutes they were all thoroughly cooked. They had a sweetish taste and a brown color. It is to be observed that the apparatus used in this experiment was not well calculated for the purpose. The perforated shelf was so large, that but a small portion of it was covered by the leaves, so that the steam had a free escape without coming in contact with them. (Table A.)

UNITED STATES NAVAL HOSPITAL,
Tuesday, November 18, 1851.

Board met, pursuant to adjournment. All present.

Experiment 34.—A paper of pomme de terre, (potato—Masson,) received from the Bureau of Provisions and Clothing, consisted of

*See note at page 498.

hard, dried, transverse slices. After being soaked in warm water, they were cooked, and found to have the flavor of the potato in a high degree, and to be a very pleasant article of food. (Table A.)

The specimens from the can of Edwards's preserved potato, furnished for experiment, having produced such unsatisfactory results as to color, odor, and taste, the board was disposed to believe that this article had been prepared from diseased or defective roots, and that it did not fairly represent the article. A portion of the same preparation was therefore obtained from another can.

Experiment 35.—Fifteen ounces of it were thrown into three pints of water at one hundred and thirty-eight degrees, and soaked for forty minutes. The resulting mass had a good color and consistence, but a crude, unpleasant taste, and a bad odor. To endeavor to remove these, the mass was exposed to the boiling temperature, for ten minutes, over a water-bath, but with no advantage as to the result. The specimen from this second can was of a pale, yellowish color, with less of the greenish tinge than was observed in the article used in experiments 14 and 15. The board is of opinion that the contents of both the cans examined were prepared from defective potatoes. (Table A.)

The board then proceeded to the examination of several tin cases containing, respectively, flour, rice, beans, and raisins.

Experiment 36.—Two cubical* tin boxes, measuring within a very small fraction of twelve inches each side, and marked "experimental flour, Stafford's process, April 30, 1850; to go out in the Relief, and be returned to the navy-yard, New York," were examined. The cans were found in perfect order, and well soldered; so that their contents were preserved from exposure to the air. Upon opening them, the flour looked well, but in both it was sour. An attempt to prepare bread, from a portion of it, was made. The result was heavy and sour, and dark.

Experiment 37.—A cylindrical* tin can, seven and a quarter inches in length, and seven and an eighth inches in diameter, and marked "raisins put up in tin on trial; not to be opened until fifteen months from this date, October 30, 1850. The condition of the raisins is then to be reported to the Chief of the Bureau of Provisions and Clothing. E. W. Carpender"—was examined. The box was in good order, and well soldered. The raisins, weighing four and a half pounds, were found of good quality, and in excellent preservation in all respects, except that a few of them were slightly candied.

Experiment 38.—A similar tin can to the preceding, marked "rice," with the same directions as were found upon the can of raisins, was found to be in good order. The rice contained in it weighed nine and a half pounds, and looked well. It was quite free from insects, but had a slight musty smell. On being cooked, it proved to be perfectly sound and good.

Experiment 39.—A can similar to the preceding, marked "beans," with the same directions, was found to be in good order. On opening, it was found to contain seven pounds nine ounces of white beans, and

* The cubic tin cans cost each forty-five cents; the cylinders thirty-eight cents.

a small tin box, not soldered, with thirteen and a half ounces of a different and larger variety of white bean. Those in the outer box did not look bright, and had an unpleasant odor, as if they were beginning to decay. On being cooked they did not prove good. Those in the inner can appeared to be in perfect condition in every respect. On being cooked they were found to be sound and good, but they required long boiling.

Board adjourned, to meet on Monday, the 24th of November, at 10 a. m.

UNITED STATES NAVAL HOSPITAL,
Monday, November 24, 1851.

Board met, pursuant to adjournment. All present.

The board proceeded to inspect the can of conserve of milk, opened on the 13th instant, and set aside to be exposed to the action of the air. It was found to be highly rancid, having very much the appearance and odor of rancid tallow.

The board having completed the examination of the several articles submitted to it, and having recorded the experiments made, and their results in the minutes of its proceedings, and tables A and B, respectfully report:

1. That of the articles examined, the cabbage, carrots, and potatoes of Masson appear to be most suitable for serving out in cruising vessels as a part of the diet.

2. That these articles, in the opinion of the board, promise to be highly valuable to crews engaged on long voyages, or under circumstances when supplies of fresh vegetables cannot be obtained.

3. That the board cannot recommend the substitution of these articles for any of the component parts of the existing ration, with the exception, possibly, of cheese.

4. That in view of the difficulty that may be found in cooking these preparations properly on ship-board, and of the prejudice against their introduction as food that may arise among the men, the board would recommend that, for the purpose of determining how far these objections may be valid, one ration of either of the above-named desiccated vegetables be served weekly, in addition to the existing ration, for a time sufficient to determine these points.

5. That many of the other desiccated vegetables would form useful and agreeable articles of food, for the officers' messes, of cruising vessels.

6. That the conserve of milk, of de Lignac, although an excellent imitation of milk, so far as taste is concerned, appears, from analysis, to differ from it in important respects, and does not promise to be valuable as an article of diet for medical use, and the board does not recommend its adoption for this purpose.

[NOTE.—One of the difficulties in the introduction of desiccated vegetables as an article of diet in the naval service, is the increased consumption of fresh water and fuel requisite for their preparation, agreeably to the directions of the manufacturers.

It is believed that the expenditure of both may be dispensed with, and the cooking thoroughly effected by a modification in the construction of the coppers ordinarily used on ship-board.

Let a shallow vessel with a sieve-like or perforated bottom be fitted over the top of the copper, so as to be clear of the water which may be required for boiling the salted meats; upon this bottom the desiccated vegetable is to be placed in a thin but equable layer; the vessel, closely covered by its lid, is then to be fitted into its place, the meats and cold sea water first having been introduced into the copper. The fire is to be slowly raised; as soon as the water becomes warm it will throw off vapor, which, being condensed by the diaphragm and lid, will be absorbed by the vegetable furnishing it with the requisite amount of fresh water to bring it to the proper condition for cooking. After the water attains the boiling point, the steam evolved will cook the vegetable without soaking out from it the sapid matter, as is the case in a degree when boiling in water is resorted to.

Should difficulty be experienced in practice in moistening the dry vegetable sufficiently by vapor, this part of the process may be performed by immersion in fresh water; the moistened vegetable can then readily be cooked by steam in the manner proposed.]

TABLE A.

No. of ex.	Articles.	Weight in the dry state. (Avoirdupois)		Quantity of water used for soaking.	Temp. of water.	Duration of the soaking.	Weight after soaking.	Water remaining after soaking.	Increase of weight.	Quantity of water used in boiling.	Time of cooking.	Weight when cooked.
		lb. oz. dr.	Pints.	Fah. 92°	h. m.	lb. oz. dr.	Pints.	lb. oz. dr.	Pints.	h. m.	lb. oz. dr.	
1	Choux—cabbages..... (Masson).	4	12	2	92°	1 10	1 6 8	7-8	1 1 12	81-2	2 51	2 5 8
9	do..... do.....	5	0							6	2 30	
33	do..... do.....	4	8							6		
2	Carottes—carrots..... do.....	4	6	1	91	1 0	1 1 8	1-4	13 2	23-4	1 50	1 9 4
10	do..... do.....	4	13							4	2 25	
15	do..... do.....	5	0	salt water	58	7 0	1 6 0		1 1 0	6	1 0	1 12 0
3	Navets—turnips..... do.....	4	14	2	92	35	1 5 0	1	1 0 2	5	2 0	2 5 0
19	do..... do.....	4	4	salt water	58	7 0	2 0 12		1 12 8	6	1 5	2 3 0
4	Julienne..... do.....	4	15	2	92	45	1 7 8	13-16	1 2 9	9	3 5	
5	Chicorée—succory..... do.....	4	6	3	90	50	1 8 8	13-4	1 4 2	8	4 0	2 3 0
6	Persil—parsley..... do.....	2	4	2	90	1 0	14 12	11-4	12 8			
7	Haricots verts—string beans..... do.....	2	9	2	91	1 0	9 0	19-16	6 7	10	4 5	1 3 0
8	Petit pois—green peas..... do.....	5	0	2	89	1 2	11 0	111-76	6 0	2	3 45	12 4
34	Pommes de terre—potato..... do.....	10	8	3	138	40	1 5 12	2			25	1 13 12
20	Choux—cabbages..... (Gannal).	1 10	0	6	96	2 0	5 11 0	22-16	4 1 0	282-16	1 55	11 1 12
26	Carottes—carrots..... do.....	5	0	2½ salted	58	14 50	1 5 4	17-16	1 0 4	47-16	1 10	1 9 8
27	Navets—turnips..... do.....	6	0	2½ salted	58	8 0	1 5 8	17-16	15 8	27-16	35	1 8 4
21	Julienne..... do.....	1	2 0	4 6-16						gray 12 water 139-16	2 45	
28	Chicorée—succory..... do.....	2	14		58					46-16	1 15	1 9 12
29	Persil—parsley..... do.....				58	3 0						
12	Tapioca Français—pure potato..... do.....	7	0							21-5	10	
13	do..... do..... do.....	7	0							1	10	
22	Oseille—sorrel..... do.....	3	2							salt water	59	1 1 4
23	Chou fleur—cauliflower..... do.....	2	2		58					41-8 salt	50	13 0
24	Haricots verts flageolets—bunch beans (Gannal).....	10	4							5 salt	40	1 10 4
11	Champignon—mushrooms (Gannal).....					10					30	

30	Choux de Bruxelles—Brussels cabbage (Gannal).....	1 2							46-16 salt	45	6 4
31	Epinards—spinage..... (Gannal)	2 4							3 salt	30	1 8 12
25	Betteraves—beets..... do....	2 9	} vinegar 1 water 1 }	58	13 30	10 8					
32	Ognon—onion..... do....	2 12		58	1 0	8 12					20	13 4

TABLE A—Continued.

No. of ex.	Article.	Quantity ex- perimented with.	Quantity of water used.	Temperature of water.	Remarks.
		<i>lb. oz. dr.</i>	<i>Pints.</i>	<i>Fah.</i>	
14	Edwards's prepared potato.....	0 12 0	2	212°	Well stirred and kept warm for ten minutes.
15	.....do.....do.....	0 12 0	1	212	.....do.....do.....do.
35	.....do.....do.....	0 15 0	3	138	Exposed to temperature 212° for ten minutes in water bath.

NOTE.—The Litre is equal to about one pint and three-quarters imperial measure, and to two pints and a fifth wine measure.

TABLE B.

Analysis of fresh cows' milk, conserve of milk, (de Lignac,) and consolidated milk, made by James Beatson, apothecary to the United States naval hospital, New York.

Article.	Quantity analyzed, Troy weight.	Fatty matter.	Casein.	Sugar, extracts, and salts.	Loss of water	Specific gravity of milk.
	Grains.	Grains.	Grains.	Grains.	Grains.	
Extract of cows' milk, half a pint, of the consistence of the con- serve.....	720	190	106	172	152	1,034
Conserve of milk, de Lignac....	640	32	18	340	50	1,040
Consolidated milk in cake....	100	4	23	62	11	

NOTE.—The fatty matter from the cows' milk was evidently butter. That from the conserve appeared to be some animal fat, not natural to milk, perfectly white in color.

The sugar from the conserve was evidently, for the most part, cane sugar.

NAVY DEPARTMENT, *May 6, 1851.*

GENTLEMEN: The chief of the Bureau of Provisions and Clothing having requested the department to detail a board of medical officers for the purpose of examining various alimentary vegetable substances prepared by the process of desiccation in Europe, and used in the French and English navies, you are hereby constituted a board to examine such articles as may be submitted to you by the chief of the Bureau of Provisions and Clothing. You will assemble in Washington on the 12th instant, and make a full report to the department on the subject at as early a period as practicable.

Very respectfully, your obedient servant,

WILL. A. GRAHAM.

Surgeons BAILEY WASHINGTON,
GEORGE CLYMER, and
JOSEPH BEALE.

NOTE.—Of these vegetables it is only known that the "preserved potato" of Messrs. Edwards is at present used in the English service.

Report of a board composed of Surgeons B. Washington, George Clymer, and Jos. Beale, convened by order of the Secretary of the Navy, at Washington city, in May, 1852, for the purpose of examining certain desiccated alimentary vegetable substances, &c.

WASHINGTON, June 24, 1852.

SIR: We have the honor to make the following report, in conformity with your order of the 6th ultimo, directing us to examine such dried alimentary substances as would be submitted to us by the chief of the Bureau of Provisions and Clothing, and to make a full report to the department on the subject.

We assembled in Washington on the 12th ultimo, and daily thereafter until we completed the examination, which was made with great care and exactness.

The following articles were submitted to us by the chief of the Bureau of Provisions and Clothing:

1st. Those prepared by Masson's process were compressed—were in the form of tablets of about four inches square by one-half inch thick, and covered with tin foil, and were as follows, viz:

- 4 tablets of cabbages, (choux,) viz: two of five rations, and two of ten each.
- 3 “ carrots, (carottes,) of five rations each.
- 2 “ turnips, (navets,) of five rations each.
- 4 “ julienne, (composed of different vegetables for soup,) two of ten rations, and two of five rations each.
- 1 “ succory, (chicorée,) of five rations.
- 1 “ parsley, (persil.)
- 4 “ string beans, (haricots verts.)
- 2 bottles of green peas, (petits pois,) not compressed, of five rations each.
- 1 paper of potatoes, (pommes de terre,) in separate slices not compressed.

On each of the above tablets was the following in French: “Before cooking, soak for a half hour or longer in warm water, in a covered vessel.”

2d. Those prepared by Gannal's process were not compressed, were either in bottles closed with corks and thick tinfoil, not air tight, or in a covering of white paper, and were the following:

- 1 bottle of carrots, (carottes.)
- 2 “ turnips, (navets.)
- 1 “ julienne, consisting of ten different kinds of vegetables.
- 1 “ succory, (chicorée.)
- 2 “ potatoe, (tapioca Français.)
- 2 “ bunch beans, (haricots verts flageolets.)
- 1 “ cauliflowers, (choux fleurs.)
- 1 “ mushrooms, (champignons.)
- 2 “ Brussels' cabbages, (choux de Bruxelles.)
- 1 “ spinage, (epinards.)

1	package of cabbages, (choux.)
$\frac{1}{2}$	" parsley, (persil.)
2	" sorrel, (oseille.)
1	" beets, (betteraves.)
1	" onions, (ognons.)

3d. "Preserved milk," (conserve de lait,) prepared by M. de Lignac, of France, three tin canisters, weighing each, in the average, one pound, eight ounces, thirteen drachms avoirdupois English, gross.

The following is the direction (in French) on each canister: "To obtain milk, it is necessary only to dilute a part of the conserve with five times the quantity of warm water, and then to boil it."

4th. "Preserved Potato" of D. & H. Edwards & Co., of London, two tin cases, containing fifty-six pounds and twenty-eight pounds.

The printed direction for its use is, "to about three-quarters of a pound of the patent preserved potato, add one quart of boiling water, stirring it at the same time; cover it closely, and, to prevent chilling the basin or vessel used should be kept hot; let it stand for ten minutes, then well mash, adding salt, butter, &c., at pleasure."

That our report may embrace all the information in our possession in relation to these alimentary substances, and present the whole subject in the most intelligible form before the department, we deem it proper, before making a statement of our examination and experiments, to submit an abstract of the valuable information relating to them contained in certain papers that have been placed in our hands by the chief of the Bureau of Provisions and Clothing.

No. 1. The first of these is a report, (extracted from the annals of the Central Horticultural Society of France, 1851,) dated the 5th April, 1851, of a committee of the Central Society of Horticulture of France, on the processes of desiccation, reduction, and preservation of vegetable alimentary substances, by M. E. Masson.

From this report it appears that there is established in Paris, at No. 5, Rue Marbeuf, under the direction of Messrs. Chollet & Co., a manufactory for the preparation, by the processes of M. Masson, of vegetable substances, with which the French navy and commercial marine are furnished.

The establishment consists of, first, a room for washing and picking the vegetables; second, a large drying room fitted with shelves and sieves, for the spreading, shaking, and turning of the vegetables during the drying, and supplied with dry air at a temperature of thirty-five to thirty-eight degrees centigrade (ninety-five to one hundred degrees Fahrenheit,) and from which the moist air is discharged through chimneys; and third, a store-house for depositing the dried vegetables. After this they are subjected to pressure, formed into tablets of a certain size, wrapped in tinfoil, and then packed in tin cases for preservation, and for sending away.

Each tablet weighs five hundred grammes, sufficient for twenty rations of twenty-five grammes each, which by cooking regain the weight of one hundred and fifty to one hundred and eighty grammes, according to the kind of vegetable. Each tin case contains five kilogrammes of dried vegetables, sufficient for two hundred rations, and costs twenty-

five francs; twenty-five thousand rations can be shipped in the space of a cubic metre.

We would here remark that the French gramme is equal to $15\frac{434}{1000}$ grains troy; that the French kilogramme (or one thousand grammes) is equal to two pounds, three ounces, five drachms avoirdupois; that the French metre is $39\frac{371}{1000}$ English inches; and that the French franc is eighteen and three-fourth cents.

A note by M. Masson, appended to this part of the printed report of the committee, gives the following results of experiments made at the manufactory, to satisfy the inquiries of the committee:

Eight hundred and twenty kilogrammes of green spinage were reduced by picking (an operation performed by thirty women in one day) to six hundred and thirty-nine kilogrammes. These six hundred and thirty-nine kilogrammes, exposed during twenty-two hours in the drying room of the manufactory to the heat produced by the burning of two hundred and fifty kilogrammes of charleroi coal, were reduced to seventy-one kilogrammes in the dry state; five hundred and sixty-eight kilogrammes of water having consequently been evaporated.

Nine hundred and twenty kilogrammes of curled green cabbage, picked in one day by thirty women, gave after picking seven hundred and twenty-five kilogrammes, which, exposed in the drying room for twenty-eight hours to the heat produced by the consumption of three hundred kilogrammes of coal, gave sixty-nine kilogrammes of dry cabbage; six hundred and fifty-six kilogrammes of water having thus been evaporated.

Five hundred kilogrammes of carrots, picked, weighed after complete desiccation in the drying room fifty kilogrammes; the reduction of weight being consequently nine-tenths.

Five hundred and fifty kilogrammes of turnips, picked and sliced, lost in twenty-five hours five hundred kilogrammes of water, leaving fifty kilogrammes of dried vegetables.

All the fleshy roots lose about the same weight. Pears and apples lose only six-sevenths of their weight by desiccation.

Seven hectolitres of potatoes, weighing four hundred and fifty-five kilogrammes, gave after peeling two hundred and eighty-three kilogrammes of heart of potato, which were reduced by drying to fifty-seven kilogrammes; that is—

One hectolitre of raw potatoes weighed sixty-five kilogrammes.

Do.	peeled	“	forty	“
Do.	dried	“	eight	“

Eight kilogrammes of potatoes, unpeeled, gave two kilogrammes of dry potatoes, having lost by desiccation seventy-five per cent. of their weight.

The horticultural committee pronounce the opinion that the desiccating process of M. Masson preserves vegetables, particularly legumes, without altering their constitution, and reduces them to a very small bulk without impairing their flavor or nutritive properties. Desiccation carries off the water not necessary to their constitution, and which, in some vegetables, such as cabbages and roots, exceeds eighty per cent.

of their weight when fresh; compression reduces their volume, increases their density to that of deal, and thus facilitates their preservation, stowage, and transportation.

To use the vegetables prepared by the processes of M. Masson, it suffices to steep them thirty or forty minutes in tepid water in a covered vessel, or six or eight hours in cold water; when they will have resumed, with most of the water they have lost, their fresh appearance; particularly cauliflowers, which, from a yellow tint, return to all their original whiteness. They may then be cooked, and seasoned as the same vegetables when fresh.

Numerous experiments made by committees appointed by the minister of marine to examine the dried vegetables of M. Masson, with reference to the question of their introduction into the naval service, (an abstract of whose reports will be presented under No. 5,) attest the good quality and complete preservation of these productions after a shipment of four years. Thus, a chest of cabbages, shipped the 29th of January, 1847, on board the corvette, the *Astrolabe*, and opened in the early part of January, 1851, containing cabbages, merely dried and *not pressed*, being served out, two hundred grammes of the cabbage, "after having soaked during an hour in warm water, absorbed at first eight hundred and fifty grammes of water; then, having been cooked for two hours, their weight rose to thirteen hundred grammes; after which, prepared with butter and lard, they made a dish of excellent taste." (Report of the naval committee, 6th March, 1851.)

According to another committee, a tablet of cabbage *compressed*, and ten centimetres ($3\frac{9}{10}\frac{3}{10}\frac{7}{10}$ English inches) square and two centimetres thick, and wrapped in tin foil, weighed, in the gross, one hundred and forty-five grammes, and contained one hundred and thirty grammes of dried cabbage in a volume of two hundred cubic centimetres, which correspond to a density of six hundred and fifty kilogrammes to the cubic metre. This cabbage absorbed six and a half times its weight of water by both soaking in warm water and boiling. The flavor was thought excellent.

A third report proves that the julienne, the spinage, &c., prepared by the same processes, gave dishes that were pronounced perfect. The committee are of opinion, likewise, that these cabbages should be substituted in the navy, not only as a relish in place of *sauer kraut*, but also at regular meals instead of the usual allowance of beans and dry vegetables. They add that the expense of desiccation, by the process of M. Masson, ought not to equal that of preparing the *sauer kraut*, or the cost of beans, and that, as to bulk, it would be much less, in the case of M. Masson's cabbages, than in that of the latter articles.

M. Masson's processes of preservation are applied, with entire success, to most vegetables and to several fruits. Thus, all cabbages, spinage, parsley, cress, chervil, succory, and sorrel are dried and pressed to a very small volume. It is the same with carrots, turnips, parsnips, celery, salsify, and viper's grass, which are cut in thin slices, and into small pieces to make julienne. Cauliflowers, Brussels sprouts, asparagus, and string beans, in order to resume their natural appearance, should not be pressed. Potatoes are perfectly preserved in thin slices. Peas and beans, in a green state also, are succeeded with very

well; as are, likewise, truffles, mushrooms, onions, and leeks, which should, however, be cut into small pieces. Lastly, various fruits also, and especially apples and pears in slices, are dried and keep perfectly.

The horticultural committee conclude their report by enumerating the benefits to result from this new branch of industry, and by proposing to their society to felicitate M. Masson on the perfection of his processes, and MM. Chollet & Co. on the completeness of their establishment, and the quality of the products there prepared.

No. 2. Abstract of a report made on the 19th of May, 1851, to the Academy of Sciences of the Institute of France, by a committee of the academy, on the processes of M. Masson, chief gardener of the Central Horticultural Society of France, for preserving alimentary vegetable substances.

The committee state that, in these processes, devised by M. Masson, and executed at the establishment of MM. Chollet & Co., No. 5, Rue Marbeuf, the operations, few and simple, consist in carefully picking the vegetables, removing their hard parts, laying them on frames of light linen canvas disposed on lattice shelves in a drying room, exposing them there, for a time sufficient to remove the water not necessary to their constitution, to dry air, at forty-eight degrees centigrade (118°·4 Fahrenheit) for the more watery vegetables, admitted by a pipe, whilst the moist air is discharged by orifices communicating with chimneys, and in subjecting them, thus dried, to the powerful compression of the hydraulic press.

The committee made two experiments at the establishment—one on broccoli, the other on spinage—as follows:

Nine hundred and twenty kilogrammes of broccoli, reduced by picking, by thirty women, in one day, to seven hundred and twenty-five kilogrammes, spread on seven hundred and ten canvas frames, and exposed for twenty-eight hours, in the drying-room, to a temperature of forty to forty-eight degrees centigrade, (104° to 118°·4 Fahrenheit,) were reduced to sixty-nine kilogrammes of dry matter—having thus lost six hundred and fifty-six kilogrammes of water, or over ninety per cent. of their former weight, evaporated by three hundred kilogrammes of charleroi coal.

Eight hundred and twenty kilogrammes of spinage, picked, in one day, by thirty women, and thus reduced to six hundred and thirty-nine kilogrammes, placed on seven hundred and ten canvas frames, in the drying-room, were reduced, in twenty-two hours of warming, at forty to forty-eight degrees centigrade, (104° to 118°·4 Fahrenheit) to seventy-one kilogrammes of dry matter—having thus lost five hundred and sixty-eight kilogrammes of water, or eighty-nine per cent. of their weight, or rather more than seven-eighths; the consumption of coal having been two hundred and fifty kilogrammes.

Thus, in these two experiments, the enormous proportion of seven-eighths of their weight has been taken from fresh vegetables—that which constitutes the great importance of M. Masson's process.

Pressure by the hydraulic press then further reduced the volume, so as to render the stowage the easiest possible, and to bring the density to five hundred or six hundred kilogrammes the cubic metre.

As to the quality of the products, and the almost perfect preservation of their flavor, the committee of the academy refer to several naval reports, (an abstract of which will be given presently,) and cite, in detail, the report, dated April 7, 1851, of a committee, formed in the port of Cherbourg, by order of the maritime prefect, to examine the products offered by MM. Chollet & Co., and prepared by the processes of M. Masson.

After the Cherbourg committee had assured themselves, by examination, of the good condition, appearance, and odor of the products presented for experiment, they immersed them in warm water, in covered vessels, weighed them before and after immersion, and thence determined the quantity of water absorbed.

The results of these well-made observations are stated in the following table:

Kind of vegetable.	Weight before immersion.	Temperature of the water.		Duration of immersion.	Weight after immersion.	Relation of the weights before and after immersion.
	<i>Grammes.</i>	<i>Cen.</i>	<i>Fahr.</i>	<i>Minutes.</i>	<i>Grammes.</i>	
Cabbage	280	50	122°	33	1.480	5.30
Chervil	73	45	113	30	.324	4.44
Brussels sprouts .	139	50	122	38	.630	4.53
Celery	130	50	122	41	.510	3.93
Spinage	87	45	113	30	.475	5.47
Julienne	142	50	122	40	.741	5.22
						4.81

Thus, after immersion, these vegetables regained the greater part of the water which they contained before desiccation.

The report of the committee at Cherbourg shows that these vegetables had resumed also their original flexibility and their natural color, and that their forms were so well preserved in some of them—particularly in the chervil and the Brussels sprouts—that they looked as if they had just been gathered. The taste and smell were also, in a great degree, developed by the soaking.

The cooking of all these vegetables required from an hour and a quarter to an hour and three quarters; and, after having seasoned and tasted them, the Cherbourg committee unanimously declared that all were very good, but that the spinage and Brussels sprouts had a marked superiority over the others, and might have been mistaken for fresh vegetables—thus showing, in the opinion of the committee, that, by the process of M. Masson, the drying of vegetables may be performed without injury to their taste, smell, color, nutritive properties, or wholesomeness; the very reverse of all which takes place in the method of drying usually adopted.

A subsequent examination of potatoes and carrots produced the same

satisfactory results, and proved, moreover, that immersion previous to cooking was not necessary.

The Cherbourg committee conclude their report with the following summary of results, viz:

1st. That vegetables, dried by the process of M. Masson, are in a state of perfect preservation.

2d. That they offer, by very simple means, wholesome and agreeable provisions.

3d. That it would be most advantageous to use them on ship-board instead of the beans now in use.

4th. That it would be advisable not to abolish altogether the sauer kraut, but to alternate it with the cabbage; thus obtaining all the advantages of a mixed diet.

5th. That it would be extremely advantageous to apply the new process to potatoes and carrots for the provisioning of the navy.

6th. That it is proper to reserve for the sick, and for those who find their own provisions, the celery, the Brussels cabbage, the julienne, and the spinage.

7th. That the vessels of the fleet should not alone benefit by this new invention; but that it should be used in such of our colonies as have not the advantage of fresh vegetables.

8th. Lastly, that, in order to solve the problem of the preservation of vegetables, the committee recommend that there be sent to as many ships as possible, particularly to those navigating the tropical seas, an assortment of the vegetables prepared by M. Masson.

In view of this unanimous accord of all the naval committees, and of the trials made by the committee of the academy themselves, they entertain no doubt of the success of M. Masson's processes for the preservation of alimentary vegetable substances; and, in view of the service which these processes are destined to render to the military and commercial marine and to the army, the committee think that they merit all the encouragement of the academy.

No. 3. The third paper is a report dated Brest, May 21, 1851, by a naval committee, and states the results of their experiments on various dried and pressed vegetables of M. Masson, as follows:

Name.	Quantity.	Temperature of water of immersion.		Time of immersion.	Weight after immersion.	
		Grammes.	Cen.		Fahr.	Minutes.	Grammes.	Deca.
Parsley	20	35°	95°	35	52	2
Chervil	20	35	95	35	53	5
Cabbage	248	35	95	38	630	
Brussels sprouts.....	130	35	95	29	440	
Celery	125	35	95	33	445	
Julienne	96	35	95	38	374	
Colewort.....	104	35	95	64	374	
Salsify	130	35	95	38	515	
Spinage.....	135	35	95	39	462	

The committee are of opinion that all the above mentioned vegetables, except the celery, might be used as diet for the sick and convalescent, and that the cabbages alone can be supplied to the *rationed* in the navy for a relish, or in place of sauer kraut and sorrel. They do not think that the cabbages can be given to the sailors as a dish instead of beans, peas, and fàïols; for fifty-three parts of beans, sixty-eight of fàïols, or eighty of peas, are equivalent in nutritive matter to one hundred of cabbage perfectly dried.

No. 4. The fourth paper is a report, also, of a naval committee, dated Toulon, 25th June, 1851, setting forth the results of their experiments on seven kinds of vegetables, dried and pressed, eight months previously, by M. Masson's processes, and in the form of tablets, eleven centimetres square and two thick, and wrapped in tin foil. Stripped of the foil, they were found perfectly dry, with the odor of the fresh vegetables.

The following table gives their weight before, and after, immersion for thirty-seven minutes in tepid water:

Name.	Before immersion.		After immersion.	
	K.	Grammes.	K.	Grammes.
Cabbage	0	120	0	760
Spinage	0	124	0	846
Celery	0	120	0	520
Julienne	0	119	0	630
Chervil	0	067	0	280
Brussels sprouts	0	133	0	610
Potatoes	0	100	0	465

Thus, the weight, from soaking, was increased five and a quarter fold, and the volume eight or ten-fold—that is, returned to the natural state; the physical character of which desiccation had deprived them reappearing at the same time.

They all, when cooked, gave dishes scarcely distinguishable from those of the fresh vegetables.

The Masson processes of desiccation and compression offer to the navy the double advantage of supplying the want of fresh vegetables, and of packing, in a small compass, a quantity of rations more considerable than that represented by the dry vegetables.

The conclusions of the committee are—

1st. That the vegetables, dried according to the Masson process, offer suitable food for the sustenance of the crews.

2d. That cabbages and potatoes can be introduced into the composition of the ration in place of the dry vegetables delivered for suppers and for meat dinners.

3d. That beans, for which the crews generally have a repugnance, can be suppressed, and replaced by cabbages and potatoes.

4th. That, without proscribing peas and faèò.s, there would be room for alternating these vegetables with cabbages and potatoes.

5th. That the sauer kraut and sorrel can be kept up, reducing the quantity.

6th. That the other vegetables, such as celery, julienne, spinage, should be embarked on board-ship for the use of invalids only.

7th. Finally, that it is necessary, before modifying the alimentary system of the crews, to subject to trial at sea the results obtained by the committee.

No. 5. The fifth paper contains four reports (referred to under No. 1) made by committees appointed by the minister of marine, to examine certain of the vegetables dried and preserved by the processes of M. Masson, with reference to their introduction into the naval service. These reports, an abstract of which we here subjoin, concur in attesting the good quality and complete preservation of these vegetables.

First.—The first of these four naval reports, dated Paris, April 15, 1850, relates to the subject of desiccated cabbage, and the effects of immersion. It states that one hundred and sixty grammes of perfectly dry cabbage, prepared about fifteen months before, by M. Masson, were steeped in tepid water for thirty minutes, at the end of which time, being filled out to nearly the size of fresh cabbage, and their weight being increased seven-fold, they were put into hot water, and boiled for three hours. Seasoned with salt and pepper, the committee found them very good, with nearly all the flavor of fresh cabbage.

The naval committee think that this cabbage might be used for the sailors at sea, not only as a relish in place of sauer kraut, but as a *meal*, instead of the beans served out for supper, and of the sixty grammes of dry vegetables given at salt dinners. The quantities to be given might be in the following proportions: As a relish, instead of sauer kraut, forty grammes of soaked cabbage; for supper, instead of beans, two hundred grammes of soaked cabbage; for salt dinners, one hundred grammes of dried cabbage.

The naval committee add, that the expense of the dried cabbage is less than that of sauer kraut, and also of beans, which latter French sailors eat with very great repugnance.

As to stowage, they say, it would occupy less room than sauer kraut and beans; for there can be packed in a cubic metre ($29\frac{371}{1000}$ English inches) four hundred to four hundred and fifty kilogrammes of dry pressed cabbage leaves, which, when soaked, represent three thousand two hundred to three thousand six hundred kilogrammes of the fresh, which afford sixteen thousand to eighteen thousand rations, at two hundred grammes each.

The naval committee is of opinion, likewise, that the great pressure undergone by the cabbage must preserve it from the penetration of moisture, and that its enclosure in wooden boxes, well made, and of a convenient size for easy stowage, would ensure its keeping. This opinion is confirmed by the trial made in the corvette, the *Astrolabe*; where a box of M. Masson's unpressed cabbage was opened after more than a year's cruising, when the cabbage was found perfectly preserved, and to be, when cooked, of a pleasant savor and good taste.

The naval committee conclude their report with the recommendation that there be placed on board of two large vessels, one of which should belong to the Senegal station, a quantity of these cabbages sufficient for trial, and for determining, at the same time, if the amount of water required for cooking this new aliment is in relation with the resources of the vessels.

Second.—The second of the above-mentioned naval reports is dated Paris, the 11th day of February, 1851. It states the results of three trials by the committee, on a box of M. Masson's *unpressed* cabbage, which had been nearly four years on board the *Astrolabe* in the *La Plata*. The box was of tin, set in one of wood. It was thirty-one centimetres long, fifteen broad, and sixteen high, and contained seven hundred and eighty-five grammes of *unpressed* dried cabbage. The cabbage appeared quite dry, and was yellow, and of a sourish smell.

In the first trial, two hundred and fifty grammes, soaked for an hour in warm water and drained, weighed one thousand two hundred and fifty grammes, and, after an hour's boiling, weighed one thousand six hundred grammes. The sourish smell, which had been increased by the soaking, disappeared entirely on boiling. The boiled cabbage had a perfectly natural and agreeable taste, but was hard and little cooked, attributed to the water of immersion having, perhaps, been too warm, and to the boilings having been for only an hour.

In the second trial, two hundred grammes, steeped for an hour in water exactly tepid, gave one thousand and fifty grammes, which a two hours' boiling increased to one thousand three hundred grammes. Dressed with butter and lard, they made an excellent dish; the cabbage being very well cooked, the large stalks alone being rather hard.

In the third trial, one hundred grammes, cooked, for at least three hours, in weak broth, differed scarcely perceptibly from fresh cabbage.

From these trials, the naval committee draw the following results, viz:

1st. M. Masson's process succeeds in preserving dried cabbage for nearly four years, provided that it be packed, without pressure, in a metal box hermetically closed.

2d. The immersion in tepid water, for one hour, causes the absorption of much liquid, and the swelling of parts of the vegetables, which resume their original form and consistence.

3d. The cooking should be continued for two or three hours.

4th. The vegetable when cooked, weighs about six and a half times as much as when dry.

5th. Properly cooked it has given satisfactory results, having a pleasant taste, much like that of the fresh cabbage.

The committee remark that the bulk of this *unpressed* dried cabbage is much too great for them to recommend its use on ship-board. They are aware, however, that M. Masson proposes to subject to the hydraulic pressure quantities of the dried cabbage, and to form it into tablets, which, in a small volume, shall represent a considerable weight. Whilst reserving, therefore, their opinion on this mode of preparation, and its preservation by some other means than in tin cases, they would not hesitate, except from considerations of economy, to recommend its general adoption in the navy, provided that the advantages resulting

from smallness of bulk, great facility of stowage, and the use of cases less expensive than those of tin, should not have been procured at any injury to the quality of the vegetable.

Third.—According to the third of the naval reports, dated Paris, March 6, 1851, the tablet of M. Masson's *compressed dried cabbage* experimented on, was ten centimetres ($3\frac{9371}{10000}$ English inches) square, and two centimetres thick.

The weight of the tablet, in its tin foil covering, was one hundred and forty-five grammes; the weight of the tin-foil covering, fifteen grammes; the net weight of the cabbage, one hundred and thirty grammes.

Sixty grammes of this cabbage, immersed for one hour in water at *thirty-five degrees centigrade*, (*ninety-five degrees Fahrenheit*,) and drained, weighed three hundred and fifty-five grammes; which, after two hours' boiling, increased to three hundred and eighty grammes, a six-fold increase after immersion, and a six and a half fold after boiling. The taste was pronounced excellent, showing that the dried and *pressed* cabbage of M. Masson retained the flavor and other qualities of the fresh.

Fourth.—The fourth naval report, dated Paris, March 14, 1851, sets forth that two hundred grammes of "julienne," immersed for twelve minutes in water at thirty-five degrees centigrade, (*95° Fahrenheit*,) and drained, gave nine hundred and sixty grammes, which, seasoned with butter, pepper, and salt, and cooked for an hour, made a very good soup, the vegetable being tender and of a pleasant flavor.

It states, also, that one hundred grammes of spinage, placed for twenty minutes over a fire, in a skillet containing boiling water, and then drained, weighed six hundred and twenty grammes. Dressed with butter, and placed again over the fire for thirty minutes, they found a delicious dish, differing in no appreciable respect from fresh spinage.

No. 6.—Remarks of M. Gannal on the vegetables desiccated by his process, with his directions for cooking them.

The quantity of water and sap contained in a vegetable varies considerably with the kind, the part, and the period of vegetation.

In order to preserve dried vegetables from changes of temperature, humidity, dust, and insects, M. Gannal places the choice and costly ones in glass vessels, and those for the crew in boxes lined with zinc.

As to the cooking, they should, with few exceptions, be put into cold water properly salted. The fire should be moderate at the beginning, and should not cause boiling until after one-quarter of an hour. Cabbages should be steeped in lukewarm water for two hours before cooking. Carrots and turnips should be steeped in salted cold water for six or eight hours. Potatoes (termed French tapioca) should be thrown into boiling water, whether for soup or being mashed.

A summary of M. Gannal's statistics is presented in the following table, in which the first column of figures gives the number of grammes in one litre of each vegetable; the second, the cost per kilogramme, in francs and centimes; the third, the cost per litre, *with the glass flacon containing it*; and the fourth, the number of rations in each litre.

A litre is $61\frac{928}{1000}$ English cubic inches.

A hectolitre is 6,102 $\frac{1}{10}$.

A kilogramme (or 1,000 grammes) is 2 pounds 3 ounces and 5 drachms avoirdupois.

A franc is 18 $\frac{1}{4}$ cents.

A centime is the 100th part of a franc.

	Grammes in one litre.	Cost per kilogramme.		Cost per litre.		Rations in one litre.
		F.	C.	F.	C.	
Julienne	500	3	20	2	80	24
Green cabbage		1	05			
Red cabbage		1	40			
Milan cabbage		1	05			
Brussels cabbage	120	3	45	1	20	4
Cauliflower	200	4	15	2	20	4
Green peas	600			4	00	24
French tapioca	500		30			10
Turnips	160	1	75	6	00	3 $\frac{1}{2}$
Succory	180	2	00	1	40	4
Spinage	160	1	80	1	65	
Sorrel	160	1	80	1	65	3 $\frac{2}{3}$
Carrots	350	2	05		80	7
String beans		7	60			
Flageolet beans	860			1	40	8
Pumpkin	250	1	00	1	15	
Beets		2	00			
Mushrooms				5	00	

The julienne of M. Gannal is composed of ten different vegetables, and contains, in every one hundred and twenty-seven grammes. (a quantity sufficient for a soup for six persons,) the following, viz: White beans, twenty grammes; cauliflower, ten; leeks, five; peas, twenty; celery, five; carrots, twenty; turnips, fifteen; chervil, two; cabbage, fifteen; and string beans, fifteen.

None of the articles of M. Gannal have been pressed, although he expressed his intention to adopt that method with most of them.

No. 7.—The seventh paper is a report, dated Toulon, April 17, 1849, of a naval committee, on the subject of preserved milk, (conserve de lait,) prepared by a process invented by M. de Lignac.

The milk, of the consistence of a soft paste, is contained in tin canisters, which weigh about eight hundred grammes each, and of which the tin weighs one hundred and seventy-five grammes. On exposure to the air for fifteen days, the milk lost fifteen grammes. The committee made several trials with the milk, by adding a certain quantity of it to four times its weight of warm water, and boiling it for a few minutes, with the invariable result of producing a homogeneous milk, pure, natural, and agreeable—in a word, entirely similar to boiled fresh milk sweetened; although in one instance the milk had, before

the experiment, been exposed to the air for a week, and in another instance for two weeks.

The committee assured themselves of the keeping properties of the preserved milk by exposing two open canisters (from which part of the milk had been removed for the experiments) to the air for two and three weeks, respectively, with the result of finding, in both instances, that the milk continued in a state of perfect preservation at the end of that time.

With such facts before them, and after unsuccessful comparative trials with the "lait double," the committee are of opinion that the "consERVE de lait" of M. de Lignac is superior to all other preparations of milk hitherto used in the navy, and should be substituted in place of the "lait double" now in use.

As respects the question of economy, the committee state the cost at six francs fifty centimes the kilogramme of the concentrated milk, or one franc thirty centimes the kilogramme of the diluted milk; that is, twenty-four and fifteen-fortieth cents for two pounds, three ounces, five drachms of milk, of the ordinary density and richness. The concentrated milk contains in every kilogramme (one thousand grammes) one hundred and fifty grains of sugar, put in to preserve the milk.

It must be remarked here that the committee diluted the preserved milk with only four times its weight in water, whereas M. de Lignac directs five times the weight of water to be used, in order to reduce it to the consistency of common milk.

No. 8.—The eighth paper is a report, dated Nov. 5, 1849, of a committee of the Academy of Sciences of the Institute of France, in relation to a memoir of M. de Lignac on the product of milch cows, and the fabrication of preserved milk (consERVE de lait.)

The committee state that M. de Lignac, with a view to assure the concentration and preservation of milk without depriving it of any of its constituents, fulfils the following conditions:

1st. He procures milk of excellent quality, obtained during the pasturing season, not employing that of stable-fed cows.

2d. The quantity of milk to be prepared at one time is obtained from nearly simultaneous milkings, so as to avoid exposing it to spontaneous alterations.

3d. It is concentrated in a flat, shallow vessel, the depth of the milk not exceeding two or three centimetres, (.78742 or 1.18113 English inches.)

4th. The heat applied for evaporation and concentration is communicated by steam, circulating in a double envelope, so as not to raise the temperature of the milk to the boiling point.

5th. Seventy-five to eighty grammes of white sugar per litre of milk (about three ounces to the quart) are in the first place dissolved in it, as an antiseptic and a condiment.

6th. The evaporation of the milk thus sugared is hastened by constant stirring.

7th. When reduced to two-tenths of its original volume, the milk is poured into cylindrical tin canisters, containing each a half litre or a litre, (nearly a quart,) and the canisters are closed by soldering the

covers with bands of tin, that may be cut around so as to open the canisters without difficulty.

The preserved milk thus prepared has already received the sanction of extensive use, and has been introduced into the navies of France and England.

From opportunities of comparing, at the end of voyages, M. de Lignac's "conservé de lait" with the "lait double," till then used in the French navy, the committee think the former not subject to the changes and decomposition which the latter undergoes.

The "conservé de lait" is a paste, with the odor of boiled milk. It mixes easily with warm water, and, when boiled with four times its amount of water, it has the composition and all the properties of common milk boiled; so that in tea, coffee, and chocolate, it would be difficult to distinguish them from those containing common boiled milk sweetened.

The "conservé de lait," exposed in an open canister for fifteen days, gave, on trial, similar results to those above stated.

It appears from the above that the "conservé de lait" is susceptible of long preservation; and it is, hence, in the opinion of the committee, especially applicable to the provisioning of the navy.

The chief of the Bureau of Provisions and Clothing states, in a series of "observations" with which he accompanied the submission of the above-enumerated papers to the board, that "this preparation of milk has superseded, in consequence of its superior quality, all other preparations of milk, and is the only kind used in the French and English navies and hospitals; M. de Lignac having the contract for supplying both governments."

No. 9.—The only remaining paper submitted to us from the Bureau of Provisions and Clothing, touching the subject of our report, and requiring a notice of this place, is a printed pamphlet filled with testimonials to the excellence of the "preserved potato" of Messrs. D. & H. Edwards & Co., of London.

Of these testimonials, five are from the distinguished chemists Brande, Ure, Daniell, Paris, and Taylor, who express the opinion that the "preserved potato" is pure and without admixture; that it may be kept for any length of time without liability to decay or change in any climate; that its comparative nutritive powers are to those of the fresh potato as about four to one; that the process for its preservation is, chemically considered, the best possible; that it is a wholesome and agreeable preparation of the nutritious parts of the root, not distinguishable in flavor (when cooked according to the printed directions accompanying it) from fresh and well-boiled mealy potatoes; that it contains all the nutritious properties of those vegetables; that it is well adapted as an article of food; and that it is a very good substitute for the fresh root.

Of the other testimonials, which are very numerous, many are in the form of special reports required by, and made to the British government, by surgeons of the army and navy on foreign stations, many of them in charge of hospitals in the East and West Indies, and all bearing, in the most ample and satisfactory manner, one uniform and positive testimony to the "preserved potato" as a valuable, nutritious, and agreeable article of diet to the sick and the well, retaining all its origi-

nal qualities without change for years, and being very valuable to sailors and soldiers in long voyages and on stations where vegetables are scarce and of inferior quality, and as having, in several instances, been found an excellent antiscorbutic.

The rest of the pamphlet is filled with testimonials from commanding officers in the military and mercantile marine, all certifying as to the keeping properties of the "preserved potato," and as to its great value as an addition to a ship's stores, particularly on a long voyage.

The "preserved potato" is packed in 1 cwt. metal cases, and is also supplied in 56 lb., 28 lb., and 14 lb. cases, containing, according to the Messrs. Edwards, in a concentrated form, the equivalent of five times those quantities of the vegetable. It is offered for sale at a price that makes the vegetable, when cooked, as cheap as potatoes in the ordinary state.

After this summary of facts and opinions touching the articles submitted for our examination, we proceed to lay before the department a statement of our examinations and experiments; in making which we conformed to the directions given by the preparers of the substances; and also, in order to arrive at the most satisfactory results, we repeated most of the experiments, varying the manner of making them.

EDWARDS'S "PATENT PRESERVED POTATO."

The two specimens of this article submitted to the board for examination were in heavy tin cases, well adapted to transportation, and marked with the quantity in each. Printed directions for preparing the vegetable for table use, and testimonials as to its value, from Brande, Ure, Paris, and a number of army and navy surgeons, and others, accompanied it. In the experiments about to be detailed, the board have conformed to the directions in the strictest manner, except where it is expressly stated to the contrary.

According to these, boiling water, in the proportion of about two parts of water to one of potatoes, is to be poured upon the latter; and, after being well stirred, the mixture is to be allowed to stand in a warm place for fifteen minutes. Then mash the potatoes well, season with salt and butter to suite the taste, and the process of cooking will be completed. Dr. Ure has repeated the experiment, observing the proportions recommended by the inventor; but he states that it is preferable to employ *three* times, instead of *twice*, the quantity of water.

Before proceeding to the trials designed to be made with this article, the board examined it very carefully in the crude state, and found the samples taken from the two cases not to present any appreciable marks of difference. One description, therefore, of their physical qualities will apply to both. When opened, the contents of the cases appeared in the form of small, rough granules, of a dirty, whitish color, with specks of a black substance interspersed, (probably the eyes carelessly left in preparing the root,) and imparted a faint odor and taste of boiled potatoes. The taste, however, was more bitter, and the smell ranker. Intermixed with the larger grains were some smaller ones, and also a considerable quantity of powdery matter, which seemed to result from the attrition of the larger granules. The contents of both

cases were perfectly dry, and as free as possible from mustiness of smell.

