

REPORT
OF THE
ACTING GOVERNOR OF ARIZONA.

EXECUTIVE DEPARTMENT OF ARIZONA,
Phoenix, September , 1890.

SIR: In compliance with your letter of instructions dated July 28, 1890, I have the honor to submit the following report of affairs, progress, and development of the Territory of Arizona for the year ending June 30, 1890:

POPULATION.

The Eleventh Census just being completed, I am unofficially informed, states the population of Arizona as 57,600, exclusive of Indians and military reservations, and with those who live on reservations (not Indians) the population of the Territory will probably exceed 60,000. As the census of 1880 gave Arizona a population of 40,440 the gain in ten years amounts to 19,560.

In 1882 a census was taken under Territorial authority which placed the population at 82,976. This was, no doubt, inaccurate, and very considerably in excess of the true figures. At that time, however, mining excitement was great in the Territory, which invited a large floating population. It is exceedingly difficult to state the gain per year with any degree of accuracy, as the variations have been considerable, although there has been comparatively little variation in the official vote during the last ten years. In 1882, when the Territorial census gave a population of 82,976, the official record shows the vote for Delegate to Congress to have been 11,262, while the vote of 1888, with a population, according to the present census of less than 60,000, reached 11,538, a larger number of voters with apparently over 20,000 fewer people. This would be an anomaly if the figures were correct. It is, therefore, difficult to actually comply with your instructions in regard to giving "comparative statements showing annual increase," etc. According to the figures, the average gain since the census of 1880 has been a trifle less than 2,000 per year. I believe, however, that the gain per year has been much greater during the last three years than ever before in the history of the Territory, notwithstanding the periodical mining excitements which have occurred in the past.

The Territorial resources are being more regularly developed, occupations are more fixed, conditions are more favorable, and the population is consequently more permanent, and increasing more rapidly than ever before. While mining has always been the foremost industry of

the Territory, and is probably now in a more healthy condition than ever, and producing more wealth than either agriculture or grazing, yet a major part of the immigration must now be credited to agricultural interests. This is attributable to the astonishing productiveness of the arable lands, and the great progress that has been made during the last few years in the construction of canals, reservoirs, etc., and the extended reclamation of what has been designated as arid lands. While nearly every industry which can be found in other parts of the country are represented here, agriculture, mining, and grazing lead in the distribution of immigration in the order named.

As to the character and nationality of immigration, Americans very largely predominate, and they have come from all parts of the Union; the Western and Southwestern States being the more numerously represented, as immigration, as a rule, is largely influenced by the geography of the country, and to a large extent follows parallel lines. As Utah forms our northern boundary, considerable immigration comes from that Territory to us, and is Mormon in character. The number of Mormons in this Territory is estimated at 12,000, which is one-fifth of our population under the census, and in view of the restrictive legislation in Idaho, and the probability of similar action in Utah, it is more than likely that the immigration of that class of people to Arizona will rapidly increase. Bounded by the Republic of Mexico on the south, we have quite a sprinkling of Mexicans among our people. The majority of them have become naturalized citizens, and are in sympathy with American laws and customs. There are few Chinese in the Territory as compared with our northern neighbors on the Pacific Coast, and as yet they cut no figure as a disturbing element, although they are very objectionable as a class, and their exclusion is as much desired in Arizona as elsewhere. Statements as to the number of Mexicans and Chinese in Arizona have not been furnished by the census authorities.

With the more healthy development of the Territory's resources, and as our institutions become more firmly established, the stability of our affairs more assured, and public enterprise more extended, the character and permanency of our population improves. Our people are educated and energetic, quick to improve opportunities, and eager to be accorded equal privileges with the people of the self-governed States, and they are fully qualified for independence in that respect.

TAXABLE PROPERTY.

Taxable property, by counties.

Names of counties.	Acres of land.	Value.	Value of improvements.	Value of city and town lots.	Value of improvements.
Apache	{ *67,318.00 1,935,952.89	{ \$428,948.21	\$746,770.34	\$23,086.00	\$54,220.00
Cochise.....	21,964.07	{ 24,330.00 70,221.00	{ 401,649.00	86,603.00	247,889.00
Gila	7,118.00	†300,410.00	†113,875.00	21,784.00	77,880.00
Graham	51,319.00	203,161.00	99,417.65	16,478.00	103,278.00
Maricopa.....	274,308.00	1,772,603.00	305,875.00	1,175,655.00	554,980.00
Mohave	467.00	25,510.00	77,110.00	9,191.00	25,655.00
Pima	176,097.48	354,118.52	166,567.00	258,785.00	690,472.00
Pinal	21,249.00	{ 11,750.00 159,633.00	{ 52,535.00	58,683.75	82,214.00
Yavapai.....	834,278.81	456,687.56	162,196.00	197,806.16	360,747.00
Yuma	103,010.00	141,190.00	6,055.00	15,822.00	30,635.00
Totals.....	3,493,062.25	3,938,564.29	2,139,049.99	1,863,893.91	2,232,968.00

* Grant lands.

† Includes mines valued at \$267,350, and quartz mills and mining machinery at \$55,150.

‡ Railroad lands of the Southern Pacific Company taken out of the pro rata assessment.

Taxable property, by counties—Continued.

Names of counties.	Horses.	Value.	Mules.	Value.	Cattle.	Value.	Goats.	Value.	Hogs.	Value.
Apache.....	4,253	\$102,593.00	91	\$3,197.00	68,927	\$585,879.50	344	\$501.50	2	\$5.00
Cochise.....	2,982	71,801.76	297	16,505.00	88,792	691,041.42	.....	.....	324	926.00
Gila.....	2,984	72,765.00	158	4,551.00	49,733	452,645.10	642	890.00	322	688.00
Graham.....	2,776	84,400.00	222	8,325.00	55,623	507,438.00	1,325	1,325.00	633	1,899.00
Maricopa.....	4,650	145,583.00	43	1,960.00	23,643	231,069.30	5	5.00	1,209	3,323.00
Mohave.....	1,265	37,950.80	42	1,360.00	24,020	221,612.00	1,200	1,200.00	73	396.00
Pima.....	5,566	111,412.20	314	8,150.00	113,974	885,280.50	36	44.00	315	899.00
Pinal.....	2,209	53,570.00	220	7,330.00	40,032	348,339.00	9	13.00	395	951.00
Yavapai.....	14,007	385,263.00	201	9,171.00	172,627	1,370,814.50	281	330.50	393	1,486.50
Yuma.....	264	6,635.00	107	3,740.00	3,445	27,630.00	.....	.....	35	125.00
Totals..	40,956	1,071,963.76	1,695	64,289.00	641,016	5,321,809.32	3,842	4,279.00	3,701	10,698.50

Names of counties.	Sheep.	Value.	Asses.	Value.	Miles of railway.	Value.	All other property.	Total valuation.
Apache.....	119,330	\$178,541.00	63	\$444.00	111.69	\$670,140.00	\$916,228.88	\$3,710,554.43
Cochise.....	2,312	8,468.00	6	30.00	171.35	1,145,012.66	222,243.05	2,981,719.89
Gila.....	1,503	2,254.00	252	1,889.00	.....	.....	133,881.00	1,183,472.10
Graham.....	3,963	5,944.50	265	2,650.00	41	140,902.34	305,953.50	1,480,169.99
Maricopa.....	3,710	5,565.00	18	1,200.00	94.57	614,850.00	770,544.00	5,583,214.30
Mohave.....	2,050	3,100.00	107	1,159.00	114.375	686,250.00	93,044.00	1,185,537.70
Pima.....	1,341	2,011.50	81	600.00	125.65	801,940.34	565,119.50	3,845,399.56
Pinal.....	2,650	3,975.00	34	757.50	79.79	536,950.00	589,640.28	1,903,401.53
Yavapai.....	154,324	231,908.00	429	3,339.50	275.512	1,459,422.00	680,254.91	5,319,426.63
Yuma.....	55	82.50	22	115.00	80	560,000.00	59,309.00	851,338.50
Totals..	291,238	436,849.50	1,287	12,184.00	1,093.94	6,615,467.34	4,338,218.12	28,050,234.73

It appears from the foregoing that the Territory has taxable property assessed as follows:

3,433,062.35 acres of taxable land.....	\$3,938,564.29
Improvements thereon.....	2,139,049.99
City and town lots.....	1,863,893.91
Improvements thereon.....	2,232,968.00
641,016 cattle.....	5,321,809.32
291,238 sheep.....	436,849.50
40,956 horses.....	1,071,963.76
1,695 mules.....	64,289.00
1,287 asses.....	12,184.00
3,842 goats.....	4,279.00
3,701 hogs.....	10,698.50
1,093.94 miles of railroad.....	6,615,467.34
All other property.....	4,338,218.12
Total.....	28,050,234.73

It will be seen that the valuation is—

Land, per acre.....	\$1.13
Cattle, per head.....	8.30
Horses, per head.....	26.17
Sheep, per head.....	1.50
Railroads, per mile.....	6,047.38

The valuation of improvements and other property is comparatively much lower. The rate of taxation varies in the different counties, but the average rate throughout the Territory is 2.93 cents on the \$100. I have deemed it proper to be as specific as possible on this question of taxable property, as in my judgment it is very important in its bearings upon the welfare of the Territory. I believe the system which is being practiced in Arizona, viz, assessing property at a low valuation and

consequently necessitating a high rate, is exceedingly harmful and unwise. People seeking homes and places for the investment of capital, when told the rate of taxation, are frightened, and naturally so when an explanation is not afforded them. A bad impression is created and the idea is likely to prevail that taxes are extremely burdensome, and that a condition approaching bankruptcy exists, when the contrary is the truth. Nearly all of the property in the Territory would bear a valuation double, and in many instances treble, the figures now stated. An increased valuation would, of course, reduce the rate; the same amount of taxes would be paid, but according to a different system; and the Territorial condition would be better understood by the people generally throughout the country. It is conceded by all who are acquainted with the facts that if all the property of Arizona were assessed, and at its full value, the rate of taxation would be as low here as in many of the most prosperous parts of the East. It is extremely desirable that the facts become known and understood so that people in different parts of the country and the legislative branch of the Government may not be misled as to our condition.

FINANCIAL CONDITION OF THE TERRITORY.

The following statement from the books of the Territorial treasurer gives the bonded and floating indebtedness of the Territory, life of the bonds, and amount of annual interest and rate of interest on bonds and warrants:

Territorial bonded and floating indebtedness.

Names of bonds.	Date issued.	Amount.	Rate of interest.	Annual interest.	Mature when.
<i>Per cent.</i>					
Territorial prison bonds	Mar. 1, 1879	\$15,000	10	\$1,500	15 years, first issue.
Do.	Mar. 1, 1880	15,000	10	1,500	15 years, second issue.
Gillette Tiger Mine wagon road	Apr. 1, 1879	20,000	10	2,000	15 years.
Florence, Globe City wagon road	do	10,000	10	1,000	Do.
Tucson, Globe City wagon road	do	10,000	10	1,000	Do.
Agua Fria, Camp Verde wagon road	Aug. 1, 1879	10,000	10	1,000	Do.
Yuma, Ehrenberg wagon road	May 1, 1881	10,000	10	1,000	Do.
Territorial redemption	June 1, 1883	241,000	7	16,870	\$200,000 issued* 20 years; \$19,000 paid 3-6-'90.
Insane Asylum	Mar. 9, 1885	100,000	7	7,000	20 years; part in 10 years if surplus in fund.
Wagon road bridge	Nov. 1, 1885	12,000	8	960	15 years.
Gila bridge	May 15, 1885	15,000	8	1,200	Do.
Arizona University	Jan. 1, 1887	25,000	7	1,750	20 years; part in 10 years if surplus in fund.
Territorial funding	Jan. 15, 1888	150,000	6	9,000	25 years.
Total		633,000		45,780	

*Provision for proportional redemption after five years.