Experiment 1.—Upon three-fourths of a pound of the potato, taken from the small case marked as containing twenty-eight pounds net, was poured one quart of boiling water. The mass having been sufficiently incorporated by stirring, the vessel containing it was covered and set by a hot fire for fifteen minutes. When mashed, it had a dirty whitish color, an unpleasant earthy smell, and a disagreeable bitter taste, resembling that of the worst varieties of the yam. The black specks, alluded to in the description of the crude vegetable, were now very conspicuous, and gave a mottled aspect to the mixture. The consistency of the mass was about that of mashed boiled potatoes, but rather more watery. Seasoning with salt and butter partially removed the bad taste and smell, but left the compound still very unlike, and vastly inferior to, the recently cooked fresh root. When the preserved potato, after being thus dressed, was further baked in small cakes, its flavor underwent great improvement, and assimilated it much nearer to the vegetable as usually prepared for the table.

Experiment 2.—One quart of boiling water was, in like manner, poured upon three-fourths of a pound of the potato from the large case, marked as containing fifty-six pounds net, and the mass treated as in the preceding experiment. The result differed in no respect from the former.

Experiment 3.—One pound of potato, taken from the small case, was next treated with three pounds of boiling water, (these being the relative proportions advised by Dr. Ure,) and the residue of the process was conducted, as in the two former experiments, with no appreciable difference in the results.

Experiment 4.—The same quantity of the potato from the larger case, treated with the same proportion of boiling water, gave the like product.

This concluded our experiments with Edwards's "patent preserved potato." Judging from these results, as well as from the sensible qualities of the substance as it existed in the two cases, the board have not been able to form other than a low estimate of its value as an article of food for the navy. Cooked in whatever mode, it was still disagreeable to the palate, the nose, and the eye, and induced us to think that the samples we examined must have been manufactured from tubers which were in a diseased state at the period of gathering them. It was evidently an exceedingly common, crude, and unwholesome preparation.

As we are nowhere informed of the process by which the "preserved potato" of the Messrs. Edwards is prepared, we can obviously form no opinion, in the absence of specimens prepared from sound and carefully selected roots, of the probable qualities of the substance if prepared from such roots. The article, as it was submitted to us, was so *inferior* in every particular that we cannot approve it.

MASSON'S DESICCATED VEGETABLE ALIMENTARY SUBSTANCES.

These are directed to be prepared for table use by first immersing them in lukewarm water for half an hour, or in cold for six or eight hours, and then boiling them over a brisk fire from one and a quarter to three hours, according as the time required for cooking the vegeta-

bles in their natural state is longer or shorter. After undergoing a thorough cooking, they are to be well drained, and then seasoned with butter, salt, or other condiment, according to circumstances. They are said to be now fit for the table. These directions have been fully complied with in the trials which the board made with the articles of M. Masson.

POTATOES, (POMMES DE TERRE.)

The sample submitted to the board was contained in an open paper, and had been exposed to the weather for a length of time. It appeared in transverse slices, with some of the eyes still in them, of a horny texture, and about a line and a half in thickness. The color was a dull yellow, the odor faint, and the taste mawkish. The fracture of the pieces was sharp and corneous. The specimen bore a decided resemblance, in general appearance, to slices of the fresh root dried at a moderate temperature, though, in reference to taste and smell, the dissimilarity was quite as decided. It was in a remarkably dry state, notwithstanding the prolonged exposure to the air.

Experiment 5.—Two ounces of the potato, after having been immersed in a pint of hot water about an hour, had swollen a little and become softer, though still quite tough and leathery. The water was somewhat discolored, and had, in a slight degree, the odor and taste of raw potatoes. When drained, they were found to weigh three and six-sixteenths ounces, and the water left from immersion to measure thirteen ounces. To the water of immersion was added a sufficiency of fresh water, of the temperature of the air, to make a pint. In this the potatoes were boiled for an hour, at the end of which time the pieces were found still distinct, and could with difficulty be mashed into a homogeneous mass. They were much charred, and adhered to the sides of the vessel used in cooking—this not proceeding from any neglect on our part to watch the process, but from the quantity of water being too small. Notwithstanding this unfavorable termination of the experiment, the general appearance, odor, and in a less degree the taste of the substance somewhat resembled those of roasted potatoes. The weight was three ounces.

Experiment 6.—The same quantity, immersed in one pint of water, at sixty-five degrees Fahrenheit, was found, at the end of two and a quarter hours, hard, leathery, and but slightly swelled. The water of immersion retained scarcely any distinctive character: it measured fourteen ounces. The potatoes, when well drained, weighed three and five-sixteenths ounces. They were next boiled one hour in two pints of water, (including that used in immersion;) and, at the end of the process, it was found that the whole of the water had been dissipated. Their weight was seven ounces. All of the pieces were separate; and some could not be reduced to the consistency of mashed potatoes. That portion which was susceptible of being mashed was seasoned with butter and salt. It then tasted, smelt, and looked precisely like the uncharred portions of the first product.

The taste of this substance, prepared in both ways, was *disagreeable* in a marked degree. This, coupled with its bulkiness, forbids the in-

roduction of the article into the navy for the subsistence of the men; though, in the opinion of the board, it is far from being so bad a preparation as the specimens of potato submitted to us of the Messrs. Edwards.

CABBAGE, (CHOUX.)

Experiment 7.—A tablet of five rations, in good condition, and perfectly free from moisture. On removing the tin foil in which it was wrapped, the tablet was found to be composed of the closely-compressed leaves and stems of the plant. On breaking it open, the interior exhaled a pleasant aromatic odor, and had, when chewed, a sweetish, mucilaginous taste, both resembling those of fresh cabbage. The color of the leaves was dull yellow, mingled with a bright green; and, being in a fine state of preservation, with their veins and nerves quite distinct, they looked very much like the fresh vegetable. The tablet measured four inches square by three quarters of an inch in thickness, and weighed four and five-sixteenths ounces net. This was immersed, after having been picked to pieces, for half an hour, in two quarts of water, at ninety degrees Fahrenheit. At the end of that time, it was removed from the water, and suffered to drain thoroughly. It now weighed one pound and five-sixteenths, was swollen, and had become softer; but it was still tough, crackled between the teeth when masticated, and bore a greater resemblance than before to boiled fresh cabbage. The water of immersion measured three pints, and was of the color of weak brandy and water, with the flavor of cabbage, but more sweetish. Boiled in seven pints of water, (including that of immersion,) it became necessary, in two and a quarter hours, to add two quarts of boiling water to save the cabbage from being burnt. The boiling consumed three and a half hours, and was done over a very hot wood fire. Drained and weighed, the vegetable went up to one pound thirteen and a half ounces. Still it could not be said to be cooked enough; because, whilst the smaller leaves were moderately soft and tender, the large stems and thicker leaves remained tough and leathery. In appearance, taste, smell, &c., however, it resembled boiled fresh cabbage very much. The water left after cooking was dark-colored and turbid, smelt and tasted strongly of cabbage, and was found to measure one pint and three-quarters.

Experiment 8.—Cabbage, (choux.) An oblong tablet of ten rations formed the subject of this experiment. In sensible qualities and mode of packing, it did not differ materially from that just described. Its net weight was seven and six-sixteenths ounces, being considerably less than the weight of two of the smaller tablets, although it was marked to contain twice as many portions as either of them. The whole tablet, well picked into small pieces, was immersed for half an hour in five quarts of water at ninety degrees Fahrenheit. When drained, it weighed two and five-sixteenths pounds; and presented the same properties as in the former instance. The water of immersion measured six pints. Boiled for three and a half hours in two and a half gallons of water, (including water of immersion and one gallon added during the cooking,) it weighed, when drained, three pounds one and three-

quarters ounces, was somewhat softer, less leathery, and altogether better done than in the preceding trial. The water left after cooking amounted to two and a half pints. Well seasoned with salt and butter, both specimens furnished a dish which evidently only needed to be better cooked, to be *very palatable* to those fond of the vegetable. It was clear, however, to the board that boiling for nearly four hours over a most intensely hot fire, and the liberal employment of water, had not sufficed to bring either specimen to a state which might be safely pronounced digestible.

CARROTS, (CAROTTES.)

Experiment 9.—A tablet four inches square by one-half thick, containing five rations, and weighing four and thirteen-sixteenths ounces net, was next subjected to experiment. Its state of preservation was of the best; and it had evidently been kept quite dry. It was composed of thin slices, resembling the fresh plant in color, taste, and smell; but these qualities were all fainter and feebler than in the latter. The entire tablet being separated, and immersed in three pints of water at one hundred and ten degrees Fahrenheit for half an hour, was found, when taken out and drained, to weigh one pound, to be much swollen, and tough, and to have the sweetish taste of carrots. The water of immersion measured two and three-sixteenths pints, had the same taste of carrots, and resembled the serum of the blood in color. It was now boiled in three pints of water, (including that of immersion;) but two pints of boiling water had to be added before the process was over. In two and three-quarters hours the vessel was removed from the fire, and the carrots drained. They now weighed one pound nine and three-quarters ounces, and were not softened enough for use, though tasting and smelling strongly like the fresh vegetable. The water from cooking measured four ounces, and was sweetish, and of a pale straw color.

Experiment 10.—Carrots, (carottes.) A tablet, precisely like the former in its general aspect, but weighing only four and ten-sixteenths ounces, was, after separation, immersed for half an hour in two pints of water at seventy-eight degrees. It then weighed thirteen and a half ounces, and the water measured one and a half pint. The carrots were less swollen and harder than in the preceding experiment. They were next boiled in half a gallon of water, (including that of immersion;) but three pints of boiling water were added before the conclusion of the process. In two and three-quarters hours the water had all disappeared, leaving the carrots better cooked than the first specimen, and manifesting most of the physical qualities of the fresh vegetable. Their weight amounted to one pound eleven and a half ounces. With seasoning of salt and butter, they made, for a vegetable not thoroughly cooked, a good dish.

In neither case were the carrots as thoroughly done as they ought to be, to constitute a perfectly palatable and digestible article of food. If this objection could be removed by longer boiling, or by boiling in contact with other vegetables, or with bacon, as it probably could be, the board would pronounce them an *excellent* dish, recalling, in a high de-

gree, the qualities of the fresh plant, and valuable, under many circumstances, on board ship.

TURNIPS, (NAVETS.)

Experiment 11.—Turnips, (navets.) The subject of the present experiment were in the form of a tablet of five rations, which weighed five and one-sixteenth ounces, and measured four and three-fourths inches square by three-fourths thick. It was composed of slices, having a dull yellowish color, and somewhat of the smell and taste of the fresh vegetable; the latter being, perhaps, rather more sweetish. Though perfectly dry throughout, it appeared to be swollen, as if the damaged condition of its coating of tin foil had permitted the imbibition of water; and it was certainly larger and more heavy than the tablet of five rations employed in the succeeding experiment. Separated, and immersed for half an hour in three pints of water at one hundred and ten degrees Fahrenheit, it was found to weigh one pound and nine-sixteenths, to be swelled, and to have the taste and smell of turnips. It was also very tough. The water of immersion had a sweet taste, high color, and measured one and a half pint. After three and a quarter hours' constant boiling, over a brisk fire, in six pints of water, increased during the process by the addition of two gallons of boiling water, the turnips weighed one pound eleven ounces and twelve-sixteenths, and the water left, after draining, amounted to half a pint. The turnips were only tolerably done, not readily mashed into a uniform mass, and possessed the smell and taste of the fresh plant to a very limited degree. The water of immersion was of the color of brandy and water, but dirty.

Experiment 12.—This tablet measured four and a half inches square by one-half thick, and weighed, net, four ounces and thirteen-sixteenths. It exactly resembled the previous specimen in appearance, &c., &c., and was moreover in the dryest state. Separated, and immersed half an hour in three pints of water at sixty-five degrees Fahrenheit, it increased in weight to one pound four and a quarter ounces, while the water was reduced to one pint and fourteen-sixteenths. The water was a dirty brandy-colored liquid; and the turnips were still but little swelled and very tough. Three quarts of fresh cold water (with one pint of hot subsequently added) were poured upon them, and the boiling kept up for three and a half hours. The turnips, when drained, weighed one pound and eleven-sixteenths, and were tough, fibrous, and incapable of being mashed into a soft mass. They retained little of the flavor and smell of fresh turnips. The water left from cooking measured one pint and three-fourths. It was a brandy-colored fluid, and had the taste of turnips.

Neither experiment yielded an article fit for food. The board, therefore, unhesitatingly condemn the specimens experimented on as *worthless*, in an alimentary point of view, *for the navy*.

JULIENNE.

Experiment 13.—A tablet of five rations, four inches square by one-half thick, and weighing four ounces and one-sixteenth, formed the

subject of this experiment. It was in the usual excellent state of preservation, and was apparently made up almost entirely of carrots and cabbage, having a musty odor, and a mawkish and mucilaginous taste. Separated, and immersed half an hour in three pints of water at ninety degrees Fahrenheit, it increased in weight to twenty-two ounces, was somewhat swelled, and had a strong sweet taste like that of carrots. The water of immersion measured, after draining, two pints, was high colored, and possessed a very sweet, rather disagreeable, taste. The carrots, though more crisp than when first immersed, were still tough and hard. Boiled in seven pints of water, (including that of immersion,) with four pints subsequently added, it required three and a quarter hours to complete the cooking. At its termination, the vegetables were rather soft, far from palatable, and still not sufficiently cooked. Their weight was now one pound nine ounces, and their appearance much like that of the respective fresh plants. The soup measured one and a quarter pint, was of a deep straw color, and possessed the flavor of carrots. Whilst being in a measure palatable, it was decidedly *meagre*, and seemed to be little more than a decoction of the predominant vegetable.

Experiment 14.—A tablet of julienne, of ten portions, four inches broad, eight long, and one-half thick, dry and in good condition, was next examined. Like the former, it appeared constituted of carrots and cabbage, and weighed nine and a half ounces. It had a pale yellow and green color, a mucilaginous, sweetish taste, and a peculiar unpleasant odor. Separated, and immersed for thirty-five minutes in water at sixty-five degrees Fahrenheit, it yielded, after draining, a dirty-looking liquid, of a sickening taste, measuring two pints. The vegetables were very tough, and gave a weight of two pounds nine and a half ounces. Rejecting the water of immersion, the julienne was next put into twelve pints of cold water, to which six pints of hot water were added during the process of cooking; and the boiling was maintained for four hours over a brisk fire. The product was a very thin pottage, of a pale straw color, and a repulsive odor. The vegetables were weighed, and found to have augmented their weight to three pounds and three-sixteenths. The soup measured four pints.

In both trials, notwithstanding an enormous expenditure of fuel, water, and time, the vegetables were not sufficiently cooked to be pleasant to the palate, or wholesome for the stomach; thus affording another instance of the great difficulty generally experienced throughout our experiments, in boiling the *compressed* alimentary substances of Masson enough to fit them for table use. The board was so unfavorably impressed with the result of both experiments, that they did not think it worth while to try the effect of a more protracted ebullition.

SUCCORY, WILD ENDIVE, (CHICOREE.)

Experiment 15.—A single tablet, weighing four and a half ounces net, and found to be in good condition, formed the subject of this experiment. It had a herbaceous smell, a pale yellowish color, with green intermixed, and a taste at first mucilaginous, but followed by bitterness on long chewing. The tablet well separated, and immersed in

five pints of water at ninety-eight degrees, became, in half an hour, much enlarged in bulk, had acquired a disagreeable taste and sickening smell, and imparted to the water a bitter quality, along with the color of pale brandy. It weighed one pound and nine-sixteenths. The water of immersion, after the plant was withdrawn, measured three and a half pints. The succory was now put into a vessel containing three quarts of cold water, and placed on the fire to boil. Before the three and a half hours consumed in this process were out, it became necessary to add twelve pints of hot water; yet of all this only three pints were left at its termination. The plant was then well drained, and found to weigh two and seven-sixteenths pounds. It was hard, stringy, tough, tasteless, and unfit to be eaten.

The board are unable to conceive of any uses to which so forbidding a substance as succory, when thus prepared, can be applied on board the vessels of our navy, and therefore condemn it as perfectly *worthless* in every point of view.

PARSLEY, (PERSIL.)

Experiment 16.—The sample used for the experiment was in good condition, weighing three and a quarter ounces net. It measured four inches square, by one half thick. The color of the tablet was a beautiful apple green; it emitted a peculiar heavy smell, and possessed a disagreeable parsley-like taste. It appeared to be composed of the leaves and stems of the plant. Separated, and immersed for half an hour in three pints of water at ninety degrees Fahrenheit, and then strained, it weighed thirteen and three-quarters ounces, was acrid to the taste, and had almost the precise odor of the fresh vegetable. The water of immersion measured two pints. After three and a half hours' boiling in eight pints of water, (including that of immersion,) it was found to weigh, when drained, thirteen ounces, and to be still most repugnant to the senses of taste and smell, besides not being nearly as much cooked as it should be. During the cooking, it was found necessary to increase the quantity of water by seven and a half pints, to save the substance from being burnt up before its termination. The water left after the cooking amounted to one quart of a high-colored dirty liquid, offensive alike to the palate and to the nose. As for the parsley itself it was hard and stringy, and had swollen very little for the large proportion of water expended in its preparation.

The board cannot express too *unfavorable* an opinion of it.

STRING BEANS, (HARICOTS VERTS.)

Experiment 17.—A tablet, measuring four inches square by rather less than one-half thick, weighed only two and one-eighth ounces net. It was composed of beans, easily separated from each other, of a dull, dark-green hue, faint odor, a not unpleasant taste, and in an excellent state of preservation. The tablet, separated and immersed in four pints of water at one hundred and ten degrees Fahrenheit for half an hour, augmented its weight to seven and a quarter ounces, and had acquired the taste and smell of the fresh plant to a certain extent. The bean remained hard and tough. A dirty, discolored fluid, having a raw mawkish taste, and measuring three and a quarter pints, represented

the water of immersion left after the drainage of the beans. The beans were now boiled for two and a quarter hours in seven and a quarter pints of water, (including the water of immersion,) and during the process one quart of boiling water was added, with the following result: twelve ounces was now the weight of the drained vegetable, which had the appearance of fresh beans, but without much of their savor, and was manifestly not enough cooked. The water remaining after the completion of the process measured four ounces, was nauseous to the palate, and was high colored and dirty.

Experiment 18.—This tablet weighed two and six-sixteenths ounces, and was found perfectly dry and well preserved. The tablet, separated, was immersed half an hour in three pints of water at sixty degrees Fahrenheit, with the effect of increasing its weight to six ounces. The water of immersion showed, after draining, a measure of two and fourteen-sixteenths pints. Boiled in one gallon of fresh water, (that of immersion having been thrown away,) with the subsequent addition of a gallon of hot, the beans were found, at the end of two hours, far from tender, and quite tasteless. Their weight was now one and two-sixteenths pounds. The water left from cooking measured two and a half pints.

The beans in both these experiments fell far below the standard of excellence claimed for them by M. Masson, and struck the board as a *very inferior*, unchangeable article of food.

GREEN PEAS, (PETITS POIS.)

Experiment 19.—Five rations neatly put up in a small bottle, well stoppered, and the cork covered with a thick layer of wax. The peas, thoroughly dry, were somewhat shriveled in appearance, of a pleasant smell, and of no very decided taste. Their weight was five and a quarter ounces net. This quantity, after immersion for half an hour in three pints of water at one hundred degrees Fahrenheit, weighed eleven and three-fourths ounces. The peas swelled to nearly their natural size; and, though still hard and wrinkled, they bore a strong resemblance, in sensible qualities, to the fresh vegetable. The water of immersion now measured two and a quarter pints, and had a mawkish taste. The peas were next placed over the fire in three pints of water, (including that of immersion,) and the boiling commenced; but before its completion, five pints of hot water were added. After two and a half hours of brisk ebullition, the peas were found nearly done, and of a flavor which assimilated them closely to the fresh vegetable. Seasoned with salt and butter, they made a decidedly palatable dish. Their weight had increased to fourteen and a quarter ounces. The water left from cooking amounted to one and a half pint, was very high colored, and of a sweetish taste.

Experiment 20.—A sample, taken from a bottle put up in the same mode, was ascertained to weigh five and a quarter ounces. It differed, in no respect, from the former specimen. Immersed half an hour in three pints of water at sixty degrees Fahrenheit, its weight increased to seven and a half ounces; and there remained of the water of immersion two and fourteen-sixteenths pints. The peas were only slightly swollen.

The water of immersion having been rejected, three quarts of cold fresh water were now poured upon them; and the vessel was set on the fire to boil. Before the process was finished, it became necessary to add one quart of boiling water. At the end of two and a half hours of active boiling, the peas were found to be tolerably soft, and to manifest a natural taste, color, and smell. Their weight was one pound. One and a half pint of water remained after the cooking was concluded.

The board consider the peas (*petits pois*) to retain the physical properties of the fresh vegetable in a high degree, and (under circumstances where it is convenient to subject them to a three hours' hard boiling) as being an *excellent* substitute for the latter when it is not to be had.

GANNAL'S DESICCATED VEGETABLES.

In the instructions laid down by Gannal, we have particular directions for preparing each of his vegetable aliments for the table. As the board have complied strictly with them in cooking each article, it will not be incumbent on us here to enter into details. Suffice it to say that, for most substances, he directs an immersion in cold water, properly salted, for a period which is longer or shorter according to the nature of the vegetable used, and afterwards a thorough cooking over a fire (at first moderate) for about 15 minutes. Preserved potato (*tapioca Francais*) requires no immersion before cooking; cabbage, an immersion in tepid water for a couple of hours; and carrots and turnips, an immersion for six or eight hours.

The various vegetables put up by M. Gannal were presented to us in a good state of preservation. His finer articles are in glass; but the inferior kinds are, as he states, stowed in wooden boxes lined with zinc. Part of those we examined were in bottles carefully corked, and covered with thick foil; and the remainder in stout unglazed paper. In neither case did the moisture of the air appear to have affected the vegetables; none of which had been compressed.

POTATO, (TAPIOCA FRANCAIS.)

Experiment 21.—This substance was in glass. It consisted of small, light, worm-shaped particles, having a farinaceous, not unpleasant, taste, and a pale straw color. Very few black specks were interspersed through the mass, which was in an excellent state of preservation, being perfectly dry, and entirely free from mustiness of smell. The same sample was used in all our trials. Two ounces were cooked for ten minutes near a hot fire in ten ounces of boiling water, with a view to prepare the soup so much lauded by Gannal; but, instead of it, we obtained a species of mush, resembling mashed turnips, with a faint potato-like odor, and which made a very palatable dish when seasoned with butter and salt.

Experiment 22 was undertaken in order to prepare the substitute for mashed potatoes spoken of by Gannal. Two ounces of the potato were cooked in five ounces of boiling water for ten minutes; and, when removed from the fire, we found it much charred, adherent to the sides of the vessel, but exhaling the odor, and having the taste of baked po-

tatoes. In both these trials the quantity of water used (which was that directed by M. Gannal) was much too small to accomplish the object in view; and, therefore, our results do not correspond with those promised by the manufacturer. The product in both was easily reduced, by pressure with a spoon, to the consistency of mashed potatoes.

Experiment 23.—The same quantity of the potato was next treated in the same way, with four times the proportion of boiling water, and yielded a mass more discolored than common mashed potatoes, but of about the same consistency, and of rather a raw taste. The granules were easily mashed. On the whole, this preparation was less palatable than the two former, where Gannal's directions as to quantities of the potato and water were observed.

Experiment 24.—(For soup.) In order to give this substance a fairer trial than it appeared to have had in the trials where it became charred, the proportions were varied. One-half of a pint of the potato, weighing two ounces, was boiled for thirty minutes in five pints of water, which stood at two hundred and twelve degrees Fahrenheit at the commencement of the process. The result was a thin meagre pottage, in which the still uncooked potato grains sank in a layer to the bottom of the vessel. The soup, so called, measured two and a third pints. The board did not deem it either a grateful or a wholesome dish.

Experiment 25.—(For porridge.) We boiled three and a half ounces in three pints of water for twenty minutes; at the end of which time the vessel containing it was removed from the fire. An excellent porridge, measuring one and one-sixteenth pints, was the result.

These experiments were performed with the greatest care; and, although some of them did not result as well as could have been desired, enough was learned to give the board a *high opinion* of the substance as a dietetic article. Of itself, a very neat and clean preparation, evidently made from the best selected roots, and possessing in its cooked state a flavor nearly approaching the fresh vegetable, its bulk is the only objection to its general use on board vessels of war. For the sick, however, it could be used with advantage as an aliment.

In reference to its merits, when compared with the corresponding articles prepared by Edwards and Masson, the board are clearly convinced of its *great superiority* to both, and especially to that of Edwards.

CABBAGE, (CHOUX.)

Experiment 26.—This was done up in white paper in the form of a thin brick, and gave a net weight of one pound nine and a quarter ounces. The stems and leaves of the plant were in a perfectly distinct state, and could, by picking, be readily separated from each other. It was very dry. The preparation had a feeble taste and smell of cabbage, was on the whole rather a dirty-looking article, and resembled very much the dried leaves of tobacco in general appearance. Separated, and immersed for two hours in fifteen pints of fresh water at ninety-eight degrees Fahrenheit, it gave a weight of five pounds fourteen ounces, and emitted a most offensive odor. The water of immersion, left after the draining of the cabbage, measured ten and a half pints. The cabbage was now put to boil in nine quarts of cold water, (throwing

away that of immersion,) and to this was afterwards added one-half gallon. For four and a quarter hours a most active cooking was kept up over an intensely hot fire. Deeming it useless to persist longer, the cabbage was then taken from the fire and drained. Its weight had increased to nine pounds. The water left after cooking measured seven and a half pints. The cabbage appeared to be sufficiently boiled, but it was tasteless and totally unfit to be eaten.

The board condemned it as a *worthless* article.

CARROTS, (CAROTTES.)

Experiment 27.—These were in glass, were free from moisture, and were otherwise apparently in the best condition. The mode of putting them up was perfectly unexceptionable, being contained in a bottle well corked, and covered with foil. They were in separate, long slices, and had very much the color, taste, &c., of the recent plant. One pint, weighing four and thirteen-sixteenths ounces, immersed for twelve hours in cold, salted water sufficient to cover them, was found to have increased in weight to one pound two and a quarter ounces. The slices were considerably swelled, crisp, and well flavored. The water left from immersion measured one pint and a quarter, and had a sweetish taste. It was thrown away. Boiled for two hours in six pints of fresh water, (at sixty-five degrees Fahrenheit when the cooking commenced,) the carrots were then strained, and weighed one pound and seven-sixteenths. They were soft, well flavored, and, when seasoned with butter and salt, made a palatable dish.

The board consider it an *excellent* preparation of its kind, but possibly too bulky for general use at sea. If such an aliment were required for the use of the sick, the board would think this preparation well adapted to the purpose.

TURNIPS, (NAVETS.)

Experiment 28.—These also were put up in bottles, and were in good condition. They were in separate, long slices, of a dull, whitish color, and of the smell and taste of turnips. One pint of these slices, weighing three and seven-sixteenths ounces, was steeped for eight hours in a sufficient quantity of salted water to cover them. When taken out, they were found swelled and crisp, with the natural flavor of turnips. Their weight was now thirteen ounces and one-eighth. The water of immersion was of the color of brandy, and of a sweetish taste; it measured one pint and a quarter, and was thrown away. The turnips, well drained, were next boiled one hour and a half, in four pints of fresh water, (at sixty-five degrees when the process began,) until about one ounce only of a thick, blackish, sweet liquid was left. After draining, the turnips weighed one pound and one-sixteenth, and were still in distinct pieces. Generally the pieces were well softened, and easily mashed; but some remained tough and leathery. Their taste and smell were those of the boiled fresh vegetable.

The board deem them a *pretty fair* article. But the turnip is at best a watery and sparingly nutritious vegetable, of little value as food for man.

JULIENNE, (FOR MAKING SOUP.)

Experiment 29.—This was in a bottle, and was composed of ten different kinds of vegetables, arranged in layers, and all in a perfectly dry state. The weight of the contents was one pound two and a quarter ounces. The whole boiled for three hours in twenty-one quarts of water, at first cold, gave a soup of a very good flavor, and requiring but the addition of some simple condiment to render it delicious.

The board consider it a *very fine* preparation of its class.

SUCCORY, WILD ENDIVE, (CHICOREE.)

Experiment 30.—This was put up in the same way, and its condition as to dryness was equally good. It was composed of what appeared to be the leaves and smaller stems of the plant in a state of minute division. The odor was mawkish, and the taste slightly mucilaginous. The net weight amounted to two ounces and five-sixteenths. This quantity was immersed in six pints of salted water, at 65° F., and found, after draining, to have undergone but little change, except in weight, which now amounted to fifteen ounces. The water of immersion was high colored, and had fallen to five pints and a half. The succory was then boiled for an hour and three quarters in the water of immersion. It was found, at the end of the process, altogether too hard to be eaten, very unsavory as a dish, and, indeed, to have little more flavor than the most common weed. The water in which it was cooked exhibited a very dirty and disgusting appearance, and possessed the same disagreeable taste as the plant.

The board condemned the succory as a *worthless* article.

PARSLEY, (PERSIL.)

Experiment 31.—The specimen submitted to the board was in a loose and open paper, but in a perfectly dry condition. It was composed of the parsley plant, tied up into little bundles, the whole of which were gently pressed together into the brick form. When chewed, the substance had a parsley-like taste, and the smell of well-dried hay. One pint of it, weighing one ounce, was boiled for two hours and three quarters, in four pints of salted water, (at 65° F. when the process began,) to which was added, meanwhile, one quart of boiling water; and the substance was then deemed sufficiently tested. When strained it weighed four ounces and a quarter, and was far from being sufficiently softened or cooked throughout. It had a deep, grass-green color, a most disgusting taste, and almost as unpleasant an odor. No water was left from the cooking.

The board infer from this trial that it is a *worthless* article for naval purposes.

SORREL, (OSEILLE.)

Experiment 32.—This article was put up in thick white paper, in the form of a brick, with leaves of paper between the layers. It was thor-

oughly dry, of a dark-green hue, and had no particular odor or taste. One pint of the plant, weighing one and five-sixteenths ounces, was put into four pints of water at 65° F., and boiled two hours, when it was strained, and found to weigh seven and a quarter ounces. It was perfectly cooked, and had rather an acid taste. The water, left after the draining was finished, amounted to one pint, and was of a deep brandy-color, with the taste and smell of the cooked plant.

The board consider this specimen of the sorrel a *tolerably good* article of itself, but do not know of any circumstances under which it should be preferred at sea to articles of quite an easy access now in general use.

CAULIFLOWER, (CHOU FLEUR.)

Experiment 33.—The cauliflower was contained in glass, and appeared to be in perfectly good order. It had the heavy, disagreeable smell, and the taste, of common garden cabbage. One pint, weighing three ounces, was boiled for one hour and ten minutes, in four pints of properly salted water, cold when the vegetable was put into it. This cooked it thoroughly. When allowed to drain, it weighed fifteen and seven-sixteenths ounces. The water left from cooking measured one and a half pint, was of rather a high color, and had the flavor of cabbage.

The board consider it an *excellent* article *per se*, but that its bulkiness and expensive *parvum in multo* form would operate against its general use at sea, except for the sick, and would limit its use for the crew to long voyages, as a preventive of disease.

BUNCH BEANS, (HARICOTS VERTS FLAGEOLETS.)

Experiment 34.—These were put up in a bottle, and appeared to be in the best possible condition. The individual beans were but little shrunken, were of a dull yellowish color, without odor, and possessed the taste of the fresh bean in a faint degree. Their weight was twelve and seven-sixteenths ounces. Boiled for two hours in eight pints of salted water, (at 65° F. when the process commenced,) and over a moderately hot fire, this quantity of beans had increased to one and thirteen-sixteenths pounds. The beans had now regained the delicate hue and taste of the fresh vegetable, and were perfectly soft and mealy. In size and general appearance, they quite rivalled it. The water remaining from cooking amounted to three pints.

The board were *very favorably* impressed with the qualities of this vegetable when boiled, and look upon it as a *valuable* dietetic article for the hospital department of ships-of-war.

MUSHROOMS, (CHAMPIGNONS.)

Experiment 35.—These also were put up in glass. Their odor and taste were those of the natural plant, and their state of preservation good. They weighed two and fourteen-sixteenths ounces. Immersed for ten minutes in three pints of boiling water, they became swollen, and increased in weight to thirteen and nine-sixteenths ounces. The

water had been reduced to two and one-third pints, and became imbued with the odor of mushrooms. After draining, the mushrooms were cooked in three ounces of olive oil, examined repeatedly, and, after a long cooking, were still tough and crude. At the end of two hours they became charred, and were *not fit* to be used for food. The directions of Gannal for preparing them were followed as nearly as possible; but they were very inexplicit.

The board could form no opinion in the case, (there being no other bottle with which to repeat the experiment,) except from the appearance of the vegetable before the experiment was entered upon; and this recalled the fresh plant to a very fair extent.

BRUSSELS CABBAGE, (CHOU DE BRUXELLES.)

Experiment 36.—In glass, and quite dry. This specimen was composed of very small heads of cabbage, having a delicate green hue, and rather a mawkish taste and smell. Their weight was one and an eighth ounce. This quantity was boiled for one hour and twenty minutes in salted water, and, when removed from the fire, the heads were found quite done. Their taste was sweetish, but both this and the odor had a dash of the common cabbage. Drained and weighed, they came up to five and thirteen-sixteenths ounces. The water, remaining from the cooking, amounted to three-quarters of a pint. The heads were scarcely increased by the cooking. Properly dressed, and seasoned with butter and salt, or a little vinegar, they formed a *highly palatable* dish.

The board are ignorant of any other use to apply them to in the navy than as *dainties* for officers' messes.

SPINAGE, (EPINARDS.)

Experiment 37.—In glass, and in good condition. It is composed of minute, leaf-like portions, which have a pale green color and sickening taste, and an odor somewhat like that of fresh spinach. The weight of the contents of the bottle was three and a half ounces. This having been steeped for two hours in eight pints of cold water, and then drained, had increased in weight to one pound four and a half ounces; was of a beautiful grass-green, but retained the obnoxious taste and smell. The water of immersion presented much the same properties; it measured six and a half pints. In this water the plant was boiled for two hours, and found to be perfectly well cooked. It weighed, when drained, one and three-sixteenths pounds, and had improved in neither taste nor smell; but, on the contrary, was, if possible, more disagreeable than before. The water left from the cooking measured three pints, was of a dirty greenish color, and had a mawkish flavor.

The board rejects this spinach as *utterly worthless*.

ONIONS, (OGNONS.)

Experiment 38.—These were in small pieces, and had been exposed to the air in loose paper. Nevertheless, they were quite free from moist-

ure. Their taste, smell, and general appearance, were those of the fresh plant. One ounce was boiled in half a pint of salted water, (at 65° F. when the cooking commenced,) and, after the addition of one pint of boiling water, was considered cooked, in about one and a half hour. The vegetables now possessed the sensible qualities of the onion in a high degree. Their weight, when drained, was four ounces. The water left from the boiling measured one quarter of a pint.

Those fond of this bulb pronounced this specimen of it *delicious*.

BEETS, (BETTERAVES.)

Experiment 39.—These were composed of transverse, well-dried, hard slices, with the color and taste of the fresh beet. They had been exposed to the air in loose paper, without injury. One ounce of them was steeped, for twelve hours, in equal parts of cold vinegar and water, just sufficient to cover them. When drained, they weighed three and a quarter ounces, and were quite tender. Their flavor and appearance were excellent.

Experiment 40.—One ounce from the same sample was put into one quart of fresh cold water, and kept boiling for an hour and three quarters. By this process, its weight increased to five ounces, and the vegetable became tender, and acquired the taste of cooked beets recently from the garden. The water left measured two ounces.

These beets are a *good* and *palatable* article, well adapted, in the opinion of the board, for general use in the navy, whether as an *aliment*, or simply as a *pickle*; though, in this latter respect, they are not superior to that now used in the navy.

DE LIGNAC'S CONSERVE OF MILK.

The directions given to prepare this substance for use as an article of food, are very simple. One part of the conserve boiled for a moment with five times the quantity of water, forms a milky fluid, which is stated to be ready for the table without the addition of sugar.

Three tin canisters of "preserved milk" were submitted to us for examination. Their weights were, respectively,

lb.	oz.	ds.	
1	8	10	}
1	8	3	
1	9	10	

gross; the average of which is one pound, eight ounces, and thirteen drachms. When opened, the conserve appeared in the form of a semi-translucent, cream-colored paste, which emitted the smell of boiled milk, and had a very sweet taste. The paste was soft and homogeneous, and looked much like certain kinds of butter. Its sugar crackled between the teeth, and obviously entered liberally into the compound.

Experiment 41.—Three ounces of the conserve, being treated with a proper quantity of water heated to 90° F., was brought to the boiling point as quickly as possible. Though the treatment conformed strictly to the directions of the inventor, the result was not satisfactory. The mixture presented the blue appearance of thin milk and water; it had some oily particles floating on the surface, and was, moreover, pervaded by a quantity of curdy lumps throughout.

Experiment 42.—The same proportions were employed; but the water was 100° F. at first; and the paste was assisted in combining with the water by the pressure of the spoon. On boiling a few minutes, we obtained a richer looking preparation than the former; but there were still lumps of the curdy substance interspersed, though to a less degree than in the former trial.

Experiment 43.—In this instance, with the same proportions, (3 ounces to 15 ounces,) care was taken to incorporate thoroughly the paste with water of a temperature of 100° before setting the mixture on the fire to boil. By this means there resulted a milky-looking preparation, which was perfectly homogeneous in its composition, and displayed a large quantity of yellowish, oily particles on the top. Not the slightest trace of curd was now visible. The taste was very saccharine, and not a little like boiled cow's milk over-sweetened. After standing in a covered vessel for twenty hours, it was still sweet, with the odor of boiled milk; and there had risen to the surface a larger quantity of the butter-like matter.

In the absence of any certain knowledge as to the precise mode in which the "conservé" is prepared, and well apprized of the great extent to which the adulteration of milk is carried in France, the board refrain from doing more than detailing the trials they have made with it, and the changes it has appeared to them to undergo, *without venturing upon any recommendation* as to its employment in the navy, or elsewhere.

The following table presents a synoptical view of the preceding experiments, arranged in the order in which they have just been recorded:

TABLE.

No. of experiment.	Article experimented upon.	Weight before immersion, (avoirdupois.)	Weight after immersion.	Quantity of water used for immersion.	Temperature of the wa- ter used for immersion.	Duration of immersion.	Quantity of water remain- ing after immersion.	Weight gained by immer- sion.	Relative proportion of weight before and after immersion.	Quantity of water used in cooking.	Quantity of water used in cooking, being part of that stated in preceding column.	Duration of the process of cooking.	Weight of the substance after cooking.	Relative proportion of weights before immersion and after cooking.
		lbs. oz. drs.	lbs. oz. drs.	galls. qts. pts.	Fahr't.	h. m.	qts. pts.	lbs. oz. drs.		galls. qts. pts.	galls. qts. pts.	h. m.	lbs. oz. drs.	
1	Patent preserved potato, Ed- wards's	12 0										15		
2	Do	12 0								*1 0		15		
3	Do	1 0 0								*1 0		15		
4	Do	1 0 0								*3		15		
5	Do	1 0 0								*3		15		
6	Potato, Masson's	2 0	3 6	0 0 1	110	1 0	13-16	1 6	1.69			1 5	3 0	1.50
7	Do	2 0	3 5	0 1	65	2 15	14-16	1 5	1.66			1 0	7 0	3.50
8	Cabbage	4 5	1 5 0	2 0 0	90	30	1 1	1 0 11	4.87	+1 1 1	2 0	3 30	1 13 8	6.84
9	Do	7 6	2 5 0	5 0 0	90	30	3 0	1 13 10	5.00	+2 2 0	1 0 0	3 30	3 1 12	6.75
10	Carrots	4 13	1 0 0	1 1 1	110	30	1 0 3-16	11 3	3.32	+2 1 0	1 0	3 45	1 9 4	5.25
11	Do	4 10	13 8	1 0 0	78	30	1 1/2	8 14	2.92	+3 1 1	1 1	3 45	1 11 8	5.95
12	Turnips	5 1	1 9 0	1 1 1	110	30	1 1/2	1 3 15	4.94	+2 3 0	2 0 0	3 15	1 11 12	5.48
13	Do	4 13	1 4 4	1 1 1	65	30	1 14-16	15 7	4.21	3 1 1	3 1	3 30	1 11 0	5.61
14	Julienne	9 8	2 9 8	3 0 0	65	38	1 0	2 0 0	4.37	2 1 0	3 0	4 0	3 3 0	5.37
15	Do	4 14	1 6 0	1 1 1	90	30	1 0	1 1 2	4.82	+1 1 1	1 2 0	3 15	1 9 0	5.13
16	Succory	4 8	1 9 0	2 1 1	98	30	1 1 1/2	1 4 8	5.56	2 1 0	1 2 0	3 30	2 7 0	8.67
17	Parsley	3 4	13 12	1 1 1	90	30	1 0	10 8	4.23	+1 3 1 1/2	3 1 1/2	3 30	13 0	4.00
18	String beans	2 2	7 4	2 0 0	110	30	1 1 1/2	5 2	3.41	+1 0 1 1/2	1 0	2 15	1 2 0	5.65
19	Do	2 6	6 0	1 1 1	60	30	1 0 14-16	3 10	2.53	+2 0 0	1 0 0	2 2 0	1 2 0	7.58
20	Green peas	5 4	11 12	1 1 1	100	30	1 0 1/2	6 8	2.24	1 0 0	2 1	3 0	1 14 4	5.78
21	Do	5 4	7 8	1 1	60	30	1 0 14-16	2 4	1.43	+1 3 0		2 30	1 0 0	3.05
22	Preserved potato, Gannal's	2 0			212					+10-16		10	11 8	5.75
23	Do	2 0			212					+5-16		10	2 10	1.31
24	Do	2 0			212					+14-16		10		
24	Do	2 and measuring 1/2 of a pint.		2 1	212					+2 1		30		7.00
25	Do	3 8		1 1	212					+1 1		20		
26	Cabbage	1 9 4	5 14 0	7 1	98	2 0	5 1/2	4 4 12	3.72	2 3 0	2 0	4 15	8 14 0	5.82
27	Carrots	4 13	1 2 4	Sufficient to cover them salt'd	65	8 0	1 1/2	9 11	3.70	3 0		1 30	1 1 0	3.59

28	Turnips.....Gannal's..	3	7	13	2	{ Sufficient to cover them salt'd }	65	8	0	1 1/4	9	11	3.82	2	0	.....	1	30	1	1	0	4.95		
29	Julienne .....do.....	1	2	4	3	0	65	5	1	0	3	0		
30	Succory.....do.....	2	5	15	0	|| 2	0	65	2	0	2	1 1/4	12	11	6.49	|| 15-16	1	45	1	0	12	7.24		
31	Parsley.....do.....	1	0	.....	.....	|| 2	0	65	.....	.....	.....	.....	.....	.....	.....	|| 1	0	2	45	4	4	4.25
32	Sorrel.....do.....	1	5	.....	.....	|| 2	0	65	.....	.....	.....	.....	.....	.....	.....	|| 2	0	2	0	7	4	5.52
33	Cauliflower.....do.....	3	0	.....	.....	|| 2	0	65	.....	.....	.....	.....	.....	.....	.....	|| 2	0	1	10	15	7	5.15
34	Bunch beans.....do.....	12	7	4	0	65	1	0	2	0	1	13	0	2.33		
35	Mushrooms.....do.....	2	14	13	9	|| 1	1	212	10	1	1/2	10	11	4.72	olive oil 3 oz.	2	0		
36	Brussels cabbage.....do.....	1	2	.....	.....	|| 1	1/2	65	.....	.....	.....	.....	.....	.....	.....	|| 1	20	1	20	5	13	5.17
37	Spinage.....do.....	3	8	1	4	8	1	0	65	2	0	3	1/2	1	1	0	5.86	|| 3	2	0	1	3	0	5.43
38	Onion.....do.....	1	0	.....	.....	|| 1/2	.....	65	.....	.....	.....	.....	.....	.....	.....	|| 1	35	1	35	4	0	4.00
39	Beets.....do.....	1	0	3	4	{ Vinegar and water each 4-16 }	1	0	60	12	0	vin. and wa. 1/2	2	4	3.25	{ No cook- ing re- quired. }	of pickl'd bts. 3	4		
40	Do.....do.....	1	0	.....	.....	1	0	65	.....	.....	.....	.....	.....	.....	.....	|| 1	0	1	45	4	12	.....		
41	Conserve of milk, De Lig- nac's.....	3	0	.....	.....	15-16	.....	90	.....	.....	.....	.....	.....	.....	.....	|| 15-16	.....	5	.....	.....	.....	.....
42	Do.....	3	0	.....	.....	15-16	.....	100	.....	.....	.....	.....	.....	.....	.....	|| 15-16	.....	5	.....	.....	.....	.....
43	Do.....	3	0	.....	.....	15-16	.....	110	.....	.....	.....	.....	.....	.....	.....	|| 15-16	.....	5	.....	.....	.....	.....

* Boiling.

† Including that of immersion.

‡ Water of immersion.

|| Salted.

After we had terminated the examinations and experiments (which we have just recorded) on the various alimentary substances submitted to us at the commencement by the chief of the Bureau of Provisions and Clothing, he laid before us, for examination, a tin canister of Edwards's "patent preserved potato," a bottle of the "preserved potato" of Messrs. Lewis, of Boston, and a tin canister of De Lignac's preserved milk, (*consERVE de lait*.) These we examined and submitted to experiments, similar to those fully detailed with the previous articles. The substances, like the former, were carefully put up, and in good preservation.

The canister of Edwards's potato contained about a pint. The granules were like those in the large cases, except that they were much clearer, lighter colored, and freer from dark specks and from unpleasant smell and taste. Treated like the former specimens, they had a crude and foreign taste, and were pronounced by all who tried them to be "*bad*."

Lewis's preserved potato was in the form of irregular granules, of a dull yellowish color, with few dark specks, and otherwise clear, as if it had been carefully prepared. It was perfectly dry, and had a natural taste and odor. Submitted to trials like those made with Edwards's potato, it gave a result of which we thought favorably, and which wanted, we may suppose, but the hand of the culinary *artiste* to render it an *excellent* dish of mashed potato.

The preserved milk of De Lignac, which resembled in every respect the specimens before submitted to us, gave, on a repetition of the experiments, a repetition of results like those already recorded; forming when merely boiled for a few moments (agreeably to the direction of the manufacturer) with five times its amount of water, a sweet, thin, milky fluid, filled with curdy masses; but when carefully combined with the hot water by persevering malaxation with a spoon before boiling, constituting a homogeneous fluid, free from curds, and consequently richer than the former, and not distinguishable in taste, smell, and appearance from sweetened boiled milk, and in either case presenting, on cooling, a superficial layer of yellow fatty or buttery globules. The only additional observation which we made on this "*consERVE*" was the exposure of part of it to the open air for a fortnight; at the end of which time it had undergone no sensible change, nor did it give, when treated with boiling water, any impaired result.

With a result thus favorable, so far as the sensible qualities and the keeping properties of De Lignac's "*consERVE de lait*" are concerned, we *cannot*, nevertheless, *depart from the reserve before maintained in regard to it, by recommending* for either general or partial use in the navy an alimentary substance (of the mode of preparing which we have no certain knowledge) which is readily susceptible of sophistication, and of the genuineness of which we have no satisfactory assurance.*

Having now concluded our experiments on the various alimentary

* It is proper to remark here that the "*consERVE de lait*" submitted to us was received by the chief of the Bureau of Provisions and Clothing from M. De Lignac himself, who was represented to him as highly respectable, and who has a contract for supplying the French and English navies.

substances submitted to us, we will present in one view the opinions at which we arrived in regard to them.

Edwards's potato—"inferior."

Masson's potatoes—"disagreeable."

Do. . . . cabbage—"very palatable."

Do. . . . carrots—"excellent."

Do. . . . turnips—"worthless for the navy."

Do. . . . julienne—"meagre."

Do. . . . succory—"worthless."

Do. . . . parsley—"worthless."

Do. . . . string beans—"inferior."

Do. . . . green peas—"excellent."

Gannal's potato—"excellent."

Do. . . . cabbage—"worthless."

Do. . . . carrots—"excellent."

Do. . . . turnips—"pretty fair."

Do. . . . julienne—"very fine."

Do. . . . succory—"worthless."

Do. . . . parsley—"worthless."

Do. . . . sorrel—"tolerably good."

Do. . . . cauliflower—"excellent."

Do. . . . bunch beans (flageolets)—"excellent."

Do. . . . mushrooms—"not good."

Do. . . . Brussels sprouts—"delicious dainties."

Do. . . . spinach—"worthless."