General fund warrants outstanding September 2, 1890, \$124,158.95; 10 per cent.
Total bonded and floating indebtedness September 2, 1890, \$757,158.95.

The total bonded indebtedness, \$633,000, upon which an annual interest is paid of \$45,780, makes the average rate of interest about 7½ per cent.; but with the floating debt of \$124,158.95, bearing 10 per cent., added to the total indebtedness of the Territory at this date, amounts to \$757,158.95, the rate of interest on which would be, if the debt were fixed, over 8 per cent. The floating debt, however, will be very largely reduced by the redemption of warrants after the annual

taxes are paid, and \$90,000 approximates very nearly the regular floating debt of the Territory under present conditions.

The indebtedness, floating and bonded, of the various counties, is stated as follows:

Counties.	Bonded.	Floating.
Apache.....	\$108,000.00	\$54,683.44
Cochise.....	185,000.00	21,878.00
Graham.....		*111,634.13
Gila.....	17,500.00	21,396.45
Mohave.....	45,000.00	60,973.45
Maricopa.....	272,000.00	37,364.32
Pima.....	250,000.00	98,856.80
	1150,000.00	
Pinal.....		101,429.00
Yavapai.....	*463,000.00	45,000.00
Yuma.....	117,700.00	49,595.97
Aggregate.....		2,221,010.66

*Estimated.

† Legality of \$150,000 Pima County bonds in question; issued to Arizona Narrow-Gauge Railroad Company, as follows: July 1, 1883, \$50,000; June 30, 1884, \$50,000; August 9, 1884, \$50,000.

‡ All can be funded.

The above figures do not include interest, except as to the county of Graham.

The indebtedness of the incorporated cities of the Territory, bonded and floating, is as follows:

City.	County.	Bonded.	Floating.	Valuation.
Phoenix.....	Maricopa.....	\$40,000	\$12,000.00	\$1,517,428
Prescott.....	Yavapai.....	71,000	15,000.00	853,640
Tucson.....	Pima.....	28,000	7,941.30	1,300,000
Tombstone.....	Cochise.....	4,675	27,000.00	404,502
Total.....		205,616.30		4,075,570

To these figures the interest on county indebtedness for the present year should be added, also a school debt, which for the whole Territory is estimated at less than \$40,000.

By the foregoing statements the entire indebtedness of Arizona, Territorial, county, municipal, and school may be very closely approximated at \$3,481,688.78, as follows:

Territorial, bonded and floating.....	\$757,158.95
County, bonded and floating.....	2,221,010.66
Municipal, bonded and floating.....	205,616.30
Interest (average) on all kinds of indebtedness.....	257,902.87
School.....	40,000.00
Total.....	3,481,688.78

This amount of indebtedness, with the low property valuation of \$28,000,000, is very likely to mislead when not explained. The fact is that the actual property valuation of the Territory amounts to and should be stated at fully \$70,000,000.

In this connection I will state that a law has been passed by the present Congress, approved June 25, 1890, entitled "An act approving, with amendments, the funding act of Arizona," the provisions of which, if properly observed and acted upon, will, in my judgment, put the financial affairs of Arizona upon an exceptionally sound basis. The act provides, under legal limitations and restrictions, for funding all the floating indebtedness—Territorial, county, municipal, and school, and such

of the bonded indebtedness as can be lawfully redeemed—at a rate of interest not to exceed 5 per cent. per annum, the bonds to run fifty years, although they may be redeemable after twenty years; the Territory, under the act, assuming the obligations of counties and municipalities, and all securities that can be funded made Territorial, the Territory being protected by equalized taxation. It is believed that all proper safeguards are embraced in the law for the protection of public and private interests, and that its operation can not fail to be of very great benefit to the Territory. The principal advantages are the reduction of interest and the placing of the affairs of government—county, Territorial, and municipal—for the future upon a cash basis.

The law provides, not only for the funding of outstanding indebtedness, but also authorizes the placing of sufficient bonds to provide for all the legitimate expenses of government now due or to become due up to January 1, 1891. After that date all expenses to be met by a tax levy sufficient to prevent indebtedness. The Territory is under obligations for this important legislation to Governor Lewis Wolfley, who was its originator, and who, by persistent effort, obtained its enactment. As the Territory has never repudiated its obligations nor defaulted interest, its bonds being all held at a premium, it is very probable that the new issue will be in great demand. As the interest on the floating debt (outstanding warrants) is in nearly every instance 10 per cent., the saving on the floating debt, when the same is funded, will be 5 per cent., but as the average rate of interest paid by the Territory on all of its indebtedness, Territorial, county, and otherwise, is 8 per cent., the computation as to saving is made on that basis.

SETTLEMENT OF LANDS.

The official reports of the United States land offices in Arizona state the acreage of public lands entered and selected for the year ending June 30, 1890, as follows:

United States land office, Tucson:

	Acres.
Homestead entries	21, 199. 26
Desert-land entries.....	62, 589. 53
Timber culture	11, 779. 63
Pre-emption	22, 900. 00
Mineral land.....	226. 37
Total.....	113, 692. 79

United States land office, Prescott:

	Acres.
1 soldier's declaratory statement.....	
77 pre-emption declaratory statements	
20 coal land declaratory statements.....	
41 homestead entries.....	6, 142. 96
30 final homestead entries	4, 323. 37
17 pre-emption cash entries	2, 180. 32
26 applications mineral patents.....	505. 86
21 mineral entries.....	341. 40
4 timber culture	598. 45
1 final desert-land entry.....	37. 46
1 railroad selection	243, 378. 00
Total.....	257, 577. 82

Total land entries:

Tucson	118, 692. 79
Prescott	257, 577. 82
	376, 270. 61

Two hundred and forty-three thousand three hundred and seventy-eight acres railroad selection at Prescott land office is on account of grant to Atlantic and Pacific Railroad and does not represent land settlements. In the southern district of the Territory land entries were at a comparative stand-still for some time on account of the operation of the act of Congress of October 2, 1888, in reference to arid lands and circulars from the General Land Office thereunder, but since the act of August 30, 1890, land settlements in this region have been actively resumed and a better feeling prevails. The act of October 2, 1888, practically put a stop to land settlements in the so-called arid regions, where irrigation is a necessity to land reclamation.

The question of land grants, bona fide and fraudulent, has also cut some figure in land settlements. In the southern part of the Territory there are several bona fide grants which are more or less in litigation and disputes exist over boundary lines which, however, will no doubt be satisfactorily adjusted through the General Land Office and the courts. The alleged Peralta grant, which has been shown to be an absolute fraud, is claimed by its sponsors to rest over a large part of central Arizona, but it has been proven to be so utterly spurious that it now has no effect whatever upon the occupancy of lands within its alleged borders. A strong effort is being made in Congress to have a land court established in order to settle land titles in the western part of the country, and I am informed that the people of New Mexico are anxious for such a court, but the conditions in Arizona are different and it is the earnest wish of a large majority of our people that if Congress should create a land court that Arizona be excluded from its provisions. The present land regulations of the Interior Department are satisfactory to our people, and the opinion is gaining ground that in cases where litigation is necessary the present courts of the Territory have jurisdiction.

RAILROADS.—COMMERCE AND PROGRESS.

The following railroads are now being operated in the Territory:

	Miles.
Southern Pacific of Arizona.....	383+
Atlantic and Pacific.....	393+
New Mexico and Arizona.....	87+
Prescott and Arizona Central.....	73+
Arizona and New Mexico.....	41+
Arizona and Southeastern.....	36+
Central Arizona.....	35
Maricopa and Phoenix.....	34+
Tucson, Globe and Northern.....	10
Total.....	1,093+

The Southern Pacific passes across the southern part of the Territory from Yuma on the Colorado River to the eastern boundary of Cochise County, passing through the counties of Yuma, Maricopa, Pinal, Pima, and Cochise.

The Atlantic and Pacific crosses north of the center of the Territory near the thirty-fifth parallel and passes through the counties of Apache, Yavapai, and Mohave.

The New Mexico and Arizona runs from Benson, on the Southern Pacific, in Cochise County, to Nogales, in the same county at the Mexican line.

The Prescott and Arizona Central runs from Prescott Junction on the Atlantic and Pacific to Prescott and is all in Yavapai County.

The Arizona and New Mexico runs from Clifton, in Graham County, to the Southern Pacific at Lordsburg, N. Mex.

The Arizona and Southeastern runs from Bisbee, Cochise County, to Fairbanks, on the New Mexico and Arizona, in the same county.

The Maricopa and Phoenix runs from Maricopa, Pinal County, on the Southern Pacific, to Phoenix, Maricopa County.

The Central Arizona runs from Flagstaff, on the Atlantic and Pacific, southward for 35 miles in the pine forest, and is projected to extend to Globe, in Gila County, and possibly to Phoenix, Florence, Tucson, and Calabasas, in southern Arizona. This road was formerly known as the mineral belt and is not now being operated except for logging purposes by the Arizona Lumber Company. The extension of the road as projected would be of the utmost advantage to the Territory. Railway communication from north to south is absolutely necessary to the proper welfare and progress of Arizona. Two north and south roads are being projected and the people of the Territory are very desirous for their success.

The Tucson, Globe, and Northern is a narrow-gauge road, and has 10 miles of track laid northward from Tucson, but is not being operated and is not in repair. This road, as originally projected, was intended to run from Tucson, in Pima County, to Globe, in Gila County, and thence northward. The county of Pima issued bonds in the sum of \$150,000 to aid the enterprise, the legality of which is now being questioned. The commerce of the roads being operated in the Territory can not be satisfactorily reported, as very incomplete data has been furnished by the different roads as to the quantity of export and import traffic.

The subject of north and south railroads is of paramount interest to the people of Arizona, and one upon which their prosperity to a very great degree absolutely rests. It is true that we now have two great trunk lines running east and west, one across the northern and the other across the southern part of the Territory, but the chief desire of the people is that they be brought into competition by roads constructed from north to south.

The physical formation of the country is such that with the present transportation facilities an interchange of home products is barred.

The Atlantic and Pacific traverses an upland plain (Colorado plateau) at an average elevation through Arizona of over 5,000 feet, and the Southern Pacific crosses the low valleys and agricultural sections of the Southwest.