Do. . . . onions—"delicious to onion-eaters."

Do. . . . beets—"good as an aliment or pickle."

Dé Lignac's "preserved milk"—"not recommended."

Lewis's potato—"good."

It will thus be seen that the only articles that, in our hands, proved themselves to be good, were the cabbage, carrots, and green peas of Masson; the potato, carrots, turnips, julienne, sorrel, cauliflower, bunch beans (flageolets,) Brussels sprouts, onions, and beets of Gannal; and the potato of Lewis.

But the good quality of an aliment—that is its property of being, when cooked, an agreeable and digestible article of food—though obviously its highest recommendation, is one only of a number of items in the question of its adaptability to the navy, either as an addition to the ration, as a substitute for some part of it, or as an article of hospital stores, and diet for the sick. Its nutritive properties, its keeping properties, its volume, the amount of time, water, and fuel required for cooking it, and perhaps also its cost, enter essentially into this important question.

The determination of the relative nutritive powers of the various alimentary substances has long occupied the attention of the chemist and the physiologist. Although their researches have not led to absolutely uniform results, yet the proportion of solid matter which each article contains has been determined with considerable accuracy; and there is a general agreement of opinion as to the positive and relative amount of nutrient matter contained in the principal articles of food.

Scales of nutritive equivalents have accordingly been made out, and

will serve as a guide, in conjunction with our knowledge of the sensible qualities of an aliment, in estimating its value as an article of food; ever bearing in mind, however, the fact, established by a host of experiments, that variety of food is indispensable to animal subsistence; that an article of food believed to possess little nutritive power, may, in combination with others, prove highly nutritive; that an animal fed on any one even of the proteinaceous and highly nitrogenized aliments exclusively, will die of starvation; and that a multiplicity and mixture of articles of food are necessary to maintain, not bodily vigor only, but animal life.

The estimate of the nutritive value of an aliment is, in the absence of results derived from practical tests, usually based on the assumption that, in a mixed diet, which contains all the principles necessary for the nutrition and growth of the animal body, there is a relation between the proportion of nitrogen contained in food, and its nutritive quality. Though this assumption is apparently opposed by the fact that some highly nitrogenized substances, considered singly, are believed to be little nutritive, yet it is generally adopted by physiologists as affording the safest foundation at present known, on which to estimate the value of an aliment as an article of food.

We will, therefore, agreeably to the standard usually appealed to, and in the absence of more certain knowledge to guide us in the appreciation of an article of food, exhibit the results of organic chemistry in its determination of the proportion of the solid matter, and also of the nitrogen, contained in some of the most important of the alimentary substances, followed by a scale of the nutritive equivalents which chemists have deduced therefrom.

The quantity of solid matter, and of nitrogen, contained in one hundred parts of the following substances, is thus set down by chemists, whose results do not, however, always rigorously agree with each other:

Meat (100 parts)	contains	26	of dry matter,	and	3.91	of nitrogen.
Wheat	“	“	90	“	2.07	“
Bean	“	“	85.13	“	3.66	“
Pea	“	“	84.97	“	3.57	“
Rice	“	“	95.00	“	1.32	“
Potato	“	“	24.10	“	0.37	“
Cabbage	“	“	7.70	“	0.28	“
Turnip	“	“	7.50	“	0.17	“

Agreeably to Boussingault's scale of nutritive equivalents,

100 parts of wheat flour are equal to—

107	“	wheat,
56	“	beans,
810	“	cabbage, or 83 parts of dried cabbage,
177	“	rice,
138	“	Indian corn,
67	“	peas,
613	“	potatoes, or 126 parts of dried potatoes,
757	“	carrots, or 95 “ “ carrots,
1335	“	turnips.

It thus appears that the turnip has little alimentary value; that ten pounds and a half of fresh potatoes, or rather more than two pounds of the *dried*, are equal, in nutritive power, to one pound of meat; that *dried* cabbage and carrot have a higher proportional nutritive value than wheat-flour; and that even the fresh leguminous seeds (as peas and beans) are much more nutritious than the cereal grains.

In view, then, of the importance of a varied diet for the preservation of health and strength, and, in particular, for the prevention of the development of the multiform scrofulous diseases so incident to sailors; and in view, also, of the fact, fully established nearly a century ago, that the potato, in its *cooked* state, as well as in its raw, is a valuable anti-scorbutic, there is reason to believe that, to the three articles of vegetable diet (flour, beans, and rice) which constitute the only vegetable aliments that enter into the navy ration at sea, the potato, cabbage, and carrot, in the concentrated form in which they are now prepared and preserved, might be very advantageously added; not, however, for the purpose of increasing the amount of the ration, but to vary the diet, during long voyages, by alternating with the other vegetables.

In regard to the third consideration—the keeping properties of the vegetables that were submitted to us—it is sufficient for us to remark that they have been in the possession of the chief of the Bureau of Provisions and Clothing for nearly a year, and that they are, with unimportant exceptions, in a state of perfect preservation.

Though we cannot speak from experience of the fact, we have no reason to believe that they would undergo greater changes, during a cruise in a hot and damp climate, than the biscuit, flour, beans, rice, corn-meal, coffee, &c., that form the chief vegetable aliments of every long voyage.

The fourth consideration is the space they would occupy. This objection certainly cannot lie against Masson's compressed vegetables, in the compact form of tablets wrapped in tin foil, in which they are put up. Nor, in our opinion, will it lie against the beautifully prepared vegetables of Gannal, when put up in boxes with metallic linings, as proposed by him, when designed for the crew; whilst, if preferred, the more bulky and costly form of enclosure in bottles may be reserved for the hospital department, and for officers' messes.

The fifth consideration, that we have mentioned, is the amount of fuel, water, and time required for cooking. A reference to our statement of the experiments will show that this was, in some cases, considerable; whilst, on the contrary, in the case of the potato, the cooking was an affair of but a few moments.

The last consideration, if it be a consideration, which we think belongs to the question of the use of these dried vegetables in the navy, regards their cost. To the degree, then, in which expense will influence the ration, it will operate against the introduction into it of any of these substances; for they cost more than its present vegetable constituents, as the following exhibit will show:

Flour costs	3 cents	per pound,	for the navy.
Rice	“ 3 $\frac{1}{2}$ “ “ “ “ “		
Beans	“ \$1 70	per bushel	“ “

The prices of the dried vegetables are set down as follows, viz:

Cost of vegetables prepared by Chollet & Co., according to Masson's process—

Cabbage, per kilogramme, 4 francs.

Carrots, " 4 "

Turnips, " 4 "

Julienne, " 4 "

Parsley, " 12 "

Succory, " 9 "

String beans, " 12 "

Green peas, " 12 "

Potato, (in slices) " 1.50 "

Edwards's potato, about 13 $\frac{3}{4}$ cents per pound.

Gannal's prices are not believed to vary essentially from Masson's.

(See table, page 514.)

Lewis's potato will be furnished at 12 $\frac{1}{2}$ cents per pound, by the quantity.

A kilogramme is two pounds three ounces five drachms, avoirdupois.

A franc is eighteen and three-quarter cents.

One hundred grammes, or three ounces eight and a half drachms of dried cabbage, would be more than enough for a ration, and would cost about seven and a half cents.

In estimating the cost of rationing the navy, however, we should not lose sight of the large amount of provisions annually spoiled in the public storehouses, or condemned on ship-board and thrown into the sea. If the dried vegetables now under consideration should prove to keep better than the vegetable constituents of the present ration, to the degree in which they will do so will their relative excess of cost be reduced.

It remains for us, in concluding this report, merely to recapitulate the results from the specimens submitted, and which were received by the chief of the bureau in person from Chollet & Co., Gannal, and Edwards, respectively.

1st. We condemn Edwards's "preserved potato" as positively bad.

2d. Of Masson's vegetables, we found the cabbage, carrots, and green peas, of good quality, and making, after long cooking, excellent dishes. The cabbage and carrots were compressed, and covered with tin foil. Their compactness and good quality would, therefore, commend them for general use in the navy. The peas were uncompressed; and though an excellent vegetable, they do not, we think, possess any very marked advantage, as a constituent of the ration, over the bean now in use, and so especially the favorite of sailors.

3d. Of Gannal's vegetables, the potato, carrots, turnips, julienne, sorrel, cauliflower, bunch beans, flageolets, Brussels sprouts, onions, and beets, answered the commendations of the manufacturer, and proved good in our hands. They were all beautifully put up, and made excellent dishes. Should they, however, be deemed too costly as parts of the established ration under ordinary circumstances, the potato, carrots, and cauliflowers, at least, might very advantageously enter into the ration of the crew during long voyages, as preventives of disease; and especially would they, as also the haricots verts fla-

geolets, form valuable additions to the usual hospital stores, and for officers' messes.

4th. Lewis's "preserved potato" we found good, though not so beautiful a preparation as that of Gannal. It might, in conjunction with some of the former, be advantageously given to the crew in long voyages as a change of diet, so important to health, and as a valuable preventive of scurvy.

5th. De Lignac's "conservé de lait," we cannot venture to recommend, not knowing what it is.

6th. Lastly, we therefore respectfully recommend, with a view to test the applicability of any of these dried vegetables to the navy, that a quantity, sufficient for trial, of the cabbages and carrots of Masson, of the cauliflowers and carrots of Gannal, and of the potato of Gannal and Lewis, be placed on board of two or three of our national ships, to be served out to the crew once a week, during long voyages, either in place of rice and cheese, or in addition to the established ration; and also that, with a similar view, they, together with the haricots verts flageolets, be added to the usual hospital stores for invalids, during long voyages.

We have the honor to be, with great respect, your obedient servants,

B. WASHINGTON,
Surgeon U. S. Navy.

GEO. CLYMER,
Surgeon U. S. Navy.

J. BEAL,
Surgeon U. S. Navy.

Hon. WM. A. GRAHAM,
Secretary of the Navy.

U. S. STORESHIP RELIEF, AT SEA,
May 27, 1852.

SIR: In obedience to your order of May 3d, 1852, we have tested the qualities of "Edwards's preserved potato" during several weeks at our mess-table, and have found them wholesome, palatable, and worthy of recommendation as a substitute for the common Irish potato at sea.

We are, sir, very respectfully, your obedient servants,

GEO. M. RANSOM, *Acting Master.*

WM. H. WILCOX, *Passed Midshipman.*

JNO. E. HART, *Passed Midshipman.*

Lieut. Com. H. K. THATCHER,
Com'g U. S. Storeship Relief.

U. S. SHIP RELIEF, AT SEA,

May 27, 1852.

SIR: To the above I beg leave to add, that after having thoroughly tested Edwards's patent preserved potato, I am satisfied that it is an *invaluable* article for long voyages, and I cannot too highly recommend it to the bureau.

I am, sir, with great respect, your obedient servant,

HENRY K. THATCHER,

Lieutenant Commanding.

WM. SINCLAIR, Esq.,

Chief of Bureau of Provisions and Clothing, Washington.

A.

Estimate of the expenses of the Bureau of Provisions and Clothing, for the fiscal year commencing July 1, 1853, and ending June 30, 1854.

For salary to the chief clerk of the bureau, per acts of August 31, 1842, and March 3d, 1851.....	\$1,700
For salary to one clerk, per acts of August 31, 1842, and March 3d, 1851.....	\$1,400
Additional, per act of August 31, 1852, being ten per cent.....	140
	<hr/> 1,540
For salary to one clerk, per acts of March 3d, 1845, and March 3d, 1851.....	1,300
Additional, per act of August 31, 1852, being ten per cent.....	130
	<hr/> 1,430
For salary to one clerk, per acts of August 31, 1842, September 30, 1850, and March 3d, 1851.....	1,100
Additional, per act of August 31, 1852, being twenty per cent.....	220
	<hr/> 1,320
For salary to one clerk, per acts of March 3d, 1847, and March 3d, 1851.....	1,100
Additional, per act of August 3d, 1852, being twenty per cent.....	220
	<hr/> 1,320
For salary to one messenger, per act of August 31, 1842,	700
Additional, per act of August 31, 1852, being twenty per cent.....	140
	<hr/> 840
	<hr/> <hr/> *8,150

* The salary of the chief of the bureau is provided for by the act of August 12, 1848, there fore not embraced in this estimate; a purser of the navy having been assigned to duty as head of said bureau.

Contingent.

For printing, blank books, binding, stationery, labor, and miscellaneous items..... \$770

Appropriated for the year ending June 30, 1853.

For salaries of clerks and messenger..... \$8,150
 For contingent..... 770
8,920

Asked to be appropriated for the year ending June 30, 1854.

For salaries of clerks and messenger..... \$8,150
 For contingent..... 770
8,920

B.

Estimate from the Bureau of Provisions and Clothing, for that portion of the naval service coming under its cognizance, for the fiscal year ending 30th June, 1854.

ESTIMATE FOR PROVISIONS FOR SEVEN THOUSAND FIVE HUNDRED MEN.

One ration per day for 7,500 men, would be for the year 2,737,500 rations—at 20 cents each, is..... \$547,500
 One ration per day for 750 commission and warrant officers “attached to vessels for sea service,” for the year, would be 273,750 rations—at 20 cents each, is..... 54,750
 One ration per day for 750 officers and marines “attached to vessels for sea service,” would be 273,750 rations—at 20 cents each, is..... 54,750
 Additional sum required for an estimated number of 4,000 men who may decline to draw the spirit portion of their ration, as provided by the acts of March 3, 1847, and August 3, 1848..... 29,200
686,200

NAVY DEPARTMENT,

Bureau of Provisions and Clothing.

C.

Estimate of the sum which will be required by the Bureau of Provisions and Clothing, under the head of contingent, for the fiscal year ending 30th June, 1854.

CONTINGENT.

To meet the demands upon the bureau for freight to foreign stations, transportation from station to station within the United States, cooerage, advertising for proposals, printing pursers' blanks, and stationery for cruising vessels. . . . \$40,000

NAVY DEPARTMENT,
Bureau of Provisions and Clothing.

D.

Statement showing the value of provisions, clothing, and small-stores on hand at the last dates received from the different United States naval depots, at home and abroad, submitted to the department July 1, 1852.

Stations.	Date.	Provisions.	Clothing.	Small-stores.
Portsmouth, N. H.	July 1, 1852	\$13 63	-----	-----
Boston	do	23,079 48	\$31,971 96	\$5,450 61
New York	do	51,057 38	40,367 96	5,444 57
Philadelphia	do	251 28	46 14	26 88
Washington	do	132 08	198 47	25 76
Norfolk	do	43,737 38	40,243 28	8,498 53
Pensacola	do	8,949 60	34,918 75	6,894 72
Sancelito, California.	April 1, 1852	37,658 52	41,236 06	9,498 25
Macao, China.	Jan. 1, 1852	5,636 03	5,867 91	912 28
Porto Praya	do	2,891 12	12,978 45	1,458 69
Spezzia	April 1, 1852	17,911 34	25,991 68	4,510 52
Rio de Janeiro	do	1,221 21	6,900 59	2,420 38
Valparaiso	do	2,367 78	11,113 73	2,080 77
In transitu to Macao	do	8,930 90	1,932 19	2,133 82
Total	-----	203,837 73	253,767 17	49,355 78

NAVY DEPARTMENT,
Bureau of Provisions and Clothing.

E.

Statement showing the value of shipments made by the Bureau of Provisions and Clothing to the United States naval squadrons on foreign stations during the fiscal year ending June 30, 1852.

Stations.	Date.	Provisions.	Clothing.	Small-stores.
China squadron.....	Aug., 1851	\$13, 138 12	\$1, 109 52	\$1, 440 00
Do.....	May, 1852	*8, 930 90	1, 932 19	2, 133 82
Mediterranean squadron.....	Oct., 1851	16, 126 99	5, 124 07	3, 749 48
African.....do.....	Nov., 1851	8, 638 70	571 48	958 00
Do.....do.....	April, 1852	12, 859 12	2, 200 56	.....
Brazil.....do.....	July, 1851	*2, 059 42	.....	.....
Do.....do.....	Jan., 1852	*11, 537 60	10, 615 71	2, 821 67
Pacific.....do.....	July, 1851	*13, 706 51	.....	2, 165 57
South Pacific.....do.....	July, 1851	*11, 570 91	9, 645 05	4, 199 32
		98, 568 27	31, 198 58	17, 467 86

* Per United States shoreships.

NAVY DEPARTMENT,
Bureau of Provisions and Clothing.

F.

Statement showing the cost of provisions, clothing, and small-stores condemned on board the national vessels, and at the naval stores at home and abroad, or otherwise destroyed; loss by leakage, evaporation, or other casualties of the service; also, the amount condemned and sold at auction, with the amount of net proceeds of such sales, from July 1, 1851, to June 30, 1852, inclusive, so far as returns have been received by the bureau.

Sations, &c.	Provisions.		Clothing.		Small-stores.	
	Cost.	Proceeds.	Cost.	Proceeds.	Cost.	Proceeds.
*Portsmouth, N. H.	\$13 44					
Boston	1,036 82	\$347 16	\$1,205 95	\$119 98	\$236 53	\$57 77
New York	8,894 90	2,054 88	2,514 82	424 69	654 61	154 22
Philadelphia	120 77	15 21				
Washington, D. C.	399 66	168 82	31 83	8 53	5 16	3 75
Norfolk, Va.	1,052 20	253 55	235 64	78 45	42 08	11 38
Pensacola, Fla.	2,961 55	538 81	535 08	169 12	86 00	10 20
Rio de Janeiro	1,310 26	98 11	550 89	26 52	28 86	10
†Macao	2,321 69	404 24	19 71	89 00		
Porto Praya	1,352 61	4 09		89 56		3 35
*Spezzia	981 41					
Valparaiso	3,093 30	1,397 90	641 62	342 43		
Sancelito	3,368 85	2,372 75				
‡The several national vessels, &c.	12,027 19	194 13	1,632 27	74 15	189 59	3 92
Total	38,934 65	7,849 65	7,417 81	1,422 43	1,242 83	244 69

* There is no account of sales received from Portsmouth or Spezzia.

† The proceeds received from sale of clothing and small-stores at Macao and Porto Praya were from condemnations of previous years.

‡ The proceeds received were from sundry pursers from sales on board their respective vessels, and from William Hindman and Joseph Wilson, navy agents at Baltimore and San Francisco.

BUREAU OF PROVISIONS AND CLOTHING,
September 1, 1852.

G.—Abstract of proposals for navy supplies for 1852 and 1853, received under the advertisement of the Bureau of Provisions and Clothing, dated March 13, 1852.

Names.	Residence.	Flour—per barrel.			Biscuit—per 100 pounds.					
		Boston.	New York.	Norfolk.	Boston.		New York.		Norfolk.	
					Tight.	Flour.	Tight.	Flour.	Tight.	Flour.
A. Jeffers	Norfolk, Va.....		\$5 65	\$5 50						
G. K. Tyler.....	Baltimore, Md.....				\$4 10	\$3 60	\$4 06	\$3 56	\$3 92	\$3 42
Thomas Brown.....	Georgetown, D. C.....				3 91	3 43	3 83	3 41	3 74	3 28
Charles H. Shields.....	Norfolk, Va.....		5 75	5 45						
Hyatt & Stump.....	Baltimore, Md.....	\$6 40	6 40	6 40						
John A. Higgins.....	Norfolk, Va.....	6 20	6 20	5 46						
Remington & Co.....	New York.....									
Jacob Hall, jr.....	Boston, Mass.....	5 41								
N. Hicks Graham.....	Philadelphia, Pa.....	5 94	5 94	5 94	5 25	4 56	5 25	4 56	5 25	4 56
George Adams.....	Boston, Mass.....									
Benjamin F. Wilson.....	do.....	6 60	6 70	6 70						
William Lang.....	do.....	6 00	6 00							
Lewis Timberlake.....	New York.....	5 40	5 29	5 35						
Breed & Hammond.....	Syracuse, N. Y.....									
Joseph L. Sanford & Co.....	New York.....		6 00				4 30	3 49		
George R. A. Ricketts.....	do.....									
Storer & Stephenson.....	do.....									
Mathew Bartlett.....	Boston, Mass.....	5 61	5 71		3 69	3 11½	3 87	3 31		
Wm. & Wm. K. Lewis.....	do.....									
J. L. Newman*.....	Philadelphia, Pa.....									
Nathan F. Rice.....	New Orleans, La.....					† 3 30				
H. F. Ingraham.....	Pensacola, Fla.....					† 5 00				

* Informal.

† Ship biscuit, to be delivered at Pensacola, Florida, only.

G—Continued.

Names.	Residence.	Whiskey—per gallon.			Sugar—per pound.			Tea—per pound.		
		Boston.	New York.	Norfolk.	Boston.	New York.	Norfolk.	Boston.	New York.	Norfolk.
A. Jeffers.....	Norfolk, Va.....					\$0 09			\$0 57	
G. K. Tyler.....	Baltimore, Md.....									
Thomas Brown.....	Georgetown, D. C.....									
Charles H. Shields.....	Norfolk, Va.....									
Hyatt & Stump.....	Baltimore, Md.....	\$0 33	\$0 33	\$0 35	\$0 07½	7½	\$0 08	\$0 48	48	\$0 48
John A. Higgins.....	Norfolk, Va.....	27.46	27.20	25.85	6½	6½	6.40	49	49	50
Remington & Co.....	New York.....									
Jacob Hall, jr.....	Boston, Mass.....				5.93					
N. Hicks Graham.....	Philadelphia, Pa.....	27½	27½	28½	6.19	6.19	6.19	37.90	37.90	38½
George Adams.....	Boston, Mass.....				5.7	5.7				
Benjamin F. Wilson.....	do.....	31	30½	30½	7.30	7.90	7.90	44	43	43
William Lang.....	do.....	30	30		5.74	5.94		38	40	
Lewis Timberlake.....	New York.....	27	25	27	6½	6	6	35	33	34
Breed & Hammond.....	Syracuse, N. Y.....									
Joseph L. Sanford & Co.....	New York.....									
George R. A. Ricketts.....	do.....	27.47	26.49	27.24	6.23	5.93	6.11	39.43	38.97	39.93
Storer & Stephenson.....	do.....				6	5.49	5.74	37.90	37.90	39.98
Mathew Bartlett.....	Boston, Mass.....									
Wm. & Wm. K. Lewis.....	do.....									
J. L. Newman.....	Philadelphia, Pa.....									
Nathan F. Rice.....	New Orleans, La.....									
H. F. Ingraham.....	Pensacola, Fla.....									

G—Continued.

Names.	Residence.	Coffee— per pound.	Rice—per pound.				Butter—per pound.			Molasses—per gallon.		
		New York.	Boston.	New York.	Norfolk.	Boston.	New York.	Norfolk.	Boston.	New York.	Norfolk.	
A. Jeffers	Norfolk, Va.....	\$0 13		\$0 05	\$0 05½		\$0 28	\$0 28		\$0 40	\$0 40	
G. K. Tyler.....	Baltimore, Md.....											
Thomas Brown.....	Georgetown, D. C.....											
Charles H. Shields.....	Norfolk, Va.....											
Hyatt & Stump.....	Baltimore, Md.....	10½	\$0 04½	4½	4½				\$0 35	35	35	
John A. Higgins.....	Norfolk, Va.....	9.40	3.85	3.80	3.70	\$0 28	28	27	29	29	28	
Remington & Co.....	New York.....											
Jacob Hall, jr.....	Boston, Mass.....		37.1			24½			24½			
N. Hicks Graham.....	Philadelphia, Pa.....	9.98	4	4	4	22½	22½	22½	33½	33	33½	
George Adams.....	Boston, Mass.....	9½										
Benjamin F. Wilson.....	do.....	10.30	4.42	4.41	4.41	19	19	19	31	30½	30½	
William Lang.....	do.....	10½	3.99	4		17	20		23	28		
Lewis Timberlake.....	New York.....	8.70								24½	25	
Breed & Hammond.....	Syracuse, N. Y.....											
Joseph L. Sanford & Co.....	New York.....						25					
George R. A. Ricketts.....	do.....	9.95	3.99	3.95	3.99				24.96	24.24	24.96	
Storer & Stephenson.....	do.....	8.90	3.94	3.74	3.90				26.40	25	26.47	
Mathew Bartlett.....	Boston, Mass.....											
Wm. & Wm. K. Lewis.....	do.....											
J. L. Newman.....	Philadelphia, Pa.....											
Nathan F. Rice.....	New Orleans, La.....											
H. F. Ingraham.....	Pensacola, Fla.....											

G—Continued.

Names.	Residence.	Raisins—per pound.			Dried apples—per pound.			Soap—per lb.
		Boston.	New York.	Norfolk.	Boston.	New York.	Norfolk.	Boston, New York, and Norfolk.
A. Jeffers.....	Norfolk, Va.....		\$0 14	\$0 15		\$0 06½	\$0 06½	\$0 08
G. K. Tyler.....	Baltimore, Md.....							
Thomas Brown.....	Georgetown, D. C.....							
Charles H. Shields.....	Norfolk, Va.....					6	6	
Hyatt & Stump.....	Baltimore, Md.....							
John A. Higgins.....	Norfolk, Va.....	\$0 11.4	11.4	11.4	\$0 07½	7	6.20	6.20
Remington & Co.....	New York.....							
Jacob Hall, jr.....	Boston, Mass.....	8.31			7.84			
N. Hicks Graham.....	Philadelphia, Pa.....	10	10	10	9¾	9¾	9¾	
George Adams.....	Boston, Mass.....	8½	9½	9.9	6½	6½	7.1	4.8
Benjamin F. Wilson.....	do.....	12	12	12	7½	7¾	7¾	5.65
William Lang.....	do.....	7	9		7½	8		4.80
Lewis Timberlake.....	New York.....	10	9½	10				5½
Breed & Hammond.....	Syracuse, N. Y.....				10	10		
Joseph L. Sanford & Co.....	New York.....							
George R. A. Ricketts.....	do.....	9.85	9.85	9.95				
Storer & Stephenson.....	do.....	10.70	10.49	10.90				
Mathew Bartlett.....	Boston, Mass.....							
Wm. & Wm. K. Lewis.....	do.....							
J. L. Newman.....	Philadelphia, Pa.....				7½	7½	7½	
Nathan F. Rice.....	New Orleans, La.....							
H. F. Ingraham.....	Pensacola, Fla.....							

NAVY DEPARTMENT, Bureau of Provisions and Clothing, September 24, 1852.

H.

Abstract of proposals received for clothing and clothing materials, under the advertisement of the Bureau of Provisions and Clothing dated March 20, 1852.

Names.	Residence.	CLASS No. 1.							CLASS No. 2.
		Pea jackets.	Monkey jackets.	Round jackets.	Blue trousers.	Over-shirts.	Under-shirts.	Drawers.	Blue flannel.
		Each.	Each.	Each.	Each.	Each.	Each.	Each.	Yard.
John Wetherbee, jr.	Boston, Mass.								
Oliver H. Perry	Lawrence, Mass.	\$8 00	\$6 00	\$4 75	\$3 00	\$1 14	\$0 77	\$0 75	\$0 27
John Hofman	Philadelphia, Pa.								
Henry Newton	North Weymouth, Mass.								
Horton, Hall & Co.	Boston, Mass.								
Charles Williams	Philadelphia, Pa.								
William Mathews	New York								28.3
William Bosson and James Morrill.	Chelsea, Mass.								
George Adams	Boston, Mass.								
James Lenny and Edward Burke	Chester, Pa.								
Caleb Jones	Richmond, Va.								32
William G. English	Boston, Mass.								
Storer & Stephenson	New York	6 50	5 00	2 50	4 00	1 25	1 00	60	33
John Fullmer	Wilmington, Del.								
Lewis Timberlake	New York	6 00	5 40	4 25	3 10	1 23	82	82	31
Joseph J. Whiting	Boston, Mass.	5 80	5 20	4 25	3 00	1 18	78	84	31½
Sumner Flagg	Boston, Mass.								

H—Continued.

Names.	Residence.	CLASS No. 3.		CLASS No. 4.			CLASS No. 5.		
		Sheeting frocks.	C. duck trousers.	Sheeting.	Duck.	Dungaree.	Calfskin shoes.	Kipskin shoes.	Calfskin pumps.
		<i>Each.</i>	<i>Each.</i>	<i>Yard.</i>	<i>Yard.</i>	<i>Yard.</i>	<i>Pair.</i>	<i>Pair.</i>	<i>Pair.</i>
John Wetherbee, jr.....	Boston, Mass.....						\$1 10	\$1 09	\$0 99
Oliver H. Perry.....	Lawrence, Mass.....								
John Hofman.....	Philadelphia, Pa.....								
Henry Newton.....	North Weymouth, Mass.....						1 15	1 20	1 00
Horton, Hall & Co.....	Boston, Mass.....						1 15	1 12	94½
Charles Williams.....	Philadelphia, Pa.....								
William Mathews.....	New York.....			\$0 52	\$0 21	\$0 07.9			
William Bosson and James Morrill.....	Chelsea, Mass.....								
George Adams.....	Boston, Mass.....								
James Lenay and Edward Burke*.....	Chester, Pa.....						1 06½	1 05	94½
Caleb Jones.....	Richmond, Va.....								
William G. English.....	Boston, Mass.....								
Storer & Stephenson.....	New York.....	\$1 50	\$0 33	59	10	10			
John Fullmer.....	Wilmington, Del.....						1 09	1 08	95
Lewis Timberlake.....	New York.....	1 10	74	56	22	8½			
Joseph J. Whiting.....	Boston, Mass.....	1 08	75	55	22	9	1 25	1 25	1 20
Sumner Flagg.....	Boston, Mass.....								

* Declined.

H—Continued.

Names.	Residence.	CLASS No. 6.		CLASS No. 7.	CLASS No. 8.	CLASS No. 9.
		Stockings.	Socks.	Mattresses.	Handkerchiefs.	Blankets.
		<i>Pair.</i>	<i>Pair.</i>	<i>Each.</i>	<i>Each.</i>	<i>Each.</i>
John Wetherbee, jr.....	Boston, Mass.....			\$4 08		
Oliver H. Perry.....	Lawrence, Mass.....					
John Hofman*.....	Philadelphia, Pa.....	\$0 39 7-12	\$0 29 2-12			
Henry Newton.....	North Weymouth, Mass.....					
Horton, Hall & Co.....	Boston, Mass.....					
Charles Williams.....	Philadelphia, Pa.....	39½	29			
William Mathews.....	New York.....				\$0 76.3	\$1 42
William Bosson and James Morrill.....	Chelsea, Mass.....			5 75		
George Adams.....	Boston, Mass.....	47	32			
James Lenny and Edward Burke.....	Chester, Pa.....					
Caleb Jones.....	Richmond, Va.....					
William G. English†.....	Boston, Mass.....			3 60		
Storer & Stephenson.....	New York.....	34	30	4 95	90	2 50
John Fullmer.....	Wilmington, Del.....					
Lewis Timberlake.....	New York.....	37	25	4 15	80	1 50
Joseph J. Whiting.....	Boston, Mass.....	48	31½		76	
Sumner Flagg.....	Boston, Mass.....			4 60		

* Informal.

† Declined.

I.

Abstract of proposals received for "small-stores," under an advertisement of the Bureau of Provisions and Clothing dated March 27, 1852.

Articles.	William Lang, Boston, Mass.	Storer & Stephenson, New York.	Lewis Timberlake, New York.	William Mathews, New York.*	Bonsal & Brother, Norfolk, Va.	George R. A. Ricketts, New York.	John A. Higgins, Norfolk, Va.	George Adams, Boston, Mass.
Boxes, shaving..... each.....	\$0 03	\$0 05	\$0 05	\$0 04 $\frac{1}{2}$	\$0 05	\$0 04	\$0 05	\$0 20
Brushes, shaving..... do.....	3	5	5 $\frac{1}{2}$	4 $\frac{1}{2}$	5	8	5	25
Brushes, scrubbing..... do.....	20	20	19	18	20	18	20	18
Brushes, shoe..... do.....	20	15	15	13 $\frac{1}{2}$	15	20	16	25
Brushes, clothes..... do.....	2	4	4	2	5	8	5	30
Buttons, navy vest..... per gross.....	50	2 75	1 10	90	2 00	2 00	30	65
Buttons, navy coat..... do.....	5 00	5 50	5 00	4 40	5 00	4 00	1 00	8 00
Buttons, dead-eye..... do.....	15	20	18	18	15	17	23	10
Blacking, boxes of..... per dozen.....	50	50	44	40	40	40	40	25
Beeswax, in $\frac{1}{4}$ -pound cakes..... per pound.....	22	28	22	20	25	26	22	20
Combs, coarse..... per dozen.....	1 00	75	89	80	50	65	1 00	75
Combs, fine..... do.....	1 00	1 00	89	80	80	90	1 00	85
Cotton, spools of..... do.....	50	50	44	40	25	25	70	30
Grass for hats..... per 100 hands.....	3 00	2 50	1 95	1 80	2 00	2 20	1 00	2 00
Handkerchiefs, cotton..... each.....	4	6	8	5	10	10	6	4
Handkerchiefs, silk, fancy-colored..... do.....	65	60	54	50	55	60	56	60
Jack-knives..... do.....	20	40	25	18	25	26	20	20
Looking-glasses..... do.....	20	10	18	16	10	10	15	25
Mustard-seed..... per pound.....	18	15	14	16	20	20	30	25
Needles, sewing, assorted..... per thousand.....	1 12	50	1 00	85	1 00	1 00	1 00	1 00
Pepper, black..... per pound.....	15	15	18	15	15	18	25	20
Pepper, red..... do.....	6	10	15	15	10	10	10	20

I—Abstract of proposals received for “small-stores,” &c.—Continued.

Articles.	William Lang, Boston, Mass.	Storer & Stephenson, New York.	Lewis Timberlake, New York.	William Mathews, New York.*	Bonsal & Brother, Norfolk, Va.	George R. A. Ricchetti, New York.	John A. Higgins, Norfolk, Va.	George Adams, Boston, Mass.
Razors in single cases.....each.....	\$0 33	\$0 20	\$0 25	\$0 18	\$0 25	\$0 27	\$0 20	\$0 42
Razor strops.....do.....	30	20	18	18	25	25	25	62
Riband, hat.....per piece.....	80	1 00	77	60	70	62	78	68
Soap, shaving, in cakes.....per dozen.....	33	6	3	12	15	25	12	15
Silk, sewing, blue-black.....per pound.....	5 50	5 00	6 14	4 00	5 00	7 00	6 00	4 50
Scissors.....each.....	16	20	15	12	20	17	14	35
Spoons.....do.....	5	6	6	4	4	4	10	10
Thread, black, white, and blue.....per pound.....	70	60	60	50	70	92	60	60
Tape, black and white.....per dozen.....	25	25	25	20	30	25	30	50
Thimbles.....each.....	2	3	2	1½	1	2	1	1

NAVY DEPARTMENT,
Bureau of Provisions and Clothing, August 31, 1852.

* Accepted.

K.

Abstract of proposals received for the supply of "fresh beef and vegetables," at the several navy yards, during the fiscal year ending June 30, 1853, under advertisements of the respective navy agents, by direction of the Bureau of Provisions and Clothing.

Names.	Where to be delivered.	Beef per pound.	Vegetables per pound.
Joseph B. Currier	Portsmouth..... N. H..	\$0 12½	\$0 2
Nahum Chapin	Charlestown..... Mass..	6½	1.44
John H. Clapp .....	.....do..... do..	6½	1.50
Benjamin D. Kimball.....	.....do..... do..	8½	2½
William Lang .....	.....do..... do..	8.48	2.48
Joseph Flynn	Brooklyn..... N. Y..	6.74	2
J. F. Valentine.....	.....do..... do..	6.98	2.48
Benjamin W. Valentine.....	.....do..... do..	7.48	2.50
George Hause .....	.....do..... do..	5.98	2.87
David Woelpper.....	Philadelphia..... Penn..	11½	6½
John J. Smith .....	.....do..... do..	12½	7½
Daniel Hamm .....	.....do..... do..	12	7½
George W. Pappler	Baltimore..... Md..	8½	3
Thomas H. Leahay.....	.....do..... do..	9	3½
Philip Otterback.....	Washington..... D. C..	6.8	2½
William Ward	Gosport..... Va..	6	1.20
John Hardy* .....	.....do..... do..	5½	1½
José Sierra.....	Pensacola..... Fla..	5	2½
John McCloskey.....	.....do..... do..	7	5
Henry A. Nunes.....	.....do..... do..	5½	3½
M. D. Hernandez.....	.....do..... do..	5½	3
William T. Bell.....	.....do..... do..	5	3
William McVoy .....	.....do..... do..	6	3

* Informal—no guaranty.

NAVY DEPARTMENT,

Bureau of Provisions and Clothing, August 30, 1852.

L.

Abstract of proposals received for the supply of navy beef and navy pork for 1853, under an advertisement of the Bureau of Provisions and Clothing, dated August 20, 1852.

Names.	Residence.	Navy beef.			Navy pork.		
		At Boston, 1,200 barrels.	At New York, 2,600 barrels.	At Norfolk, 1,200 barrels.	At Boston, 1,000 barrels.	At New York, 2,000 barrels.	At Norfolk, 1,000 barrels.
		<i>Per barrel.</i>	<i>Per barrel.</i>	<i>Per barrel.</i>	<i>Per barrel.</i>	<i>Per barrel.</i>	<i>Per barrel.</i>
Charles H. Wheeler.....	Troy, N. Y.....	\$13 37	\$12 87		\$18 35	\$17 87	
B. P. Pratt.....	Troy, N. Y.....			\$13 45			\$17 95
Henry Vanarnam.....	Troy, N. Y.....	12 45	11 95		17 20	16 95	
Harrison, Fay & Co.....	Boston, Mass.....	12 70	12 70	13 20	16 68	16 68	17 31
Moore & Beall.....	Zanesville, Ohio.....			14 00			18 90
James Y. Leigh.....	Norfolk, Va.....						19 90
Benjamin F. Wilson.....	Boston, Mass.....	12 39	12 42	13 19	17 64	17 69	18 17
John Stewart.....	Waterford, N. Y.....				19 90		
James C. Adams.....	Baltimore, Md.....	18 93	18 43	18 74	20 93	20 43	20 74
John D. Early.....	Baltimore, Md.....	17 00	17 00	17 00	20 00	19 94½	19 95
E. A. & W. Winchester.....	Boston, Mass.....	14 69	15 41	17 74	19 55	18 74	21 49
D. J. Odell (informal).....	Eastport, Md.....	17 50	18 00	17 00	20 00	21 00	19 00
Storer & Stephenson.....	New York, N. Y.....	14 49	14 49	14 49	17 49	17 49	17 49
H. T. Stringham.....	Detroit, Michigan.....	17 00	17 00		22 00	22 00	
John D. Early.....	Baltimore, Md.....	16 08½	16 16½	15 73½	19 90	19 87½	19 87½
Brawley & Ninenger.....	Meadville, Pa.....	12 99	12 99	13 19			
J. Porter Brawley.....	Meadville, Pa.....	14 70	14 17	14 75	18 95	18 85	19 00

L—Continued.

Names.	Residence.	Navy beef.*	Navy pork.*
		Per barrel.	Per barrel.
Storer D. Stephenson.....	New York.....	\$14 49	\$17 49
Benjamin F. Wilson.....	Boston, Mass.....	24 90	27 94
J. Porter Brawley.....	Meadville, Pa.....	25 00	25 00

* Thirty barrels, cured with Key West solar-evaporated salt, at Brooklyn, New York.

NAVY DEPARTMENT,
Bureau of Provisions and Clothing, October 4, 1852.

M.

Abstract of proposals received for the transportation of stores from the navy yard at Brooklyn, New York, to the navy yard at Pensacola, Florida, under an advertisement of the navy agent at New York, (by direction of the Bureau of Provisions and Clothing,) dated the 30th of January, 1852.

Names.	Vessel.	Price per barrel.
John E. Putnam.....	A vessel.....	\$1 00
R. W. Trundy.....	Barque "George Leslie".....	35
C. B. Knudser.....	A vessel.....	34
E. D. Hurlbut & Co.....	Barque "Wm. H. Brodie".....	24

Abstract of proposals received for the transportation of stores from the navy yard at Charlestown, Massachusetts, to Porto Praya, Cape de Verde, under an advertisement of the navy agent at Boston. (by direction of the Bureau of Provisions and Clothing,) dated March 10, 1852.

Names.	Vessel.	Price per barrel.
William Lang.....	A good vessel.....	\$1 23
Nathaniel Hamlin.....	A good vessel.....	85
Vernon Brown.....	A No. 1 vessel.....	98
Blanchard, Sherman, & Co.....	A vessel.....	1 00

M—Continued.

Abstract of proposals received for the transportation of stores from the navy yard at Charlestown, Massachusetts, to Spezzia, in Italy, under an advertisement of the navy agent at Boston, (by direction of the Bureau of Provisions and Clothing,) dated the 3d of September, 1852.

Names.	Vessel.	Price per barrel.
John R. Dow & Co.....	A vessel	\$0 89
Alpheus Hardy.....	A vessel	97
E. Johnson	Barque "A. G. Hill".....	90
Vernon Brown	A good vessel.....	96

Abstract of proposals received for the transportation of stores from the navy yard at Charlestown, Massachusetts, to Port Praya, Cape de Verde, under an advertisement of the navy agent at Boston, (by direction of the Bureau of Provisions and Clothing,) dated the 3d of September, 1852.

Names.	Vessel.	Price per barrel.
N. W. Bridge	Barque "Arthur".....	\$0 75
Sewall, Day, & Co.....	Barque "Pamphylia".....	1 25
Thompson & Davidson.....	A No. 1 vessel.....	90
P. H. Perkins	Barque "Maine".....	1 50
John R. Dow & Co.....	A vessel	89
Vernon Brown	A vessel	89

NAVY DEPARTMENT,
Bureau of Provisions and Clothing, October 4, 1852.

N.

Statement of contracts made by the Bureau of Provisions and Clothing, for and in behalf of the Navy Department, for supplies for the navy, to be delivered during the fiscal year ending June 30, 1853; prepared in obedience to the acts of Congress approved April 21, 1808, and March 3, 1809.

Part II—36

Name of contractor.	Date of contract.	Articles contracted for.	At what price.	Where to be delivered.
Lewis Timberlake.....	April 16, 1852	Flour	\$5 40 per barrel..	Boston.
		Flour	5 29 do.....	New York.
		Flour	5 35 do.....	Norfolk.
		Whiskey.....	27 per gallon..	Boston.
		Whiskey.....	25 do.....	New York.
		Tea	35 per pound..	Boston.
		Tea	33 do.....	New York.
		Tea	34 do.....	Norfolk.
		Coffee	8.70 per pound..	New York.
		Whiskey.....	25.85 per gallon..	Norfolk.
John A. Higgins	April 17, 1852	Rice	3.70 per pound.	
		Beans	1 47 per bushel.	
Storer & Stephenson	April 19, 1852	Sugar	5.49 per pound..	New York.
		Sugar	5.74 do.....	Norfolk.
		Rice	3.74 do.....	New York.
George Adams.....	April 21, 1852	Sugar	5.7 do.....	Boston.
		Raisins	9.9 do.....	Norfolk.
		Dried apples.....	6½ do.....	Boston.
Jacob Hall, jr.....	April 20, 1852	Rice	3.71 do	
William Lang.....	April 20, 1852	Butter.....	17 do	
		Molasses.....	23 per gallon.	
		Beans	1 70 per bushel.	
		Raisins	7 per pound.	
		Raisins	9 do.....	New York.
		Soap	4.80 do.....	Boston, New York, and Norfolk.
		Butter	19 do.....	New York and Norfolk.
		Beans	1 74 per bushel..	New York.

N—Continued.

Name of contractor.	Date of contract.	Articles contracted for.	At what price.	Where to be delivered.
N. Hicks Graham	April 21, 1852	Vinegar	\$0 08, 49 per gallon..	Boston and Norfolk.
		Vinegar	8, 20 do.....	New York.
		Pickles	3, 15 per pound..	Boston and New York.
		Pickles	3, 37 do.....	Norfolk.
Charles H. Shield.....	April 17, 1852	Dried apples	6 do.....	New York and Norfolk.
Mathew Bartlett	April 22, 1852	Biscuit in tight casks	3 69 per 100 p'ds.	Boston.
		Biscuit in flour barrels	3 11 $\frac{1}{2}$ do	
Thomas Brown	April 16, 1852	do do	3 31 do.....	New York.
		do do	3 28 do.....	Norfolk.
		do in tight casks	3 83 do.....	New York.
		do do	3 74 do.....	Norfolk.
Nathan F. Rice	May 24, 1852	Ship-biscuit in flour barrels.....	3 30 do.....	Pensacola, Florida.
George R. A. Ricketts	April 17, 1852	Molasses	24, 24 per gallon..	New York.
		Molasses	24, 96 do.....	Norfolk.
Storer & Stephenson.....	April 24, 1852	Blue cloth pea-jackets.....	6 50 each.....	Boston, New York, and Norfolk.
		Blue cloth monkey jackets.....	5 00 do	
		Blue cloth round-jackets.....	2 50 do	
		Blue cloth trousers	4 00 do	
		Blue flannel overshirts.....	1 25 do	
		Blue flannel undershirts.....	1 00 do	
		Blue flannel drawers	60 do	
		Barnesley sheeting.....	52 per yard.	
William Mathews.....	April 23, 1852	Canvas duck	21 do	
		Dungaree.....	7, 9 do	
		Blankets	1 42 each.	
		Woollen socks	25 per pair.	
Lewis Timberlake.....	April 30, 1852	Woollen stockings	37 do	
		Barnesley sheeting frocks.....	1 08 each.	
Joseph J. Whiting.....	April 28, 1852	Canvass duck trousers	75 do	
		Black silk handkerchiefs.....	76 do	
		Blue flannel.....	27 per yard.	
		Mattresses and covers.....	4 08 each.	
Oliver H. Perry.....	April 26, 1852			
John Wetherbee, jr.....	May 10, 1852			

John Fullmer.....	May 15, 1852	Calf-skin shoes	1 09	per pair.
		Kip-skin shoes	1 03	do
		Calf-skin pumps	95	do
<i>Small-stores.</i>				
William Mathews.....	April 29, 1852	Boxes, shaving	4½	each.
		Brushes, shaving	4½	do
		Brushes, scrubbing	18	do
		Brushes, shoe	13½	do
		Brushes, clothes	2	do
		Buttons, navy vest	90	per gross.
		Buttons, navy coat	4 40	do
		Buttons, dead-eye	18	do
		Blacking boxes of	40	per dozen.
		Beeswax, in ¼ pound cakes	20	per pound.
		Combs, coarse	80	per dozen.
		Combs, fine	80	do
		Cotton, spools of	40	do
		Grass, for hats	1 80	per 100 hands.
		Handkerchiefs, cotton	5	each.
		Handkerchiefs, silk, fancy colored	50	do
		Jack-knives	18	do
		Looking-glasses	16	do
		Mustard seed	16	per pound.
		Needles, sewing, assorted	85	per M.
		Pepper, black	15	per pound.
		Pepper, red	15	do
		Razors, in single cases	18	each.
		Razor straps	18	do
		Ribbon, hat	60	per piece.
		Soap, shaving, in cakes	12	per dozen.
		Silk, sewing, blue black	4 00	per pound.
		Scissors	12	each.
Spoons	4	do		
Thread, black, white, and blue	50	per pound.		
Tape, black and white	20	per dozen.		
Thimbles	1½	each.		
Joseph B. Currier.....	June 18, 1852	Fresh beef	12½	per pound..

Portsmouth, N. H.

N—Continued.