One variety of products is tributary to the Atlantic and Pacific, another variety to the Southern Pacific, and it is absolutely necessary to the welfare of the country that they be interchanged. The people of the North, who are principally engaged in the production of precious metals and lumber and in stock-raising, are forced to go abroad for their agricultural supplies—flour, hay, barley, etc., and pay a double price for them, because they have no road to the rich valleys of the South, where grain is stored unsold for want of a market, and the people of the southern valleys could, with the aid of a railroad, get lumber and other timber, coal, etc., in the North for about one-half what it now costs them. The consequences are that the great natural resources of this part of the country can only be partially developed. Mines can not be worked and made productive, which, with cheaper supplies, would yield riches, and the other industries of the neighborhood are comparatively retarded. The people of the sections most directly interested have become so thoroughly aroused to the importance of this

question that they are making strenuous efforts to induce the construction of a road by obtaining legislation from Congress which will enable them to grant a subsidy for the purpose, and it is, in my judgment, of the greatest importance that the relief be granted. The great unanimity on this subject is shown in the fact that when the question was submitted to the people in the county proposed to be subsidized 95 per cent. of the voters, representing 98 per cent. of the taxable property (exclusive of the property of competing railroads), voted for the subsidy. The mistaken idea prevails with a few that the creation of a larger bonded debt by subsidizing a road will increase taxation to such an extent as to make it burdensome upon the people, when the fact is that in the counties of Yavapai and Maricopa (the counties most interested in the present measure) subsidies have been granted to branch railroads, and the bonds issued for that purpose represent the greater part of each county's debt, yet the taxes are lower in these counties than before the bonds were issued, which may be accounted for by the increased property valuations which the roads have induced. Under ordinary circumstances I am opposed to the proposition of bonding communities to aid private enterprises, but under present conditions in this Territory, and in view of all the circumstances, I believe that the people would be fully justified in bonding themselves to induce the construction of a north and south railroad, which I am firmly convinced is a most urgent necessity.

CUSTOMS.

The Territory of Arizona having been created a separate customs district, with the collector's office at Nogales, the following statement of the business transacted in the custom-house of the district for six months ending June 30, 1890, shows the growing importance of our trade with Mexico.

The duties collected for the first six months of the year were as follows:

January	\$1, 144. 83
February	1, 027. 82
March	1, 357. 92
April	831. 71
May	543. 02
June	1, 700. 57
Total	6, 605. 87

The value of importations, both free and dutiable, for the six months were as follows:

Month.	Free.	Dutiable.
January	\$141, 936. 00	\$5, 163. 00
February	132, 379. 00	3, 804. 50
March	155, 251. 00	3, 874. 30
April	241, 357. 00	2, 422. 50
May	132, 390. 00	1, 656. 00
June	236, 155. 00	7, 074. 84
Total	1, 039, 468. 00	24, 465. 14

Thus it will be seen that goods to the value of \$1,063,933.14 were imported during the six months, and duties on goods to the value of \$24,465.14 were collected, the excess of free goods being \$1,015,002.86.

The imports of silver ore were—

Month.	Pounds.	Value.
January	888, 750	\$80, 275. 00
February	751, 000	87, 375. 00
March	1, 084, 000	89, 239. 00
April	1, 240, 660	118, 593. 00
May	766, 000	69, 740. 00
June	1, 397, 300	160, 845. 00
Total	6, 127, 710	666, 067. 00

The importations of gold and silver bullion for the six months last passed were as follows:

Month.	Gold.	Silver.
January	\$18, 219. 00	\$41, 838. 00
February	25, 972. 00	17, 390. 00
March	43, 398. 00	21, 730. 00
April	30, 556. 00	12, 297. 00
May	50, 176. 00	8, 300. 00
June	17, 900. 00	44, 228. 52
Total	185, 041. 00	145, 783. 52

During the six months the importations of Mexican silver dollars were \$75,500. In six days alone, in May, the importations of Mexican silver dollars amounted to \$50,000.

As a comparative statement the following bullion importations for the last two months of 1889 are given:

Month.	Gold.	Silver.
November	\$26, 406. 00	\$40, 897. 32
December	21, 880. 00	27, 137. 26
Total	47, 786. 00	68, 034. 58

It should be borne in mind that ordinarily importations are lighter the first half of the year, as is shown by the collector's books of each year. For instance, the following figures for the two months of November and December, 1889, are here given, showing a comparison: In November the value of free goods imported was \$136,322.32, and the value of dutiable goods \$6,363.50. Duties collected in November, \$1,066.44. During December the value of free goods imported was \$146,944.26, and the value of dutiable goods \$12,126.50. Duties collected during the month, \$3,213.04.

The customs authorities have had considerable trouble with Chinese attempting to come into the country by the way of Mexico illegally, in violation of the exclusion laws. Within the last two months twenty-five have been arrested and trials have been had upon habeas corpus. Twenty-four were sent back to China under decision of Associate Justice Joseph H. Kibby, of this Territory, sustained by United States Circuit Judge Sawyer, and one was sent back to Mexico. Commercial relations with Mexico are improving in strength.

AGRICULTURE AND IRRIGATION.

The arable lands of Arizona are more bountifully productive, and the soil is deeper and richer, than any subdivision of the Union of equal size, and in all branches of agriculture and horticulture the Territory is making rapid strides into conspicuous prominence.

The following tables, compiled from authentic sources, will give a fair idea of the progress being made in this direction; many important localities, however, are not included in the tabulated statements, on account of official data not being furnished and only such portions of the Territory as are giving irrigation and agriculture particular attention are presented.

MARICOPA COUNTY.

Maricopa County is the leading agricultural district of Arizona, and the canals and agricultural productions of the county are stated as follows:

Canals.	Length.		Reclaimed land.	
	<i>Miles.</i>		<i>Acres.</i>	
Arizona	41		50,000	
Grand	27			
Maricopa	26	}	45,000	
Salt River Valley	26			
Tempe	19		25,000	
Highland	22		18,000	
Mesa	9		13,000	
Utah	6		10,000	
Farmers'	5		21,000	
	181		182,000	

The foregoing canals are in the Salt River Valley, while on the Gila are the following:

Canals.	Length.		Reclaimed land.	
	<i>Miles.</i>		<i>Acres.</i>	
Buckeye	30		20,000	
Palmer	22		12,000	
Enterprise	12		6,000	
Citrus	14		5,000	
Gila River	8		5,000	
	86		48,000	

The average in crop this year under the Arizona, Grand, Maricopa, and Salt River Valley is 50,000 acres, consisting of:

	<i>Acres.</i>
Alfalfa (about)	11,500
Orchards and vineyards	3,000
Grain	35,000

There has been raised under these four canals this year fully 35,000,-000 pounds of grain, and 184,000,000 pounds of alfalfa. Of the 3,000 acres in fruit, 200 acres are in oranges. There are 25,000 acres in crop under the Arizona alone, leaving about 25,000 acres under the other three.