Name of contractor.	Date of contract.	Articles contracted for.	At what price.	Where to be delivered.
Joseph B. Currier.....	June 18, 1852	Vegetables.....	\$0 02 per pound..	Portsmouth, N. H.
Nahum Chapin.....	June 12, 1852	Fresh beef.....	6½ do.....	Boston, Mass.
		Vegetables.....	1. 44 do.....	
Joseph Flynn.....	May 5, 1852	Fresh beef.....	6. 74 do.....	New York.
		Vegetables.....	2 do.....	
David Woelpper.....	May 15, 1852	Fresh beef.....	11½ do.....	Philadelphia, Pa.
		Vegetables.....	6¾ do.....	
George W. Pappler.....	June 8, 1852	Fresh beef.....	8¼ do.....	Baltimore, Md.
		Vegetables.....	3 do.....	
Philip Otterback.....	May 25, 1852	Fresh beef.....	6. 8 do.....	Washington, D. C.
		Vegetables.....	2¼ do.....	
William Ward.....	May 18, 1852	Fresh beef.....	6 do.....	Norfolk, Va.
		Vegetables.....	1. 20 do.....	
José Sierra.....	June 10, 1852	Fresh beef.....	5 do.....	Pensacola, Fla.
		Vegetables.....	2¼ do.....	
Benj. F. Wilson.....	Sept. 30, 1852	1,200 barrels navy beef.....	12 39 per barrel..	Boston.
		1,200 barrels navy beef.....	13 19 do.....	Norfolk.
Henry Vanarnam.....	Sept. 30, 1852	2,600 barrels navy beef.....	11 95 do.....	New York.
Harrison, Fay & Co.....	Sept. 29, 1852	1,000 barrels navy pork.....	16 68 do.....	Boston.
		2,000 barrels navy pork.....	16 68 do.....	New York.
		1,000 barrels navy pork.....	17 31 do.....	Norfolk.
Storer & Stephenson.....	Oct. 2, 1852	30 barrels navy beef, (cured with "Key West solar evaporated salt.").....	14 49 do.....	Brooklyn, N. Y.
	Oct. 2, 1852	30 barrels navy pork, (cured with "Key West solar evaporated salt.").....	17 49 do.....	Brooklyn, N. Y.
<i>Unexpired contracts.</i>				
Gilbert Davis*.....	April 28, 1851	90,000 pounds navy butter.....	25 per pound..	Boston, New York, and Norfolk.
Edward Griffing*.....	April 30, 1851	30,000 do.....do.....	25 do.....	
Eli L. Corbin*.....	May 6, 1851	45,000 do.....do.....	22 do.....	
Horace Corbin*.....	May 6, 1851	15,000 do.....do.....	22 do.....	
Robert A. Mayot.....	March 1, 1849	Tobacco.....	18 do.....	

N--Continued.

CHARTER PARTIES.

Barque "W. H. Brodie"	Feb. 9, 1852	Freight of stores.....	\$0 24	per barrel..	To Pensacola, Florida.
Barque "D. Godfrey"	March 18, 1852	.....do	98	do.....	To Port Praya, Cape de Verde.
Barque "Star"	Sept. 10, 1852	.....do	89	do.....	To Spezzia, Italy.
Barque "Chesapeake"	Sept. 20, 1852	.....do	75	do.....	To Port Praya, Cape de Verde.

* These contracts continue for three years, one-third the quantity to be delivered annually.
 † This contract continues for four years from date.

NAVY DEPARTMENT,
 Bureau of Provisions and Clothing, November 1, 1852.

NAVY DEPARTMENT,
Bureau of Medicine and Surgery, October 26, 1852.

SIR: Below is an abstract of the annual report of the Bureau of Medicine and Surgery, made out in conformity with the order of the department of the 20th instant.

1. A statement of the fiscal condition of the medical department of the navy, as follows:

Balance of appropriation for "surgeons' necessaries and appliances" remaining on hand, June 30, 1852.....	\$27,308 94
Amount appropriated by act of Congress, approved August 31, 1852.....	37,600 00
Balance of "surgeons' necessaries and appliances" in treasury, October 1, 1852.....	57,124 25
Amount of naval hospital fund in treasury, October 1, 1852.....	171,606 77
Amount required for the support of the Bureau of Medicine and Surgery, during the fiscal year ending June 30, 1854.....	8,270 00
Amount required for "surgeons' necessaries and appliances" on board sea-going ships, at navy yards, and naval stations, for the marine corps and coast survey, during the same period.....	37,300 00

2. A statistical table collated from the "sick reports," received from hospitals and other shore stations within the United States, during the year ending June 30, 1852, and a favorable report as to the sanitary condition of the forces afloat during the same period.

3. Recommending an inquiry into the expediency of introducing into the daily rations of the seaman an increased proportion of the vegetable or antiscorbutic ingredients, rendered practicable by the new method of preservation of vegetable substances, by desiccation.

4. Recommending an increase in the effective force of the medical corps of the navy, with arguments showing its necessity, and an estimate of the number required for duty, and the general disposition of the corps, for the year ending June 30, 1854.

5. Recommending the investment of a part of the navy hospital fund in some interest-bearing government stock.

6. An estimate, in detail, of the amount required for the support of the Bureau of Medicine and Surgery, for the year ending June 30, 1854, being in the aggregate \$8,270.

7. An estimate, in detail, of the amount required for the support of the medical department of ships afloat, navy yards, naval stations, marine corps, and coast survey, for the same period, being in the aggregate \$37,300.

Respectfully submitted.

THO. HARRIS.

NAVY DEPARTMENT,
Bureau of Medicine and Surgery, October 26, 1852.

SIR: I compliance with your order of July 13th last, I have the honor to submit, herewith, estimates of the several sums required for the support of this bureau and the medical department of the naval service during the fiscal year ending June 30, 1854; together with a statement of the number of medical officers in the several grades required for duty, during the same period, at home stations and afloat.

The fiscal condition of this department is reported as follows:

Balance of appropriation for "surgeons' necessaries and appliances," remaining on hand June 30, 1852.....	\$27,308 94
Amount appropriated by act of Congress approved August 31, 1852	37,600 00
Balance of "surgeons' necessaries and appliances," in treasury October 1, 1852	57,124 25
Amount of naval hospital fund in treasury October 1, 1852	171,606 77
Amount required for the support of the Bureau of Medicine and Surgery during the fiscal year ending June 30, 1854, (estimate A)	8,270 00
Amount required for "surgeons' necessaries and appliances" on board sea-going ships, at navy yards, and naval stations, for the marine corps and coast survey, during the same period, (estimate B).....	37,300 00

Subjoined is a tabular statement derived from the "sick reports" received from hospitals and other stations within the United States, during the year ending June 30, 1852.

	Remaining sick June 30, 1851.	Admitted during the year.	Discharged.	Died.	Deserted.	Total treated.	Remaining sick June 30, 1852.	Per-centage of deaths.
Naval hospitals.....	124	796	716	33	21	920	150	3.58
Receiving-ships	14	740	716	2	.....	754	36	.27
Navy yards, &c.....	32	1,506	1,490	5	3	1,538	38	.32
Aggregate.....	170	3,042	2,922	40	24	3,210	224	1.24

The statistics of the force on foreign stations cannot be given for so late a period, in consequence of a deficiency in the returns. From the partial reports already received, I am happy to state that the sanitary condition of our forces abroad, for the same period, will compare favorably with that of any preceding year.

In this connexion, and as bearing upon the health and comfort of the ships' crews, I would respectfully invite attention to the detailed report of a board of naval surgeons, lately convened by order of the department, for the purpose of examining various alimentary vegetable sub-

stances, prepared abroad by the process of desiccation. The articles thus prepared, in consequence of the little space they occupy, may be taken on board in large quantities without inconvenience as to storage; and it is deemed well worthy of inquiry how far it may be expedient (due regard being had to economy as well as healthfulness) to introduce some of them, as ingredients, into the daily rations of the men.

During the long cruises frequently made by our public vessels, the scurvy, that ancient scourge of the navy, still occasionally develops itself, in spite of the best directed preventive measures. It is believed that an increased proportion of the vegetable or antiscorbutic ingredients, which appears now to be rendered practicable by the recent method of preservation above referred to, would promote still further the health and comfort of the seamen.

In view of the largely increased force called for by our operations in the China and Japan seas, together with the surveying and exploring expedition in the same quarter, I deem it my duty again to bring to the notice of the department the present straitened condition of the medical corps.

Of the sixty-nine surgeons, the complement fixed by the act of August 4, 1842, *nineteen* are unemployed at the date of this report. Of this number, but *eight* are considered available for active service, and a majority of these are enjoying repose after recent arduous duty.

There are in the navy eighty passed assistant and assistant surgeons. By reference to table C, appended to this report, it will be seen that the number required for sea and home service during the year ending June 30, 1854, is seventy-eight; required for other purposes, to which more special reference is made in the table, twenty-two. The number necessary to fill vacancies and to complete the organization, according to the estimates, is one hundred.

It will be seen, by this brief statement, that the medical force of the navy, as at present limited by law, is altogether inadequate to the demands of the service.

The severe duty necessarily imposed upon the effective members of the corps, and the wear and tear of constitution consequent upon almost unintermitting duty at sea, have, of late, driven some of the most valuable officers from the service; and these causes must continue to operate until the corps is so far increased as to bear some equitable proportion to others of the service, and the necessary relaxation and repose are accorded them after long and arduous cruising.

I beg again to invite the attention of the department to the expediency of investing in some interest-bearing government stock the larger portion of the naval hospital fund, which has, for many years past, been lying unproductive in the treasury. This investment has been repeatedly recommended in the annual reports of the head of the department, and it is deemed unnecessary to repeat the considerations heretofore urged in favor of the measure.

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

THO. HARRIS.

HON. JOHN P. KENNEDY,
Secretary of the Navy.

C.

Estimate from the Bureau of Medicine and Surgery of the number of Medical officers required for duty, and the general disposition of the corps, for the year ending June 30, 1854.

SURGEONS.

Sea service.

1 line-of-battle ship.....	1	
6 frigates.....	6	
16 sloops.....	16	
5 steam frigates.....	5	
4 steamers (1st class).....	4	
		— 32

Home service.

Bureau of Medicine and Surgery.....	1	
4 receiving-ships.....	4	
8 navy yards.....	8	
4 rendezvous.....	4	
4 hospitals.....	4	
2 naval stations.....	2	
Naval asylum.....	1	
		— 24

Number required for sea and home service..... 56

Number of surgeons in service..... 69

Number required for duty, as above..... 56

Disabled by age or infirmity..... 10

— 66

Remaining..... 3

PASSED ASSISTANT AND ASSISTANT SURGEONS.

Sea service.

1 line-of-battle ship.....	3	
6 frigates.....	12	
16 sloops.....	16	
5 steam frigates.....	10	
4 1st class steamers (2 having surgeons only).....	2	
3 2d class steamers.....	3	
4 brigs.....	4	
7 storeships.....	7	
6 surveying vessels.....	6	
		— 63

Home service.

Bureau of Medicine and Surgery.....	1
3 receiving-ships.....	3
3 navy yards.....	3
4 hospitals.....	7
Naval asylum.....	1
	— 15
	—
Number required for sea and home service.....	78
	—
Permanently disabled.....	3
Number as limited by act of Congress.....	80
Required for study preparatory to examination.....	6
Permanently disabled.....	3
For relaxation, on leave, after long cruising (one-twelfth)..	7
For temporary illness and other transient casualties (one-fourteenth).....	6
Additional number necessary to fill vacancies and to complete the organization, according to the estimates for the year ending June 30, 1854.....	20
RECAPITULATION.	
Complement of entire medical corps.....	149
Required for service.....	134
	—
Remaining of all grades.....	15
	—

THO. HARRIS.

A.

Estimate of the amount required for the support of the Bureau of Medicine and Surgery, for the year ending June 30, 1854, under acts of Congress approved August 31, 1842, and March 3, 1851.

Salary of chief of bureau.....	\$3,000 00	
Salary of assistant to chief.....	1,400 00	
Salary of one clerk.....	1,400 00	
Salary of one clerk.....	1,200 00	
Salary of messenger.....	700 00	
	—	\$7,700 00
<i>Contingent expenses.</i>		
Labor.....	\$120 00	
Blank books and stationery.....	350 00	
Miscellaneous items.....	100 00	
	—	570 00
Total required.....		8,270 00

THO. HARRIS.

B.

Estimate from the Bureau of Medicine and Surgery of the amount required for the support of the medical department of ships afloat, navy yards, naval stations, marine corps, and coast survey, for the year ending June 30, 1854.

<i>Frigates—6.</i>		
Six at \$1,200 each.....		\$7,200 00
<i>Sloops—16.</i>		
Seven of first class, at \$800 each.....	\$5,600 00	
Six of second class, at \$700 each.....	4,200 00	
Three of third class, at \$600 each.....	1,800 00	
		11,600 00
<i>Steam-frigates—5.</i>		
Five of first class, at \$700 each.....		3,500 00
<i>Steamers—7.</i>		
Four of first class, at \$500 each.....	\$2,000 00	
Three of second class, at \$300 each.....	900 00	
		2,900 00
<i>Brigs—4.</i>		
Four at \$500 each.....		2,000 00
<i>Storeships—7.</i>		
Three at \$250 each.....	\$750 00	
Four at \$225 each.....	900 00	
		1,650 00
<i>Receiving-ships—4.</i>		
One at \$1,300.....	\$1,300 00	
One at \$800.....	800 00	
One at \$600.....	600 00	
One at \$300.....	300 00	
		3,000 00
<i>Navy yards—8.</i>		
Portsmouth, New Hampshire.....	\$100 00	
Boston.....	250 00	
New York.....	350 00	
Philadelphia, including receiving-ship Union	350 00	

Washington.....	\$350 00	
Norfolk.....	400 00	
Pensacola.....	500 00	
Memphis.....	50 00	
		\$2,350 00
<i>Naval stations—3.</i>		
Marine barracks, Washington.....	\$1,500 00	
Naval school, Annapolis.....	400 00	
Observatory, and general relief of officers.....	300 00	
		2,200 00
<i>Coast Survey.</i>		
1 steamer at \$150.....	\$150 00	
2 steamers at \$125 each.....	250 00	
1 steamer at \$50.....	50 00	
2 schooners at \$75 each.....	150 00	
Temporary relief of sick seamen in vessels having no medical officer.....	300 00	
		\$900 00
RECAPITULATION.		
6 frigates.....		\$7,200 00
16 sloops.....		11,600 00
5 steam frigates.....		3,500 00
7 steamers.....		2,900 00
4 brigs.....		2,000 00
7 storeships.....		1,650 00
4 receiving-ships.....		3,000 00
8 navy yards.....		2,350 00
3 naval stations.....		2,200 00
Coast survey.....		900 00
Total required.....		37,300 00

B—Continued.

RECAPITULATION.

<i>Civil.</i>		
Salaries	\$7,700 00	
Contingent.....	570 00	
	\$8,270 00	
<i>Navy.</i>		
Surgeons' necessaries		37,300 00

THO. HARRIS.

No. 7.

HEADQUARTERS OF THE U. S. MARINE CORPS,
Washington, November 11, 1852.

SIR: Paper No. 1, which accompanies this report, is a general return of the marine corps, and exhibits its strength and distribution on the 30th September last. The corps was over, numerically, its legal strength, twenty men.

Paper No. 2 shows the number of officers, non-commissioned officers, musicians and privates, required by the department for all classes of ships-of-war, for the year 1853, viz: 9 captains, 14 first lieutenants, 23 second lieutenants, 81 sergeants, 107 corporals, 36 drummers, 36 fifers, and 1,110 privates.

The marine corps, when its officers are reduced according to law, consists of 13 captains, 20 first and 20 second lieutenants, (besides its 6 field officers,) 80 sergeants, 80 corporals, 30 drummers, 30 fifers, and 1,000 privates. The whole strength of the corps, in its rank and file, is inadequate to furnish the guards required for ships afloat, during the ensuing year.

Paper No. 3 exhibits the number of rank and file required for the shore stations, where immense public interests are placed at hazard by the entire inadequacy of any reliable force for their protection and security against conflagration, depredation, or any sudden ebullition of popular excitement. The two great southern stations, at Norfolk and Pensacola, are endangered from another cause which may lead to the most disastrous consequences.

The difference of color and condition in the population in their vicinity, demands urgently a strong force to be in readiness to quell any sudden irruption into the depositories of arms and ammunition in those yards. The station at Pensacola is more peculiarly exposed to this hazard from

its isolated location, and the great number of slave workmen necessarily employed there, as well as its contiguity to the West India islands.

This force, too, on shore, while it affords security to the public property, now so much exposed, is also being drilled for the relief of the guards afloat, and prevents the necessity of sending recruits where none but thoroughly drilled soldiers should ever be employed. The deck of a man-of-war should never be encumbered by the necessity of teaching the first principles of the soldier's drill. He should be a complete soldier before he is sent on a duty which eminently requires all the steadiness and discipline of the thoroughly drilled soldier.

Under these considerations I cannot ask for any smaller increase of the rank and file of the corps, for present emergencies, than 80 sergeants, 80 corporals, 30 drummers, 30 fifiers, and 1,000 privates; and that the 4 captains, 4 first and 4 second lieutenants, provisionally restored to the service by a proviso to the naval appropriation bill, approved 3d March, 1849, may be retained permanently in the corps.

It would add greatly to the efficiency of the corps, if Congress would authorize a retired list. Some of the captains, from age and physical inability, are unfit to perform duty at sea: the consequence is, that the duty falls heavily on those who are efficient.

Should the guards of the ships-of-war be enlarged, as they have been in every other naval service, the English more especially, then a further increase of the rank and file will be necessary to meet such a contingency. The enlargement now proposed is founded on the present exigency. I will remark here, that since the war of 1812, the British Admiralty have greatly enlarged their guards of marines. I believe that the efficient and destructive fire of the marines in our ships, during that contest, influenced greatly this increase. In that service and in ours, at this period, the principle of a marine for each gun was generally adopted. It is somewhat singular that, subsequently to this contest, a direct opposite course was taken by the two nations—the English increasing largely their marines, and we lessening ours so greatly as to prevent even the usual sentinels being put on post.

I have heretofore ventured to express an opinion that soldiers well drilled, both in the artillery and infantry drill, are best suited for service on board steamships of war. This opinion was given when steam was first used in our ships-of-war, and I still believe it to be so. The desire expressed by Commodore Perry to have a large increase of marines in his squadron, bears me out in this view.

Paper No. 4 is a circular written by me to naval officers of distinction, and especially to those most active in their professional duties, and their replies; all expressing an opinion as to the propriety of this enlargement. I trust these letters may be submitted to Congress.

No. 5 is a copy of a letter from Commodore Shubrick, in 1839, and from the officers of the home squadron, then under his command, in relation to the increase of the corps.

Since the act of Congress of the 30th June, 1834, the navy has been increased both in ships-of-war and in its officers, while the marine corps has been stationary, with the exception of a temporary addition to it, created by the war with Mexico, which ceased with that war.

I have for years past brought this matter to the attention of the

department. I have doen so, knowing that the efficiency and good standing of the corps, as well as the best interests of the service, demanded an increase. Your predecessors have recommended it most earnestly to the consideration of Congress, and I hope they may see fit to authorize it at the coming session.

I am, respectfully, your obedient servant,
ARCH. HENDERSON,
Brevet Brigadier General, Commandant.

Hon. J. P. KENNEDY,
Secretary of the Navy.

No. 1.

General return of the officers, non-commissioned officers, musicians, and privates of the United States marine corps for the month of September, 1852.

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Stations, &c.	Brg. gen. command't.	Commissioned staff.	Lieutenant colonel.	Majors.	Captains.	First lieutenants.	Second lieutenants.	Non-commiss'd staff.	Orderly sergeants.	Sergeants.	Corporals.	Musicians.	Drummers.	Fifers.	Privates.	Aggregate.	Remarks.
Headquarters.....	1	3					1									5	Washington City marine barracks: Brigadier General Henderson, the adjutant and inspector, quartermaster, paymaster, and aid to brigadier general commandant.
Marine barracks, Washington..				1	3	3	2	4	1	7	5	26	7	6	41	106	Eighteen privates returned here are boys learning music; Brevet Captain Sutherland on furlough; Brevet Major Gillespie waiting orders.
Guard at the navy yard, D. C..					1	1			1		3		1	1	12	20	
Brooklyn, N. Y.....				1		1	3		1	4	6		1	1	52	70	Lieutenant Adams sick, absent.
Charlestown, Mass.....					2	2			1	5	5		1	1	39	56	Brevet Major Waldron on leave.
Gosport, Va.....				1	1				1	2	2		1	2	21	31	Captain Stark sick, in quarters.
Philadelphia, Pa.....				1		2	2		1	4	3		2	2	27	44	Brevet Captain Garland and Lieutenant Grayson absent with leave.
Portsmouth, N. H.....					2				1	1	2		1	1	16	24	Captain Brevoort absent with leave.
Pensacola, W. F.....					1				1	1	2				37	42	Two privates returned here are acting as orderlies to the naval commandant; Captain Baker "absent on duty."
Ass't quartermaster's office, N. Y.		1								1						2	
Receiving-ship Pennsylvania.....					1				1	1	2				14	19	
Receiving-ship North Carolina.....					1				1	1	2		1	1	32	39	
Receiving-ship Ohio.....						1			1		2				22	26	
Receiving-ship Union.....									1		2				12	15	
Steamer Susquehanna.....						1			1	2	3		1	1	37	46	March 31, 1852.

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Steamer Mississippi	1	1	1	1	3	1	1	40	49	Sept. 30, 1852; Sec'd Lieut. Lindsay "sick."
Steamer Michigan	1		1		2			12	16	September 30, 1852.
Steamer Saranac			1		2	1	1	20	25	This guard joined from Philadelphia 15th inst.
Steamer San Jacinto	1		1	1	2	1	1	20	27	July 31, 1852.
Steamer Fulton			1		2			8	11	September 30, 1852.
Steamer Princeton		1	1	1	1	1	1	26	32	September 30, 1852.
Steamer Powhattan	1		1	2	2	1	1	37	45	This guard joined from Gosport, Va., 3d inst.
Frigate Congress	1	1	1	2	4	1	1	40	51	July 31, 1852.
Frigate Cumberland		1	1	2	4	1	1	40	50	July 31, 1852.
Frigate Raritan		1	1	3	4	1	2	35	47	June 30, 1852.
Frigate St. Lawrence	1		1	2	4	1	1	40	50	July 31, 1852.
Sloop Saratoga	1		1		2	1	1	16	22	March 31, 1852.
Sloop John Adams			1		1	1	1	17	21	June 30, 1852.
Sloop Vincennes										This guard joined at New York 28th instant.
Sloop Vandalia		1	1	1	1	1	1	16	22	April 30, 1852.
Sloop St. Louis		1	1		2	1	1	21	27	This guard joined from Gosport, Va., July last; since which Lieutenant Green has been ordered as the commanding marine officer.
Sloop Cyane				1	2	1		14	18	September 30, 1852.
Sloop Levant		1	1		2	1		19	24	June 30, 1852, when this guard was 1 first lieutenant, 1 sergeant, 2 corporals, 1 drummer, 1 fifer, 20 privates; since which 1 fifer and 1 private rejoined at Gosport, Va.
Sloop Portsmouth			1	1	2	1	1	19	25	June 30, 1852.
Sloop Plymouth				1	2	1	1	20	26	February 29, 1852.
Sloop Albany										This guard joined at Charlestown, Mass., 4th instant.
Sloop Germantown	1		1	1	2	1	1	19	26	June 30, 1852. One private returned here is acting ship's armorer.
Sloop St. Mary's		1	1	1	2	1	1	19	26	January 31, 1852.
Sloop Jamestown		1	1		2	1	1	21	27	July 31, 1852.
Sloop Decatur										This guard joined at Charlestown, Mass., 6th instant.
Sloop Preble				1	2			2	5	September 30, 1852. One of the corporals returned here is acting ship's corporal.
Sloop Dale				1	3	1	1	21	27	May 31, 1852, when this guard was one sergeant, 2 corporals, 1 drummer, 1 fifer, and 21 privates; since which one corporal joined from Brig Porpoise.

PART II—37

H. Doc. 1.

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No. 1—General return of the officers, &c., of the marine corps—Continued.

578

Stations, &c.	Brig. gen. command't.	Commissioned staff	Lieutenant colonel.	Majors.	Captains.	First lieutenants.	Second lieutenants.	Non-commiss'd staff.	Orderly sergeants.	Sergeants.	Corporals.	Musicians.	Drummers.	Fifers.	Privates.	Aggregate.	Remarks.
Brig Bainbridge.....															5	5	June 30, 1852.
Brig Perry.....											1				5	6	This guard joined from New York 10th May last.
Brig Dolphin.....											1				5	6	This guard joined from New York 8th instant.
Superintending recruiting service.			1													1	See remarks on G. R. for November, 1848.
Recruiting rendezvous N. York.																	This station was closed on the 30th instant, and the sergeant joined at New York.
Waiting orders.....					2											2	Captain Williams at Philadelphia from 4th July, 1851, and on leave from 8th June last; Brevet Major Reynolds from 30th instant.
On special service.....													1	1		2	At the Naval School at Annapolis, Md.
On staff duty.....						1										1	Lieutenant Caldwell at Pensacola, W. F.
Under orders.....							1									1	Second Lieutenant Butterfield since 29th instant to New York, to report himself as the junior marine officer on board the steamer Mississippi.
	1	4	1	4	15	20	19	4	37	47	96	26	38	37	919	1,268	

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First Lieutenant John S. Devlin and Second Lieutenant John Hartley Strickland cashiered by order of a general court martial, whose sentences were approved by the President, directing that they should cease to be officers from the 20th September, 1852.

HEADQUARTERS OF THE MARINE CORPS,
Adjutant and Inspector's Office, Washington, October 20, 1852.

P. G. HOWLE,
Adjutant and Inspector.

No. 2.—Table showing the names of vessels-of-war that will be in commission in 1853, as furnished by the Navy Department, and the number of marines that will be required to furnish them with guards, agreeably to the printed table of the 15th of October, 1844, and subsequent orders.

Names of vessels.	Captains.	First Lieutenants.	Second Lieutenants.	Sergeants.	Corporals.	Drummers.	Fifers.	Privates.	Aggregate.
<i>East India squadron.</i>									
Vermont (74)	1	1	1	3	4	2	2	52	66
Sloop Plymouth			1	2	2	1	1	20	27
Sloop Saratoga			1	2	2	1	1	20	27
Corvette Macedonian		1		2	2	1	1	20	27
Steamer Mississippi		1	1	3	4	1	1	40	51
Steamer Princeton			1	2	2	1	1	34	41
Steamer Alleghany			1	2	2	1	1	34	41
	1	3	6	16	18	8	8	220	280
<i>Pacific squadron.</i>									
Razez Independence	1		1	3	4	1	1	40	51
Frigate St. Lawrence		1		3	4	1	1	40	50
Frigate Raritan		1		3	4	1	1	40	50
Sloop Portsmouth			1	2	2	1	1	20	27
Sloop Vandalia			1	2	2	1	1	20	27
	1	2	3	13	16	5	5	160	205
<i>African Squadron.</i>									
Frigate Constitution	1		1	3	4	1	1	40	51
Sloop John Adams		1		2	2	1	1	20	27
Sloop Marion			1	2	2	1	1	20	27
Brig Bainbridge				1	2			10	13
Brig Perry				1	2			10	13
	1	1	2	9	12	3	3	100	131
<i>Brazil squadron.</i>									
Frigate Savannh	1		1	3	4	1	1	40	51
Frigate Congress		1		3	4	1	1	40	50
Sloop Jamestown			1	2	2	1	1	20	27
	1	1	2	8	10	3	3	100	128
<i>Mediterranean squadron.</i>									
Frigate Cumberland	1		1	3	4	1	1	40	51
Sloop Levant		1		2	2	1	1	20	27
Sloop St. Louis		1		2	2	1	1	20	27
Steamer San Jacinto		1		2	2	1	1	37	44
	1	3	1	9	10	4	4	117	149

Names of vessels.	Captains.	First Lieutenants.	Second Lieutenants.	Sergeants.	Corporals.	Drummers.	Fifers.	Privates.	Aggregate.
<i>West India squadron.</i>									
Frigate Columbia.....	1	1	3	4	1	1	40	51	
Sloop Albany.....	1	2	2	2	1	1	20	27	
Sloop Cyane.....	1	2	2	2	1	1	20	27	
Sloop Decatur.....	1	2	2	2	1	1	20	27	
Steamer Powhatan.....	1	2	2	2	1	1	37	44	
Steamer Saranac.....	1	2	2	2	1	1	37	44	
Steamer Fulton.....	1	1	2	2	1	1	20	26	
Steamer Water Witch.....	1	2	2	2	2	2	12	15	
Steamer Vixen.....	1	3	4	16	20	7	7	218	276
<i>On the lakes.</i>									
Steamer Michigan.....	1	1	2	1	1	1	20	26	
<i>Special service.</i>									
Brig Dolphin.....				2			10	12	
<i>Surveying.</i>									
Sloop Vincennes.....		1	2	2	1	1	20	27	
Brig Porpoise.....		2	2	2	2	2	10	12	
Steamer John Hancock.....		1	2	6	1	1	40	51	
<i>Receiving ships.</i>									
Pennsylvania.....	1	1	2	3	1	1	35	44	
North Carolina.....	1	1	2	3	1	1	35	44	
Ohio.....	1	1	2	3	1	1	35	44	
Union.....	1	1	1	2	1	1	20	26	
3	4	7	11	4	4	125	159		

No. 2—Continued.

RECAPITULATION.

Stations.	Captains.	First lieutenants.	Second lieutenants.	Sergeants.	Corporals.	Drummers.	Fifers.	Privates.	Aggregate.
East Indies.....	1	3	6	16	18	8	8	220	280
Pacific	1	2	3	13	16	5	5	160	205
African	1	1	2	9	12	3	3	100	131
Brazilian	1	1	2	8	10	3	3	100	128
Mediterranean	1	3	1	9	10	4	4	117	149
West Indies (Home)	1	3	4	16	20	7	7	218	276
On the lakes .....	.....	1	.....	1	2	1	1	20	26
Special service .....	.....	.....	.....	.....	2	.....	.....	10	12
Surveying .....	.....	.....	1	2	6	1	1	40	51
Receiving ships.....	3	.....	4	7	11	4	4	125	158
	9	14	23	81	107	36	36	1,110	1,416

P. G. HOWELL, *Adjutant and Inspector.*HEADQUARTERS OF THE MARINE CORPS,
Adjutant and Inspector's Office, Washington, October 30, 1852.

Table showing the number of non-commissioned officers, musicians, and privates of marines required for the shore stations in 1853.

Stations, &c.	Sergeant major.	Quartermaster sergeant.	Drum major.	Fife major.	Sergeants.	Corporals.	Drummers.	Fifers.	Privates.	Aggregate.
Headquarters, District of Columbia.....	1	1	1	1	6	6	2	2	150	170
Portsmouth N. H.....					4	5	1	1	75	86
Boston.....					5	5	1	1	100	112
New York.....					6	6	2	2	150	166
Philadelphia.....					4	5	1	1	75	86
Washington, D. C., navy yard.....					3	4	1	1	50	59
Norfolk, Va.....					5	5	1	1	120	132
Pensacola.....					5	5	1	1	125	137
Memphis.....					4	5	1	1	75	86
California.....					5	5	1	1	125	137
Total.....	1	1	1	1	47	51	12	12	1,045	1,171

P. G. HOWLE, *Adjutant and Inspector.*

HEADQUARTERS OF THE MARINE CORPS,
Adjutant and Inspector's Office, Washington, November 5 1852.

No. 4.—*Copy of a letter addressed to certain officers of the navy by Brevet Brigadier General Archibald Henderson, commandant of the United States marine corps, in relation to the necessity of an increase of the rank and file of said corps, and their replies to the same.*

HEADQUARTERS OF THE MARINE CORPS,
Washington, July 24, 1852.

SIR: Believing that an increase of the guards of marines, detailed for duty on board of the vessels-of-war of the United States navy, is essential to the subordination and good order of the persons composing the crews of such vessels, and knowing that no such increase can be effected until Congress shall be satisfied that an absolute necessity has arisen for legislation in the premises, and believing further that the officers of the navy who have commanded, and who are now in command of vessels, have it in their power to be directly instrumental in bringing about the desired action of Congress, it is respectfully requested that you will state in writing your views upon the subject of an increase of the rank and file of the marine corps, in order to enlarge the guards of sea-going vessels, and whether, in your opinion, an exigency has not arisen for such increase since the abolishment of flogging in the navy.

It is not deemed necessary to state any other fact than that the law, as it now stands, authorizes the employment of 1,000 privates, a number barely sufficient for the guards of the vessels of the navy now in commission, and leaving no margin for the drill and preparation on shore of other guards for relief, or for any emergency that may arise requiring an additional force afloat. No one, it is presumed, will question the necessity of having well-drilled soldiers for the guards of ships-of-war, and all will admit that the soldier should be thoroughly exercised under a proper system of drill and discipline before he is sent on board ship, in order that his steadiness as a soldier, and the regularity of the discipline he has received, may produce upon the crew the desired effect. All will admit that, while these reliefs are undergoing this system of instruction at our different navy-yards, they would at the same time afford the most efficient protection to the immense amount of public property stored in them.

These results, it is believed, can be realized by such an addition to the rank and file of the marine corps as will admit of there being, at all times, a sufficient number of marines at headquarters, and at the different shore stations, under drill and discipline, to constitute relief guards for vessels in commission. That a necessity exists for this increase no one can doubt; and I must say I greatly desire to see it made for the good and efficiency of the corps to which I have been attached nearly half a century and commanded for thirty years.

It will afford me great satisfaction to receive your views on this subject at your earliest convenience.

I am, very respectfully, your obedient servant,

ARCH. HENDERSON,

Brevet Brig. Gen. Comd't U. S. Marine Corps, Washington, D. C.

I cordially approve the suggestions contained in this letter.

JNO. P. KENNEDY.

BORDENTOWN, NEW JERSEY,
August 15, 1852.

GENERAL: Your letter of the 24th July has come to hand; its being directed to Philadelphia caused delay. I sometimes do not go there for two or three months. All you say with regard to the deficiency in the rank and file of the marine corps is but too true, and it has been so often represented to the authorities that the force of the marine corps is wholly inadequate to perform the duties required of it, that to repeat it would seem to me to be boring Congress too much, and it is better that the government should be left to their own views on the subject, until some decided occurrences arise to warp them from a mistaken principle, in relation to national and commercial defences, that ought not to exist in a country enjoying the unbounded prosperity of this. I have, on several occasions, communicated my views to the government on this very subject in the strongest manner, but to no effect. I would, therefore, beg to refer you to my letter to Secretary Upshur of March 23, 1842, and subsequently called for by Congress, and printed by Congress, February 1, 1844. In that paper I have thrown the whole weight of my experience on the subject you refer to in your letter. If the urgent requirements of the executive government cannot draw from Congress all the essential means of protection for our citizens and their commerce, how is it possible to effect it through the various and vacillating opinions of partial or prejudiced officers.

I am, general, very respectfully, your obedient servant,
 CHAS. STEWART.

Gen. A. HENDERSON,
Commandant Marine Corps, Washington.

COMMANDANT'S OFFICE, U. S. NAVY-YARD,
July 27, 1852.

SIR: Your letter of the 24th inst., addressed to "officers of the navy who have commanded, and who are now in command of vessels," has been received.

In reply to the request conveyed in your letter that I "will give my views on the subject of an increase of the rank and file of the marine corps, in order to enlarge the guards of sea-going vessels, and whether, in my opinion, an exigency has not arisen for such increase since the abolition of flogging in the navy," I have to observe that I cannot with propriety speak of the necessity of increasing the guards of our vessels-of-war in consequence of corporal punishment having been abolished, as I have not been in command, afloat, since the passage of the act of Congress. But I freely concur with you in the opinion that the corps should be increased in order to afford large guards for our vessels-of-war and for the protection of the public property in our navy-yards.

It may not be deemed out of place here to remark, that the vessels-of-war of other nations, particularly the British, are furnished with larger guards than ours are, and it is believed that there is no greater

necessity at this time for a larger force of the kind in the British service than there is in ours.

I am also of opinion that there should be, at all times, a sufficient number of marines at headquarters and at the different shore-stations, under drill and discipline, to constitute relief-guards for our vessels in commission, and for the protection of our navy yards, to take the place of watchmen now employed in all our navy yards. The latter not being subject to the laws that govern the navy is, in my opinion, a serious objection to their being entrusted with the care of the public property.

I am, very respectfully, your obedient servant,

GEO. C. READ,

Commandant, Philadelphia Station.

Brevet Brig. Gen. A. HENDERSON,

Commanding Marine Corps, Washington, D. C.

GEORGETOWN, July 30, 1852.

SIR: I am just favored with your letter of the 24th inst., referring to an "increase of the guards of marines detailed for duty on board the vessels of war of the navy, as essential to the subordination of the persons composing the crews," &c., and ask my views on the subject.

I beg to assure you that it would afford me great satisfaction to render you every aid in my power in augmenting the marine corps, in proportion to its usefulness, as you wish. This subject has frequently been presented to Congress unsuccessfully, and, in my opinion, will continue to be disregarded until some fearful obligation of impending danger comes to your assistance.

The present is not the first occasion in which I have borne testimony in favor of the gallantry and efficiency of the marines, and the necessity of establishing a strong corps, not because they are the only *available* and efficient force, in cases of extreme necessity, but they alone can be depended upon with certainty in the immediate defence of our ports, harbors, bays, rivers, and other accessible avenues that lead to the interior of the country. But these reasons, in connexion with the further view of keeping the guards detailed for the ships of war full and well drilled, induce me to repeat my opinion on this subject. The marines are a corps of men, when properly disciplined, that will never disappoint the most sanguine expectations of their country—never! I have never known one who would not *readily advance in battle*. They have proved themselves steady, gallant, and *firm*, under the most pressing circumstances, and may be emphatically regarded as *minute men*.

At present our marine guards, on board ship, are not full, or are they in high discipline, or even well drilled, when detailed for sea-service, owing to an absence of a sufficient number of men in the corps to afford the necessary preparation to meet the exigencies of the naval service.

The navy-yards and stores are not properly guarded from descent

and theft, as they should and would be if a sufficient number of men and a properly drilled corps were maintained by the government.

In reference to the necessity of a stronger guard on board of ships-of-war, for the purpose of insuring subordination and discipline, I admit that a strong guard would effect the subordination of a ship's crew, so far as checking the audacity of a few timorous persons; but the present laws for the better government of the navy, acting as incentives, as they do, to the worst men of all classes to seek the naval service as a refuge, and protect the wilful and worthless in their outrages, it can hardly be expected that a crew would be overawed unless restrained by stringent and effective laws most earnestly supported by the government.

But, General, I much regret not to coincide with the belief that the success of your wishes depends upon the necessities of the naval service, or the efficiency of the marine corps, either by sea or land. The present period is unpropitious; other subjects of a political nature, to which all other considerations are subservient, claim the attention of the public mind, and were I or any person to speak or write *oracles*, whether for the honor of the marine corps, or that of the republic at large, from all I can see or learn, they would avail nothing.

In conclusion, it affords me pleasure, after several years' absence, to salute you with many pleasing reminiscences of former years, and remain, General, with high regard and esteem, very respectfully, your obedient servant,

C. W. MORGAN,
U. S. Navy.

General HENDERSON.

FAIRFIELD, CONNECTICUT,
August 4, 1852.

SIR: In reply to your letter, dated July 24, 1852, I have to state that, in my opinion, there is great necessity for an increase of the rank and file of the marine corps.

Since the abolishment of flogging in the navy a greater number of sentinels are required to take care of the prisoners on board our ships of war, and I consider the number of marines on sea-going vessels entirely inadequate.

I speak confidently on this subject, as my recent command of the United States home squadron has given me ample opportunities of knowing the inefficiency of the guards now allowed, and I sincerely hope that Congress will authorize an increase of the rank and file of the corps.

I am, very respectfully, your obedient servant,

FOXHALL A. PARKER,
Late in Command of the Home Squadron.

Gen. A. HENDERSON,
Commanding Marine Corps, Washington, D. C.

UNITED STATES STEAMER MISSISSIPPI,
AT SEA OFF THE BAY OF FUNDY,
August 3, 1852.

SIR: In reply to your communication of the 24th ult. I do not hesitate to say that, in my opinion, the number of marines at present authorized by law is far below the indispensable wants of the navy.

The corps might be advantageously increased by an addition of at least 1,000 men.

Marines on board of ships-of-war are not only necessary to the preservation of proper discipline, but they are useful in the ordinary duties of the vessel, and if kept in sufficient force, in constant readiness at our navy yards, can be detailed at a moment's notice to fill up in part deficiencies which may occur in the complements of vessels ordered suddenly to sea, especially in the lower rates.

It is needless to reiterate in this communication the assertion so often expressed by me in public dispatches, of the efficiency and gallantry of the corps which you have so long and so ably commanded, and I trust that Congress may see fit to increase as well the number of ships, as of seamen and marines of the navy, at present altogether inadequate to the exigencies of the times.

With great respect, I am sir, your most obedient servant,
M. C. PERRY.

Brigadier General A. HENDERSON,
Commanding U. S. Marine Corps, Washington.

BOSTON, July 23, 1852.

SIR: I have the honor to acknowledge the receipt of your letter of the 24th instant, in relation to the state and efficiency of the marine corps. I entirely concur with you in the general view you have taken in this important matter. The importance of a marine guard on board vessels-of-war is well known, and universally appreciated by all officers of the navy, who have been actively employed at sea. It is deemed essential to the good order, subordination, and safety of such vessels; and as they are able-bodied men, and under the guidance of a steady discipline, are as auxiliaries in the management of ships at sea, useful for some purposes as seamen, whose places they supply.

The present force of the marine corps is, in my opinion, (formed after a long experience,) entirely inadequate to the wants of the service; I think that there should be, at all times, within command of the government, a sufficient number for our sea-going vessels, and, at the same time, a proper number on shore under discipline, and in preparation for service, and for such home duty as the exigence of the service requires. The number of the corps, as now established by law, does not seem to me sufficient for shore service; in this quarter there is a lamentable deficiency. It has been impossible to furnish a guard for the protection of the yard and the great amount of property collected here; this valuable establishment of stores and ship houses extends over a space of three quarters of a mile, and is accessible from the

town, and especially from the harbor, and requires a constant watch day and night. In consequence of a deficiency of marines to act as sentinels, a body of watchmen has to be provided, principally, if not altogether, from our foreign population, who are not always trustworthy, even in time of peace. The cost of this kind of watch, absolutely necessary for the safety of the public property, has been for years past equal, or very nearly so, to the cost of a marine guard of an equal number of men. If a sufficient body of marines could be stationed at the yards, under a course of discipline and drill, it would give perfect security to the public property, and be an essential part of a naval force, ready for any emergency.

Entertaining these views, I should recommend an increase of one thousand men to the marine corps.

I am, very respectfully, your obedient servant,
 JAS. ARMSTRONG,
Captain United States Navy.

General A. HENDERSON.

WASHINGTON CITY, D. C.,
July 28, 1852.

SIR: I have received yours of the 24th instant. With regard to the proposed increase of the marine corps, about which you request my opinion, I have to state, that, according to my judgment, an addition to the rank and file of one thousand men would not be more than sufficient to meet the wants of the service.

I have always placed a high estimate upon the value of the services of marines, not only on board ship, but at the different store stations. A well-organized marine guard is absolutely necessary for maintaining an efficient police on board ships-of-war, as well as at the different navy yards.

The marine guards of our ships-of-war are entirely too limited in number, and it appears to me it is indispensable they should be increased since corporal punishment has been abolished. I was in command of a frigate when Congress passed the law prohibiting corporal punishment, and almost instantaneously I saw an increase of the guard was essential for the preservation of discipline.

The marines on board ship are more efficient than that portion of the crew rated as landsmen, and I should prefer an increase of the former, even if the latter had to be diminished in the same ratio. The guard usually stationed at the navy yards is too small, in my opinion, to afford adequate protection to the public property—at least such has been my experience.

The marines should be thoroughly drilled and acquainted with all the duties of the soldier before being sent on board ship. In landing a portion of the crew for expeditions on shore, the marines constitute a most important part of the command.

I trust Congress will make the desired increase of the rank and file of the corps, believing, as I do, that it is a most important arm of

the public service. In every situation in which the corps has been placed it has always proved itself most useful and efficient.

I am, very respectfully, your obedient servant,

W. K. LATIMER,
Captain United States Navy.

General ARCHIBALD HENDERSON,
Commanding Marines, Washington City.

HUNTINGTON, LONG ISLAND, N. Y.,
July 29, 1852.

SIR: I have but just received your favor of the 24th instant on the subject of an increase of the marine guard of our ships-of-war, and beg leave to reply.

Were the navy differently circumstanced from what it is now—and by that I mean with the old law in force—my judgment would advocate an increase of the marine guard of our ships afloat fifty per cent. beyond the present number as prescribed—I mean of *efficient, well-trained soldiers of good, reliable character*, and not such as have been sometimes detailed as a marine guard for a ship-of-war, ignorant of their duty as soldiers, and, I might say, in some instances of the English language. With this view, and to this end, were I consulted by authority, I would recommend that the marine corps be increased to at least twice its present number of rank and file, and under such restriction as would make it a high military offence to send from headquarters to a ship-of-war any but a well-trained and in all respects competent soldier. Were this practicable, I should think that our ships of war would be much increased in efficiency under any circumstances of the law, and whether our seamen in the navy are to be Americans or mixed of all nations, as at the present time. With such a marine corps as I have named, I would also intrust the public property at our naval stations in preference to any other system.

I am aware that the arm of our service you have had the honor so long and so meritoriously to command has been placed in a false position, from the very fact you mention of the deficiency in the number allowed, which is notoriously insufficient to meet the demands of the public service, and that this fact has rendered it quite impracticable for you to furnish such guards of well-disciplined soldiers at all times necessary for the credit of the service, and at this time apparently indispensable to its very existence.

The gallantry and patriotic devotion of the marine corps from its earliest history, at sea and on shore, under all trying circumstances, give it an undisputed claim to the high consideration and to the confidence and fostering care of the republic; and were it in my power to exercise an influence for its increase and improved condition, it would afford me the liveliest satisfaction to do so, and this would be especially dictated by a sense of public duty.

This letter has been written in some haste, which I trust may be its

passport to your indulgence, claiming only briefly to have expressed my honest convictions from the experience of a long professional life.

I am, very respectfully, sir, your most obedient servant,
 H. PAULDING,
Captain United States Navy.

Brig. Gen. A. HENDERSON,
Commanding U. S. Marine Corps, Washington.

COURT-MARTIAL ROOM,
Gosport Navy-yard, August 9, 1852.

SIR: In reply to your letter of the 24th ultimo, requesting my opinion in writing, "whether an increase of the guards of marines detailed for duty on board our vessels-of-war is essential to the subordination and good order of such vessels; and whether an exigency has not arisen for such an increase?" I take occasion to state that every day's experience convinces me more and more of the importance of adding to the number of privates of the marine corps, in order that the guards detailed for our ships may be not only increased, but that they be composed of well-drilled and well-disciplined men.

To accomplish so desirable an object, the number now allowed by law should be, in my opinion, doubled. They should undergo a thorough system of drill at headquarters, and be instructed in that high state of discipline which is so characteristic of the corps.

Since the abolishment of corporal punishment in the navy, and consequent destruction of order and subordination on board our vessels-of-war, it has become necessary to enlarge the marine guard to assist in the suppression of riotous and mutinous conduct, and the preservation of order in a refractory crew.

Congress in their wisdom having deprived the captains of all power to enforce a healthy state of discipline and subordination, the proof is before us of the consequent destruction of all subordination and regularity so essential to a vessel-of-war. The service, whilst it has lost much of its high character for discipline and respectability, not only among the people, but the seamen themselves, (the best of whom refuse to return to it,) is continuing to retrograde; and as no substitute for flogging can be had, the opinion seems to prevail that an efficient guard of marines is necessary to keep the crew in a proper state of subjection, and to suppress the disturbances now so common on board our ships-of-war.

I therefore embrace the occasion to concur with you in the view you have expressed, and will only add my best wishes for their successful termination.

I am, very respectfully, your most obedient servant,
 F. FORREST, *Captain.*

General ARCH. HENDERSON,
Commanding Marines, Headquarters, Washington, D. C.

COMMANDANT'S OFFICE,
Navy yard at Pensacola, August 23, 1852.

SIR: I have received your letter of the 24th ultimo in regard to the present condition and proposed increase of the rank and file of the marine corps, and with great pleasure furnish my views on the subject, as you request.

As early as the year 1843, being then in command of the *Saratoga*, in an official communication to the Secretary of the Navy I made the following remark:

"Should the old marine complement have been restored, I would suggest that the guard of the *Saratoga* be fixed at thirty rank and file; and if it be proposed, in consequence of the increase, to make a reduction in the other rates, that it be confined to that of landsmen. The marines, in addition to their duty as soldiers, perform at sea that of landsmen, and are proverbially the best landsmen in the ship; indeed, it would, I think, be an advantageous arrangement to limit the number of landsmen in our ships to a sufficiency for servants, and to supply their place with marines. The landsmen in the service rarely or never make seamen, and are generally worthless characters."

My opinion has undergone no change since, but has been confirmed by subsequent events and experience.

It cannot, I think, be doubted that the reduction in the complement of marines has impaired the efficiency of our ships, and the evil is doubled by the increase of the same arm in the British navy.

In the last war the complements in the two services were the same; but theirs has been wisely augmented, whilst ours has been decreased—a system that I fear may tell against us some day, particularly in operating on shore. The evil may be partially remedied by substituting marines for landsmen, and at no additional cost; that of a marine being \$15 50 per month and of a landsman \$16.

The abolition of flogging, and the difficulty, in consequence, of enforcing discipline, is another argument in favor of the increase of the complement of marines in our ships, and in view of this, the marines afloat should be carefully selected, and be *soldiers with the pride of soldiers*, which they cannot be without previous drill and discipline. The present force of the rank and file does not permit a sufficient number of drilled men to be always in readiness for the ships, and they are consequently too frequently furnished with raw recruits, to the serious injury of discipline, and of the character of the service abroad. A ship is no place to drill or form a soldier.

The substitution at navy yards of watchmen for marines, is another great evil growing out of a want of a more numerous rank and file. The system is unmilitary, very expensive, and very inefficient. At this yard a watchman is paid \$51 per month, which is \$4 50 more than the cost of three marines.

A liberal increase of the rank and file of the corps will remedy all these evils, and that you may succeed in effecting it, I heartily pray.

I am, sir, very respectfully, your obedient servant,

JOSIAH TATTNALL,

Commander.

UNITED STATES NAVAL ACADEMY,
Annapolis, July 27, 1852.

SIR: I have received your communication of the 24th inst., asking my views in relation to an increase of the marine corps; having had some experience, I feel no hesitation in giving you my views upon the subject.

The marines, when embarked on board ship, if they have been long enough enlisted to be thoroughly drilled and disciplined, I have always found trustworthy and faithful, and valuable auxiliaries to discipline.

And since the repeal of the law authorizing corporal punishment, I consider such a body of marines essential to the discipline of a man-of-war, without them I should feel indisposed to command a ship at this time.

It is useless to disguise the fact, that the crews of our ships are now composed mostly of foreigners and the most worthless class of our native population; with such materials to manage, a large guard of marines is, in my judgment, highly desirable, if not absolutely necessary.

The causes which have led to this state of things need not be particularly noticed, except to state that there is no reason to expect an improvement in the *personnel* of the navy at present, at least among those known as petty officers, seamen, ordinary seamen, and landsmen. To maintain discipline, and to render our ships efficient, I am clearly of opinion that the guards of marines should be greatly increased; this cannot be effected without such an increase of the "rank and file" as would allow a sufficient number to be at our principal naval stations and headquarters of the corps, for some time before being embarked on board ship, to be thoroughly exercised under a proper system of drill and discipline. And while being thus prepared for duty on board ship, the marines would, in my opinion, afford a much greater protection to the immense amount of public property at the navy yards than is at present secured by watchmen, who are not subject to martial law, and cannot be punished for any neglect of duty except by dismissal.

With the present number of "rank and file," there is rarely a sufficient number of marines on shore to perform the "company exercises," and never, I fear, the "exercises of the battalion." These duties must be learned on shore, where both officers and men can be taught and prepared to act promptly and efficiently, if suddenly called upon to land from on board ship.

By increasing the "rank and file" of the marine corps, the number of ordinary seamen and landsmen on board each vessel might be reduced, and watchmen at the navy yards replaced by marines, so that there would be little, if any, increase of expense.

Very respectfully, your obedient servant,

C. K. STRIBLING,
Commander United States Navy.

General A. HENDERSON,
Headquarters Marine Corps.

NEW YORK, July 27, 1852.

SIR: I have the honor to acknowledge the receipt of your communication of the 24th inst., in reference to increasing the marine guard, &c.

I respectfully would remark, that more or less, since September, 1812, I have served with marines on land and ship-board, and always have been accustomed to look on their services, in connexion with seamen, as indispensable.

The increase of their corps has not kept pace with that of the navy, which has often embarrassed its operations for want of the men, which could not be furnished from headquarters, from the fact that they were entirely wanting, or only partly drilled or prepared for their necessary duties. I have always known that particular military duties were required of them, in connexion with naval affairs, that were not, nor could not be, expected from sailors; hence no ship, or naval armament, could be complete without a fair proportion of marines.

On ship-board, and in expeditions on shore, requiring decision, prompt action, and steady conduct, more instances than one have come under my observation, where the presence of a marine guard has had an influence more or less important.

I should not deem a man-of-war complete without a body of marines, and such, too, as had been well drilled and imbued with that *esprit* that has so long characterized the "old corps," previously set up and drilled at headquarters.

To that end a number greater than required for ships in commission is necessary, and I sincerely hope the wisdom of Congress will grant the necessary increase of men, in such ratio as the increase of our naval force, shore stations, and amount of property to be protected, should reasonably seem to demand.

I am, sir, very respectfully, your most obedient servant,

JOSHUA R. SANDS,

Commander United States Navy.

Brig. Gen. ARCHIBALD HENDERSON,

Commandant United States Marine Corps.

WASHINGTON CITY,

July 31, 1852.

SIR: I have received your communication of the 24th instant, asking my views in regard to an increase of the rank and file of the marine corps, and feel gratified at having an opportunity afforded me to express my opinions in favor of the proposed measure.

I believe, sir, I but express the unanimous sentiment of the navy, when I say that a considerable augmentation of the marine corps is imperiously demanded.

I am also satisfied that our marine guards on ship-board are altogether too small, and that the efficiency and discipline of our ships would be promoted by the employment of more marines than can now be furnished to the ships in commission. I am further of opinion that the rank and file ought to be sufficiently numerous to allow the relief guards to be

thoroughly drilled and disciplined as soldiers before they are sent on ship-board, and that, whilst undergoing this training, they could be advantageously employed to guard the public property at our navy yards.

It has been considered heretofore that no vessel could be an efficient and well-disciplined man-of-war without a proper marine guard, and I am satisfied the law abolishing flogging in the navy has rendered the services of marines still more necessary.

Trusting this subject will receive the consideration due to its importance, I am, with high respect, your obedient servant,

G. J. PENDERGRAST,
Commander U. S. Navy.

GENERAL A. HENDERSON,
Commandant U. S. Marine Corps, Washington, D. C.

U. S. STEAMER MICHIGAN,
Sault de St. Marie, August 18, 1852.

SIR: I have just received your letter (forwarded from Erie) of 24th ult., requesting me to "state in writing my views upon the subject of the increase of the rank and file of the marine corps, in order to enlarge the guards of sea-going vessels; and whether, in my opinion, an exigence has not arrived for such increase, since the abolition of flogging in the navy."

If I recollect aright, owing to difficulty which was experienced in furnishing guards for vessels ordered to sea, the subject of an increase of the rank and file of the corps was agitated for several years previous to the breaking out of the war with Mexico. The temporary increase during that war, I am satisfied from personal knowledge, was of decided advantage to the naval service, and led to the most favorable results. The introduction of steam for propelling vessels-of-war has decreased the proportion of seamen required for the service, and there is unquestionably at present more attention paid to drilling the crews to the use of small-arms than formerly. The presence of a well-drilled guard of marines on board, no doubt tends to excite emulation among the *small-arm men*, and, in case of landing, serves as a *point d'appui* for the crews. It not unfrequently happens that men who have served as marines are found serving in other capacities on board ships; often as firemen, coal-heavers, &c. On a recent occasion (the celebration of the funeral obsequies of Henry Clay) I landed a party of seamen and marines, to join in the procession. Four or five of the crew, who had formerly served in the corps, (or as soldiers,) dressed and paraded with the marines. I mention this to show that valuable men are often introduced into the service as marines, who would probably never have entered it in any other capacity.

With regard to an exigence having arisen for an increase of the rank and file of the corps, in consequence of the abolishment of flogging in the navy, I have had no experience which enables me to form an opinion, further than that the tendency must undoubtedly be to increase insubordination; and, as a prudential or precautionary measure, the means of *suppression* should be *proportionably* increased.

A well-drilled guard of marines adds greatly to the martial appearance of vessels-of-war; indeed, one can hardly be considered a complete "man-of-war" without a marine guard on board. My opinion is, that an increase of one-fourth to the present number allowed as the guard of sea-going vessels, would add greatly to their security and efficiency; and taking into consideration the numbers required to protect the public property at navy yards, and the necessity of having a sufficient number under drill at the different stations, to answer the calls for guards to sea-going vessels; an increase of at least fifty per cent., or five hundred to the rank and file of the corps, is highly desirable.

I am, very respectfully, your obedient servant,

A. BIGELOW, *Commander,*
Commanding U. S. Steamer Michigan.

Bvt. Brig. Gen. ARCHIBALD HENDERSON,
Commanding U. S. Marine Corps, Washington, D. C.

U. S. NAVY YARD, MEMPHIS,
August 7, 1852.

SIR: I have the honor to acknowledge the receipt of your letter dated July 24th, on the subject of an increase of the marine guards aboard of the vessels-of-war of the United States navy, and requesting my views on the same.

I have always considered an efficient marine guard a most potent auxiliary in enforcing discipline aboard ships-of-war; and, although I have not commanded afloat since the abolition of flogging, from my knowledge of seamen, I should judge that a strong and well-appointed guard was now imperatively demanded.

As it appears, from the statement contained in your letter, that the present number of marines is barely limited to the supply of guards to the vessels now in commission, there is much force in your argument, that the number should be so increased as to have in barracks, at all times, well-drilled and efficient soldiers in such numbers as the present wants of the service require, or any possible future contingency might demand.

I am, very respectfully, your obedient servant,

W. C. NICHOLSON, *Commander.*

Bvt. Brig. Gen. ARCHIBALD HENDERSON,
Commanding U. S. Marine Corps, Washington, D. C.

NORFOLK, July 28, 1852.

SIR: In reply to your letter of the 24th instant, it gives me pleasure to record my conviction of the necessity of a marine guard on board of the vessels of the navy for the establishment and preservation of discipline, and the security to life and property. It is essential that the guard should be trained to habits of subordination, and drilled to soldierly duties, before going on board of a ship, because their services are needed as soon as the crew is put on board; and from that moment begins, or should begin, the regular police and the discipline of the crew.

All can perceive the value of a well-drilled marine guard in covering the embarkation and disembarkation of sailors, or in aggressive operations on shore. But few, other than navy officers, can perceive and duly appreciate the value of their services on ship-board, particularly since the abolition of flogging, or, I may say, of punishment.

I am of the opinion that the corps is not large enough for the wants of the service, and I trust that your efforts to have it increased will be successful.

I am, very respectfully, your obedient servant,

JOHN L. SAUNDERS, *Commander.*

NORFOLK, VA., July 28, 1852.

SIR: In reply to your communication of the 24th instant, I take great pleasure in saying that I concur most fully with you in the opinions therein expressed in relation to the marine corps; and it would give me great pleasure to see your views carried out. As you very properly observe, there can be no doubt as to the necessity of an increased and an efficient marine guard on board our ships at this time, arising out of the abolition of flogging in the navy. Secondly, I fully concur in the opinion that the guard should be well drilled before sending them on board ships—first, as to their duties for the preservation of the discipline of the crew; and, secondly, for the important duty of landing to act against an enemy, when they become the *nucleus*; and, in fact, the chief reliance of the commanding officer for the formation of the landing forces, when an efficient guard, commanded by a *good drilled officer*, would prove a most substantial comfort to the commander-in-chief.

In conclusion, I will only remark that I think it greatly to be desired that a system such as you propose should be established, and that you have my best wishes for the realization of your hopes in having the corps increased in the rank and file, to that end.

I have the honor to be your obedient servant,

D. G. FARRAGUT,

Commander United States Navy.

General ARCHIBALD HENDERSON,

United States Marine Corps.

COMMANDER'S OFFICE, NAVY YARD, GOSPORT,

July 26, 1852.

SIR: Yours of the 24th instant has been received, and by return mail I will, with much pleasure, submit to you my views and opinions upon the very important subject embraced in your communication.

As soon as I had acquired a sufficient knowledge of my profession to authorize an opinion which could have for its basis sound, practical observation and experience, I came to the irresistible conclusion, (and which has been sustained and strengthened by every important development of good or bad discipline in the navy up to the present time,) that a guard of *efficient, well-trained* infantry was indispensable as a portion of the complement of a man-of-war.

The marine corps for many years past has been entirely too small for the wants of the service, as it not unfrequently happens that a ship is supplied with a guard composed entirely of recruits enlisted within the month previous to joining their ship. The necessary drill and other instruction that is required to make a soldier will employ at least one year under the most favorable circumstances, if the man has tact and a due regard to personal appearance; and if wanting in these requisites, it will require a longer time. I speak advisedly, for I have given much attention to this matter.

You may remember, that during my last sojourn in your city, and during our long and pleasant walks over the commons, the subject of the marine corps, its wants and defects, was frequently discussed. What my opinions were then, remain the same at this day. If Congress would authorize a guard for each ship on the register, it would about double your present rank and file, and you would then *always* have at your disposal a *guard of soldiers* ready for service when required. All the important depots would be supplied with a garrison of disciplined men, the navy in consequence be more efficient, and the country in all respects benefited. The commandant and his officers would be placed upon their *proper platform*, and I have no doubt would be fully prepared to look responsibility in the face, come from what quarter it may.

In the British service, it is not unusual to see one-half of a ship's company composed of marines; and I presume at this day there can be no intelligent officer found in our navy who will not unhesitatingly declare that marines are now more *needed* in our ships than they ever were before, since the revolutionary war. The first inquiry I should make in taking charge of a ship-of-war would be, has she a trusty *guard of marines*? for all my experience goes to prove, that when they are disciplined, they can be depended on in any emergency.

In conclusion, if you think my opinion is of the least importance, I beg you will quote it for the highest figure assumed for the enlargement of your valuable corps. I will guaranty to find useful employment for as many as may be sent on board any ship that I may hereafter command. And as to our dock yards, I am at a loss to answer why the government cannot see the necessity, as well as an individual, of having at least one hundred effective men always ready for any duty that may chance to turn up. The public property would be better protected than now; and a band of firemen and guards ready on the spot, *properly disciplined*, and of course prompt and obedient to the orders of their officers, and possibly might be the means of saving for the government, in one night, an amount of money that would support the entire corps for many years.

With great respect, I am your obedient servant,

R. B. CUNNINGHAM,
Commander United States Navy.

Bvt. Brig. Gen. ARCHIBALD HENDERSON,
Commandant Marine Corps, Washington.

P. S.—I have written you in a great hurry, and have retained no copy of this letter. Be pleased to reserve one for me. R. B. C.

PHILADELPHIA, July 26, 1852.

SIR: I have received your circular in relation to the propriety of increasing the rank and file of the marine corps, and it gives me pleasure strongly to recommend the adoption of that measure.

In my experience of thirty-eight years, I have always found the marine guards of our ships-of-war faithful, efficient, and, in fact, indispensable to the discipline of the ship. During the two years that I commanded the frigate *Columbia*, on the coast of Brazil, the marine guard rendered essential service, both as the police of the ship and in the performance of every other duty for which they were detailed. I consider them as the great safeguard for the maintenance of discipline on board the ship.

Since my return, I have been commander at the navy yard on this station, where a substitution of watchmen for marines, as sentries, had taken place. I am decidedly of opinion that this plan has not succeeded, and that the best security for discipline and safety of stores belonging to government is in the vigilance of a trained military man.

There can be no doubt of the fact that the abolition of flogging in the navy—the practical operation of which has been to place the disorderly portion of our ships' companies above the control of the officers—has rendered the necessity that existed before for an increase of the rank and file of this corps more apparent.

Respectfully, your obedient servant,

ROBERT RICHIE,

Commander U. S. Navy.

Brevet Brig. Gen. HENDERSON,

Commandant U. S. Marine Corps, Washington City.

NAVY YARD, NEW YORK,

August 3, 1852.

GENERAL: Your communication of the 24th ultimo reached me ten days ago. It has not met with earlier attention, because my official duties here have been so pressing, that I have not been able to devote to it the time which the important subject of your letter demands.

I have always been of the opinion that the efficiency of our navy depended very much upon a well-drilled, efficient corps of marines; indeed, I am well convinced that no man-of-war can be kept in that high state of discipline so necessary to make the maritime arm of our national defence what is expected of it by our country, without her guard of marines.

Among officers of experience in our navy, I would suppose there can be but one opinion in regard to the small number comprising the rank and file of the marine corps, as at present fixed by law. It is entirely inadequate to meet the demands of the service as it is, and, of course, there never can be a reserve, as there ought to be, for the department, in case of emergency, to draw upon.

The proportion of marines on board our ships-of-war, in my judgment, falls short of what it ought to be; and I believe the efficiency of our national vessels would be improved by increasing the guard of ma-

rines, even if this was done in lessening; in the same ratio, the number of landsmen. Marines perform all the duties of landsmen quite as well as landsmen themselves, with the exception of the duties of the latter required afloat. On board an English "first-rate," the "Queen" for instance, her guard of marines number more than two hundred. When I served as a lieutenant on board the line-of-battle ship "Ohio," she had only fifty. The duties of the after-guard on board of British men-of-war are performed almost entirely by the marines. Our marines can perform the same services on board our ships-of-war.

No doubt the soldier should be well drilled on shore before he is transferred for duty on board ship, for the reason that as soon as he places his foot on the deck of a man-of-war, he is at once called upon, and is expected to be fully prepared, to perform all the important duties required of a soldier. To prepare a sufficient number of marines to perform duty on board our vessels-of-war, it is indispensably necessary that there should be, *at all times*, under drill at headquarters and at the several naval stations, at least as many recruits as will equal the number of marines employed afloat, in order that they may be in readiness to take their stations on board ship, and perform their duties with efficiency. While under drill and preparation for sea-service, they might be advantageously employed as sentinels, in affording protection to the public property at our navy yards.

In conclusion, I have no hesitation in saying that the wants of the service demand a very large increase of the marine corps, beyond the number now allowed by law, and have no doubt such an increase will lead to a corresponding improvement in the efficiency and discipline of our ships-of-war.

I am, very respectfully, your obedient servant,
 SAML. MERCER,
Commander U. S. Navy.

Brevet Brig. Gen. ARCH. HENDERSON,
Commandant Marine Corps, Washington City.

NAVY YARD, WASHINGTON,
August 3, 1852.

STR: I am in receipt of your favor of the 24th July, requesting my opinion as to the policy of increasing the numerical force of the marines.

I do not hesitate to say that such an addition to the corps as you seem to contemplate, would be of the greatest value to the naval service in every point of view.

I do not think that the substitution of marines for the landsmen and boys of the navy, as was once proposed, would be judicious; for these last may be considered the nursery from which we draw our supplies, in part, of seamen, which it would not be well to diminish or cut off; but a proper increase to the body of marines, which should furnish a full guard to every ship ordered into service, leaving a reserve of at least a company for each one of our dock yards, I esteem to be imperative for the interests of the country.

That the numerical force of the marine corps is at this moment short of these requirements, there is no room to doubt. What should be the increase is another question, which I shall not undertake to solve; but wishing you every success in your efforts to enlarge your very useful corps, I am, sir, your most obedient servant,

L. M. POWELL, *Commander.*

Gen. ARCH. HENDERSON, *&c., &c.,*
Washington.

I concur heartily with the above.

H. E. BAILLARD, *Commandant.*

NAVY YARD, PORTSMOUTH, N. H.,
July 31, 1852.

SIR: In answer to your request that I would "give my opinion in writing upon the subject of an increase of the rank and file of the marine corps, in order to enlarge the guards of sea-going vessels; or whether, in my opinion, an exigency has not arisen for such an increase since the abolition of flogging in the navy," I would respectfully state that I have no doubt but an increase of the *rank* and *file* of the marine corps, for the purpose of having at all times a well disciplined relief for those at sea, would be an advantage to the service; but I am not prepared to say that an exigency has arisen, in consequence of the abolition of flogging in the navy, for increasing the guards of our sea-going vessels. If, after the experiment is fairly tried, it should become necessary, I have no doubt but the honorable the Secretary of the Navy will recommend to Congress such an increase as the circumstances may require.

I am, very respectfully, your obedient servant,

T. J. VAN BRUNT,
Commander U. S. Navy.

General A. HENDERSON,
Washington, D. C.

WASHINGTON CITY, *August 10, 1852.*

SIR: Absence from the city has prevented my answering your letter of the 24th ultimo as promptly as I wished.

As respects the services and use of marine guards on board our vessels-of-war, of every class, there can be but one opinion. The marines constitute the great (I had almost said the only) difference between a man-of-war and a privateer. Without them, proper discipline cannot be preserved. Of this I am well satisfied. And I would, as far as my experience goes, venture the assertion, that where the marine guard is not under strict and proper discipline, you will never find the ships or men-of-war. There cannot be a doubt that it is of the greatest importance that so essential a part of every ship's company as the marines (often one-sixth) should be trained, and in the best possible discipline and drill, before they join the vessels for sea service, in order to have

this desirable (and it appears to me absolutely necessary) corps effective; and it is highly important to the navy that the corps should consist of as large a number as will enable it to be kept under constant drill, and at all times ready to supply the demands of the service, avoiding the sending of recruits to sea. To do this with the present force is out of the question; and a considerable enlargement of the corps becomes necessary, enabling them to be retained a sufficient length of time at the stations, until they have acquired the skill, habits, and duties of soldiers, under the eye and care of skilful and experienced officers. What increase should take place, to meet the wants of the service, you are the best judge; but I would say we want more rank and file than may appear actually necessary, on a strict calculation of numbers, to the force afloat. Every one knows that proper drill and discipline is better learned by numbers; and I would exceed the largest number you would assign as a limit.

Since the abolition of flogging in the navy, the officers must be thrown more than ever upon the orderly and good conduct of the marines; and I do trust that Congress will have wisdom enough (since they have had the folly to abolish punishment) to provide the means of preventing mutiny, in a well-organized and disciplined marine guard on board our ships-of-war.

With great respect, I am your obedient servant,
 CLARLES WILKES,
Commander United States Navy.

Brig. Gen. ARCH'D HENDERSON,
Commanding Marine Corps.

WASHINGTON, D. C., July 27, 1852.

SIR: Your letter of the 24th instant, asking my opinion in respect to the necessity of an increase of the marine corps, has been received; and I cheerfully give you my humble views on the important subject.

In the first place, after a good share of experience at sea, I beg leave to express my decided conviction of the necessity of a full guard of marines for every ship-of-war. I consider them eminently proper; and ships without them are defective in their appointments and martial appearance.

In cases of mutiny, or with serious disasters, history proves that the marines have invariably been true to their duty. From causes not necessary for me to refer to, the discipline of our navy is at present very relaxed. If, under the best system of laws, marines are essential to the safety and efficiency of our ships-of-war, how much more important must they appear under the existing state of things! I therefore consider them indispensable; and there should be a full and well-drilled corps at headquarters, from which our ships destined to sea could be supplied, and which would also provide for the necessary shore duties and any emergencies suddenly arising.

From the present organization of the corps, I am surprised you have been able to detail the marines, even in a reduced ratio, for the ships preparing for sea. I may add that, from my own experience, I

have frequently witnessed the difficulty with which you have, from this cause, answered the requisitions on the corps. The Japan expedition, so important in its duties, and which cannot be effectively prepared in this essential branch of equipment without an increase, may be cited as an instance of your embarrassment.

There can then be no doubt of the absolute and urgent necessity to increase the rank and file of the marine corps. The duties of our navy are every day increasing in importance, and emergencies will arise which will render it proper to equip and despatch cruisers at the shortest notice; and every branch should be prepared promptly to answer requisitions upon it.

Marines, like seamen, cannot be made without exercise in all their duties; and I have no hesitation in expressing the opinion that the marine corps should be increased, and enabled to comply with the demands upon it, and sustain the high character which has ever signalized it since its first organization. Apart from my duty as an officer attached to the navy, in all its bearings, I feel a deep interest in the corps. It may be entirely unnecessary, but I cannot forbear to express my admiration for the efficient and soldierlike state and appearance of the marines of our navy, whenever they have come under my observation, and that in many important particulars they contribute largely to the power and effectiveness of our ships.

I sincerely hope Congress may act promptly, and place the corps on a footing, at least, commensurate with its duties and the demands upon it.

I am, most respectfully, your obedient servant,
 CADWALADER RINGGOLD,
Commander United States Navy.

Brigadier General A. HENDERSON,
Marine Corps, Headquarters, Washington.

PHILADELPHIA, July 30, 1852.

SIR: I have been prevented by indisposition from paying that prompt attention to your letter which the importance of its subject demands.

With many of my brother officers, I have been long opposed to corporal punishment in the navy, and wished to see measures adopted for its gradual abolition. To effect that object, I considered three preliminary measures indispensable: 1st. A return to the system of apprenticeship, which has been discontinued in consequence of a single disaster, the result of an ill-judged experiment. 2d. Increase of wages to our crews, and strictly enforced prohibitions against the enlistment of foreigners. 3d. A large increase of the marine guard.

This was my opinion prior to the passage of the act for the abolition of corporal punishment, which, for its precipitancy, may be construed an act to screen foreigners at the expense of our native seamen; for it is notorious, that nine-tenths of the punishments on board our ships-of-war are inflicted on, or caused by, foreigners, who compose from two-fifths to three-fourths of our crews. I need scarcely add, that I con-

sider a greater need now exists for the adoption of the measures I have named.

Apart from their services in the enforcement of discipline, marines are very useful on board of our ships-of-war. Although they do not go aloft, they keep regular watch at night; and from their prompt obedience, the result of the discipline to which they had been previously subjected on shore, I have ever found them most to be relied on to man the ropes in sudden squalls—the first thing to be done in such emergencies—as to reduce the surface of the sails, or to lessen or increase their angle of resistance to the wind, as it may be necessary to clue up or luff, or bear away, is more important than reefing or furling them aloft.

I would gladly see the rank and file of the marine corps increased fifty per cent.; an increase, I believe, absolutely called for by the present condition of the navy. Heretofore, I have considered that the marine guard contributed essentially to the preservation of discipline on board of our national vessels; I now *feel* that they are indispensable for the prevention of mutiny and inconceivable disorder.

You have my best wishes for a very large increase of the excellent corps with which you have been so long and so honorably identified.

Very respectfully, your obedient servant,

W. F. LYNCH,
Commander U. S. Navy.

Gen. ARCH. HENDERSON.

U. S. NAVAL RENDEZVOUS,
New York, August 5, 1852.

GENERAL: I have the honor to acknowledge the receipt of your letter of the date of the 24th ultimo, upon the subject of the "increase of the guards of marines detailed for duty on board the vessels of war," &c.

I was absent from this city on a week's leave when your letter arrived, which will account for the delay in answering it.

I have always been of the opinion that the guards of marines on board our ships-of-war were of the most essential importance, not only for the maintenance of good order and discipline in the crews, but as an indispensable body of soldiers in the event of the landing of the crews to perform shore service, in order to form a *nucleus*, by which seamen can be formed into companies or detachments, and to inspire them with that confidence so necessary to the success of any expedition, and which a body of well-drilled troops is so certain to create, whether among sailors or raw levies. I have, in the course of my service in the navy, had frequent opportunities of observing the happy results which have almost invariably attended expeditions from the ships on foreign stations when thus accompanied by the marine guard, whether sent to protect the persons and property of our merchants and fellow-citizens abroad, when endangered in times of sudden revolutions which so frequently occur, especially in the South American republics, or when sent in the pursuit of pirates among the West India islands, or in the Greek Archipelago.

If these expeditions are to be absent from the ships over twenty-four hours, (and they are frequently so for several days,) the marines are then indispensably necessary in order to be posted as sentries, and to keep the sailors from straying from the main body. In times of attack, or acting as a covering body, in the event of a retreat being necessary, their services I believe to be absolutely indispensable to prevent entire discomfiture to an expedition.

I should think that a large proportion of the landsmen now enlisted for the navy might be dispensed with, and their places supplied on board ship by an additional number of marines to the very great benefit of the service, and at a comparatively small additional cost to the government. The law, as it now stands, authorizes only the employment of one thousand privates, which is a number barely sufficient for wants of the ships afloat, according to the present complement of marines allowed to each vessel. Should this complement be increased a large number of privates must be added to the marine corps, in which case they could be well drilled and instructed at the different shore stations before being sent on board ship, and be of great service, whilst there, in affording protection to the public property stored at the navy yards, as well as being in readiness to act as a support to the civil police, in the event of any sudden riot occurring in the places in the vicinity of their quarters.

An additional reason, of great force with me, for the strengthening of our marine guards, is, that the law abolishing flogging in the navy has greatly weakened the power and authority of the officers over the crews of the ships. It would be impossible, in my opinion, to suppress a mutiny without their assistance. I should like to see the rank and file of the marine corps doubled.

I am, very respectfully, your obedient servant,

H. W. MORRIS,

Commander U. S. Navy.

Bvt. Brig. Gen. A. HENDERSON,
Commandant Marine Corps.

NAVY YARD, WASHINGTON,

August 1, 1852.

SIR: I have the honor to acknowledge the receipt of your letter of the 24th ult.

If it be admitted that the mere putting on a soldier's coat does not make a man a soldier, no argument is requisite to prove the necessity for an increase of the marine corps, to the full extent indicated in your communication.

In view of the recent abolition of corporal punishment, it is my opinion that upon this increase of the marine corps mainly depend the good order, efficiency, and safety of our navy.

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

E. G. TILTON,

Lieutenant United States Navy.

Gen. A. HENDERSON,
Commanding U. S. Marine Corps, Washington.

CAMBRIDGE, August 4, 1852.

SIR: I had the honor yesterday to receive your communication of the 24th of July, in which you ask me to state, in writing, my views upon the subject of enlarging the marine guards on board of sea-going vessels of war, and my opinion as to the necessity of such an enlargement, arising from the abolition of flogging in the navy.

I entirely concur in the opinions expressed by yourself in that communication.

An increase of the rank and file of the marine corps—not only for the purpose of strengthening the guards in ships-of-war, but for the effectual protection of the public property at our naval stations—has always appeared to me to be one of the various reforms needed to extend the sphere of usefulness, and to promote, essentially, the efficiency of the naval service.

Ships-of-war, independently of their actively belligerent character, are to be regarded as fortified places, such as are properly garrisoned by a guard of soldiers. This is the special condition of a ship-of-war while lying at anchor; and it is more or less her condition at all times, when not actually engaged in battle.

This consideration has led to the employment in the military marine of soldiers thoroughly drilled and trained in the exercise, and more particularly in the *habits* of the profession.

No different class of men can be safely substituted for them in this, more than in any other situation, where their peculiar professional duties are to be performed. In the case of the marines of the United States, no one can become acquainted with their character, either historically or through personal observation and experience, without placing the highest estimate upon their merits and services.

The increase of the marine guards on board ships-of-war will essentially promote their efficiency and security; and the necessity for such an increase has become greater, since the abolition of corporal punishment has exposed our men-of-war to formidable domestic troubles.

Again: our naval stations are military posts, as well as depôts for the construction, repairs, and outfit of vessels. They, therefore, should also be sufficiently garrisoned by well-taught and well-trained soldiers, like the marines of the United States navy; and here, too, it is equally a misapprehension to suppose that the duties of soldiers can be, without danger, intrusted to any persons but soldiers.

The employment of watchmen instead of marines at our navy yards is not only much more expensive, but is generally injurious, because it excludes the marine corps from its proper occupations, and thus lessens its numbers and importance, and because the watchmen can never enter into the military organization of the service, can never share its professional duties, or improve, in any manner, its efficiency; while, on the other hand, the marines constitute a part of the integral navy, and every addition to their number is a substantial accession to the navy's effective force, available in all emergencies.

The more perfect safety of the public property at a military post, under the care of military sentinels, than under that of untrained, unorganized, and temporary watchmen, deserves the most serious consideration.

To maintain that equal security may be derived from both systems, is equivalent to saying that there is nothing in the special discipline which creates the character and habits of the soldier; nothing in that rigid and exactly defined sentiment of duty, that precise and uniform plan of supervision and accountability, belonging to soldierly instruction and training:

It seems to me impossible that any person of reflection should seriously endeavor to defend such a self-contradictory proposition. It seems superfluous to expand this view by enlarging upon the influence of military education, and comparing its results with the loose and vague notions of responsibility entertained by uneducated people under similar circumstances.

The navy proper embraces the marine corps as a constituent part of its body; and the scheme of naval government distinctly avows that there are certain offices which can be fitly and satisfactorily executed only by trained soldiers, acting under strict military rule.

And since the marine corps has its own distinct field of duty, and that a very important one, its increase in numbers, and consequently in usefulness, will be eminently advantageous to the navy.

But during the twenty-nine years I have been in the profession, I have never known a time when that increase was more expedient; when the controlling effect of the presence of a strong marine guard on board ship, and at our naval stations, was more desirable; when the steadiness, dignity, and firmness which this guard gives to naval discipline, were more needed than now, while we are losing many of our oldest, most tried, and faithful seamen, and taking in their place a class of persons wholly inferior in conduct and capacity.

Very respectfully, your obedient servant,

CHARLES H. DAVIS, *Lieutenant.*

Brig. Gen. ARCH'D HENDERSON,

Comd't U. S. Marine Corps, Headquarters, Washington.

No. 5:

Copy of a letter from Commodore William Brandford Shubrick, commanding West India squadron, to Hon. J. K. Paulding, Secretary of the Navy, dated 29th August, 1839, with a copy of an enclosure from the commanders of the vessels-of-war composing his squadron.

UNITED STATES FRIGATE MACEDONIAN,

Pensacola Bay, August 29, 1839.

SIR: I forward herewith a copy of a communication addressed to me by all the commanders in the squadron.

I had the honor, in forwarding from Norfolk a communication from Lieutenant Tyler, in forwarding from Norfolk a communication from Lieutenant Tyler, commanding the marine guard of the Macedonian, to submit to the department my views on this subject. But I will avail myself of this occasion to express more fully my opinion of the inadequacy of the guards of the ships composing the squadron under my command, to perform properly the military duties required of them.

That there are military duties to be performed on board a vessel-of-war which cannot be as well performed by any one as by a regularly disciplined soldier, I presume none will deny; and it is to me equally clear that, with the guards allowed at present to the ships, some of those duties must be neglected or inadequately discharged.

Without venturing, therefore, to give any opinion as to what the number of the guards for the respective ships should be, I fully concur in opinion with the signers of the communication, that the guards at present allowed, even if they were at all times kept full, which can scarcely be expected, are insufficient.

I have the honor to be, very respectfully, &c.,

WM. BRANDFORD SHUBRICK.

Hon. J. K. PAULDING,

Secretary of the Navy, Washington.

PENSACOLA, August 26, 1839.

SIR: The undersigned, commanding officers of the several ships composing this squadron, beg leave to call your attention to the marine guards belonging to the same, and to suggest the advantage that would result from an increased number of marines on board each ship.

The different detachments are not sufficiently numerous to furnish a relief, according to military usage, for the number of sentinels posted.

The Macedonian requires eight sentinels daily, viz: one at each cabin door, one in each gangway, one on the forecastle, one in the fore or top, one at the cockpit, one at the galley, and one at the scuttle-butt; to furnish which requires a daily guard of twenty-four privates, with a corresponding number as a relief guard, making, without allowing for sickness and other casualties, forty-eight privates; whereas the Macedonian's guard amounts to no more than twenty-one privates.

A sloop-of-war requires six sentinels, viz: one at the cabin door, one on the forecastle, one in each gangway, one at the scuttle-butt, and one at the galley; which requires a daily guard of eighteen privates, with a corresponding number as a relief guard, making thirty-six privates; whereas a sloop-of-war of the first class is only allowed, at present, ten privates. It is, then, obvious that the marine guards of the squadron are insufficient to furnish the requisite number of sentinels. We therefore beg leave to suggest they may be increased, and to give it as our opinion that it would be an advantage to the service. It is not our purpose to discuss the utility of a marine guard as a part of the crew of a ship-of-war, though we are decided advocates for it, even beyond former usages; we mean as to numbers. Our whole purpose is to bring under your consideration the subject as it now exists. If marines are necessary, our ships have too few to perform the duties required of them by law, or the regulations of the navy.

If we could be permitted to express our opinion, it would be, to recommend the substitution of marines in place of all other landsmen now in service. It is evident that one landsman is as competent to do the pulling and hauling duty of a ship as another, and that a body of well disciplined marines would be in every other situation preferable to the common landsmen, especially when engaged in any service

on shore, which, in all naval operations, should be provided for. As this is a mere passing suggestion of ours, we will add, if the duty now performed by the after-guard, waisters, &c., of ships, should be performed by the marines, it would only be necessary to detail a guard daily for military duty, and employ the rest of the marines in the other duties generally of the ship: as many seamen would be thus created as at present, there being no reason why a marine cannot be taught seamanship as well as any other landsman. We should then blend ours and the French system, and, in our judgment, materially improve both, more especially if the marine corps should in future be composed wholly of young Americans, and all appointments into the corps be taken from the graduates of the Military Academy at West Point.

In conclusion, we beg leave to remain, very respectfully,
 BEVERLY KENNON, *Captain.*
 WM. A. SPENCER, "
 WM. V. TAYLOR, "
 JOHN SMOOT, "
 J. D. WILLIAMSON, "

I concur in the above suggestions for increasing the guards of the different ships of this squadron, but am decidedly opposed to the idea of making sailors out of soldiers. I think the two services should be kept separate and distinct.

I. P. LEVY, *Commander.*

COM. WM. BRANDFORD SHUBRICK,
Commander-in-chief of the West India squadron.

No. 7.

HEADQUARTERS OF THE MARINE CORPS,
Washington, September 27, 1852.

SIR: Triplicate estimates for the marine corps are now transmitted to the department for the year ending 30th June, 1854.

I remain, most respectfully, yours,
 ARCH. HENDERSON,
Brevet Brigadier General Commandant.

HON. JOHN P. KENNEDY,
Secretary of the Navy.

HEADQUARTERS MARINE CORPS,
Paymaster's Office, September 24, 1852.

SIR: Herewith you will receive estimates in triplicate for pay, &c., of the United States marine corps, for the year ending June 30, 1854.

The amount for undrawn clothing and rations exceeds that estimated for the present fiscal year by three thousand dollars, as, from a careful examination of the returns from the quartermaster's office for the last seven years, the present amount has been found to be the average.

I am, sir, very respectfully, your obedient servant,
 WM. W. RUSSELL,
Paymaster U. S. Marine Corps.

Gen. A. HENDERSON,
Commandant Marine Corps, Headquarters.

Detail estimate of pay and subsistence of officers, pay of non-commissioned officers, musicians, and privates, of the United States Marine Corps, and pay for undrawn clothing and rations, from July 1, 1853, to June 30, 1854, inclusive.

Part II—39

Rank and grade.	Number.	PAY.				SUBSISTENCE.			Aggregate.
		Pay per month.	Number of servants at seven dollars per month.	Number of servants at eight dollars per month.	Total.	Number of rations per day, at twenty cents per ration.	Number of extra or double rations per day, at twenty cents per ration.	Total.	
Brevet brigadier general, commandant.....	1	\$75 00	2	.....	\$1,068 00	6	6	\$876 00	\$1,944 00
Lieutenant colonel.....	1	60 00	2	.....	888 00	5	5	730 00	1,618 00
Majors.....	4	50 00	2	.....	3,072 00	4	4	2,336 00	5,408 00
Adjutant and inspector, paymaster, and quartermaster.....	3	60 00	.....	2	2,736 00	4	.....	876 00	3,612 00
Assistant quartermaster.....	1	50 00	.....	1	696 00	4	.....	292 00	988 00
Captains commanding posts and at sea.....	8	50 00	1	.....	5,472 00	4	4	4,672 00	10,144 00
Captains.....	7	40 00	1	.....	3,948 00	4	.....	2,044 00	5,992 00
First lieutenants commanding guards at sea.....	8	40 00	1	.....	4,512 00	4	4	4,672 00	9,184 00
First lieutenants.....	13	30 00	1	.....	5,772 00	4	.....	3,796 00	9,568 00
Second lieutenants.....	21	25 00	1	.....	8,064 00	4	.....	6,132 00	14,196 00
Sergeant-major and quartermaster sergeant.....	2	17 00	.....	.....	408 00	.....	.....	.....	408 00
Drum and fife majors.....	2	16 00	.....	.....	384 00	.....	.....	.....	384 00
Orderly sergeants and sergeants of guards at sea.....	34	16 00	.....	.....	6,528 00	.....	.....	.....	6,528 00
Sergeants.....	46	13 00	.....	.....	7,176 00	.....	.....	.....	7,176 00
Corporals.....	80	9 00	.....	.....	8,640 00	.....	.....	.....	8,640 00
Drummers and fifers.....	60	8 00	.....	.....	5,760 00	.....	.....	.....	5,760 00
Privates.....	1,000	7 00	.....	.....	84,000 00	.....	.....	.....	84,000 00
Clerks to brigadier general, adjutant and inspector, paymaster, quartermaster, and assistant quartermaster.....	9	5,737 88	5,737 88
Hospital steward.....	1	30 00	360 00	1	73 00	433 00

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ESTIMATE—Continued.

Rank and grade.	Number.	PAY.				SUBSISTENCE.			Aggregate.
		Pay per month.	Number of servants at seven dollars per month.	Number of servants at eight dollars per month.	Total.	Number of rations per day, at twenty cents per ration.	Number of extra or double rations per day, at twenty cents per ration.	Total.	
Additional rations to officers for five years' service						221		\$16,133 00	\$16,133 00
Bounty for re-enlistment, (non-commissioned officers)	25				\$819 00				819 00
Bounty for re-enlistment, (musicians and privates)	125				1,750 00				1,750 00
Two months' pay for unexpired time of former enlistment	125				1,750 00				1,750 00
Two months' rations for unexpired time of former enlistment	125					1 at 19 cents..	1,425 00		1,425 00
Two months' clothing for unexpired time of former enlistment	125						625 00		625 00
Officers' servants, at \$8 50 per month for rations and clothing	76						7,752 00		7,752 00
Undrawn clothing and rations							9,000 00		9,000 00
Clerk in clothing store at Norfolk	1	\$23 44			281 28				281 28
Messenger at headquarters	1	per	1 50		547 50				547 50
Messenger to assistant quartermaster	1	day	1 00		365 00				365 00
Nurse at hospital, headquarters	1		26 75		321 00				321 00
Twenty per cent. on pay of clerks to brigadier general and staff at headquarters					1,040 78				1,040 78
Total					162,096 44		61,434 00		223,530 44

HEADQUARTERS MARINE CORPS, Paymaster's Office, September 24, 1852.

Respectfully submitted:

WM. W. RUSSELL, Paymaster U. S. Marine Corps.

HEADQUARTERS MARINE CORPS,
Quartermaster's Office, Washington, September 24, 1852.

SIR: I have the honor to transmit herewith triplicate estimates of the expenses of the Quartermaster's department, marine corps, for the fiscal year commencing July 1, 1853, and ending June 30, 1854.

"Clothing" is increased \$2,648, caused by estimating for the full number of enlisted men allowed by law, viz: 1,224.

Transportation is increased \$3,000, to meet the unavoidable expense incident to the frequent removal of troops from one post to another, to bring together a sufficient number of men to supply ships-of-war with guards, under the orders of the department.

I am, sir, very respectfully, your obedient servant,
 AUG. A. NICHOLSON, *Q. M. M. C.*

General A. HENDERSON,
Commandant Marine Corps, Headquarters.

*Estimate of the expenses of the Quartermaster's department of the United States
 Marine Corps for one year—from July 1, 1853, to June 30, 1854.*

There will be required for the quartermaster's department of the marine corps, for one year, commencing on the 1st July, 1853, in addition to the balances then remaining on hand, the sum of one hundred and forty-seven thousand two hundred and forty-three dollars and twenty-five cents	\$147,243 25
1. For provisions	29,984 75
2. For clothing	52,064 00
3. For fuel	14,194 50
4. For military stores, viz: pay of armorers, repair of arms, purchase of accoutrements, ordnance stores, flags, drums, fifes, and other instruments...	8,000 00
5. For transportation of officers and troops, and for expenses of recruiting....	12,000 00
6. For repair of barracks, and rent of temporary barracks and offices where there are no public buildings for that purpose	6,000 00
7. For contingencies, viz: freight, ferriage, toll, cartage, wharfage, compensation to judges advocate, per diem for attending courts-martial, courts of inquiry, and for constant labor, house-rent in lieu of quarters, burial of deceased marines, printing, stationery, postage, apprehension of deserters, oil, candles, forage, straw, furniture, bed sacks, spades, shovels, axes, picks, carpenters' tools, keep of a horse for the messenger, pay of matron, washerwoman, and porter at hospital, headquarters.....	25,000 00
Amount required.....	147,243 25

Respectfully submitted:

AUG. A. NICHOLSON, *Quartermaster Marine Corps.*

H. Doc. 1.

PROVISIONS.

For whom required.	Enlisted men.	Washerwomen.	Matron.	Total.	Rations at fifteen cents per day.	Rations at twenty cents per day.	Amount.
Non-commissioned officers, musicians, privates, and washerwomen	512	33	.....	545	1	.....	\$29,838 75
Matron and washerwoman.....	.....	1	1	2	.....	1	146 00
Amount required.....	.....	.....	.....	.....	.....	.....	29,984 75

CLOTHING.

For whom required.	Enlisted men.	Amount.
Non-commissioned officers, musicians, and privates, at \$36 per annum	1,224	\$44,064 00
1,000 watch-coats, at \$8 each		8,000 00
Amount required .....	.....	52,064 00

FUEL.

For whom required.	Number.	Cords.	Feet.	Cords.	Feet.
Commandant	1	36	4	36	4
Lieutenant-colonel	1	26	.....	26	.....
Majors	4	26	.....	104	.....
Staff majors	3	26	.....	78	.....
Staff captain	1	21	2	21	2
Aid-de-camp	1	16	4	16	4
Captains	12	21	2	255	.....
Lieutenants, (first and second)	23	16	4	379	4
Non-commissioned officers, musicians, privates, washerwomen, and servants	546	1	4	819	.....
Matron to hospital, headquarters	1	1	4	1	4
Hospital, headquarters	1	33	.....	33	.....
Hospitals	5	16	4	82	4
Armory at headquarters	1	30	.....	30	.....
Mess-rooms of officers	7	3	4	24	4
Offices of commandant and staff and commanding officers of posts	15	7	.....	105	.....
Officers of the days' rooms	7	3	4	24	4
Guard rooms at barracks and navy yards	9	21	.....	189	.....
Stores for clothing and other supplies	3	5	.....	15	.....
One-fourth additional on 500 cords, the quantity supposed to be required for stations north of latitude 39 degrees .....	.....	.....	.....	125	.....
Total required .....	.....	.....	.....	2,365	6
Which, at \$6 per cord, is.....	.....	.....	.....	.....	\$14,194 50

RECAPITULATION—MARINE CORPS.

For pay	\$223,530 44
For provisions	29,984 75
For clothing	52,064 00
For fuel	14,194 50
For military stores	8,000 00
For transportation	12,000 00
For repairs of barracks	6,000 00
For contingent	25,000 00
Total	370,773 69

Aggregates of navy estimates for the fiscal year 1853-'54.

HEADS.	Office of the Secretary of the Navy.	Southwest Executive building.	Bureau of Construction, Equipment, and Repairs.	Bureau of Ordnance and Hydrography.	Bureau of Navy Yards and Docks.	Bureau of Provisions and Clothing.	Bureau of Medicine and Surgery.	Aggregates.
CIVIL.								
Salaries	\$22,000 00	\$2,250 00	\$19,600 00	\$9,400 00	\$12,600 00	\$7,300 00	\$7,700 00	\$80,850 00
Contingent	2,840 00	3,025 00	1,000 00	750 00	1,160 00	770 00	570 00	10,115 00
	24,840 00	5,275 00	20,600 00	10,150 00	13,760 00	8,070 00	8,270 00	90,965 00
NAVY PROPER.								
For pay of the navy	266,196 00	.....	2,102,610 00	134,110 00	268,532 00	.....	.....	2,771,448 00
For provisions .....	.....	.....	.....	.....	.....	686,200 00	.....	686,200 00
For surgeons' necessaries, &c. ....	.....	.....	.....	.....	.....	.....	37,300 00	37,300 00
For increase, repairs, &c. ....	.....	.....	2,768,450 00	.....	.....	.....	.....	2,768,450 00
For ordnance and ordnance stores ..	.....	.....	.....	230,000 00	.....	.....	.....	230,000 00
For contingent enumerated .....	.....	.....	225,000	.....	335,500 00	40,000 00	.....	600,500 00
For contingent not enumerated	5,000 00	.....	.....	.....	.....	.....	.....	5,000 00
	271,196 00	.....	5,096,060 00	364,110 00	604,032 00	726,200 00	37,300 00	7,098,898 00
MARINE CORPS.								
For pay .....	.....	.....	.....	.....	.....	.....	.....	223,530 44
For provisions .....	.....	.....	.....	.....	.....	.....	.....	29,984 75
For clothing .....	.....	.....	.....	.....	.....	.....	.....	52,064 00
For fuel .....	.....	.....	.....	.....	.....	.....	.....	14,194 50
For military stores .....	.....	.....	.....	.....	.....	.....	.....	8,000 00
For transportation .....	.....	.....	.....	.....	.....	.....	.....	12,000 00

For repairs of barracks							6,000 00
For contingent							25,000 00
							370,773 69
NAVY—SPECIAL OBJECTS.							
Pay of superintendents, &c.....					108,650 00		108,650 00
Nautical books, hydrographical office, &c.				51,900 00			51,900 00
<i>Improvement and repairs of navy yards, &c.</i>							
At Portsmouth, N. H.....					80,893 00		
At Boston					119,860 00		
At New York					249,320 00		
At Philadelphia					23,925 00		
At Washington					200,512 00		
At Norfolk					160,600 00		
At Pensacola					261,505 00		
At Memphis.....					126,468 05		
At San Francisco, Cal.....					974,851 00		
							2,197,934 05
<i>Hospitals.</i>							
At Boston					600 00		
At New York.....					300 00		
At Philadelphia.....					10,600 00		
At Norfolk.....					8,668 93		
At Pensacola.....					36,325 00		
							56,493 93
<i>Magazines.</i>							
At Boston					2,800 00		
At New York.....					4,235 00		
At Washington					4,700 00		
At Norfolk					4,500 00		
At Pensacola.....					950 00		
							17,235 00
Naval Academy.....				84,059 00			84,059 00

STATEMENT—Continued.