There has been a great deal of land under the Tempe Canal cultivated in wheat and barley together. The yield from this the present

year under the Tempe Canal was 2,420,000 pounds. The yield of barley was 2,835,000 pounds. The acreage in alfalfa was 7,395. There were 20 tons of peaches raised at Tempe, or rather under the canal, and 10 tons of apricots. The grain, according to the best authorities, averaged about 1,000 pounds to the acre.

The Mesa Canal has under it 8,000 acres in cultivation, of which 3,000 acres are in alfalfa, 2,000 acres in vines, 500 acres in trees, and the remainder, viz., 2,500 acres, are in grain. The grapes average $2\frac{1}{2}$ tons to the acre, and the grain has gone as high as 18 sacks to the acre.

Under the Highland Canal there are 7,680 acres in cultivation. 2,240 acres of this are in alfalfa, 20 acres in fruit, and 5,420 in grain.

The Indians of the county have a good showing for the year. The following is an accurate statement of their productions:

Acreage cultivated	4,000	Barley produced:	
Wheat produced:		1890	pounds.. 85,000
1889	pounds.. 6,000,000	On Papago Reservation:	
1890	pounds.. 4,000,000	Wire fence made	rods.. 7,840
Corn produced:		Hay made	tons.. 150
1889	pounds.. 12,000	Wood sold	cords.. 1,200
1890*	pounds..	On Pima and Maricopa Reservations:	
Barley produced:		Horses	4,000
1889	pounds.. 80,000	Cattle	3,500

While Maricopa County produces a great deal of grain, fruit culture promises soon to be the chief industry of the county. In reference to this subject one of our best informed writers says:

There are few countries that possess a soil and climate so well suited to the business. Already farmers are discovering that there is more money in fruit than in the raising of grain and grasses. The rapid growth and marvelous yield is a prime factor in inducing people to engage in this pursuit. In the Gila and Salt River valleys the product is ripe and ready for market fully a month before that of southern California. Fruit-raisers can readily see the advantages which this gives them. Fruit from these valleys can be laid down in the seaboard cities earlier than that of any other section of the Union. This means a ready sale and high price.

The yield is phenomenal. The fig, which succeeds in so few places in the United States, seems to be indigenous to the valleys of southern Arizona, and grows as strong and as thriftily as the cottonwood tree. It yields two, and sometimes three crops a year. This seems hardly credible but it is an actual fact. The fruit is large, rich, and luscious, and has only to be tasted to be appreciated. Grape cuttings from California will bear in eighteen months, and two crops a year is not uncommon. During the present season apricots have been shipped from the Salt River Valley to Los Angeles, a month before the fruit was ripe in that section.

One of the most profitable fruits grown in the United States is the raisin-grape. Few localities are adapted to its cultivation. The curing of the fruit requires a dry climate, and this Arizona possesses. There are only two or three places in California suited for raisin making, and even in them the conditions are not altogether satisfactory. The largest raisin producer in the United States has recently visited southern Arizona, and, after a thorough examination, declares there is no part of the United States equal to it for raisin making. He secured an extensive tract of land which he will plant next season. When it is remembered that over 90 per cent. of all the raisins consumed in this country are imported, the opportunities here presented will be fully understood.

Besides the orange and the lemon, the olive and the banana thrive in Maricopa County.

Grape-picking begins forty days earlier in the Salt River Valley than in California, and the first raisins packed anywhere in the United States this season have been packed in this county. Both figs and raisins are now being packed for export. One party alone has a fig farm containing 120 acres, and there are many other smaller farms where figs are raised in abundance. The fruit, when prepared for shipment, presents as fine an appearance as any to be found in the world. It is large, rich,

* Not estimated yet.

and juicy, and as good as it looks. Raisins are also being dried and packed in large quantities. They are excellent in quality, and can be grown and prepared for market at the minimum expense on account of superior climatic advantages. Of the 3,000 acres and upwards of fruit in Maricopa County, figs and raisin grapes lead in quantity, although oranges, apricots, peaches, pears, plums, blackberries, and strawberries are abundantly produced. The Salt River Valley is very much in need of fruit-packing and canning establishments, which will soon come with increased production and cheapened transportation. Maricopa County, with her immense area of marvelously productive land, her abundance of water and variety of products can successfully compete with the most favored agricultural districts of the country.

YUMA COUNTY.

The condition of this county in reference to agriculture and irrigation is most admirably presented in the following excerpt from the citizens' executive committee to the Senatorial Committee on Irrigation and Reclamation of the Arid Lands:

Of the several large irrigation canals operating in Yuma County, but one is completed. The remainder, while only partially finished, are nevertheless in a position to meet the requirements of many acres of bottom and valley lands, with the promise of extending their range of usefulness to many times as much again. All head, at some point or other, upon the Gila River, and each is confined entirely within the environs of the valley bearing the same name. The aggregate cost is very great, but proportionate returns upon the invested capital will for the first time become apparent during the coming twelve months. Canal building is of comparatively recent origin in the country. A few years since the fertile valleys were almost literally destitute of human habitants, while to-day it is safe to say that every acre of valley land along the line of the canals has been filed upon, not to mention considerable mesa land taken up along the line of their projected extensions.