HEADS.	Office of the Secretary of the Navy.	Southwest Executive building.	Bureau of Construction, Equipment, and Repairs.	Bureau of Ordnance and Hydrography.	Bureau of Navy Yards and Docks.	Bureau of Provisions and Clothing.	Bureau of Medicine and Surgery.	Aggregates.
Transportation of the mail.....	\$1,496,250 00	.....	.....	.....	.....	.....	.....	\$1,496,250 00
Nautical Almanac.....	19,400 00	.....	.....	.....	.....	.....	.....	19,400 00
	1,515,650 00	.....	.....	\$135,959 00	\$2,380,312 98	.....	.....	4,031,921 98

AGGREGATES—NAVY,

Navy proper.....	\$7,098,898 00
Marine corps.....	370,773 69
Navy—special objects.....	4,031,921 98
	<u>11,501,593 67</u>

No. 9.

General estimate of the sums required for the support of the office of the Secretary of the Navy and the several bureaus of the Navy Department for the fiscal year commencing on the first day of July, 1853, and ending on the thirtieth day of June, 1854.

Office and bureaus.	Salaries.	Contingent.
Office of the Secretary of the Navy.....	\$22,000 00	\$2,840 00
Bureau of Construction, &c.....	19,600 00	1,000 00
Bureau of Ordnance, &c.....	9,400 00	750 00
Bureau of Navy Yards, &c.....	12,600 00	1,160 00
Bureau of Provisions, &c.....	7,300 00	770 00
Bureau of Medicine, &c.....	7,700 00	570 00
	78,600 00	7,090 00

RECAPITULATION.

CIVIL.

Salaries.....	\$78,600
Contingent.....	7,090
Amount appropriated for 1852-'53—	
Salaries.....	78,600
Contingent.....	6,930

No. 10.

General estimate of the sums required for the expenses of the southwest Executive building for the fiscal year commencing on the first day of July, 1853, and ending on the thirtieth day of June, 1854.

CIVIL.

Salaries.....	\$2,250
Contingent.....	3,025
Appropriated for 1852-'53—	
Salaries.....	2,250
Contingent.....	2,825

No. 11.

General estimate of the sums required for the support of the navy for the fiscal year commencing on the first day of July, 1853, and ending on the thirtieth day of June, 1854.

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Heads of appropriation.	Estimated for 1853-'54.	Estimated for 1852-'53.	Appropriated for 1852-'53.
For pay of commission, warrant and petty officers, and seamen, including the engineer corps	\$2,771,448 00	\$2,771,448 00	\$2,771,698 00
For provisions for commission, warrant and petty officers, and seamen, including engineers, and also marines attached to vessels for sea service	686,200 00	686,200 00	686,200 00
For surgeons' necessaries and appliances for the sick and hurt of the navy, including the marine corps ...	37,300 00	37,600 00	37,600 00
For increase, repair, armament and equipment of the navy, including the wear and tear of vessels in commission, fuel for steamers, and purchase of hemp for the navy	2,768,450 00	1,365,000 00	1,365,000 00
For ordnance and ordnance stores, including incidental expenses	230,000 00	50 00	125,000 00
For contingent expenses that may accrue for the following purposes, viz: freight and transportation; printing and stationery, advertising in newspapers, books, maps, models and drawings; purchase and repair of fire engines and machinery; repairs of, and attending to, steam engines in navy-yards; purchase and maintenance of horses, and oxen, and driving teams; for carts, timber-wheels, and the purchase and repair of workmen's tools; postage of public letters; furniture for government houses; fuel, oil, and candles for navy-yards and shore stations; pay of watchmen, and incidental labor not chargeable to any other appropriation; transportation to, and labor attending the delivery of provisions and stores on foreign stations, wharfage, dockage, and rent; travelling expenses of officers and others under orders; funeral expenses; store and office rent; stationery, fuel, commissions and pay of clerks to navy agents and store keepers; flags, awnings, and packing boxes; premiums and other expenses of recruiting; apprehending deserters; per diem pay to persons attending courts martial and courts of inquiry, and other services authorized by law; pay to judges advocate; pilotage and towage of vessels, and assistance to vessels in distress; for bills of health and quarantine expenses of vessels of the United States navy in foreign ports	600,500 00	527,840 00	527,840 00
And for contingent not enumerated	5,000 00	5,000 00	.....
	7,098,898 00	5,518,088 00	5,513,338 00

No. 12.

General estimate of the sums required for the support of the marine corps for the fiscal year commencing on the first day of July, 1853, and ending on the thirtieth day of June, 1854.

Heads of appropriation.	Estimated for 1853-'54.	Estimated for 1852-'53.	Appropriated for 1852-'53.
For the pay of officers, non-commissioned officers, musicians, privates, clerks, messengers, stewards, servants, &c., for rations and clothing for servants, subsistence, and additional rations for five years' service of officers, for undrawn clothing and rations, bounties for re-enlistments, and pay for unexpired terms of previous service.....	\$223,530 44	\$217,983 44	\$217,983 44
For provisions for marines serving on shore.....	29,984 75	19,984 75	19,984 75
For clothing.....	52,064 00	49,416 00	49,416 00
For fuel.....	14,194 50	3,000 00	3,000 00
For military stores, repairs of arms, pay of armorer, for accoutrements, ordnance stores, flags, drums, fifes, and musical instruments.....	8,000 00	8,000 00	8,000 00
For transportation of officers and troops, and expenses of recruiting.....	12,000 00	9,000 00	9,000 00
For repairs of barracks and rent of temporary barracks and offices.....	6,000 00	6,000 00	6,000 00
For contingent expenses, viz: freight, ferrriage, cartage, and wharfage; compensation to judges advocate; per diem for attending courts martial and courts of inquiry; for constant labor, house rent in lieu of quarters; burial of deceased marines; printing, advertising, stationery, forage, postage, pursuit of deserters, candles, oil, straw, furniture, bed sacks, spades, shovels, axes, picks, and carpenters' tools; expense of a horse for messenger; pay of matron, washerwoman, and porter for the hospital at headquarters.....	25,000 00	25,000 00	25,000 00
	370,773 69	338,384 19	338,384 19

General estimate of the sums required for special objects under the Navy Department for the fiscal year commencing on the first day of July, 1853, and ending on the thirtieth day of June, 1854.

Heads of appropriation.	Estimated for 1853-'54.	Estimated for 1852-'53.	Appropriated for 1852-'53.
For the pay of superintendents, naval constructors, and civil establishments of navy yards and stations..	\$108,650 00	\$90,960 00	\$90,960 00
For nautical books, maps, charts, and binding, instruments, and repairs thereof, and all expenses of the Hydrographical office.....	51,900 00	49,470 00	49,470 00
For improvements and repairs at navy yards and stations.....	2,197,934 05	1,264,789 99	765,862 92
For repairs of hospital buildings and their dependencies.....	56,493 93	65,730 90	27,559 00
For repairs of magazine buildings and their dependencies.....	17,235 00	1,350 00	1,350 00
For improvement and repair of buildings and grounds, purchase of land, and support of the Naval Academy at Annapolis, Maryland.....	84,059 00	156,700 00	124,700 00
For transportation of the mail.....	1,496,250 00	1,732,750 00	1,732,750 00
For preparing for publication the American Nautical Almanac.....	19,400 00	19,400 00	19,400 00
	4,031,921 98	3,381,150 89	2,812,051 92

No. 14.

TREASURY DEPARTMENT, FOURTH AUDITOR'S OFFICE,

November 2, 1852.

SIR: I have the honor to transmit herewith two copies of an abstract of the expenditures under the head of "contingent expenses," as settled and allowed at this office, from July 1, 1851, to June 30, 1852, inclusive.

I have the honor to be, sir, very respectfully, your obedient servant,
A. O. DAYTON.

Hon. J. P. KENNEDY,
Secretary of the Navy.

Abstract of expenditures under the head of "contingent expenses," as settled and allowed at the office of the Fourth Auditor of the Treasury Department, from the 1st day of July, 1851, to the 30th day of June, 1852, inclusive.

No. of report.	Date.	Names.	Rank.	Contingent expenses.	Contingent marine corps.	For what purpose.
	1851.					
9352	July 9	E. O. Perrin.....	Acting purser.....	\$2,389 13	.....	Labor in navy yard, postage, &c.
9353	July 10	E. C. Doran.....	Purser.....	37 50	\$220 80	Postage, &c.
9359	July 17	Walker Anderson.....	Navy agent.....	374 25	.....	Wharfage, freight, travel, &c.
9360	July 17	L. Warrington, jr.....	Purser.....	4,682 35	.....	Labor in navy yard, postage, &c.
9367	July 22	E. O. Perrin.....	Navy agent.....	2,530 26	.....	Freight, transportation, labor, &c.
9369	July 23	William Speiden.....	Purser.....	69 92	.....	Postage, &c.
9374	Aug. 1	E. T. Dunn.....	do.....	5,007 00	.....	Labor in navy yard, postage, &c.
9376	Aug. 5	F. G. McCauley.....	do.....	2,942 00	.....	Do do
9377	Aug. 5	C. W. Cutter.....	do.....	3,030 02	.....	Do do
9379	Aug. 7	William Hindman.....	Acting purser.....	123 28	.....	Postage, &c.
9382	Aug. 8	C. W. Cutter.....	Purser.....	351 76	.....	Labor and postage.
9388	Aug. 12	Horatio Bridge.....	do.....	1,845 62	.....	Labor in navy yard, postage, &c.
9393	Aug. 25	McK. Buchanan.....	do.....	6,221 02	.....	Do do
9394	Aug. 25	William Hindman.....	Navy agent.....	3,023 20	.....	Freight, travel, pilotage, commissions, &c.
9395	Aug. 25	B. D. Heriot.....	do.....	369 80	.....	Wharfage, pilotage, commissions, &c.
9396	Aug. 27	E. D. Reynolds.....	Purser.....	1,212 12	.....	Pilotage, wood, water, &c.
9397	Aug. 28	J. H. Wright.....	Navy agent.....	7,924 17	.....	Freight, transportation, travel, hay, oats, &c.
9400	Aug. 30	J. H. Lathrop.....	do.....	18,934 27	.....	Tools, freight, advertising, commissions, postage, &c.
9403	Sept. 2	A. A. Nicholson.....	Q. M. marine corps.....	.....	4,239 80	Stationery, officers' quarters, advertising, &c.
9404	Sept. 4	B. D. Wright.....	Navy agent.....	5,443 30	.....	Labor, freight, transportation, commissions, &c.
9405	Sept. 8	B. J. Cahoon.....	Purser.....	1,171 43	900 00	Labor in navy yard, postage, &c.
9406	Sept. 10	R. C. Wetmore (late).....	Navy agent.....	173 23	.....	Postage, pilotage, &c.
9408	Sept. 15	McK. Buchanan.....	Purser.....	9,608 23	.....	Labor in navy yard, postage, &c.
9409	Sept. 17	B. J. Cahoon.....	do.....	84 66	.....	Postage, &c.
9411	Sept. 23	William Winthrop.....	Consul.....	48 00	.....	Store rent.
9412	Sept. 23	John DeBree.....	Purser.....	30,667 56	.....	Labor in navy yard, postage, &c.

9416	Sept. 27	Dudley Walker	do	4,670 53		Do do
9419	Oct. 3	Francis Mallory	Navy agent	12,433 24		Freight, transportation, travel, commissions, &c.
9420	Oct. 3	T. J. Page	Acting purser	1,473 64		Pilotage, wood, water, &c.
9423	Oct. 6	E. O. Perrin	do	2,064 96		Labor in navy yard, postage, &c.
9424	Oct. 8	A. A. Nicholson	Q. M. marine corps		10,371 54	Stationery, advertising, officers' quarters, &c.
9426	Oct. 9	E. O. Perrin	Navy agent	1,520 32		Freight, transportation, travel, labor, &c.
9427	Oct. 9	William Speiden	Purser	40 52		Postage, &c.
9428	Oct. 9	Lieut. Wm. C. Farragut	Recruiting officer	95 45		Recruiting expenses.
9431	Oct. 15	Wm. H. LeRoy	Navy agent	11,734 44		Pilotage, freight, transportation, travel, commissions &c.
9437	Oct. 17	Robert Pettit	Purser	113 01		Postage, &c.
9440	Oct. 28	Lieut. F. A. Neville	Acting purser	635 18		Wood, water, pilotage, &c.
9441	Oct. 30	Samuel P. Todd	Purser	468 24		Labor and postage, &c.
9443	Nov. 5	N. A. McClure	Consul		57 40	Funeral expenses and rent of rooms.
9447	Nov. 15	C. Ringold	Commander	1,950 87		Travel, and hire of rooms at San Francisco.
9448	Nov. 17	William H. Christian	Purser	20 47		Postage.
9450	Nov. 19	A. A. Nicholson	Q. M. marine corps		5,626 41	Officers' quarters, stationery, advertising, &c.
9451	Nov. 20	John DeBree	Purser	10,051 97		Labor in navy yard, postage, &c.
9452	Nov. 22	J. N. Hambleton	do	32,062 45	270 31	Labor, freight, travel, pilotage, postage, &c.
9456	Nov. 26	D. Walker	do	4,847 86		Labor in navy yard, postage, &c.
9457	Nov. 28	F. Mallory	Navy agent	9,627 94	9 50	Travel, freight, transportation, pilotage, &c.
9458	Nov. 28	Wm. Sloanaker	do	4,634 07		Do do
9460	Dec. 1	E. C. Doran	Purser	5,323 93		Pilotage, wood, water, fuel, &c.
9462	Dec. 2	F. G. McCauley	do	2,568 29		Labor in navy yard, postage, &c.
9463	Dec. 4	B. D. Wright	Navy agent	4,295 50		Freight, travel, transportation, pilotage, &c.
9467	Dec. 5	J. H. Lathrop	do	18,756 02		Tools, freight, travel, advertising, commissions, &c.
9470	Dec. 12	Z. W. Potter	Consul	900 00		Warehouse rent.
9472	Dec. 13	Lieut. J. M. Watson	Recruiting officer	296 00		Recruiting expenses.
9473	Dec. 15	H. Bridge	Purser	4,010 04		Labor in navy yard, postage, &c.
9475	Dec. 15	Baring Brothers & Co.	Navy agents	3,641 65		Commissions, &c.
9474	Dec. 15	Joseph Bryan	Purser	1,373 78		Pilotage, wood, water, fuel, &c.
9476	Dec. 19	J. C. Douglass	do	20,044 99		Labor in navy yard, postage, &c.
9477	Dec. 19	H. B. Sawyer	Commander at Sackett's Harbor.	620 06		Do do
9478	Dec. 26	A. A. Nicholson	Q. M. marine corps		4,486 88	Officers' quarters, fuel, advertising, &c.
9479	Dec. 30	J. H. Wright	Navy agent	21,295 88		Transportation, freight, travel, hay, &c.
	1852.					
9480	Jan. 2	Wm. Sloanaker	do	8,915 57		Travel, freight, transportation, tools, &c.
9487	Jan. 14	Wm. H. LeRoy	do	10,692 22		Do do
9492	Jan. 15	Edward Fitzgerald	Purser	8,423 99		Labor in navy yard, postage, &c.

No. 14—Continued.

No. of report.	Date.	Names.	Rank.	Contingent expenses.	Contingent marine corps.	For what purpose.
	1852.					
9494	Jan. 20	Baring Brothers & Co.....	Navy agents	\$5,309 85	.....	Commissions, &c.
9497	Jan. 23	Wm. L. Long .....	.....	435 54	.....	Travelling expenses.
9505	Jan. 29	J. F. Steele	Purser	3,622 50	.....	Provisions, fuel, wood, &c.
9511	Jan. 30	Robert Pettit.....	do	36 47	.....	Postage, &c.
9513	Feb. 2	Lieut. DeHaven.....	Acting purser.....	96 77	.....	Pilotage, &c.
9514	Feb. 2	B. D. Heriot.....	Navy agent.....	548 44	.....	Rent of wharf, office expenses, &c.
9516	Feb. 4	William Speiden.....	Purser.....	30 00	.....	Postage, &c.
9519	Feb. 10	Thomas B. Nalle.....	do	444 09	.....	Wood, water, fuel, pilotage, &c.
9522	Feb. 12	William Hindman.....	Acting purser.....	1,201 63	.....	Labor and postage.
9526	Feb. 17	D. Walker.....	Purser.....	4,595 62	.....	Labor in navy yard.
9528	Feb. 28	William Hindman.....	Navy agent.....	3,313 32	.....	Transportation, travel, pilotage, commissions, &c.
9529	Feb. 24	William Speiden.....	Purser.....	165 93	.....	Postage, &c.
9530	Feb. 25	J. H. Lathrop.....	Navy agent.....	23,434 76	.....	Freight, travel, tools, hay, oil, postage, commissions, &c.
9533	Feb. 28	B. D. Heriot.....	do	362 07	.....	Labor, office expenses, &c.
9534	Mar. 1	J. Tatnall, jr.....	Purser.....	227 07	.....	Wood, water, pilotage, postage, &c.
9535	Mar. 1	C. H. Ladd.....	Navy agent.....	2,898 14	.....	Freight, travel, pilotage, hay, oats, commissions, &c.
9536	Mar. 1	D. Fauntleroy.....	Purser.....	403 33	.....	Pilotage, wood, water, provisions, &c.
9539	Mar. 3	William G. Moorhead.....	Prize agent.....	1,866 60	.....	Provisions, &c.
9541	Mar. 4	William M. Heiskill.....	Purser.....	2,633 13	.....	Labor in navy yard, postage, &c.
9542	Mar. 5	G. F. Cutter.....	do	3 50	.....	Postage, &c.
9543	Mar. 6	E. O. Perrin.....	Acting purser.....	2,900 50	.....	Labor in navy yard, &c.
9544	March 8	J. H. Wright.....	Navy agent.....	12,622 84	.....	Freight, transportation, travel, tools, commissions, &c.
9547	March 16	E. McCall & Co.....	do	2,262 65	.....	Commissions, &c.
9548	March 16	A. A. Nicholson.....	Q. M. marine corps.....	.....	\$5,345 01	Officers' quarters, stationery, fuel, postage, &c.
9550	March 20	L. Warrington.....	Purser.....	8,871 44	.....	Labor in navy yard, postage, &c.
9554	March 26	J. C. Walch.....	Lieutenant.....	45 00	.....	Quarters for the crew of the U. S. schooner Taney.
9555	March 26	L. W. Goldsborough.....	Commander.....	9,106 83	.....	Travel, rent of rooms for officers on survey in Oregon.
9556	March 26	F. Mallory.....	Navy agent.....	8,307 99	.....	Freight, transportation, travel, tools, &c.
9558	March 27	Wm. Hindman.....	Acting purser.....	130 42	.....	Postage, &c.
9559	March 30	E. O. Perrin.....	Navy agent.....	1,989 98	.....	Transportation, freight, travel, fuel, &c.

9560	April 1	J. W. Livingston.....	Acting purser.....	101 00	.....	Wood, water, fuel, stationery, &c.
9561	April 2	B. D. Wright.....	Navy agent.....	9,704 93	.....	Freight, travel, tools, hay, oats, oil, &c.
9572	April 14	Wm. Hindman.....	do.....	2,681 35	.....	do do do
9573	April 15	Wm. H. LeRoy.....	do.....	18,795 44	.....	Transportation, travel, freight, commissions, &c
9574	April 17	J. W. Watmough.....	Purser.....	181 01	.....	Wood, water, fuel, postage, &c.
9578	April 19	Robert Pettit.....	do.....	118 68	.....	Postage, &c.
9581	April 24	McK. Buchanan.....	do.....	9,557 80	.....	Labor in navy yard, postage, &c.
9583	April 29	Charles T. Botts.....	Naval storekeeper.....	8,200 00	.....	Warehouse rent, labor, commissions, &c.
9585	May 1	Edwd. T. Dunn.....	Purser.....	6,251 76	.....	Labor in navy yard, postage, &c.
9586	May 3	Wm. Sloanaker.....	Navy agent.....	5,137 33	.....	Freight, travel, tools, pilotage, postage, &c.
9587	May 4	E. O. Perrin.....	do.....	2,080 29	.....	do do do
9589	May 8	Charles T. Botts.....	Naval storekeeper.....	620 00	.....	Rent, officers' expenses, &c.
9582	May 13	J. H. Lathrop.....	Navy agent.....	21,693 91	1 00	Freight, travel, tools, oil, stationery, &c.
9593	May 13	Geo. C. Cutter.....	Purser.....	14 28	.....	Postage.
9594	May 14	Charles Ladd.....	Navy agent.....	1,302 46	.....	Transportation, freight, travel, commissions, &c.
9595	May 18	Francis Mallory.....	do.....	6,279 68	.....	do do do
9598	May 18	Robert Pettit.....	Purser.....	70 30	.....	Postage, &c.
9597	May 18	C. W. Pinkney.....	Lieutenant.....	381 20	.....	Travelling expenses.
9601	May 26	E. O. Perrin.....	Navy agent.....	2,091 67	.....	Freight, travel, tools, postage, fuel, &c.
9606	June 1	J. O. Bradford.....	Purser.....	1,844 09	.....	Labor in navy yard and postage.
0607	June 1	J. H. Wright.....	Navy agent.....	8,935 73	.....	Freight, transportation, travel, commissions, &c.
9611	June 7	Wm. Hindman.....	Acting purser.....	30 38	.....	Postage, &c.
9612	June 12	B. D. Wright.....	Navy agent.....	6,525 85	.....	Freight, travel, transportation, commissions, &c.
9613	June 12	E. O. Perrin.....	Acting purser.....	1,392 86	.....	Labor and postage.
9614	June 14	Robert Pettit.....	do.....	13 89	.....	Postage.
9616	June 17	Wm. Hindman.....	Navy agent.....	2,516 28	.....	Transportation, freight, travel, postage, &c.
9617	June 18	Thomas Pettigrew.....	Acting purser.....	318 00	.....	Wood, water, fuel, pilotage, postage, &c.
9618	June 18	A. A. Nicholson.....	Q. M. marine corps.....	7,554 89	.....	Officers' quarters, advertising, stationery, &c.
9621	June 24	Wm. H. LeRoy.....	Navy agent.....	10,346 32	.....	Freight, transportation, travel, commissions, &c.
9635	June 30	Henry Etting.....	Purser.....	4,201 75	.....	Pilotage, postage, coal, &c.
Total.....				546,044 34	38,402 54	
				38,402 54		
Grand total....				584,446 88		

No. 15.

TREASURY DEPARTMENT,
Second Comptroller's Office, August 18, 1852.

SIR: I have the honor to transmit, in duplicate, a statement of the appropriations for the Navy Department for the fiscal year 1851-'52—which statement shows the balances of the appropriations on the 1st of July, 1851; the appropriations made for the fiscal year 1851-'52; the repayments and transfers in same time; the amounts applicable to the service of the year 1851-'52; the amounts drawn by requisitions from the treasury in same period; and, finally, the balances on the 1st of July, 1852, with such appropriations as have been carried to the surplus fund: prepared in pursuance of an act of Congress approved May 1, 1820.

Very respectfully, sir, your obedient servant,

E. J. PHELPS, *Comptroller.*

HON. JOHN P. KENNEDY,
Secretary of the Navy.

Statement of appropriations for the service of the Navy Department from July 1, 1851, to June 30, 1852: made pursuant to the provisions of the second section of the act of Congress of May 1, 1820, entitled "An act in addition to the several acts for the establishment and regulation of the Treasury, War, and Navy Departments."

Heads of appropriations.	Balances of appropriations July 1, 1851.	Appropriations for the fiscal year 1851-'52.	Repayments from July 1, 1851, to June 30, 1852.	Amount applicable to the service of the fiscal year 1851-'52.	Amounts drawn by requisitions from the treasury during the fiscal year 1851-'52.	Balances June 30, 1852.
Pay of the navy.....	\$10,216 87	\$2,771,448 00	\$264,507 51	\$3,046,172 38	\$2,852,978 23	\$193,194 15
Provisions of the navy.....	210,815 10	688,080 00	84,368 15	983,263 25	608,397 98	374,865 27
Contingent expenses enumerated.....	22,325 95	528,700 00	49,664 38	600,690 33	593,999 65	6,690 68
Pay of superintendents.....	13,479 70	90,960 00		104,439 70	85,286 05	19,153 65
Contingent expenses not enumerated.....	95 10		300 00	395 10	220 50	174 60
Increase, repairs, &c.....	1,196,153 63	1,536,200 00	166,709 68	2,899,063 31	2,354,052 93	545,010 38
Navy hospital fund.....	202,252 71		30,105 12	232,357 83	54,510 84	177,846 99
Navy yard, Portsmouth, N. H.....	20,509 56	31,673 00	136 27	52,318 83	43,904 67	8,414 16
Navy yard, Boston.....	61,822 03	50,000 00	4,232 01	116,054 04	91,757 10	24,296 94
Navy yard, New York.....	31,497 49	150,000 00	6,930 76	188,428 25	164,840 71	23,587 54
Navy yard, Philadelphia.....	54,112 99	24,400 00	3,500 00	82,012 99	65,739 80	16,273 19
Navy yard, Washington.....	29,282 97	100,000 00		129,282 97	105,453 13	23,829 84
Navy yard, Norfolk.....	11,181 31	50,800 00	17,804 98	79,786 29	74,746 11	5,040 18
Navy yard, Pensacola.....	73,045 61	100,000 00	23,482 97	196,528 58	171,757 09	24,771 49
Navy yard, Memphis.....	52,693 34	50,000 00	180 63	102,873 97	71,521 89	31,352 08
Navy yard, Sackett's Harbor.....	18 22	2,300 00	31 30	2,349 52	1,700 00	649 52
Depot at New Orleans.....	6,480 00			6,480 00		6,480 00
Clothing of the navy.....	595,625 02		102,532 32	698,157 34	107,496 27	590,661 07
Surgeons' necessaries and appliances.....	15,560 11	37,600 00	8,026 62	61,186 73	33,877 79	27,308 94
Naval school, Annapolis.....		79,200 00		79,200 00	78,831 75	368 25
Meteorological observations.....	327 10	2,000 00	1,000 00	3,327 10	2,327 10	1,000 00
Nautical Almanac.....	6,707 00	19,400 00		26,107 00	17,776 00	8,331 00
Prize-money to captors in war with Mexico.....	39,741 11	1,394 21		41,135 32		41,135 32

STATEMENT—Continued.

Heads of appropriations.	Balances of appropriations July 1, 1851.	Appropriations for the fiscal year 1851-'52.	Repayments from July 1, 1851, to June 30, 1852.	Amount applicable to the service of the fiscal year 1851-'52.	Amounts drawn by requisitions from the treasury during the fiscal year 1851-'52.	Balances June 30, 1852.
Hospital at Boston.....	\$1,218 33	\$1,500 00	.....	\$2,718 33	\$751 00	\$1,967 33
Hospital at New York.....	20,582 05	15,000 00	.....	35,582 05	5,172 77	30,409 28
Hospital at Philadelphia.....	.....	13,837 00	.....	13,837 00	2,999 00	10,838 00
Hospital at Washington.....	333 00	.....	.....	333 00	.....	333 00
Hospital at Norfolk.....	1,402 43	5,000 00	.....	6,402 43	3,921 53	2,480 90
Books, maps, &c., of Hydrographical office.....	1,126 51	54,570 00	.....	55,696 51	33,927 85	16,768 66
Steam mail service.....	451,365 46	874,600 00	.....	1,325,965 46	944,062 02	381,903 44
Dry-dock, Portsmouth.....	228,949 95	.....	\$800 50	229,750 45	78,558 10	151,192 35
Dry-dock, Philadelphia.....	134,871 75	.....	18,026 00	152,897 75	152,748 44	149 31
Dry-dock, Pensacola.....	456,101 96	.....	101 45	456,203 41	206,492 32	249,711 09
Dry-dock, California.....	100,000 00	150,000 00	.....	250,000 00	247,050 00	2,950 00
Hospital, Pensacola, (naval).....	4,766 47	4,450 00	881 63	10,098 10	2,597 00	7,501 10
Navy magazine, Boston.....	783 63	.....	.....	783 63	285 00	498 63
Navy magazine, New York.....	1,376 64	.....	.....	1,376 64	18 16	1,358 48
Navy magazine, Washington.....	1,600 00	.....	.....	1,600 00	.....	1,600 00
Navy magazine, Norfolk.....	2,850 47	.....	.....	2,850 47	428 00	2,422 47
Examining various condensers.....	4,500 00	.....	.....	4,500 00	4,339 16	160 84
Mexican hostilities.....	19,308 19	.....	5,679 62	24,987 81	144 75	24,843 06
Military contributions in Mexico.....	5,955 66	10,000 00	.....	15,955 66	7,829 18	8,126 48
Removal of wreck of steamer Missouri from harbor of Gibraltar.....	.....	50,000 00	.....	50,000 00	29,000 00	*21,000 00
Suppression of slave-trade.....	3 70	.....	606 13	609 83	196 77	413 06
Steam-boilers, (testing).....	885 85	.....	.....	885 85	.....	*885 85
Relief of James Glynn and others.....	.....	2,619 70	.....	2,619 70	12,619 70	.....
Relief of James M. Gilliss and others.....	.....	132 00	.....	132 00	1132 00	.....
Arrearages of pay to John Rush.....	.....	6,095 71	.....	6,095 71	16,095 71	.....

Relief of widows and orphans of officers and crew of "Hornet".....		81 56		81 56	†81 56	
Pay of marine corps.....	50,174 31	221,400 00	17,327 85	288,902 16	251,771 42	37,130 74
Provisions, marine corps.....	14,804 31	15,000 00	6,118 78	35,923 09	32,900 00	3,023 09
Contingent marine corps.....	3,179 78	25,000 00		28,179 78	28,080 67	99 11
Clothing, marine corps.....	91 31	56,601 00	78 04	56,770 35	56,456 48	313 87
Fuel, marine corps.....	13,028 34	10,000 00		23,028 34	17,000 00	6,028 34
Transportation, marine corps.....	527 74	9,000 00		9,527 74	9,517 24	10 50
Military stores, marine corps.....	900 28	8,000 00		8,900 28	8,900 00	28
Repairs of barracks, marine corps.....		6,000 00		6,000 00	6,000 00	
Testing Earle's patent.....	5,000 00			5,000 00		*5,000 00
Plans for buildings at naval depot, New Orleans.....	90 00			90 00		90 00
Total.....	4,179,721 04	7,853,042 18	813,132 70	12,845,895 92	9,726,251 42	3,119,644 50

* Carried to surplus fund.

† Indefinite.

RECAPITULATION.

Amount applicable to the service of the fiscal year 1851-'52, as per aggregate of fourth column.....	\$12,845,895 92
From which deduct amount of refunding and transfer requisitions, as per third column.....	813,132 70
Will show the amount actually applicable to the above period.....	12,032,761 22
From which deduct amount drawn by requisitions from the treasury, as per aggregate of fifth column.....	\$9,726,251 42
From which last sum deduct amount drawn by refunding and transfer requisitions, as per third column.....	813,132 70
	8,913,118 72
Will leave the aggregate of the sixth column of balances on the 30th June, 1852.....	3,119,644 50

TREASURY DEPARTMENT, *Second Comptroller's Office, August 18, 1852.*

E. J. PHELPS, *Comptroller.*

H. Doc. 1.

Abstract, or compendium, of the reports of the chiefs of bureaus of the Navy Department which accompany the annual report of the Secretary of the Navy, dated December 1852; submitted in compliance with a resolution of the Senate passed August 26, 1852.

NO. 2.—BUREAU OF CONSTRUCTION, ETC.

The report of the chief of the Bureau of Construction, Equipment, and Repair refers to the *employment of petty officers and seamen*, the estimate for which is the same as for the year preceding; to the *estimate for wear and tear of vessels*, which has been increased, and assigns the reasons for the increase; recommends an *increase in the number of ships*, the repairing of the Franklin seventy-four and Constellation frigate, and building of steamers and sailing-vessels; refers to the *increased estimate for fuel* for steamers, and for the purchase of materials; contains suggestions in relation to the want of "*screw-propellers*" for the navy, and the reasons for an additional force, and the facilities for its accomplishment; submits the usual *tables of vessels in commission, in ordinary, and on the stocks*; refers to the purchase of American hemp, unfavorable reports as to its quality, and offers suggestions in relation thereto, which, if adopted, would, in the opinion of the bureau, be beneficial, and render the navy independent of foreign production for a material so important for naval purposes.

NO. 3.—BUREAU OF ORDNANCE, ETC.

The report of the chief of the Bureau of Ordnance and Hydrography refers to the *estimates for the fiscal year ending June 30, 1854*, the value of *ordnance stores on hand*, the *cost of labor* for the fiscal year ending June 30, 1852, and the *contracts* for that year; assigns reasons for an *increased estimate for ordnance and ordnance stores*, for *enlargement of the grounds of the Naval Academy*, for *heating the buildings* connected with that institution, and for *lighting the Observatory with gas*; gives an account of the *manner in which duties have been performed, and useful results secured*, by the superintendents and others connected with the academy and observatory and ordnance duty at navy yards.

NO. 4.—BUREAU OF NAVY YARDS, ETC.

The report of the chief of the Bureau of Navy Yards and Docks submits *estimates* for the fiscal year ending June 30, 1854; states why *schedules of contracts* for materials are not furnished; the delays in procuring materials according to law; the views of the bureau in regard to *improving navy yards*, and the order in which the various subjects are treated. Details the objects completed and in progress. At *Portsmouth, N. H.*, those for which estimates are submitted, stating their use and importance; the same in reference to the *Boston and New York yards*; refers to the location of the latter, its limited area, what has been done to extend it, and the difficulty of obtaining jurisdiction over

the land purchased. Enumerates works in progress, and those estimated for at *Philadelphia*, and recommends an enlargement of that yard. At *Washington*, states the works in progress, and what are embraced in the estimates; urges the importance of the yard as a manufacturing establishment. At *Norfolk*, enumerates objects under construction—those embraced in the estimates; stating their importance; recommends the purchase of a site for marine barracks. At *Pensacola*, names works in progress; the improvements asked for, their importance, &c. At *Memphis*, details works in progress, and those submitted in the estimates; refers to the report of the commission appointed to examine the yard. At *California*, submits estimates for certain improvements mentioned; refers to proposed site for a navy yard, what works should be first constructed, probable cost, &c. Notices the character, state, and condition of the *dry docks* at Portsmouth, Boston, New York, Philadelphia, Norfolk, Pensacola, and San Francisco, in the order named; refers to contract for leasing the dock at San Francisco. Treats of the *naval asylum*, character of the inmates, its location, annual expense, &c.; and refers to the subject of *protection to public timber*; depredations greatly lessened, &c.

NO. 5.—BUREAU OF PROVISIONS, ETC.

The report of the chief of the Bureau of Provisions and Clothing is accompanied by the *estimates for the fiscal year ending 30th of June, 1854*, and assigns reasons for estimating for *contingent expenses*; refers to suggestions contained in the annual reports of the bureau of 16th November, 1850, and 17th November, 1851, in relation to the establishment of a *public bakery*; the exemption of certain articles of provisions from the operation of the law requiring supplies to be furnished by contract with the lowest bidder; the expediency of vesting in the department a discretionary power to modify the ration by availing itself of the scientific discoveries of the day, in the *preservation of animal and vegetable alimentary substances*, some of which are used in foreign navies; objection to the *contract system*, and to lowest bids; failure of a contractor for beef and pork, and the probable causes thereof; *prepared vegetables*, referred to in report of November last, imported from France and England, have been examined and tested satisfactorily by two boards of officers; the reports have been printed and are at the disposal of the department; additional supply of the prepared vegetables ordered, and will be put on board ships bound on long cruises with a view to test more practically their adaptation for use at sea. States that the *returns* of navy agents, and pursers, and storekeepers, at home and abroad, are promptly rendered. Notices the shipments of stores to foreign stations since 1st of July, 1852; recommends a *revision of the component parts of the ration* for reasons stated, and that some prescribed limit should be made to the commutation of rations; states that proper *economy* has been enforced; that the squadrons abroad have been well supplied with the best of stores, and that the funds on hand of the appropriations for provisions and clothing are ample to meet all legitimate demands; and, finally, urges the recommendation in former reports in

favor of giving increased compensation to the clerks and assistants of the pay department of the navy.

NO. 6.—BUREAU OF MEDICINE, ETC.

The report of the chief of the Bureau of Medicine and Surgery embraces a *statement of the fiscal condition of the medical department of the navy, and estimates for the fiscal year ending June 30, 1854; a statistical table*, collected from the "sick reports" received from hospitals and other shore stations within the United States, during the year ending June 30, 1852; and a favorable report as to the *sanitary condition of the forces afloat during the same period*. Recommends an inquiry into the expediency of introducing into the daily rations of seamen an *increased proportion of the vegetable or anti-scorbutic ingredients*, rendered practicable by the new method of preservation of vegetable substances by desiccation; an *increase in the effective force of the medical corps of the navy*, with arguments showing its necessity; and an estimate of the number required for duty, and the general disposition of the corps, for the year ending June 30, 1854; and the *investment of a part of the Naval Hospital fund* in some interest-bearing government stock.

MARINE CORPS.

The report of the commandant of the Marine Corps refers to the strength and distribution of the corps, exhibited in a general return on September 30, 1852; to the number of officers, non-commissioned officers, musicians, and privates required for all classes of ships-of-war, for the year 1853; to the inadequacy in its rank and file to furnish the guards required to the rank and file required for shore stations; assigns reasons for an increase of the corps, which is urgently recommended. A retired list would add much to the efficiency of the corps; guards of marines greatly increased by the British admiralty since the war of 1812—probable causes thereof. Opinion of Commodore Perry and other officers of the navy as to a large increase of marines, to which particular reference is made; refers also to the opinion of Commodore Shubrick and other officers of the home squadron in 1839, relating to an increase of the corps; the subject strongly recommended to the consideration of Congress; and submits estimates for the support of the corps for the fiscal year ending June 30, 1854.

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REPORT

OF

THE POSTMASTER GENERAL,

DECEMBER 4, 1852.

REPORT OF THE POSTMASTER GENERAL.

POST OFFICE DEPARTMENT,
December 4, 1852.

SIR: In discharge of a duty devolving on me, I have the honor to report that the whole number of post offices in the United States at the close of the fiscal year ended June 30, 1852, was 20,901. The number of postmasters appointed during that year was 6,255. Of these, 3,726 were appointed to fill vacancies occasioned by resignations; 255 to fill vacancies occasioned by death; 246 on changing the sites of offices; 309 on the removal of prior incumbents; and 1,719 on the establishment of new offices. There were 1,719 post offices established, and 614 discontinued, during the year.

From the end of the fiscal year to November 1, 1852, 526 post offices have been established, and 236 discontinued, so that the whole number in operation at the latter date was 21,191. At its close there were in operation in the United States 6,711 mail routes; their aggregate length being 214,284 miles, and employing 5,206 contractors. The annual transportation of the mails on these routes was 58,985,728 miles at an annual cost of \$3,939,971, being about six and seven-tenths cents per mile. Of these 58,985,728 miles of annual transportation, 11,082,768 miles were required to be performed on railroads at a cost of \$1,275,520, being about eleven and a half cents per mile; 6,353,409 miles in steamboats, at a cost of \$505,815, being about eight cents per mile; 20,698,930 miles in coaches, at a cost of \$1,128,986, being about five and a half cents per mile; and 20,850,621 miles in modes not specified, at a cost of \$1,029,650, being about four and nine-tenths cents per mile.

The inland service, when compared with such service at the close of the preceding year, as stated in the last annual report from this department, shows an increase of 17,994 miles in the length of mail routes; of 5,713,476 in the miles of annual transportation; and of \$518,217 in the annual cost of transportation. Of such increase or transportation, the railroad service amounts to 2,514,061 miles, at an increased cost of \$290,501, being an increase of about twenty-nine per cent. both in the service and in its aggregate cost; the steamboat service to 898,427 miles, at an increased cost of \$50,923, being an increase of about sixteen and a half per cent. in service, and eleven per cent. in cost; the coach service to 972,342 miles, at an increased cost of \$81,827, being an increase of about five per cent. in service, and eight per cent. in the aggregate cost; and in modes of service not specified to 1,328,646 miles, at an increased cost of \$94,967, being an increase of about seven per cent. in service, and ten per cent. in cost.

Compared with the transportation, and its cost, at the close of the fiscal year ended June 30, 1842, it shows that the railroad and steam-

boat service had increased in the ten years 13,011,915 miles, at an increased cost of \$1,131,654, being about two hundred and ninety-four per cent. increase in service, and one hundred and seventy-four per cent. in cost; the coach service 1,931,894 miles, at a decreased cost of \$571,524, being about ten per cent. increase in service, and thirty-three and a third per cent. decrease in cost; the service in modes not specified 9,205,928 miles, at an increased cost of \$292,045, being about seventy-nine per cent. increase in service, and forty per cent. in cost.

It may be proper in this connexion to remark that the actual increase in coach service performed is greater, and that of service performed on horseback, and in other modes not specified, is *less* than above stated, for the reason that since the act of 1845, much coach service is performed under contracts not specifically requiring that grade of service, but only that the mails be carried with due "celerity, certainty, and security." The service under such contracts is now reported as in modes not specified, although coach service is performed under them for a large portion of or the entire year.

There were in operation on the 30th day of June last, six foreign mail routes of the estimated aggregate length of 18,349 miles; the number of miles of annual transportation thereon is estimated at 652,406. The service on three of these routes is under contract with this department; the annual transportation thereon is estimated at 200,592 miles, at a cost of \$400,000, being about \$1 99 per mile. The service on the other three routes is under contract with the Navy Department the annual transportation thereon is estimated at 458,934 miles, at an annual cost of \$1,496,250, (including the additional compensation voted to the Collins line at the last session of Congress,) being about \$3 26 per mile.

The annual cost of conveying the mails across the Isthmus of Panama is uncertain, as it depends on their weight: their cost for the last year, at twenty-two cents per pound, the price paid, was \$48,039. It is estimated that for a large portion of the contents of these mails, (being printed matter,) the amount received in postages under the act of August 31, 1852, does not exceed five cents a pound, in payment of the whole transportation from the point of mailing to that of delivery. As that act did not go into effect until the 30th of September last, no reliable estimate can now be made of the increased cost of mail service across the Isthmus under its operation; but there can be no doubt that such increase will be large. The temporary arrangement for this service, which went into effect on the first of December last with the Panama Railroad Company, is still in force, and is found to be a great improvement on the previous arrangement, though not yet entirely satisfactory. The completion of the railroad is looked forward to as the remedy for most of the existing delays and defects in the service between New York and San Francisco.

Under the general head of "transportation of the mails," is chargeable the compensation of route and local agents and mail messengers. The amount payable on this account at the close of the last fiscal year was \$196,936 per annum.

The extent and annual cost of the entire mail service, under the control of this department, at the close of the fiscal year ended on the 30th

of June last, as well as its division among the State and Territories, and the mode of its performance required by the then existing contracts, will more fully appear by the annexed table furnished by the Second Assistant Postmaster General, and marked A.

As the railroad service is daily becoming more important and expensive, a table showing the extent and annual cost of that service in each of the States, as in operation on the 30th day of June in each year from 1848 to 1852, inclusive, has been prepared, and is hereto annexed, marked B.

Our ocean steamer service commenced in June, 1847. Its great and rapid increase is shown by the following tabular statement of its cost for each fiscal year, as follows:

The cost of this service for 1848 was.....	\$100,500
The cost of this service for 1849 was.....	474,710
The cost of this service for 1850 was.....	721,570
The cost of this service for 1851 was.....	1,023,250
The cost of this service for 1852 was.....	1,896,250

The gross receipts of the department for the year ended June 30, 1852, were \$6,925,971 28, derived from the following sources, viz:

Letter postage, including foreign postage, and stamps sold.....	\$4,226,792 90
Postage on newspapers, periodicals, &c.....	789,246 36
Fines, other than those imposed on contractors.....	27 50
Receipts on account of excess of emoluments of postmasters.....	38,478 24
Damages collected from failing contractors.....	5,213 30
Receipts on account of dead letters.....	8,265 12
Receipts from letter-carriers.....	104,355 92
Stamps in hands of postmasters 30th June, 1851, being such as remained of the old issue, and which were charged to them on that day.....	8,849 61
Miscellaneous receipts.....	3,297 89
From appropriation authorized by twelfth section of act of 3d March, 1847, viz: from third March, 1847, to 30th June, 1852.....	1,065,555 55
From appropriation authorized by eighth section of act of March, 1851.....	663,888 89
From appropriation for "census mails," authorized by seventeenth section of act of 23d May, 1850.....	12,000 00
	<u>6,925,971 28</u>
From this sum must be deducted the amount payable to the British post office, under the postal convention of December, 1848, as now estimated from the statement of the Auditor.....	101,988 59

The receipts from postages, American and foreign, for the last fiscal year were less by \$1,388,334 43 than for the preceding fiscal year, being a decrease of about twenty-two per cent. If the estimated balances accruing to the British post office for each year are excluded, for the purpose of showing the decrease of our own postages, that de-

crease will amount to \$1,431,696 54, or about twenty-two and a half per cent. This diminution in our postages is attributable to the reduction in the rates of postage made by the act of March 3d, 1851, which reduction took effect at the commencement of the last fiscal year. This diminution of revenue is somewhat greater than was anticipated in this department at the time the act went into effect, and much greater than was expected by the sanguine advocates of cheap postage, many of whom sought the establishment of still lower rates.

Although the act referred to has not, in its operation during the last year, fulfilled the predictions of its friends, by increasing the correspondence of the country in proportion to its reduction of postage, I should, nevertheless, question the expediency of a return to higher rates. All experience warrants the expectation that as a community becomes accustomed to cheap postage, written correspondence will increase. From this cause, and from the rapid growth of the country in population and business, the receipts of the department must ultimately exceed its expenses, and enable it to refund to the treasury the sums advanced. In the mean time, the appropriations made from the treasury in aid of the Post Office establishment may be deemed safe and beneficent investments for the advantage of the *whole people*, each one of whom, if not engaged in business correspondence, has a deep interest in the diffusion of intelligence, and the promotion of social intercourse.

By the eighth section of the act of 31st August, 1852, the Postmaster General is authorized to provide and furnish to all postmasters and other persons applying and paying therefor, letter envelopes, with one or more postage stamps impressed thereon, to be used in prepayment of postage. These envelopes are now in course of preparation, and will soon be for sale at the principal post offices. As letters *enclosed in them* may be legally sent by private express or other private conveyance, there will remain no color of excuse for further violation of the laws in that respect. That the experiment of cheap postage may be fairly tried, it is important that the revenues of the department be protected against this abuse, not only by the vigilance of its own agents—to whom the law has intrusted the power to *search for and seize such letters*—but also by public sentiment and by the active exertions of the intelligent and influential portion of the community. It is by thus securing to this department the receipts which the law has assigned for its support, that the period can be hastened when it will again be sustained by its own proper revenues, and the common treasury of the country relieved from further advances for its service.

The expenditures of the department during the last fiscal year were as follows:

For the transportation of the mails.....	\$4,225,311	28
For ship, steamboat, and way letters.....	24,587	94
For compensation to postmasters.....	1,296,765	50
For extra compensation to postmasters under act of 3d March, 1851.....	456,594	84
For wrapping paper.....	41,046	12
For office furniture.....	7,890	77
For advertising.....	63,157	12
For mail bags.....	41,946	50

For blanks.....	\$53,861 83
For mail locks and keys, and stamps.....	11,984 64
For new mail locks and keys.....	18,756 97
For mail depreddations, and special agents.....	35,197 82
For clerks for offices (offices of postmasters).....	548,916 71
For publishing post office laws and regulations.....	2,900 00
For repayment of money found in dead-letters.....	82 61
For postage stamps.....	9,920 03
For postage stamps redeemed.....	3,809 35
For stamps of the old issue returned to the department.....	8,229 20
For official letters received by postmasters.....	582 89
For payments to letter-carriers.....	140,355 92
For miscellaneous payments.....	152,561 00
	<hr/>
	7,108,459 04

The new contracts for the middle section, made under the letting in February last, embracing the States of Maryland, Delaware, Pennsylvania, and Ohio, increased the annual transportation in those States, from the first day of July last, 310,959 miles, at an increased annual cost of \$148,705 over the transportation and cost under the contracts which expired on the 30th day of June, 1852; being an increase of about three per cent. in service, and twenty-one and a half per cent. in annual cost.

The expenditures for the present fiscal year are estimated as follows:

The annual cost of transportation, (foreign and inland,) as authorized and under contract, at the close of the last fiscal year.....	\$4,584,946 00
Additional cost in the middle section under new contracts, which went into effect July 1, 1852.....	148,705 00
Increased cost of transportation, under order of the Postmaster General, for the improvement and extension of mail service, and the increased expedition of the mails.....	93,584 98
Probable cost of putting into operation for the residue of the fiscal year such new routes established during the last session of Congress as should be put in operation before 1st day of July next.....	650,000 00
Expenses, under the heads of compensation to postmasters, wrapping paper, office furniture, advertising, mail bags, blanks, mail locks and keys, stamps, mail depreddations, and special agents, clerks for offices of postmasters, and miscellaneous items, being the expenses of last year, and twelve and a half per cent. added; such expenses necessarily increasing with the extension of mail service, and the increase in the number of post offices, and in the quantity of mail matter transported.....	3,243,541 22
Probable cost of postage stamps and envelopes.....	25,000 00
	<hr/>
	8,745,777 20

To meet these expenditures of the department for the present fiscal year, it has, under existing laws, resources which it is estimated will produce the following sums, to wit:

1st. The available balance at the credit of the revenues of the department on the first day of July last, stated by the Auditor to be.....	\$566,632 57
2d. Receipts from postage, (foreign and inland,) deducting estimated balances due to foreign governments..	5,651,158 26
3d. Annual appropriation made by the twelfth section of the act of 3d March, 1847, in compensation for mail service performed by the various departments of government.....	200,000 00
4th. Annual appropriation made by the eighth section of the act of 3d March, 1851, "in further payment and compensation for mail service performed for the two houses of Congress and the other departments and offices of government in the transportation of free matter".....	500,000 00
5th. Contingent appropriation made by the ninth section of the act of 3d March, 1851.....	500,000 00
	7,417,790 83

The above aggregate deducted from the estimated amount of expenses for the current year, leaves a deficit of \$1,327,986 37 to be provided for by direct appropriation from the treasury.

A further and larger appropriation will probably be necessary to meet the deficiency in the revenue of the fiscal year commencing on the first of July next. An estimate of this deficiency and of that of the current fiscal year, as here set forth, will be submitted to Congress.

The negotiations for increased expedition on the great mail line between New York and New Orleans, which were in progress at the date of the last annual report from this department, were brought to a favorable conclusion in time to commence the improved service on the first of March last. By this arrangement, the time required for the regular transportation of the mail from New York to New Orleans was reduced 24 hours, and from New Orleans to New York 38 hours. Additional trains were so arranged on different parts of the route as to render failures of connexion less frequent, and shorten the delay from 24 to 12 hours in cases where the connexion was unavoidably broken. Certainty and celerity on this line cannot be relied on while the service on an important link in the chain of routes composing it is performed in steamers, on the stormy and unsheltered coast between Wilmington and Charleston.

The completion of the Wilmington and Manchester railroad during the next year will, it is believed, enable the department to avoid this uncertain portion of the present line.

The service between New York and Washington, though much improved by the arrangements referred to, is still defective and unsatisfactory. The endeavors of this department to improve this service have been rendered abortive by a want of unity among the railroad compa-

nies interested in the line, and a spirit of accommodation on the part of the companies running between Philadelphia and New York.

There being no competing lines, or modes of conveyance by which this department can secure connexions, and otherwise facilitate the transportation of the mails between Washington and New York, it is compelled to accept such independent service as each company on the line will consent to render, and is thus made powerless to enforce the demands of the public. I would respectfully suggest, that if Congress, in the exercise of its power over the establishment of post-roads, can remedy this evil, the subject is worthy of the early attention of that body.

A new compilation of laws relating to this department, and of amended regulations adopted for enforcing them, for the guidance of its officers and the conduct of its business, was in course of preparation at the date of the last annual report from this department. It has since been perfected and published by my predecessor, and distributed to the several postmasters, and copies sent to the members of both houses of Congress.

It appears from the report of the Auditor for this department, hereto annexed, that the whole amount of postages, inland, sea, and foreign, on letters and other mailable matter, received and sent by the several lines of United States steamers during the last fiscal year, was as follows, viz:

By Collins's line, New York and Liverpool	\$228,867 61
By New York and Bremen line, touching at Southampton, England	77,219 87
By New York and Havre line, touching at Cowes	80,804 08
By Charleston and Havana line	11,958 99

The postal arrangements with Canada and New Brunswick have been in successful operation during the year, and have been found convenient and useful.

The amount of postage on letters *sent* from the United States to Canada was:

Unpaid	\$31,034 66
Paid	24,707 31
	<hr/> 55,741 97

On letters *received*:

Unpaid	\$25,377 08
Paid	22,144 60
	<hr/> 47,521 68

The amount of postage collected on letters *sent* from the United States to New Brunswick was:

Unpaid	\$2,356 38
Paid	2,778 71
	<hr/> 5,135 09

On letters received:

Unpaid.....	\$1,784 07	
Paid.....	1,893 40	
		————— \$3,677 47

Congress having, by the second section of an act approved August 31, 1852, authorized the Postmaster General, upon certain conditions, to enter into contract for the transportation of the mail by steamers, plying between Boston and Halifax, a postal arrangement is now in process of completion with the province of Nova Scotia, by which the postage on this route will be the same as is now paid by the way of New Brunswick.

In pursuance of the requirements of an act approved August 30, 1852, advertisements have been published for proposals for mail service by ocean steamers between New Orleans and Vera Cruz, via Tampico, embracing also (for the purpose of obtaining information) an extension of the service to Acapulco, and thence to San Francisco. These proposals are to be opened and a decision made on such portions of them as are authorized by said act, (that is, for service from New Orleans to Vera Cruz,) on the 3d of January next. The department will, of course, await the directions of Congress after the information is obtained as to the remainder of the route.

By the eleventh section of an act approved August 31, 1852, provision is made for daily mail service, by suitable and safe steamers, between Louisville and Cairo, St. Louis and Cairo, Cairo and Memphis, and Memphis and New Orleans.

It is deemed important, not only to the cities enumerated and to the intermediate places on the rivers to be covered by this service, but due also to the great and increasing West, that these lines should be so established as fully to secure the object contemplated, to wit: a certain, regular, safe, and reliable daily service on these several routes.

The relative position of the western section of our Union, its present importance and prospective greatness, alike demand that its people should be provided with the best postal facilities that the department can supply. To accomplish this, it has sought information from various sources as to the requirements of the service, and will soon advertise for such as will, it is believed, fully carry into effect the intention of the act, and meet the just demands of that interesting section of our country.

With the last annual report from this department were published interesting tabular statements of the extent and increase of its business, at the several periods of five years from 1790 to 1835, inclusive, and for each year from 1840 to 1851, inclusive. The extent and cost of steamboat and of railroad service were not *separately* given in those statements, nor have they been so contained in any published report from the department prior to 1848. Since that time, however, in the annual exhibit from the contract office of the mail service in operation at the close of each fiscal year, the two kinds of service have been separated. As the annual increase of both kinds in extent and cost strikingly illustrates the steady and rapid growth of our country, I submit the follow-

ing statement of the extent and cost of each, at the close of each fiscal year from 1848 to 1852 inclusive :

	1848.	1849.	1850.	1851.	1852.
Miles of steamboat service..	4, 385, 800	4, 083, 976	4, 109, 981	5, 454, 982	6, 353, 409
Its annual cost	\$262, 019	\$278, 650	\$313, 943	\$454, 892	\$505, 815
Miles of railroad service....	4, 327, 400	4, 861, 177	6, 524, 593	8, 568, 707	11, 082, 768
Its annual cost	\$584, 192	\$635, 740	\$818, 227	\$985, 019	\$1, 275, 520
Cost of railroad and steam- boat service united.....	\$846, 211	\$914, 390	\$1, 132, 170	\$1, 439, 911	\$1, 781, 335

By the third section of the act, approved August 31, 1852, making appropriations for the service of this department, it is provided that the salaries of all route-agents be increased to one thousand dollars per annum.

The effect of this provision is to give the same compensation to each one of these agents, without reference to the amount of service rendered by them respectively, and it takes from the Postmaster General the power of adjusting their pay according to the labor and responsibility of the service performed by them. It operates unequally, and, with the present amount of railroad service, has increased the cost of transporting the mails more than \$50,000. I respectfully recommend the repeal of this provision, and that the Postmaster General be authorized to graduate these salaries according to the service performed.

The contractor on the route from Salt Lake City to Sacramento, in California, never having performed efficient service on that route, this department has entered into an arrangement with another contractor, who binds himself not only to perform the service as originally required, but also to establish and maintain a fortified post or station at Corson's Valley, which will, it is expected, increase the security of the mails, and afford protection to the numerous emigrant trains on their journey to California.

Since the last annual report from this department, the Collins line of steamers has continued its service between New York and Liverpool, according to an arrangement then existing, by which weekly trips in American steamers were secured between the two countries.

The ships of this line have preserved their early reputation for unrivalled speed and sea-worthiness. Their departures have been punctual, and they have performed their voyages with great regularity. The company has kept a spare ship in port ready to replace any one which might be temporarily disabled, or withdrawn for repairs, and has, in other respects, manifested a disposition to perform the service in a creditable manner.

By the act of August 31, 1852, this department was authorized to make an arrangement with the Ocean Steam Navigation Company for one additional trip on the Havre line, and one additional trip on the Bremen line, until the expiration of their existing contract, and also in its discretion to negotiate for the change of the Havre line from Havre to Antwerp. Owing, as is stated by the proprietors of those lines, to

the inadequacy of the remuneration received for their present service, they are unwilling to extend it, either by increasing the number of their trips, or adding to the length of their voyages. They complain that while the Collins line receives \$33,000 a trip, the Havre line receives only \$12,500, and the Bremen line only \$16,666, for service in the latter case more arduous in its nature and over a longer route. They ask that such remuneration may be given them as will justify their increasing the number of their ships, and thus enable them not only to meet the requirements of the service, by changing the terminus of their route from Havre to Antwerp, but also to perform such additional trips as may be desired.

As an inducement for this increase of pay, they show that, in addition to their having performed their mail service as efficiently as could be expected with the limited means allowed them, the exports from Germany to this country have increased, since they commenced running, from three millions to ten millions of dollars; that the number of emigrants is increasing, and the gross sum which they at present bring to this country amounts to fifteen millions of dollars annually.

It was for this object—for the purpose of extending our intercourse and increasing our mercantile relations with Germany—that this line was established. The results have equalled the expectations of its friends; and it now remains for Congress to decide whether the necessary aid shall be extended, or whether we shall abandon to the English the profits of our increasing trade with the advantages that flow from it.

Semi-monthly ocean service, as last reported from this department, was continued between New York and California and Oregon until July last, when, under authority of a provision contained in the naval appropriation act of March 3, 1851, the running of the mail steamers on the New York, Havana, New Orleans, and Chagres lines was rearranged, so as to afford a more direct despatch of the mails to and from the Pacific. This service is now divided into three distinct lines, viz: from New York and New Orleans to Aspinwall, (both direct,) and from New York, by Havana, to New Orleans. This change is made with the assent of the Secretary of the Navy, on the application of the contractors, and with the understanding that the government is not responsible for any additional expense involved in it. The former arrangement may be restored at the desire of either party, on one month's notice.

The convention between this department and the Post Office Department of Prussia, which at the date of the last annual report from the Postmaster General remained unexecuted, has since been concluded, and went into operation in October last. This convention provides for a closed mail, to be despatched in each direction between the United States and Prussia regularly *twice* a week, via London and Ostend. New York and Boston are the offices of exchange on the part of the United States, and Aix la Chapelle is the corresponding office of exchange on the part of Prussia.

By this convention, a uniform postage rate of thirty cents (prepayment of which is optional in either country) is established, for all letters not exceeding half an ounce in weight, between the two countries. Six

cents is the rate established for each newspaper, to be prepaid. This convention also provides for the transmission of mails not only through Germany, but also through the United States, to countries beyond, and has induced this department to discontinue the closed mail to Bremen. It is estimated that the countries (including the German-Austrian Postal Union) which are thus brought into postal communication with the United States embrace a population of seventy millions.

As a necessary consequence of our convention with Prussia, the larger part of the continental correspondence, which formerly went by the way of Bremen, is now sent via London, Ostend, and Aix la Chapelle—the latter being the more expeditious route. The mails for Bremen, however, and such as may be addressed via Bremen to other German States and countries beyond, will continue to be despatched monthly by the New York and Bremen line.

A *projet* of a postal convention between the United States and Belgium has been prepared and submitted by this department, for approval, to the Belgian government, and it is confidently expected that in the course of a few months, at farthest, an arrangement, which shall be mutually advantageous, will be duly sanctioned and put in operation.

Our postal convention with Great Britain has not yet been so modified as to admit of the exchange of a closed mail with France *via* England; the British government, with reference to such mail, still insisting on a transit postage of twenty-four cents an ounce.

France has manifested a disposition for improved mail facilities with this country, and has made proposals for a postal treaty with the United States, to operate independently of our treaty with Great Britain. How far the negotiations on this subject have progressed, I am not at present prepared to state. It is hoped, however, that they may be conducted to a favorable issue at an early day. Connected with this project, France proposes, in conjunction with the United States, to establish a union line of mail steamships direct between New York and Havre.

Under our postal treaty with Great Britain, additional articles have been agreed upon, and are ready for signature, providing for a regular mail arrangement between the United States and the West Indies generally, and points on the coast of Mexico, and northern coast of South America, at which the British mail packets touch. To the British West Indies, the United States single rate of letter postage, which must be prepaid on letters sent from, and collected on letters received in the United States, will be ten cents, where the distance from the mailing office is under 2,500 miles; and twenty cents where the distance exceeds 2,500 miles. To the West Indies—not British—Mexico, and South America, by this channel, the British postage of twenty-four cents, the single rate, also required to be prepaid, must be added to the ten or twenty cents, United States rate, according to distance, as above. This arrangement, it is expected, will go into effect without delay.

In accordance with the wishes of the Hawaiian government, arrangements have been made by which letters for the Sandwich Islands are despatched in sealed packets, by each mail steamer from New York, and conveyed through to Honolulu without being opened. On all letters and newspapers for these Islands, however, as well as to China, by this

route, it is required that the United States postage to San Francisco be prepaid.

The act of March 3, 1851, "to reduce and modify the rates of postage in the United States, and for other purposes," authorized the Postmaster General to allow increased commissions to postmasters whose labors had been increased and their commissions reduced by the operations of that act. The maximum allowance thus authorized was twenty per cent. added to the amount of commissions received for the fiscal year ended June 30, 1851.

In the exercise of the authority thus granted, the late Postmaster General issued an order on the 29th of October, 1851, allowing increased commissions to all postmasters entitled thereto, varying from ten to twenty per cent., according to the gross receipts of their offices. This order applied to the settlement of the accounts for the fiscal year 1852, and reserved the rate of allowance to be made thereafter, "for future consideration, after the accounts for the first three quarters of that year should have been adjusted by the Auditor."

When the result of this adjustment was reported to him, the late Postmaster General issued the following order, which is now in force:

Increased Commissions to Postmasters.

POST OFFICE DEPARTMENT,
August 7, 1852.

The Postmaster General being satisfied that the labors of postmasters have been so increased with the increasing business of the country, and by the operation of the act "to reduce and modify the rates of postage in the United States, and for other purposes," approved March 3, 1851, that the highest additional allowance of commissions authorized by the sixth section of that act will not afford them more than a reasonable compensation for such increased labors, it is

Ordered, That (with the restrictions and limitations hereinafter mentioned) the Auditor of the Treasury for the Post Office Department, in settling the accounts of postmasters for the fiscal year ending 30th of June, 1853, and for each succeeding year until otherwise ordered, shall, upon satisfactory proof being furnished him, by affidavit or otherwise, that the labors of any postmaster have been increased, and his commissions reduced as provided for by said act, allow and credit such postmaster the same amount of commissions allowed at his office for the fiscal year ended 30th of June, 1851, with 20 per cent. thereon added thereto: *Provided, however*, That the commissions to be allowed at any post office (other than a distributing office) shall not exceed the postages collected at such office during the period for which such allowance is made: *And provided, further*, That there shall not be allowed at any office where the compensation of the postmaster is by law limited to a fixed annual salary or compensation, any greater sum than shall be required to pay such salary or compensation and the actual and necessary expenses of his office.

N. K. HALL,
Postmaster General.

It will be perceived that this order makes it necessary, in the settlement of each postmaster's quarterly account, to compare the current business of his office with that of the corresponding quarter of the year 1851, and that his commission account for each quarter must remain unsettled until the end of the year, that the aggregate commissions accruing may be compared with the commissions allowed for that year. The effect of this in delaying and embarrassing the settlement of accounts in the Auditor's office, and increasing the labor of such settlement, is fully shown in the following letter from the Auditor, who recommends a repeal of the provision requiring this mode of settlement, and a return to the old system of uniform rates of commission on the amount of postages collected. I concur in his recommendation, both as to the repeal of the existing law and the rates of commission to be allowed.

AUDITOR'S OFFICE,
Post Office Department, November 19, 1852.

SIR: It is found in practice that the acts of Congress respecting the allowance of additional commissions to postmasters are extremely inconvenient and burdensome to this office. The 6th section of the act entitled "An act to reduce and modify the rates of postage," &c., approved March 3, 1851, provides, "that to any postmaster whose commissions may be reduced below the amount allowed at his office for the year ending the 30th of June, 1851, and whose labors may be increased, the Postmaster General shall be authorized in his discretion to allow such additional commissions as he may deem just and proper, provided that the whole amount of commissions allowed such postmaster during any fiscal year shall not exceed by more than 20 per centum the amount of commissions at such office for the year ending the 30th day of June, 1851."

And the 9th section of the act entitled "An act to establish certain post roads, and for other purposes," approved August 31, 1852, provides "that the Auditor of the Treasury for the Post Office Department may, under such regulations and restrictions as the Postmaster General may prescribe, allow to every postmaster whose office was not established until after the 1st day of July, 1850, or whose commissions, in consequence of the increase of labor and business of his office, shall have equalled or exceeded the commissions allowed at such office for the year ending on the 30th day of June, 1851, such compensation in addition to his legal commissions as will, in the judgment of such Auditor, make the compensation of such postmaster equal, as near as may be, to the compensation of other postmasters in the same section of the country whose labors are the same as his, and who are entitled to additional allowance under the 6th section of the act entitled 'An act to reduce and modify the rates of postage in the United States, and for other purposes,' approved March 3, 1851, and under orders of the Postmaster General made in pursuance of the provisions of the said 6th section of the act aforesaid."

To entitle a postmaster to additional commissions under these laws, it must satisfactorily appear, first, "that by their enactment and opera-

tion the labors of his office have been increased, and that his commissions have been reduced below the amount allowed for the fiscal year that ended on the 30th of June, 1851; or, secondly, that his office was not established until after the 1st day of July, 1850," &c. If these facts are sufficiently shown, additional commission, at different rates, is, according to the present practice, allowed as follows:

1. Where the commissions of the postmaster for the year ending June 30, 1851, did not exceed \$50, the same amount of commissions which was allowed for that year, with twenty per cent. added thereto, is allowed him.

2. Where they exceeded \$50, but did not exceed \$100, the same amount, with fifteen per cent. added thereto, is allowed.

3. Where they exceed \$100, but not \$500, the same amount, with twelve and a half per cent. added thereto, is allowed.

4. Where they exceed \$500, the same amount, with ten per cent. added thereto, is allowed; but the commissions allowed to any postmaster (other than at a distributing office) are not permitted to exceed the postages collected at his office during the period for which the allowance is made.

5. Where the office was not established until after the 1st of July, 1850, &c., such compensation, in addition to his legal commissions, is allowed the postmaster, as will make his compensation equal, as near as may be, to the compensation of other postmasters in the same section of country, &c.

These various contingencies and conditions cannot be determined until the accounts for an entire fiscal year are adjusted. Commissions are therefore computed by postmasters in their quarterly accounts mainly according to the old rates of allowance, and the adjustment of additional commissions has become, as it were, a separate business, superadded to the adjustment of quarterly accounts, and is devolved exclusively on this office. First, it audits and adjusts the quarterly accounts of some twenty thousand postmasters; and then, as the additional commissions are dependent for their allowance upon no uniform rule, acting equally and applicable alike to all postmasters, but upon the facts of each particular case, it has at the end of a fiscal year to re-examine these twenty thousand accounts to see which of them are entitled, and in what proportions, to said additional compensation. Postmasters meanwhile, not knowing what additional allowances may be made them, are unable to determine how much they owe the department at the end of each quarter and at the close of the year. Their accounts and the Post Office accounts necessarily disagree; and, by consequence, some pay too much, others not enough, and others, again, excuse themselves from any payment.

Furthermore, these disagreements produce confusion and perplexity in settlements, retard collections, and require, in explanation and removal of the difficulties they create, a correspondence beyond the ability of this office to conduct with requisite promptness; and although the most strenuous exertions are made, with an insufficient force, to meet and respond to the additional demands thus made upon the office, postmasters complain, and with apparent reason, that their letters are not duly answered.

Another evil is, that the additional labor thus thrown upon the office has interrupted and retarded its current and general business to a degree that calls for immediate relief, and I have no hesitation in saying that it is impracticable to continue to adjust commissions in the manner at present required to comply with the law.

The only effectual remedy for these evils is the adoption of the old system of uniform rates of per-centage upon the proceeds of offices, depending on no condition or discretion; and I would respectfully suggest the following as a scale of rates that should be adopted and tried, viz: Say for an office collecting postage to the amount of \$3,000—

Allow on \$100, 50 per cent. commission	\$50 00
300, 40 .....do.....	120 00
2,000, 33 $\frac{1}{3}$ .....do.....	666 66
600, 12 $\frac{1}{2}$ .....do.....	75 00
	\$911 66

The present rates are as follows:

On \$100, 40 per cent. commission	40 00
300, 33 $\frac{1}{3}$do.....	100 00
2,000, 30do.....	600 00
600, 12 $\frac{1}{2}$do.....	75 00
	815 00

Difference	96 66
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I also think that a postmaster should be entitled to a small compensation—say to the amount of two mills (or about 2 $\frac{1}{2}$ cents per quarter for a weekly paper)—for delivering from his office to a subscriber each newspaper not now chargeable with postage.

I have the honor to be, very respectfully, sir, your obedient servant,
 J. W. FARRELLY.

HON. S. D. HUBBARD,
Postmaster General.

The attention of Congress should, I think, be called to the fact that although the 6th and 7th sections of the act of 3d March, 1851, before referred to, provide that neither the compensation of postmasters, nor the ordinary extension of mail service, should be diminished in consequence of any diminution of the revenues resulting from that act, no provision was made for the protection of the rights and interests of a large class of persons employed as contractors on special routes, and as mail messengers, whose compensation depends upon the amount received from postages at the offices supplied by them.

There are not less than 2,500 persons employed in carrying the mail for the net proceeds of the offices supplied; limited, however, in every case, to a certain sum, equal to that paid for similar service on public routes in the same section.

On a few of the special routes, the amount collected is more than

sufficient to pay the contractor, and considerable balances remain, to be applied to the ordinary expenses of the department; but on a large portion of them, the amount received under even the *old* rates of postage was insufficient to pay the compensation allowable for his service. Upon this class of contractors the reduction of postages operated with great hardship, and every additional allowance to the postmaster has still further diminished the fund which alone can be applied to the payment of the contractor.

On the 25th of March last the Senate adopted a resolution, by which the Postmaster General was requested to embody in his next annual report, answers to numerous questions embraced in the resolution, relating to the business of this department, and its receipts and expenditures under various enumerated heads, for the fiscal year ending 30th June, 1852.

Much of the information sought by these questions could not be furnished in the form desired, from the accounts ordinarily rendered by postmasters, nor from the books of the Auditor's office, in which the accounts of this department are kept. Neither could it be furnished with perfect accuracy for the whole year in any other mode than by prescribing to postmasters, before the commencement of the year, a new form of accounts to be kept for this object, in addition to those now required from them; and, as nearly three months of the year had elapsed before the passage of the resolution, it was obviously impossible to overcome this difficulty. Desirous, however, to comply as far as possible with the request of the Senate, the late Postmaster General referred the resolution to the Auditor for this department immediately on its receipt, and desired him to adopt such means as remained in his power for collecting the information called for. By correspondence with postmasters at the principal offices, and from the accounts returned to his office for settlement, the Auditor has made (in cases where perfect accuracy could not be attained) estimates which are deemed reliable, and has thus been enabled to furnish, in his annexed report, answers to most of the questions referred to.

The whole number of paid and unpaid letters which have passed through the post offices of the United States during the last fiscal year, was 95,790,524.

Of those passing to and from places in the United States, exclusive of California and Oregon, there were—

Unpaid	32,672,765
Paid by money	18,448,510
Paid by stamps	31,897,750
Free	3,146,000
There were conveyed by European steamers	4,421,547
Do do Havana steamers	99,372
Do do California steamers	1,495,537
Number of dead letters—unpaid	2,635,909
Do do paid	444,091
Number of newspapers and other packages of printed matter, chargeable with postage	87,710,490

Number of exchange newspapers.....	7,073,548
Newspapers circulated free within the counties where published, estimated.....	20,000,000

Number of letters conveyed by Cunard line of European steamers.....	2,758,096
Number of letters conveyed by Collins line.....	963,692
Do do do Bremen line.....	354,470
Do do do Havre line.....	345,287

Amount of postages collected from Collins and Cunard lines.....	\$794,440 58
Of which was collected in the United, States.....	\$463,615 98
Do do in Great Britain..	325,824 60

Number of dead letters returned to Great Britain.....	124,548
Of which 21,589 were paid, and 102,959 unpaid.	
Amount due the United States thereon.....	\$13,541 52

Number of dead letters received from Great Britain...	38,505
Of which 9,860 were paid, and 28,645 unpaid.	
Amount due Great Britain thereon.....	\$1,815 65

Number of dead letters returned to Bremen.....	3,801
Number of dead letters received from Bremen.....	2,587

In his last annual report, my predecessor in office suggested that it should be earnestly and urgently recommended to Congress to take immediate and effectual measures for the extension of the west wing of the building occupied by this department, or for the erection of its north front, according to the original plan.

It would seem unnecessary for me to say that the reasons then urged for an enlargement of the building have become more imperative. Important papers are accumulating in the unsafe rooms over the city post office, to which it became necessary to remove a part of the force of the Auditor's office, in consequence of the crowded state of the rooms in the main building. More room, too, is required for the accommodation of the city post office, and it can only be provided by the proposed enlargement.

When it is considered that much time must be consumed before the additional structure can be completed, and that in the mean time the existing evils will continue to increase, I cannot doubt that Congress will take immediate action in the matter when the attention of that body shall be directed to it.

I think it proper to state, in connexion with this subject, that owing to injudicious construction of the chimneys in the post office building, the department has been subjected to great expense in fruitless attempts to warm the several rooms without the diffusion of gas and smoke. I respectfully suggest that it would not only conduce greatly to the relief and comfort of the officers employed in the building to have it warmed by means of hot water. or steam-pipes, but that this method would also, it is believed, prove much less expensive than the present one,

and that the cost of introducing it would be very soon reimbursed by the consequent saving in fuel.

The grand jury of Philadelphia have presented the rooms occupied as a post office in that city, and ascribe the numerous charges which are made against it to the deficiencies of the building, rather than to any want of diligence and attention to their duties on the part of its officers. This department does not feel itself justified, even if it possessed the power, to erect a new office; but while it recommends, respectfully leaves it to Congress to supply the remedy.

At the last session of Congress a resolution was introduced, but not acted on, authorizing the Postmaster General to allow, at his discretion, a sum not exceeding \$20,000 to the contractors for carrying the mail between this city and Richmond, and thus enable them to keep in operation the ice-boats necessary to secure certainty, and prevent delay in the transportation of the mails on that route. I respectfully ask that the attention of Congress be called to this resolution, and that its passage be recommended.

This department has received, through the medium of the honorable Abbott Lawrence, late minister to England, the proceedings of an association formed in London for the purpose of promoting a cheap and uniform system of international postage. The object aimed at by this association is very desirable, and well worthy of the attention of this government; but in the imperfect state of our foreign postal arrangements, I deem it inexpedient to enter, at present, on any new experiment.

In conclusion, I desire to express my obligations to my predecessor, the Hon. N. K. Hall, for the aid he has afforded me in compiling this report. The statistics he had in preparation, and the method he had established in the department, have materially assisted me in the discharge of my duties. I would respectfully recommend that a statistical and historical sketch of this department, which he submitted to the Post Office Committees of Congress, be continued, as a valuable work of reference.

The industry and attention to their laborious duties exhibited by the Assistant Postmasters General, the chief clerk, and the other clerks of this department, demand my thanks.

I have the honor to be, your obedient servant,

S. D. HUBBARD,
Postmaster General.

The PRESIDENT.

B.—Railroad service and cost for the years 1848, 1849, 1850, 1851, and 1852.

States.	1848.		1849.		1850.		1851.		1852.	
	Transportation.	Cost.	Transportation.	Cost.	Transportation.	Cost.	Transportation.	Cost.	Transportation.	Cost.
	Miles.	Dollars.	Miles.	Dollars.	Miles.	Dollars.	Miles.	Dollars.	Miles.	Dollars.
Maine	70, 824	6, 733	91, 416	6, 823	117, 000	12, 254	177, 528	15, 397	177, 528	15, 397
New Hampshire	144, 768	10, 504	144, 768	10, 504	187, 200	17, 139	212, 160	18, 240	220, 272	16, 498
Vermont					188, 604	28, 875	235, 668	32, 262	270, 660	31, 508
Massachusetts	906, 284	70, 706	942, 486	72, 654	1, 143, 626	98, 312	1, 218, 312	100, 603	1, 276, 912	101, 320
Rhode Island	30, 264	4, 850	30, 264	4, 850	86, 112	8, 612	86, 112	8, 612	86, 112	8, 612
Connecticut	230, 444	22, 192	230, 444	22, 192	529, 678	46, 014	552, 944	46, 471	565, 365	47, 236
New York	735, 076	62, 958	808, 812	66, 872	1, 413, 042	123, 920	2, 177, 604	176, 175	2, 837, 276	262, 830
New Jersey	208, 728	37, 551	264, 992	37, 422	273, 728	37, 622	264, 368	36, 976	307, 320	49, 122
Pennsylvania	356, 720	43, 357	394, 342	39, 035	472, 446	48, 050	561, 990	57, 915	866, 606	71, 165
Maryland	391, 768	95, 745	396, 656	94, 612	396, 656	99, 612	601, 224	113, 450	597, 064	112, 700
Ohio	96, 928	9, 115	183, 560	19, 730	183, 560	19, 730	516, 984	76, 799	671, 632	100, 674
Virginia	118, 248	25, 043	211, 393	51, 107	211, 393	51, 107	233, 961	52, 507	366, 946	73, 393
North Carolina	179, 816	46, 700	179, 816	46, 700	179, 816	46, 700	179, 816	46, 700	263, 016	53, 571
South Carolina	150, 696	39, 812	179, 816	41, 862	179, 816	41, 862	230, 828	45, 366	411, 528	52, 010
Georgia	404, 196	74, 037	429, 156	76, 017	470, 152	80, 376	470, 152	80, 376	820, 071	116, 989
Florida					7, 176	620	7, 176	620		
Michigan	149, 760	13, 374	214, 968	23, 188	305, 864	33, 593	304, 720	34, 482	601, 120	83, 958
Indiana	53, 664	3, 729	54, 288	3, 729	64, 896	4, 029	99, 216	10, 650	215, 904	22, 511
Illinois							65, 520	6, 344	106, 704	9, 164
Kentucky							40, 040	1, 535	136, 864	8, 840
Tennessee									83, 616	5, 742
Alabama	70, 512	13, 843	70, 512	13, 843	70, 512	13, 843	83, 616	17, 443	155, 688	26, 180
Mississippi	28, 704	3, 943	33, 488	4, 600	43, 316	5, 950	43, 316	5, 950	43, 316	5, 950
Louisiana							1, 248	150	1, 248	150
Total	4, 327, 400	584, 192	4, 861, 177	635, 740	6, 524, 593	818, 227	8, 364, 503	985, 019	11, 082, 768	1, 275, 520

POST OFFICE DEPARTMENT,
Contract Office, December 1, 1852.

SIR: For a statement of the mail service for the contract year ending 30th of June, 1852, I respectfully refer you to the tables hereto annexed.

Table A exhibits the character of the service, the number of miles of transportation, and the cost thereof, as it stood at the close of the year.

Table B shows the number of mail routes in operation, and the number of mail contractors, route agents, local agents, and mail messengers, in the service of the department on the 30th of June, 1852.

On the first of July last, the new service in the middle section, comprising the States of New Jersey, Pennsylvania, Delaware, Maryland, and Ohio, was put in operation; the first quarter of which expired the 30th of September last. Table C exhibits the service of this section as it stood at the close of the contract year, 30th of June, 1852, and at the close of the first quarter of the current year.

Tables D and E exhibit the railroad and steamboat service for the current year, showing the particulars of each railroad and steamboat route under contract.

Table F presents a statement of United States mail service abroad, or ocean routes, discriminating between those under contract, agreeably to act of Congress, with the Secretary of the Navy, and those under contract with this department.

I have the honor to be, very respectfully, your obedient servant,

W. H. DUNDAS,

Second Assistant Postmaster General.

HON. S. D. HUBBARD,
Postmaster General.

A.

Table of mail service for the year ending June 30, 1852, as exhibited by the state of the arrangements at the close of the year.

[The entire service and pay are set down to the State under which it is numbered, though extending into other States, instead of being divided among the States in which each portion of it lies.]

States.	Length of routes. Miles.	ANNUAL TRANSPORTATION AND RATE OF COST.								Total annual transportation by mode not specified. Miles.	Total annual transportation by coach. Miles.	Total annual transportation by steamboat. Miles.	Total annual transportation by railroad. Miles.	Total annual transportation. Miles.	Total annual rate of cost. Dollars.	
		Mode not specified.		In coach.		In steamboat.		By railroad.								
		Miles.	Dollars.	Miles.	Dollars.	Miles.	Dollars.	Miles.	Dollars.							
Maine.....	4,605	1,984	13,132	2,423	25,434	.....	.....	198	15,397	402,074	1,003,704	.....	177,528	1,583,306	53,963	
New Hampshire.....	1,921	689	5,337	959	7,030	.....	30	100	243	182,936	360,464	.....	7,800	220,272	771,472	28,965
Vermont.....	2,393	777	7,592	1,207	11,187	.....	.....	409	31,508	224,085	466,856	.....	.....	270,660	961,601	50,287
Massachusetts.....	3,172	990	14,731	833	15,978	.....	265	4,500	1,080	101,320	405,322	165,360	1,276,912	2,317,154	136,529	.....
Rhode Island.....	430	225	2,376	111	1,623	.....	.....	94	8,612	77,896	64,584	.....	.....	86,112	228,592	12,611
Connecticut.....	1,833	686	7,589	583	10,412	.....	.....	564	47,236	244,360	264,992	.....	.....	565,365	1,074,717	65,237
New York.....	14,741	5,920	55,667	5,773	88,108	1,186	35,610	1,862	262,830	1,583,376	2,943,498	552,588	2,837,276	7,916,738	442,215	.....
New Jersey.....	2,673	1,234	9,398	1,135	13,609	.....	28	300	276	49,122	310,128	.....	14,560	307,320	1,116,296	72,429
Pennsylvania.....	12,314	7,817	48,966	3,754	63,146	.....	.....	743	71,165	1,229,402	1,817,146	.....	.....	866,606	3,913,154	183,277
Delaware.....	538	328	3,332	210	5,856	.....	.....	.....	(*)	84,344	96,304	.....	.....	.....	180,648	9,188
Maryland.....	2,547	1,578	15,226	555	33,839	.....	.....	414	112,700	359,467	406,120	.....	.....	597,064	1,362,651	161,765
Ohio.....	13,505	8,886	52,256	3,259	93,132	.....	557	22,297	803	100,674	1,339,846	1,824,780	236,912	671,632	4,073,170	268,359
Virginia.....	13,431	9,465	55,480	2,638	34,505	.....	873	40,495	455	73,393	1,427,781	921,150	374,434	366,946	3,090,311	203,873
North Carolina.....	8,641	6,208	35,294	1,898	41,282	.....	286	37,418	249	53,571	869,066	681,460	163,280	263,016	1,976,822	167,585
South Carolina.....	6,162	4,170	39,052	550	15,053	.....	990	20,500	452	52,010	647,446	223,444	246,480	411,528	1,528,898	126,615
Georgia.....	8,503	5,437	44,874	1,123	37,102	.....	1,158	11,610	785	116,989	797,380	540,956	157,664	820,071	2,316,071	210,575
Florida.....	2,520	1,543	13,408	697	12,010	.....	280	3,990	.....	184,860	138,216	.....	36,920	.....	359,996	29,408
Michigan.....	6,444	3,298	14,400	1,415	21,374	1,153	23,320	.....	578	83,958	423,949	583,258	319,488	601,120	1,927,815	143,052
Indiana.....	9,677	7,688	46,750	1,454	33,092	.....	189	3,220	346	22,511	1,132,012	610,984	87,360	215,904	2,046,260	105,573
Illinois.....	12,432	7,265	39,425	4,565	121,035	.....	450	5,773	171	9,164	957,320	1,873,352	260,000	106,704	3,197,376	175,397
Wisconsin.....	5,975	3,931	22,353	1,964	26,075	.....	80	1,280	.....	433,300	633,776	.....	49,920	.....	1,116,996	49,708
Iowa.....	4,258	2,789	15,782	1,469	20,906	.....	.....	.....	.....	386,152	485,848	.....	.....	.....	872,000	36,688
Missouri.....	13,073	7,891	46,116	3,482	84,966	1,700	135,880	.....	.....	1,051,934	632,852	1,060,800	.....	.....	2,745,586	166,992
Minnesota.....	1,737	1,288	1,369	179	733	.....	270	650	.....	52,140	22,360	.....	.....	.....	107,260	2,772
Kentucky.....	9,797	5,726	36,558	1,737	47,223	2,240	174,900	.....	94	8,840	935,722	793,684	1,248,791	136,864	3,109,261	167,521
Tennessee.....	8,920	6,476	35,078	1,821	39,597	.....	489	8,000	134	5,742	960,060	635,232	101,712	83,616	1,780,620	88,417
Alabama.....	8,024	6,263	53,350	1,401	74,159	.....	229	29,654	121	26,180	1,035,372	708,656	146,432	155,688	2,047,148	183,343
Mississippi.....	6,557	5,098	46,028	916	38,479	.....	484	9,755	59	5,950	783,774	353,496	.....	43,216	1,418,110	100,21

* The Baltimore, Wilmington, and Philadelphia railroad is under a Maryland number.

† This embraces the steamboat service from St. Louis to New Orleans.

‡ This embraces the steamboat service from Louisville to Cincinnati and from Louisville to New Orleans.

A—Table of mail service for the year ending June 30, 1852—Continued.

States.	Length of routes.	ANNUAL TRANSPORTATION AND RATE OF COST.								Total annual transportation by mode not specified.	Total annual transportation by coach.	Total annual transportation by steamboat.	Total annual transportation by railroad.	Total annual transportation.	Total annual rate of cost.
		Mode not specified.		In coach.		In steamboat.		By railroad.							
		Miles.	Dollars.	Miles.	Dollars.	Miles.	Dollars.	Miles.	Dollars.						
Arkansas	7,023	5,682	36,246	391	18,482	950	19,000	.....	.....	708,136	123,552	205,400	.....	1,037,088	73,728
Louisiana	4,333	2,927	30,586	471	18,276	933	*46,563	2	150	397,384	136,448	359,320	1,248	894,400	95,575
Texas	9,878	7,621	62,882	1,087	46,623	1,170	32,000	.....	.....	904,656	258,806	130,000	.....	1,293,462	141,505
California	3,128	2,503	81,795	405	26,085	220	21,000	.....	.....	227,365	113,984	146,640	.....	487,989	128,880
Oregon	1,689	1,469	23,952	.....	.....	220	18,000	.....	.....	71,816	.....	16,264	.....	88,080	41,952
New Mexico	1,100	1,100	13,100	.....	.....	.....	.....	.....	.....	18,360	.....	.....	.....	18,360	13,100
Utah	290	100	150	190	2,545	.....	.....	.....	.....	2,400	23,920	.....	.....	26,320	2,695
Total	214,284	137,053	1,029,650	50,655	1,128,986	16,430	505,815	10,146	1,275,520	20,850,621	20,698,930	6,353,409	11,082,768	58,985,728	3,839,971
Route and local agents and mail messengers .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	196,936
Foreign mails	7,749	60	†48,039	.....	.....	7,689	400,000	.....	.....	2,880	.....	200,592	.....	203,472	448,039
Total	222,033	137,113	1,077,689	50,655	1,128,986	24,119	905,815	16,146	1,275,520	20,853,501	20,698,930	6,554,001	11,082,768	59,189,200	4,584,946

* This includes the route from New Orleans to Mobile.

† This is for service from Panama to Chagres, performed by the Panama Railroad Company, at a stipulated price per trip, according to the weight of the mail, and which varies from year to year. The sum stated (\$48,039) is estimated from December 1, 1851, since which time no payment has been made.

W. H. DUNDAS, Second Assistant Postmaster General.

B.—Number of mail routes, mail contractors, route agents, local agents, and mail messengers, at the close of the contract year ending June 30, 1852.

Sections.	Routes.	Contractors.	Route agents.	Local agents.	Mail messengers.
New England	810	735	38	.....	100
New York	764	667	36	1	225
Middle	1,285	854	41	.....	147
Southern	1,191	855	25	.....	38
Northwestern	1,412	950	12	5	42
Southwestern	1,243	1,140	5	13	47
Ocean routes	6	5	7	2	.....
Total	6,711	5,206	164	21	599

WM. H. DUNDAS,
Second Assistant Postmaster General.

C.—Mail service in the middle section for the year ending June 30, 1852.

	Annual transportation.	Annual cost.
	<i>Miles.</i>	<i>Dollars.</i>
Railroads	2,442,622	333,661
Steamboats	251,472	22,597
Coaches	4,628,638	209,582
Inferior modes	3,323,187	129,178
Total	10,645,919	695,018

As in operation on the first of October, 1852.

	Annual transportation.	Annual cost.
	<i>Miles.</i>	<i>Dollars.</i>
Railroads	2,699,910	430,881
Steamboats	114,816	8,400
Coaches	5,121,064	276,140
Inferior modes	3,021,088	128,302
Total	10,956,878	843,723
	10,645,919	695,018
Difference	310,959	148,705

WM. H. DUNDAS,
Second Assistant Postmaster General

D.

Railroad service, as in operation on the 1st of October, 1852.

States.	Number of route.	Termini.	Distance.	Total distance in each State.	Number of trips per week.	Annual pay.	Annual pay in each State.	Remarks.	
			<i>Miles.</i>	<i>Miles.</i>					
Maine	6	From Augusta to Brunswick	34		12	\$2,500 00	-----	Embraces side supply.	
Do.....	61a	From Bangor to Upper Stillwater.....	9		6	50 00			
Do.....	91	From Danville Junction to Waterville.....	55		6	3,472 00			
Do.....	94	From Portland to Portsmouth, N. H.....	52½		12	6,718 00			
Do.....	97	From Portland to Northumberland, N. H.....	122		6	6,217 00			
Do.....	134	From Portland to Bath.....	34		12	1,900 00			
				306½			\$20,857 00		
New Hampshire.....	201	From Concord to Lowell, Mass.	50		18	6,429 00			Do.
Do.....	202	From Concord to Portsmouth	55½		12	2,220 00			Do.
Do.....	206	From Concord to Plymouth	50		6	2,393 00			Do.
Do.....	207	From Concord to White River Junction, with branch to Bristol	82		6	6,471 00		Do.	
Do.....	236a	From Great Falls to South Milton	12½		6	300 00			
Do.....	237a	From Dover to Farmington	18		6	80 00			
Do.....	262	From Concord to Bradford, with branch to Hillsboro' Bridge	40		6	825 00			
				308			18,718 00		
Vermont.....	301	From Windsor to Rouse's Point	171		6	12,044 00	-----	Do.	
Do.....	348	From Rutland to Troy, N. Y.	83		6	6,800 00			
Do.....	349	From Rutland to Eagle Bridge	62		12	4,925 00			
Do.....	360	From White River Junction to St. Johnsbury	61		6	4,393 00			
Do.....	365	From Bellows Falls to Windsor	24½		6	2,322 00		Do.	
Do.....	377	From Bellows Falls to Burlington.....	119		6	11,200 00		Do.	
				520½			41,634 00		

Massachusetts	401	Boston to Portsmouth, N. H.	54½	12	} 8,324 00	Do.
		Branch to Marblehead	4	6		
Do.	402	Boston to South Berwick Junction, with 3 miles' branch from Dover, N. H., to Great Falls	77½	12	6,921 00	Do.
Do.	403	Boston to Lowell	26	18	} 3,600 00	Do.
		Branch to Woburn	3	6		
Do.	404	Boston to Fitchburgh	50½	12	} 5,583 00	Do.
		Branch to Lexington	8	6		
Do.	405	Boston to Worcester	46	24	} 9,219 00	Do.
		Branch to Milbury	4	6		
Do.	406	From Boston to Providence	43	18	} 7,006 00	
		Branch to Dedham	5½	12		
Do.	407	From Boston to Plymouth, with branch to Bridgewater	45½	12	3,500 00	Do.
Do.	411	From Boston to Milton	7	6	190 00	
Do.	413a	From Salem to Lawrence	20	12	713 00	
Do.	418	From Lawrence to Salem, N. H.	7½	6	315 00	
Do.	421	From Lowell to Lawrence	12	12	500 00	
Do.	424	From Groton Junction to West Townsend	16	6	600 00	Do.
Do.	425	From Groton Junction to Lowell	18	6	600 00	Do.
Do.	428	From South Acton depot to Feltonville	9	6	450 00	Do.
Do.	430	From South Framingham to Milford	12	6	514 00	
Do.	436	From Dedham Junction to Blackstone	27	6	1,825 00	Embraces side supply, with permission to go through to and from Boston.
Do.	441	From South Braintree Junction to Fall River	42	12	3,579 00	Embraces side supply.
Do.	442	From Braintree to Cohasset, with six additional trips to Weymouth, (two miles)	12	6	514 00	Do.
Do.	448	From Middleboro' to Sandwich	28	6	1,400 00	Do.
Do.	464	From Taunton to Mansfield Junction	12	13	1,114 00	
Do.	465	From Staunton to New Bedford	21	13	1,950 00	
Do.	471	From Fitchburg to Bellows Falls, Vt.	64	6	5,729 00	Do.
Do.	472	From Fitchburg to Brattleboro', Vt.	59½	6	} 4,066 00	Do
			10¼	12		
Do.	478	From Worcester to Albany, N. Y.	56	18	} 22,543 00	
			101	12		
Do.	479	From Worcester to Nashua, N. H.	45	12	2,893 00	

D—Railroad service—Continued.