The various works, commencing at Oatman Cañon and extending westerly at intervals to within a few miles of the Colorado River, do not, of course, cover all the arable land in the lower Gila Valley. With no Territorial laws upon the subject of irrigation and ownership of water, excepting the statute that the riparian doctrine shall not be recognized and the prior locator shall hold as against all others, it has followed naturally that the first comers were the first served. Of the few available sites for canal headings situated upon either side of the river, such as seemed likely to prove the cheapest and most convenient during the periodic seasons of low water were taken up, leaving those that remained of little value until the time when water can be stored in sufficient quantities to render them of practical consequence.

The names of the most prominent waterways, together with the length, carrying capacity, estimated cost, and number of acres tributary to each, are given herewith:

	Length.	Capacity.	Estimated cost.	Acres reclaimable.
	<i>Miles.</i>	<i>Inches.</i>		
Mohawk.....	35	11,000	\$150,000	40,000
Redondo.....	5	600	8,000	1,500
Farmers'.....	13	5,000	15,000	10,000
South Gila.....	22	8,000	45,000	12,000
Purdy.....	10	9,000	25,000	7,000
Contreras.....	7	3,000	9,000	2,000
Saunders.....	10	5,000	25,000	4,000
Araby.....	8½	3,500	35,000	2,000
Antelope.....	7	2,000	10,000	2,500
Toltec.....	3	30,000	15,000	.....
Total.....	120½	77,100	337,000	81,000

In the event of the completion of the above-described works, in accordance with the original plans of the projectors, the total length would reach 241 miles, reclaiming 267,000 acres of bottom, valley, and mesa land, at an estimated cost of \$1,318,900.

The "duty" of water is not constant, but varies according to the locality. The

quantity used per acre under the lower Gila Valley canals is rated at about one-third of an inch. It should be explained that but little of the land has been irrigated earlier than eighteen months ago, and, being virgin soil, requires more water than will be necessary during the coming seasons. For this reason it is fair to assume that the duty per inch will be materially increased. In California an inch will irrigate from 4 to 12 acres, and it is not only possible but it is also likely that the wasteful custom of applying more water to the soil than is actually needed, in vogue among the majority of the Yuma County farmers, may have much to do with the apparent deficiency.

It may be stated incidentally that by irrigation the fertilization of land fluctuates according to the nature and quantity of the silty matter deposited upon it by the water, and this, it is estimated, is from 30 to 100 per cent. Both the Gila and the Colorado are especially rich in such matter, and therefore the constant fertilization effected through the operating canals renders any further enrichment of the soil superfluous, useless, and unnecessary.

PRODUCTS OF THE COUNTY.

Fruit culture has so far been prosecuted upon a limited scale, but enough has been learned from experimental tests to demonstrate the positive feasibility of not only producing on excellent quality of the most profitable fruits, but also the ability to raise them for market from three to six weeks earlier than any section of California.

The orange, lemon, and lime, finding soils and climate congenial, yield in abundance large, clean-skinned, and exceedingly luscious fruit. They color handsomely, contain the requisite acidity and sweetness, and are very juicy.

The warm sunshine of the spring, summer, and autumn days causes the fruit in Yuma to mature early, and gives a delicious sweetness, flavor, and color to the orange, lime, lemon, and other citrus fruits which they can not attain on the coast of the Pacific, where fogs dampen the fruit, mildew is produced, and dust coats both fruit and leaf.

It is undeniable that nowhere upon the globe can a spot be found more favorable for the growth of citrus fruits than Yuma County.

The fig and pomegranate offer a character of fruit that almost stamp them as indigenous. The latter is not recognized to any great extent yet, but it will certainly become an important factor in horticulture when its economic qualities are better known. As to the fig the most desirable variety has yet to be determined. The true "White Smyrna" would probably prove the best, and that its yield would be prodigious goes without saying, for the tree will bear three crops annually. This assertion is based upon actual productive results of the "Mediterranean White" fig, that is known not to be the true Smyrna.

The grape seizes upon what is proffered to it and becomes hardy, thrifty, and adaptable. The choice naturally inclines to the earliest for table purposes. What those varieties should be is in process of experiment upon a scale that will soon solve the question, but it may be said that all kinds mature from three to four weeks before they do in California. They attain great size, cluster tightly on the bunches, are firm and highly colored, and possess exquisite flavor. Heavy wines and brandies of a super-excellent character can be made, but with light wines the reverse is true, for everything apparently goes to saccharine. For ripening wines the climatic conditions are admirable. A quantity of common white wine, costing 45 cents per gallon, was brought here by water years ago, and on being found unsalable was placed in cellars and its history almost forgotten. Nine years later the wine was brought to light, when it was discovered that it resembled a brown sherry, rich in bouquet, smooth as oil, and delicious to the taste. It was carefully drawn from the casks, bottled, and sold at \$2.50 per bottle.

The olive grows luxuriantly and will in the future become a most profitable investment. Whatever its characteristics elsewhere, here it requires water and cultivation—the more water the better.

The mulberry matures rapidly, and when firmly rooted vigorously withstands great heat and lack of water. It produces an early, large, and sweet fruit, and is a highly desirable tree to plant along the canals for its grateful shade.

The plum can be easily raised from the seed. It fruits early, though so far the product does not commend itself particularly for table use, but as a stock upon which to engraft prunes or even superior varieties of plums it is everything to be desired. An experiment in this line with the best prune known in California showed a growth of 23 inches in forty days from the insertion of the graft.

The date has passed beyond conjecture. The plant produces magnificently, and its cultivation will be prosecuted more extensively this winter than ever before. The soil is in every way suitable, and with occasional cultivation and intelligent irrigation a quick and early growth is assured.

Apricots and peaches have been tested. They mature rapidly, bear choice fruit, and are always healthy, giving flattering indications of future success.