States.	Number of route.	Termini.	Distance.	Total distance in each State.	Number of trips per week.	Annual pay.	Annual pay in each State.	Remarks.
			<i>Miles.</i>	<i>Miles.</i>				
Massachusetts	503	From Springfield to Keene, N. H.	74	.....	6	\$5,400 00		
Do.....	505	From Springfield to Chicopee Falls.....	4	.....	12	172 00		
Do.....	512	From Pittsfield to North Adams.....	21	.....	6	900 00		
Do.....	520	From Sterling Junction to Fitchburg.....	14	.....	12	700 00		
				1060 1-12			\$100,820 00	
Rhode Island	602	From Providence to Stonington, Ct.....	50	.....	6	5,000 00		
Do.....	610	From Providence to Worcester, Mass.....	44	.....	12	3,612 00		
				94			8,612 00	
Connecticut.....	674	From Allyn's Point to Worcester, Mass.....	59	.....	12	8,000 00		
Do.....	687	From New Haven to Springfield.....	7	.....	6			
Do.....	688	From New Haven to Tariffville.....	63½	.....	18	10,857 00		
Do.....	689	Branch to Collersville.....	45½	.....	6	2,435 00		
Do.....	689	From Bridgeport to Winchester.....	11½	.....	6	2,657 00		
Do.....	705	From Bridgeport to State Line, Mass.....	62	.....	6	5,143 00		
Do.....	710	Branch to Pittsfield.....	98	.....	6			
Do.....	710	From New York, N. Y., to New Haven, Ct..	22	.....	18	13,132 00		
Do.....	711	From Hartford to Willimantic.....	78	.....	6	1,386 00		
			32½	.....				Embraces side supply and expenses of route agent, if one is required
Do.....	712	From New London to Palmer.....	65 7-10	.....	6	2,769 00		Do
Do.....	717	From Hartford to Bristol.....	20	.....	6	857 00		
				564½			47,236 00	
New York.....	806	From New York to Greenport.....	101	.....	6	4,329 00		
Do.....	810	From New York to Chatham Four Corners..	130	.....	6	5,543 00		

Do.....	811	From New York to Albany.....	144	.....	13	32,400 00
Do.....	813	From New York to Dunkirk.....	470 $\frac{1}{2}$	.....	19	94,100 00
		Branch, Elmira to Watkins.....	22	.....	6	1,100 00
Do.....	889	Branch, Newburgh to Chester.....	20	.....	6	1,000 00
		From Hudson to Chatham Four Corners.....	17	.....	12	1,000 00
Do.....	915	From Albany to Troy.....	6	.....	12	771 00
Do.....	916	From Albany to Schenectady.....	17	.....	26	4,250 00
Do.....	929	From Troy to Saratoga Springs.....	32	.....	13	3,962 00
Do.....	930	From Troy to Schenectady.....	20 $\frac{1}{2}$	.....	14	1,537 50
Do.....	935	From Saratoga Springs to Castleton, Vt.....	39 $\frac{1}{2}$	.....	12	5,809 00
Do.....	967	From Schenectady to Utica.....	78	.....	26	19,500 00
Do.....	1030	From Utica to Syracuse.....	53	.....	26	13,250 00
Do.....	1079	From Syracuse to Oswego.....	35 $\frac{1}{2}$	.....	13	3,297 00
Do.....	1080&1097	From Syracuse to Rochester.....	104	.....	26	26,000 00
Do.....	1164&1198	From Rochester to Buffalo.....	75	.....	26	18,750 00
Do.....	1217	From Buffalo to Niagara Falls.....	22	.....	7	1,000 00
Do.....	1244	From Niagara Falls to Lewiston.....	7	.....	6	172 00
Do.....	1246	From Owego to Ithaca.....	30	.....	6	1,286 00
Do.....	1252	From Rouse's Point to Ogdensburgh.....	119	.....	6	5,100 00
Do.....	1256	From Rome to Cape Vincent.....	72	.....	12	7,040 00
Do.....	1308	From Buffalo to State line.....	24	.....	6	6,900 00
Do.....	1309	From Watkins to Canandaigua.....	69	.....	7	2,325 00
Do.....	1314	From Hornellsville to Portageville.....	46	.....	12	1,286 00
Do.....	1315	From Schenectady to Ballston.....	30	.....	6	1,286 00
Do.....	1316	From Schenectady to Ballston.....	15	.....	6	480 00
Do.....	1316	From Corning to Wayland Depot.....	40	.....	6	1,714 00
Do.....	1317	From Rochester to Niagara Falls.....	40	.....	6	1,714 00
			76	.....	12	7,600 00
				1,915		271,501 50
New Jersey.....	9001	From New York to New Brunswick.....	36	.....	13	13,838 00
Do.....	9002	From New York to Paterson, N. J.....	18	.....	13	1,672 00
Do.....	9003	From New York to Dover, N. J.....	45	.....	12	3,857 00
Do.....	9020	From New York to Easton, Pa.....	64	.....	12	5,736 00
Do.....	9054	From New Brunswick to Philadelphia.....	54	.....	13	20,250 00
Do.....	9069	From Trenton to Lambertsville.....	17	.....	12	729 00
Do.....	9079	From Trenton to Mount Holly.....	7	.....	12	300 00
Do.....	9085	From Philadelphia to New York.....	93	.....	7	9,800 00
		Branch, Bordentown to Trenton.....	6	.....	
				340		56,182 00

..... Includes \$250 for mail messenger service.

D—Railroad service—Continued.

States.	Number of route.	Termini.	Distance.	Total distance in each State.	Number of trips per week.	Annual pay.	Annual pay in each State.	Remarks.
Pennsylvania	9200	From Philadelphia to Lancaster	70	14	\$14,000 00	\$104,839 00	\$100 additional for mail messenger.
		From Lancaster to Columbia	13½	.....	7	675 00	
Do.....	9210	From Philadelphia to Pottsville	97	.....	12	14,218 00	
Do.....	9223	From West Chester to Philadelphia	33	.....	12	850 60	
Do.....	9297	From Port Clinton to Tamaqua	20	.....	6	858 00	
Do.....	9302	From Lancaster to Harrisburg	37½	.....	14	7,522 00	
Do.....	9310	From Columbia to Middletown	19	.....	12	815 00	
Do.....	9316	From York to Harrisburg	27	.....	14	5,400 00	
Do.....	9328	From Harrisburg to Chambersburg	52	.....	7	5,200 00	
Do.....	9336	From Harrisburg to Pittsburg	236	.....	14	47,200 00	
Do.....	9352	From Chambersburg to Hagerstown	22	.....	6	943 00	
Do.....	9367	From Pottsville to Tuscarora	11½	.....	6	300 00	
Do.....	9441	From Blossburg to Corning	40	.....	6	1,715 00	
Do.....	9600	From Lodersville to Scranton	50	.....	6	2,143 00	
Do.....	9601	From Northville to Erie	20	.....	14	3,000 00	
				748½				
Maryland	9850	From Baltimore to Philadelphia	97	13	37,500 00	120,674 00	
Do.....	9851	From Baltimore to Washington, D. C.	40	.....	14	12,000 00	
		From Baltimore to Cumberland	179	.....	14	53,700 00	
Do.....	9852	From Cumberland to Fetterman, Va.	101	.....	7	2,216 00	
		Branch, Frederick to Junction	3	.....	7	300 00	
Do.....	9856	From Baltimore to York	57	.....	14	11,400 00	
		From York to Columbia	14	.....	7	700 00	
Do.....	9887	From Annapolis to Junction	20	.....	13	2,858 00	
				511				

Ohio.....	10056	From Cleveland to Erie, Pa.....	104	6	10,400 00
Do.....	10154	From Springfield to Dayton.....	24	6	2,400 00
Do.....	10156	From Columbus to Xenia.....	54	13	12,916 00
Do.....	10160	From Columbus to Cleveland.....	138	12	33,120 00
Do.....	10185	From Mansfield to Sandusky.....	61	6	5,239 00
Do.....	10186	From Mansfield to Newark.....	63	6	5,400 00
Do.....	10234	From Springfield to Sandusky.....	134	6	15,000 00
		Branch to Finley.....	16	6	
Do.....	10264	From Cincinnati to Springfield.....	66	13	17,740 00
			19	6	
Do.....	10266	From Cincinnati to Dayton.....	60	6	6,000 00
Do.....	10284	From Hamilton to Eaton.....	27	6	1,157 00
Do.....	10329	From Cleveland to Wellsville.....	100	6	10,000 00
Do.....	10330	From Pittsburg to Wooster.....	135	6	13,500 00
Do.....	10331	From Zanesville to Columbus.....	60	13	12,000 00
Do.....	10334	From Hillsboro' to Loveland.....	37	6	1,850 00
Do.....	10342	From Galion to Marion.....	21	6	900 00
Do.....	10343	From Dayton to Greenville.....	35	6	1,516 00
				1,154	
					149,138 00
Virginia.....	2401 pt.	From Richmond to Aquia Creek.....	75 $\frac{3}{4}$	14	22,700 00
Do.....	2429	From Richmond to Woodville Depot.....	108 $\frac{1}{2}$	7	9,050 00
Do.....	2433	From Richmond to Petersburg.....	24 $\frac{1}{2}$	14	7,350 00
Do.....	2443	From Petersburg to Rice's Depot.....	62 $\frac{1}{2}$	6	2,678 00
Do.....	2445	From Petersburg to City Point.....	12	6	450 00
Do.....	2448	From Petersburg to Weldon, N. C.....	64	14	19,200 00
Do.....	2452	From Hicksford to Gaston, N. C.....	20	7	2,000 00
Do.....	2470	From Portsmouth to Weldon, N. C.....	80	7	8,000 00
Do.....	2533	From Winchester to Harper's Ferry.....	32	6	2,743 00
Do.....	2724	From Alexandria to Gainesville and Manas- sas Station to Walnut Branch.....	52 $\frac{1}{2}$	7	2,625 00
Do.....	2728	From Richmond to Burkesville.....	55	6	2,358 00
				587	
					79,154 00
North Carolina.....	2801	From Raleigh to Gaston.....	87	3	3,729 00
Do.....	2826	From Weldon to Wilmington.....	162	14	48,600 00
				249	
					52,329 00
South Carolina.....	3101	From Columbia to Branchville.....	69	7	6,900 00
Do.....	3102	From Columbia to Hodges.....	98 $\frac{1}{2}$	6	4,912 50
Do.....	3103	From Columbia to Rock Hill.....	85	6	4,250 00
Do.....	3108	From Camden to Junction.....	39	7	1,950 00

D—Railroad service—Continued.

States.	Number of route.	Termini.	Distance.	Total distance in each State.	Number of trips per week.	Annual pay.	Annual pay in each State.	Remarks.
			Miles.	Miles.				
South Carolina	3131	From Charleston to Augusta	139	14	\$33,012 50	\$53,625 00	At the rate of \$150 per mile per annum. At the rate of \$100 per mile per annum.
Do	3153	From Manchester to Lynchburg	34	.....	7	1,700 00	
Do	3227	From Newberry C. H. to Hollands	21	.....	6	900 00	
				485½				
Georgia	3250	From Savannah to Macon	192	14	33,600 00	120,168 50	
Do	3299	From Macon to Atlanta	102	.....	7	12,750 00	
Do	3312	From Augusta to Atlanta	178½	.....	14	41,700 00	
Do	3320	From Athens to Union Point	39½	.....	6	2,000 00	
Do	3365	From Atlanta to Hogansville	60	.....	7	12,688 50	
Do	3366	From Atlanta to Chattanooga	140	.....	6	14,000 00	
Do	3374	From Kingston to Rome	18.6	.....	6	930 00	
Do	3411	From Macon to Oglethorpe	50	.....	7	2,500 00	
				780.3				
Michigan	3703	From Detroit to Chicago, Ill	218	}	(*)	36,333 00		96,333 00
Do	3716	From Toledo, Ohio, to Chicago, Illinois	63		(*)	10,500 00		
			297		(*)	49,500 00		
				578				
Indiana	3903	From Madison to Indianapolis	87	6	7,457 00	21,867 00	
Do	3905	From Indianapolis to Terre Haute	73	.....	6	6,257 00	
Do	3912	From Indianapolis to Muncietown	56	.....	6	2,400 00	
Do	3975	From Edinburg to Rushville	37	.....	6	1,671 00	
Do	4119	From New Albany to Bedford	71	.....	6	3,042 00	
Do	4130	From Knightstown to Shelbyville	26	.....	6	1,040 00	
				350				

Illinois	4154	From Springfield to Naples.....	55	-----	6	2,914 00	
Do	4312a	From Chicago to Rockford.....	92	-----	6	9,200 00	
Do	4312b	From Junction to St. Charles.....	6½	-----	6	279 00	
Do	4312c	From Junction to Aurora.....	13	-----	6	558 00	
				-----			12,951 00
				166½			
Kentucky.....	5106	From Louisville to Frankfort.....	65	-----	14	6,500 00	
	5106	From Frankfort to Lexington.....	29	-----	14	2,340 00	
				-----			8,840 00
				94			
Tennessee.....	5473	From London to Dalton, Georgia.....	82	-----	7	6,150 00	
Do	5475	From Nashville to Deckerd.....	83	-----	6	3,557 00	
				-----			9,707 00
				165			
Alabama	5501	From Montgomery to West Point.....	88½	-----	14	24,337 50	
Do	5557	From Decatur to Tusculumbia.....	43	-----	6	1,843 00	
				-----			26,180 50
				131½			
Mississippi	5704	From Jackson to Vicksburg.....	46	-----	7	4,600 00	
Do	5838	From Jackson to Brandon.....	13½	-----	7	1,350 00	
				-----			5,950 00
				59½			
Louisiana	6105	From New Orleans to Lafayette.....	2	-----	6	150 00	150 00
				-----			1,427,516 50
				11,172			

* Six trips per week 12 months; six trips per week 8 months.

WM. H. DUNDAS,
Second Assistant Postmaster General.

E.

Steamboat service, as in operation on the first of October, 1852.

State.	Number of route.	Termini.	Distance.	Total distance in each State.	Number of trips per week.	Annual pay.	Annual pay in each State.	Remarks.
			<i>Miles.</i>	<i>Miles.</i>				
New Hampshire....	260	From Weir's bridge to Centre Harbor and Wolfboro'	30	30	6	\$100	\$100	
Massachusetts	461	From New Bedford to Nantucket	65		6	3,000		
Do	516	From Fall River, via Newport, R. I., to New York, N. Y.	200*	265	6	1,500	4,500	From November 25th to March 25th, from Wood's Hole to Nantucket only, by steamboat and packet alternately. No contract.
New York	801	From New York to Stonington, Conn.	125		6	9,000		
Do	803	From New York to Norwich, Conn.	142		6	5,000		
Do	808	From New York to Tompkinsville.	10½		7	180		
Do	812	From New York to Port Richmond	9		6	130		
Do	813	From Dunkirk to Cleveland, Ohio.	180		6	5,000		During navigation.
Do	(part.)	From Dunkirk to Detroit, Mich.	230		6	7,000		During navigation.
Do	943	From Whitehall to St. John's, Canada.	150		6	4,800		During navigation.
Do	1216	From Lewistown to Ogdensburg	300		6	3,000		During navigation.
Do	1246	From Ithaca to Cayuga	40		6	1,500		
Do	1324	From Penn Yan to Bath	32		6	900		During navigation.
Ohio	10270	From Cincinnati to Maysville, Ky.	64	1,218½	6	4,000	36,510	

Do	10335	From Sandusky to Toledo.....	60	.....	6	*2,400	.....	During navigation, say eight months of the year, at \$300 per month.
Do	10340	From Portsmouth to Cincinnati.....	120	.....	3	2,000	.....
Virginia.....	2401	From Washington, D. C. to Aquia creek, Va..	54½	.....	14	16,300	8,400	
Do	2440	From Richmond to Norfolk	148	.....	6	3,625		
Do	2467	From Norfolk to Hampton	18	.....	6	1,600		
Do	2468	From Norfolk to Baltimore, Md.	200	.....	(†)	9,000		
Do	2469	From Norfolk to Eastville.....	57	.....	2	1,700		
Do	2576	From Wheeling to Parkersburg.....	96	.....	3	2,500		
Do	2731	From Norfolk to Walkerton.....	135	.....	2	600		
				708½			35,325	
North Carolina.....	2825	From Wilmington to Charleston, S. C.....	178	.....	7	36,525		
Do	2868	From Franklin depot to Plymouth	108	.....	3	893		
				286			37,418	
South Carolina.....	3133	From Charleston to Savannah	110	.....	7	14,000		
Do	3222	From Charleston, by Beaufort, to Savannah..	160	.....	1	1,300		
				270			15,300	
Georgia.....	3251	From Savannah to Pilotka	358	.....	2	7,450		
Do	3413	From Savannah to New York, N. Y.....	800	.....	1	4,160		
				1,158			11,610	
Michigan.....	3701	From Detroit to Buffalo, N. Y.	267	.....	6	10,000		During navigation.
Do	3707	From Detroit to Sault Ste. Marie.....	351	.....	1	150		During navigation.
Do	3789	From Grand Rapids to Grand Haven.....	41	.....	3	160		During navigation.
Do	3836	From Monroe to Buffalo, N. Y.	260	.....	6	10,000		During navigation.
				919			20,310	
Indiana	4131	From Madison to Cincinnati, Ohio	91	.....	6	2,500		
				91			2,500	
Illinois.....	4307	From Chicago to Milwaukee, Wis.....	100	.....	6	5,173		During navigation.
				100			5,173	
Wisconsin.....	4508	From Milwaukee to Sheboygan.....	50	.....	6	800		During navigation.
				50			800	
Missouri.....	4829	From St. Louis to New Orleans, La.	1,250	.....	6	12,480		
Do	4832	From St. Louis to Keokuk, Iowa	206	.....	6	7,800		
				1,456			20,280	

* Estimated.

† Six trips a week for eight months and a half, and three trips a week for three months and a half.

E—Steamboat service—Continued.

State	Number of route.	Termini.	Distance.	Total distance in each State.	Number of trips per week.	Annual pay.	Annual pay in each State.	Remarks.
Kentucky	5101	From Louisville to Cincinnati, Ohio	<i>Miles.</i> 142	<i>Miles.</i>	7	\$10,500		
Do	5102	From Louisville to New Orleans, La.	1,448	.....	7	49,400		
Do	5103	From Louisville to St. Louis, Mo.	650	.....	(*)	15,000		
		From Louisville to Cairo, Ill.			(†)			
		From St. Louis, Mo., to Cairo, Ill.			(†)			
				2,240			\$74,900	
Tennessee	5443	From Nashville to Memphis	489	489	2	8,000	8,000	
Alabama	5502	From Stockton to Mobile	34	.....	7	8,000		Under coach contract.
Do	5540	From Chattanooga to Decatur	195	.....	6	14,454		
				229			22,454	
Mississippi	5711	From Vicksburg to New Orleans, La.	374	.....	(11)	8,260		Service engaged by the trip.
Do	5714	From Vicksburg to Yazoo city	110	.....	3	1,495		
				484			9,755	
Arkansas	5901	From Little Rock to Napoleon	278	.....	3	12,000		
Do	5924	From Batesville to Memphis, Tenn.	203	672	{ 2 }	7,000		
			469						{ 1 }
				950			19,000	
Louisiana	6101	From New Orleans to Mobile, Ala.	164	.....	7	35,300		
Do	6102	From New Orleans to St. Francisville	165	.....	3	8,388		Service engaged by the trip.
Do	6103	From New Orleans to Shreveport	544	.....	3	2,075		Service engaged by the trip.
Do	6104	From New Orleans to Covington	60	.....	3	800		
				933			46,563	

Texas	6201	From Indianola to New Orleans, La.	540	.....	1	12,000	
Do	(sub. 1.) 6201	From Brazos Santiago to New Orleans, La..	550	.....	1	15,000	
Do	(sub. 2.) 6202	From Galveston to Houston.....	80	.....	2	5,000	
				1,170			32,000
California	5061	From San Francisco to Sacramento city ...	114	.....	7	11,000	
Do	5062	From San Francisco to Stockton.....	105	.....	6	10,000	
				219			21,000
Oregon	5025	From Astoria to Oregon city	136	.....	(§)	10,000	
Do	5028	From Oregon city to Marysville.....	140	.....	1	8,000	
				276			18,000
				13,785 5-6			469,898

* Three times a week for seven months.

† Twice a week for five months.

‡ Once a week for five months.

|| Six times a week for nine months, and three times a week for three months.

§ Twice a month.

WM. H. DUNDAS, *Second Assistant Postmaster General.*

F.—United States mail service abroad, as in operation on the 1st of October, 1852.

No. of route.	Points.	Distance.	No. of trips.	Contractors.	Annual pay.	Remarks.
1	New York, by Southampton, England, to Bremen Haven, Germany.	<i>Miles.</i> 3,760	Once a month . . .	Ocean Steam Navigation Company. (C. H. Sand, president.)	\$200,000	Under contract with the Postmaster General, agreeably to act of Congress of March 3, 1845.
2	Charleston, South Carolina, by Savannah, Georgia, and Key West, Florida, to Havana, Cuba.	669	Twice a month . . .	M. C. Mordecai	50,000	Under contract with Postmaster General, agreeably to acts of Congress of March 3, 1847, and July 10, 1848.
3	New York to Aspinwall, New Granada, direct	2,000 } 1,400 } 2,000 }	Twice a month . . .	George Law, M. O. Roberts, and B. R. McIlvain.	290,000	Under contract with the Secretary of the Navy, agreeably to acts of Congress of March 3, 1847, and March 3, 1851.
	New Orleans, Louisiana, to Aspinwall, New Granada, direct					
4	And New York, via Havana, to New Orleans, Louisiana	2,000	Twice a month . . .	Pacific Mail Steamship Company. (William H. Aspinwall, president.)	848,250	Under contract with the Secretary of the Navy and Postmaster General, agreeably to acts of Congress of March 3, 1847, and March 3, 1851.
5	Astoria, Oregon, by Umqua city, San Francisco, California, Monterey, and San Diego, to Panama, New Granada.	4,200	Twice a month . . .	E. K. Collins, James Brown, and Stewart Brown.	858,000	Under contract with Secretary of the Navy, agreeably to acts of Congress of March 3, 1847, and July 21, 1852.
6	New York to Liverpool, England . . .	3,100	Twenty-six a year .	Ocean Steam Navigation Company. (M. Livingston, agent.)	150,000	Under contract with the Postmaster General, agreeably to act of Congress of March 3, 1847.
7	New York, by Cowes, to Havre, France.	3,270	Once a month . . .		50,436	Service performed by the Panama Railroad Company, under a temporary arrangement authorized by act of Congress of March 3, 1851, to carry, at 22 cents per pound. The part of cost from September 3 to October 1, 1852, estimated.
	Aspinwall to Panama	60	Twice a month . . .			

AUDITOR'S OFFICE OF THE TREASURY
FOR THE POST OFFICE DEPARTMENT,
November 23, 1852.

SIR: I have the honor to submit the following report of the operations of this office for the last fiscal year, including the information called for by resolution of the Senate of the 25th March, respecting statistics of the Post Office Department.

The balance to the credit of the Post Office Department on the books of this office on the 1st July, 1851, was.....	\$1,024,972 73
The receipts of the fiscal year, from all sources, including the sum of \$1,741,444 44 drawn from the treasury in aid of the revenue, under the acts of March 3, 1847, May 23, 1850, and March 3, 1851, were	6,925,971 28
Making in all.....	7,950,944 01
The expenditures for the year, including bad debts and suspense accounts, were.....	7,107,549 69
Apparent balance to the credit of the revenue on the 1st July, 1851, was.....	843,394 32
From this balance should be deducted the unavailable balances due from postmasters, estimated in my last annual report at.....	245,912 80
Leaving as ultimately available.....	<u>597,481 52</u>
A portion of this sum is still uncollected from late postmasters. It is probable that some of the balances due from late postmasters in California may prove irrecoverable, owing to the unsettled condition of the country and the irregularities necessarily attending the establishment of the post offices in the first instance.	
Since the commencement of the fiscal year there has been paid to the British government, on account of postages accrued within the previous fiscal year, and properly chargeable to the expenditures of the year.....	<u>\$30,848 95</u>
Excess of expenditures of all kinds over the revenues of the year, exclusive of the balance on hand 1st July, 1851, and the amount drawn from the treasury	<u>\$1,923,932 20</u>

The postal accounts with Great Britain, as far as they have been adjusted, exhibit balances due that country, as follows :

3d quarter 1851.....	\$16,810 09	
4th quarter, 1851	20,578 15	
1st quarter, 1852	40,608 48	
		<u>\$77,996 72</u>

The accounts for the quarter ending 30th June are not yet settled. The balance will be less than that of the previous quarter, in consequence of the decrease of the closed mails.

The balances paid by Bremen to the United States, on the adjustment of the accounts between the two countries, are, for six months, ending 31st December, 1851.....		
	\$6,054 78	
30th June, 1852.....	8,791 58	
		<u>\$14,846 36</u>

The postages on the mails received and sent between the United States and British provinces, under the postal arrangements for the fiscal year, as returned by postmasters, have been as follows :

Mails received, unpaid.....	\$25,377 08	
Mails received, paid.....	22,144 60	
		<u>\$47,521 68</u>
Mails sent, unpaid	31,034 66	
Mails sent, paid	24,707 31	
		<u>55,741 97</u>
		<u>103,263 65</u>
Collected in Canada.....	\$53,179 26	
Collected in United States.....	50,084 39	
		<u>\$3,094 87</u>

The postages on the mails sent and received between United States and the Province of New Brunswick for the fiscal year, as returned by the postmasters, were.....		
		8,812 56
Of which there was collected in the		
United States	\$4,562 78	
In New Brunswick	4,249 78	
		<u>313 00</u>
Balance in favor of the United States.....		

Contractors' accounts.

The average number of accounts of contractors and others engaged in carrying the mail, settled each quarter, was :

On regular routes.....	4,300
On special routes.....	2,894
The whole amount passed to the credit of contractors and others, for transportation of the mail, was.....	\$4,282,683 59
Amounts charged to contractors :	
To damages, over-credits, &c.....	\$10,676 64
To fines.....	6,256 59
To deductions.....	22,710 02
Amount actually paid for transportation during the year of which there was paid for regular service in the United States.....	4,225,311 28
Route agents.....	3,457,131 09
Supply of special offices.....	91,935 83
	103,016 37

Foreign mail transportation.

New York to Bremen.....	\$166,666 64
New York to Havre.....	151,000 00
Charleston and Havana.....	50,000 00
Across the Isthmus of Panama.....	17,003 32
River mails.....	74,545 75
Liabilities on account of transportation in former years	114,012 28

Postmasters' accounts.

The number of post offices in the United States on the 30th June last, was..... 20,901

The number of quarterly accounts of postmasters which have been examined and adjusted during the year, are..... 82,486

The act of Congress reducing the rate of postages has made provision for the allowance of extra commissions, under such conditions and restrictions as to require their adjustment, separately, from the other quarterly accounts of postmasters. The allowance of these commissions is made by entries in the general accounts of postmasters kept in this office. The adjustment of these allowances in the manner required by law, and the regulations of the Postmaster General in pursuance thereof, is attended with much difficulty and embarrassment.

Extra commissions allowed during the year..... \$456,594 84

Many postmasters having neglected to furnish the necessary evidence during the year to justify the allowance of extra commissions, have received them the present year.

In consequence of the reduction of postage, surplus commissions have accrued at only four offices, viz:

New York.....	\$49,332 39
Chicago, Ill.....	1,994 85
Washington, D. C.....	2,954 94
Harrisburg, Pa.....	2,138 85

Total surplus commissions..... \$56,421 03

At these offices the regular commissions exceeded the amounts required to pay the compensation of the postmaster and the necessary expenses of the respective offices without the additional commissions, which, if allowed, would only have increased the surplus.

The aggregate balances due from postmasters, in the adjustment of the quarterly accounts, are as follows:

July to September 30, 1851.....	\$827,058 22
October to December 31, 1851.....	661,255 97
January to March 31, 1852.....	779,952 03
April to June 30, 1852.....	724,729 94

2,992,996 16

Collection of post office revenue.

The number of postmasters whose quarterly balances are collected through contractors, on orders sent from this office, were, at the close of the year.....

15,277

The remaining post offices are either special offices, which pay the net proceeds for the supply of the mails at the respective offices; draft offices, which hold the balances, subject to the draft of the Postmaster General, for the payment of the expenses of the service; or deposite offices, which pay over their balances quarterly, either to the treasury of the United States or to other depositories and depositing offices, which receive funds deposited with them from other postmasters, and hold the same subject to draft.

This office collects the revenue at all collection offices, and from all other postmasters who prove delinquent or refuse to pay over funds in their hands.

Of the collection offices, 1,053 failed to pay the quarterly balances to the contractors on the orders when presented. This refusal, in most cases, was not owing to any delinquency or neglect of duty, but arose from claims for extra commissions, most of which have been allowed. The punctual collection of the revenue at all offices is retarded by the operation of the acts of Congress respecting additional commissions. Postmasters do not know what amount they owe at the end of the quarter; and, consequently, some pay over too much, some too little, and others

omit payment altogether. When the failure to pay is not accounted for satisfactorily, the amount due is collected by special draft and other coercive measures.

The whole amount collected by contractors on orders sent from the office during the year, was	\$898,643 15
Amount collected from delinquents by special drafts, &c.....	10,112 21
Total amount collected	908,755 36

In general, postmasters have paid over the balances due by them promptly.

13,361 accounts of late postmasters have been acted upon during the year.

In the general term, "late postmasters," are included not only those who have gone out of office, but such as have been re-appointed by the President or given new bonds.

The balance on accounts of late postmasters who went out of office, or whose accounts terminated between the 1st of July, 1845, and 30th June, 1851, unsettled on 1st July, 1851, increased by estimates, &c., since last report, amountd to.....	\$51,617 17
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Collected during the fiscal year ending 30th June, 1852—

Without suit	\$27,162 93	
With suit	4,445 96	
Credited on vouchers.....	1,168 80	
Charged to suspense	173 10	
Charged to bad debts	131 00	
		<u>33,081 79</u>

Leaving unsettled, 1st July, 1852.....		<u>18,535 38</u>
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Amount due by postmasters who became "late" during the fiscal year ending 30th June, 1852.....	\$126,226 75
Collected within the year.....	\$77,498 09
Credited on vouchers.....	1,365 17
	<u>78,863 26</u>

Balance uncollected 30th June, 1852.....	<u>47,363 49</u>
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Aggregate indebtedness by "late" postmasters from 1st July, 1845, to 30th June, 1851.....	\$51,617 17
From 1st July, 1851, to 30th June, 1852.....	126,226 75
	<u>177,843 92</u>

Total for settlement from 1st July, 1845, to 30th June, 1852.....	177,843 92
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Collected and settled during the fiscal years—		
On accounts previous to 30th June, 1851,	\$33,081	79
On accounts ending 30th June, 1852.....	78,863	26
		<u>\$111,945 05</u>

Leaving yet due the United States, on accounts from July 1, 1845, to 30th June, 1852, by postmasters who became "late" during that period, excepting late postmasters in California.....		<u>65,898 87</u>
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Balances due on accounts of late postmasters—		
For the year ending 30th June, 1846.....	\$3,210	68
“ “ “ 1847.....	846	63
“ “ “ 1848.....	1,331	33
“ “ “ 1849.....	2,537	05
“ “ “ 1850.....	2,666	81
“ “ “ 1851.....	7,942	88
“ “ “ 1852.....	47,363	49

Total, exclusive of California.....		<u>65,898 87</u>
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The apparent balance due on the accounts of late postmasters in California amount- ed on the 30th June, 1851, to.....	\$135,797	44
Which has been reduced by credits allowed out of the appropriation by Congress, &c.	15,618	64

Leaving a balance on the 30th June, 1852.....		<u>\$120,178 80</u>
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Balances due to late postmasters from 1st July, 1845, to 30th June, 1851.....	\$47,929	59
Of which has been paid or settled during the fiscal year ending 30th June, 1852..	15,827	61

Leaving still due.....		<u>\$32,101 98</u>
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Balances due to late postmasters for the fiscal year ending 30th June, 1852....	\$40,909	22
Of which has been paid and settled within the year.....	5,667	44

Leaving still due.....		<u>\$35,241 78</u>
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Aggregate of balances remaining due to late postmasters—

From 1st July, 1845, to 30th June, 1851	\$32,101	98
From 1st July, 1851, to 30th June, 1852	35,241	78
		<u>\$67,343 76</u>

Fifty-six suits have been brought for the recovery of balances due on or before July 1st, 1851, amounting in the aggregate to.....		\$9,224 49
Four suits were brought for balances that fell due on or after 1st July, 1851.....		900 57
<hr/>		
Twenty-eight of the above suits have been concluded—amount collected.....	\$3,906 12	
In forty-four suits commenced prior to 1st July, 1851, there has been collected...	13,988 17	
<hr/>		
Whole amount collected by suit.....		\$17,894 29
<hr/>		
The above cases include five suits against failing bidders and their guarantees, in which there has been collected.....	\$2,713 30	
Six suits against late mail contractors—amount collected.....	2,553 58	
<hr/>		
		\$5,266 88
<hr/>		
Whole amount collected from late contractors during the fiscal year, exclusive of failing bidders, by suit and otherwise.....		\$2,697 86
There has been charged to bad debt accounts, to close old balances from contractors, principally arising from uncollectable damages charged to them.....		9,272 88
In addition to the amount collected from failing bidders, by suit, there was collected by deduction from pay of contractors on that account.....		400 00
<hr/>		

With a view to furnish the information called for by the Senate, in the resolution respecting post office statistics, as accurately as possible, I addressed circular letters to the principal postmasters on the subject. The returns received are in many cases very imperfect; but, from the data collected with the quarterly returns, I have made an estimate of the number of letters, newspapers, &c., which passed through the mails, classified as required by the resolution, which, I think, may be relied on as nearly correct as can be obtained.

Whole number of paid and unpaid letters which passed through the post offices of the United States during the fiscal year ending 30th June, 1852.

Number of unpaid domestic letters charged with regular postage.....	\$2,672,765
Number paid in money.....	18,448,510
Number paid by stamps.....	31,897,750
Free letters.....	3,146,000
Drop letters.....	973,134

Number conveyed by European steamers.....	4,421,547
Number conveyed by Havana steamers.....	99,372
Number conveyed by California steamers.....	1,495,537
Number of dead letters unpaid.....	2,635,909

Total..... 95,790,524

Number of newspapers and other printed matter charge- able with postage, which passed through the mails of the United States during the year.....	87,710,490
Free printed matter, estimated.....	3,500,000
Exchange newspapers.....	7,073,548
Papers circulated within the counties in which they are published, not exceeding thirty miles, estimated....	20,000,000

Total..... 118,284,038

Number of letters conveyed by the Cunard, Col-
lins, Bremen and Havre lines, is as follows:

Number of letters sent and received by Cunard line..	2,758,096
Do do do do Collins do ..	963,692
Do do do do Bremen do ..	354,470
Do do do do Havre do ..	345,289

Total..... 4,423,947

Number of newspapers conveyed by Cunard and
Collins lines—

By Cunard line.....	942,950
By Collins line.....	280,974

Total..... 1,223,924

Postages on the several lines of ocean steamers, as
reported by the postmasters at New York and Boston—

By Cunard line.....	\$565,572 97
By Collins line.....	228,867 61
By Bremen line.....	77,219 87
By Havre line.....	80,804 08

Total..... 952,464 53

Of the postages by the Collins and Cunard lines, there
was collected in the United States the sum of.....

\$468,615 98

It is estimated that the amount of commissions paid to our postmasters on the balances due, and payable to Great Britain, is as follows:

On \$76,491 45, at 12½ per cent.....	\$9,561 43
On 25,497 14, at 30 per cent.....	7,649 14
Total.....	17,210 57

A portion of which is returned to the department in the shape of surplus commissions, at the large offices.

The amount paid to the British government on closed mails, was, for the

Third quarter, 1851.....	\$1,905 40
Fourth quarter, 1851.....	2,657 10
First quarter, 1852.....	9,690 10
Second quarter, 1852 (estimated).....	6,288 60
Total.....	\$20,541 20

The amount received from the British government on closed mails, was, for the

Third quarter, 1851.....	\$10,962 18
Fourth quarter, 1851.....	8,402 89
First quarter, 1852.....	11,166 54
Second quarter, 1852, (estimated).....	10,987 60
Total.....	41,518 91

Number of letters sent and received by New York and

Chagres lines of steamers.....	\$1,495,537
Postages on mails sent and received by the line, as reported by the postmasters.....	183,052 18

The number of letters and newspapers conveyed by the Charleston and Havana steamers, and the amount of postages collected thereon, is as follows:

Number of letters.....	99,372
Number of newspapers.....	29,860
Amount of letter postage.....	\$11,958 99
Amount of newspaper postage.....	895 80
Total.....	\$12,854 79

Number of ship letters.....	349,208
Amount of postages.....	\$6,984 16

Statement showing the expenditures of the Post Office Department, under their several heads, for the fiscal year ended June 30, 1852.

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	3d quarter, 1851.	4th quarter, 1851.	1st quarter, 1852.	2d quarter, 1852.	Total under each head.
Compensation to postmasters	\$337,802 11	\$316,202 95	\$360,778 18	\$281,982 26	\$1,296,765 50
Extra compensation, act March 3, 1851.....	63,739 87	89,964 61	123,181 50	179,708 86	456,594 84
Ship, steamboat, and way letters.....	6,598 26	6,050 20	4,138 41	7,801 07	24,587 94
Transportation	1,096,124 37	986,557 18	1,014,512 68	1,128,117 05	4,225,311 28
Wrapping paper.....	7,919 25	9,737 11	8,510 25	14,879 51	41,046 12
Office furniture.....	772 24	774 77	870 83	* 5,472 93	7,890 77
Advertising.....	36,951 66	10,487 30	7,631 00	* 8,087 16	63,157 12
Mail bags.....	8,286 26	13,007 20	12,544 63	* 8,108 41	41,946 50
Blanks.....	13,624 26	14,699 39	13,367 25	* 12,170 93	53,861 83
Mail locks, keys, and stamps.....	2,016 61	7,932 87	764 28	* 1,270 88	11,984 64
New mail locks and keys	287 76	-----	7,029 00	11,440 21	18,756 97
Mail depredations and special agents.....	10,259 41	8,442 02	6,890 75	9,605 64	35,197 82
Clerks for offices.....	113,154 45	117,090 06	125,434 52	* 193,237 68	548,916 71
Official letters received by postmasters.....	217 04	120 54	123 70	121 61	582 89
Postage stamps.....	3,168 92	2,343 40	312 00	4,095 71	9,920 03
Repayments for dead letters.....	4 78	12 40	-----	65 43	82 61
Payments to letter carriers	24,729 29	25,637 77	27,152 18	26,836 68	104,355 92
Post office laws and regulations.....	-----	-----	-----	2,900 00	2,900 00
Stamps redeemed during the quarter.....	3,750 70	11 90	-----	46 75	3,809 35
Stamps returned to department during the quarter.....	8,201 45	27 75	-----	-----	8,229 20
Miscellaneous payments.....	23,398 63	24,735 28	29,588 43	* 74,838 66	152,561 00
	1,761,007 32	1,633,834 70	1,742,829 59	1,970,787 43	7,108,459 04

* See note on next page.

NOTE TO PRECEDING PAGE.

The following sums are included in the *expenditures*, under their several heads, for the 2d quarter, 1852, for *incidental expenses* of post offices in *California* prior to 30th June, 1851, in pursuance of the appropriation of \$36,000 authorized under act of 3d March, 1851, viz:

Office furniture.....	\$4,800 27
Advertising.....	264 38
Mail bags.....	115 00
Blanks.....	81 00
Mail locks, &c.....	80 00
Clerks for offices.....	67,637 83
Miscellaneous.....	39,967 98
	<hr/>
Making.....	42,946 46
• Deduct excess of commissions allowed postmasters prior to 30th June, 1851.....	69,089 37
	<hr/>
Leaving this sum chargeable to said appropriation..	43,857 09
	<hr/> <hr/>

Respectfully submitted:

HON. SAMUEL D. HUBBARD,
Postmaster General.

J. W. FARRELLY, Auditor.

AUDITOR'S OFFICE OF THE TREASURY
FOR POST OFFICE DEPARTMENT, November 15, 1852.

Statement showing the receipts of the Post Office Department, under their several heads, for the fiscal year ending June 30, 1852.

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	3d quarter 1851.	4th quarter 1851.	1st quarter 1852.	2d quarter 1852.	Total under each head.
Letter postage	* \$809,009 65	\$646,724 27	\$754,757 80	\$699,737 59	\$2,910,229 31
Stamps sold	316,536 28	302,655 99	344,095 50	353,275 82	1,316,563 59
Newspapers and pamphlets	188,901 66	185,122 45	212,681 81	202,540 44	789,246 36
Fines	17 50	5 00	-----	5 00	27 50
Receipts on account of emolument	9,281 76	9,148 62	9,708 96	10,338 90	38,478 24
Receipts on account of dead letters	132 20	-----	7,120 62	1,012 30	8,265 12
Receipts on account of letter carriers	24,729 29	25,637 77	27,152 18	26,836 68	104,355 92
Receipts on account of damages—contracts	516 00	1,600 00	417 33	2,679 97	5,213 30
Miscellaneous receipts	421 75	248 92	288 16	2,339 06	3,297 89
Stamps in hands of postmasters on 30th June, 1851	8,349 31	500 00	30	-----	8,849 61
Total	1,357,895 40	1,171,643 02	1,356,222 66	1,298,765 76	5,184,526 84

* In the item of letter postage for the 3d quarter of 1851 is included the sum of \$16,810 09, accruing from *British postage* and ascertained to be due to the *United Kingdom*. This amount, together with the sum due to the *United Kingdom* for the 2d quarter of 1851, (\$13,873 83,) deducting the amount due to the *United States* for the 1st quarter of 1851, (\$532 88,) was subsequently *paid*, and will be accounted for in the fiscal year ending June 30, 1853.

Respectfully submitted:

HON. SAMUEL D. HUBBARD, *Postmaster General*.

J. W. FARRELLY, *Auditor*

AUDITOR'S OFFICE OF THE TREASURY FOR THE POST OFFICE DEPARTMENT, November 15, 1852.

H. Doc. . .

Statement of letters received during the year ending June 30, 1852.

Places.	No. of unpaid letters.	No. paid by stamps.	No. paid in money.	No. of free letters.	Total No. of letters.
New York.....	3,456,925	2,995,027	2,653,360	No return.	9,105,312
Philadelphia.....	1,116,632	1,121,406	711,002	70,324	3,019,364
Boston.....	593,204	1,439,560	744,857	64,814	*2,842,435
Baltimore.....	389,466	665,002	311,312	34,472	1,400,252
New Orleans.....	1,042,236	702,564	225,212	12,240	1,982,252
San Francisco.....	880,552	52,624	239,965	14,779	1,187,920
Washington.....	171,124	230,016	97,200	1,197,048	1,695,388
Total.....	7,650,139	7,206,199	4,982,908	1,393,677	21,232,923

* Total number of letters received and sent, including distribution at Boston post office, 8,912,507.

Statement of printed matter received during the year ending June 30, 1852.

Places.	No. unpaid.	No. paid.	No. exchanges, free, &c.	Total.
New York.....	No return.	No return.	*1,800,000	1,800,000
Philadelphia.....	No return.	18,629	78,181	96,810
Boston.....	191,973	31,586	442,682	666,241
Baltimore.....	321,925	40,811	251,629	614,365
New Orleans.....	423,896	17,848	242,924	684,668
San Francisco.....	432,785	100,736	18,732	552,253
Washington.....	No return.	No return.	†1,863,360	1,863,360
Total.....	1,370,579	209,610	4,697,508	6,277,697

* Exchange newspapers, as estimated at 5,000 daily; reported by the postmaster at New York.

† Principally newspapers received by officers of government and members of Congress.

Statement of letters sent during the year ending June 30, 1852.

Places.	No. of unpaid letters.	No. paid by stamps.	No. paid in money.	No. of free letters.	Total No. of letters.
New York.....	6,243,252	4,218,149	1,895,717	No return.	12,357,118
Philadelphia.....	1,983,294	1,785,507	991,594	No return.	4,760,395
Boston.....	1,736,659	1,976,214	665,768	106,604	*4,485,245
Baltimore.....	491,769	816,619	394,572	29,783	1,732,743
New Orleans.....	1,173,364	437,368	224,976	No return.	1,835,708
San Francisco.....	971,247	60,978	271,599	-----	1,303,824
Washington.....	247,324	239,440	137,168	804,804	1,428,736
Total.....	12,846,909	9,534,275	4,581,394	941,191	27,903,769

* Total number of letters received and sent, including distribution at Boston post office, 8,912,507.

Statement of the number of letters, circulars, handbills, newspapers, and pamphlets received and delivered by carriers, and amount received for carriage in the cities of New York, Philadelphia, Boston, Baltimore, and New Orleans, under the regulations established in pursuance of the 10th section of the act entitled "An act to reduce and modify the rates of postage in the United States, and for other purposes," approved March 3, 1851.

Places.	Number of letters.	Number of circulars, handbills, &c.	Number of newspapers and pamphlets.	Total number of letters, circulars, newspapers, &c.	Amount received for carriage.
New York	2, 132, 491	175, 848	123, 275	2, 431, 614	\$49, 360 29
Philadelphia	1, 601, 491	56, 405	250, 114	1, 908, 010	32, 941 40
Boston	710, 107	8, 056	30, 787	748, 950	7, 476 35
Baltimore	620, 651	64, 094	129, 876	814, 621	13, 168 98
New Orleans	63, 377	12, 302	3, 662	79, 341	1, 408 90
Aggregate	5, 128, 117	316, 705	537, 714	5, 982, 536	104, 355 92

The rates charged for carriage of letters, papers, &c., vary in the several cities, which accounts for the difference in the amount received in the respective cities.

The following table shows the amounts actually credited for the transportation of the mails by States, and the amount of postages collected on the same.

States.	Transportation.	Postages collected.
Maine.....	\$48,962 63	\$125,148 85
New Hampshire.....	26,649 90	81,748 98
Vermont.....	48,129 29	80,140 36
Massachusetts.....	127,800 13	437,509 60
Connecticut.....	62,872 76	144,519 52
Rhode Island.....	12,146 75	46,783 40
New York.....	232,928 92	1,131,248 68
New Jersey.....	61,018 30	84,196 84
Maryland.....	158,721 48	136,140 44
Delaware.....	8,980 00	15,767 87
Pennsylvania.....	183,159 90	487,118 29
Virginia.....	184,048 54	186,490 02
North Carolina.....	157,856 47	63,474 88
South Carolina.....	116,353 09	86,335 77
Georgia.....	198,489 69	141,013 80
Florida.....	27,720 00	18,725 08
Alabama.....	167,323 91	106,471 24
Mississippi.....	83,370 56	76,248 85
Tennessee.....	78,602 22	91,470 84
Missouri.....	120,560 20	100,025 06
Arkansas.....	74,214 16	25,901 52
Iowa.....	31,777 79	39,576 05
Louisiana.....	77,450 34	124,419 88
Texas.....	130,747 34	45,280 77
Minnesota.....	2,500 36	3,297 99
Kentucky.....	113,656 96	116,540 01
Indiana.....	90,136 60	127,161 15
Illinois.....	172,333 16	162,176 93
Ohio.....	243,742 44	361,560 17
Michigan.....	121,230 96	89,933 47
Wisconsin.....	45,378 26	74,126 38
California.....	208,194 61	139,467 18
Oregon.....	50,965 25	8,077 22
New Mexico.....	9,022 01	721 07
Utah.....	1,470 70	424 60
Nebraska.....		389 67
District of Columbia.....		35,956 35
Total.....	3,628,515 68	4,995,588 78
Bremen.....		20,351 86
Miscellaneous entries.....		98 62
		5,016,039 26

In addition to the ordinary current increase of business, the new postage law has thrown upon the office a heavy additional labor, for the performance of which no adequate provision has been made. The increase of the number of letters and papers sent and received by the mails by the reduction of postage has added one-fourth more matter to the transcripts of letter and newspaper postage in the quarterly returns of postmasters, requiring a corresponding amount of labor in the examination and correction of accounts, and has augmented the general business of the office in all the other branches in like similar proportion. The computation of extra commissions of postmasters, under the present complicated system, has embarrassed the operations of the office, for want of the clerical force to despatch it and the current business with necessary accuracy and despatch. I have no hesitation in saying that the present clerical force is wholly inadequate to the prompt and efficient discharge of the duties devolved on the office. With additional clerks more room is needed for their accommodation and for the convenient arrangement of papers and vouchers.

The annexed table exhibits the receipts and expenditures of the department for the fiscal year, as the same appears on the books of this office.

Respectfully submitted:

J. W. FARRELLY, *Auditor.*

Hon. S. D. HUBBARD,
Postmaster General.