As facilities increase other fruit trees will be introduced, and with the same care that is bestowed upon them elsewhere will, so soon as they become acclimated, come to a yield materially in advance of the place from whence they came. The field is too large to admit of extended comment at this time, but it may suffice to refer briefly to certain other products which may in time equal if not surpass fruit-growing as a commercial proposition, as, for example, cotton, wild hemp, ramie, sugar-cane, sugar-beets, etc.

Cotton has been tried from time to time for years with varying but always satisfactory results, and even then without care. If watered regularly it becomes a large bush, and if properly pruned, a tree, being in flower, ball, and cotton the year round. These bushes and trees have in instances borne steadily for fourteen years. The staple of course diminishes in course of time, but at ten years it is not inferior to the average staple of western India.

Wild hemp is a textile plant indigenous to the country. It grows freely and luxuriantly to a great height, often averaging from 15 to 17 feet. It has a long, strong fiber, and is frequently worked into nets and fishing-lines by the Yuma Indians. Convulsive attempts have been made to utilize this plant, with the practical result of fixing its value among the fibers used in the manufacture of cordage, at about \$160 per ton of 2,000 pounds. After proper bleaching and manipulation, a beautiful fiber has been produced and manufactured into colored fabrics, taking the dye and retaining the elasticity and luster exactly as well as the fabrics of true flax and ramie. It seeds itself annually, and, immediately following the overflows of the Colorado River, takes possession of every nook, corner, and open area, to the exclusion of everything else. It covers not less than 100 square miles in an unbroken stretch, commencing near the boundary line of the Gadsden purchase, and extending northward along the river to Hardy's crossing of the Colorado, above the point where the rising tides of the Gulf of California force back the flow of the Colorado River proper.

The fibrous plant ramie has been given a partial trial. The soil, on analysis, was found to contain all the essential properties to render the most favorable results, but the absence of water, together with injudiciously planting the roots too late, retarded the growth. Enough data was obtained, however, to warrant the belief that this will eventually become one of our most important industries.

Sugar-cane has been fairly tested with Sonora cane. The growth was surprisingly great, and the percentage of juice much increased over the yield at the place from which it was originally brought. A superior quality of panocha and syrup were manufactured, the prices realized leaving handsome margins for profit. The capriciousness of the water supply, as in the case of ramie, dissolved the industry, and it has not since been revived.

The sugar beet promises better results for the future than many of the products already mentioned as prominent in the same direction. Samples not fully matured polarized 17 per cent. With proper cultivation the percentage can be raised to from 20 to 25, and besides, will harvest two crops each year.

Wheat does splendidly, but complete data is not at hand from which to compute the average yield. In one instance, however, 483 pounds seeded to 20 acres, about 9 miles east of Yuma, on the Gila River, returned 52,750 pounds, after having been irrigated five times. This was sold in San Francisco, bringing 50 cents per cental over every kind then in the market. The grain is remarkable for its plump, berry-like appearance. The winter and spring are warm enough to insure a vigorous growth, and cool enough in April and May to allow the heads to fill out without shriveling. It is so perfect as to sell for seed, and, so far as known, is proof against rust. Two crops are raised annually. Barley also does well and will produce two crops, the first yielding from 35 to 40 bushels of barley, and the second a large amount of hay.

Corn is produced in great quantity, yields enormously, and can be grown the year round. The "Cocopah" corn is noted for sweetness, plumpness, earliness, and for its firm and solid grains. Five weeks after planting roasting ears are plentiful. This variety commands a ready sale at higher prices than any other kind.

Alfalfa will cut from five to seven times at an average of 2½ tons to the acre. Eight acres, but one year old, have this year yielded 74 tons, with more cuttings yet to be had. The hay brings \$10 per ton. (This price is paid for the limited amount sold at Yuma.)

Sorghum, raised for feed, is both valuable and prolific. It frequently reaches 15 feet in height, yields from 15 to 20 tons per acre, and worth \$15 per ton. Several crops can be harvested annually.

Vegetables, kitchen, and garden stuff, melons, etc., grow all the year round in unlimited quantity and excellent quality. Some time since a Gila Valley farmer planted 15 pounds of Irish potatoes on a piece of bottom land that had been overflowed, from which he harvested over 700 pounds, and this record, it is believed, has rarely, if

ever, been excelled. The sweet potato produces enormously, and equals the choicest brought from California.

Peanuts mature rapidly and abundantly, yielding a nut both plump and toothsome. Whenever there is sufficient moisture the natural flora abound in profusion and variety. They are of rare beauty and delicious fragrance, the bulbous plants particularly. The lily surpasses the famous "Japan." It has been claimed by experts that at no distant period opium will be manufactured from the poppy, and attar from the rose; both flowers thrive vigorously. There are but few trees capable of adorning the surroundings of the lovely modern home that can not be satisfactorily grown.

Every plant, vine, or tree mentioned in the foregoing list has been actually proven adaptable to our soils and climate. Many others have been omitted through lack of space. But there seems no doubt that time will demonstrate our ability to profitably raise all the semi-tropic and most of the tropical and temperate productions.

Especial prominence is given to Yuma County's excellent presentation of this subject, because the same general conditions exist in Maricopa and all of the southern tier of counties, as to climate, character, and adaptability of the soil, although Maricopa County produces far more than all of the other counties put together in fruits and cereals.

PINAL COUNTY.

In reference to irrigation in this county Judge Jos. H. Kibby, formerly superintendent of the Florence Canal Company, furnishes the following reliable information:

There are two irrigation districts in Pinal County, one tributary to the Gila River around Florence, the county seat, and the other supplied by the San Pedro in the southeastern part of the county. The canals of the county are as follows:

Name.	Length.	Acres.
	<i>Miles.</i>	
Moore	3	300
McClellan	3	300
The Swiss	2	200
Sharp	3	160
Stilos	4	300
Brash	4	400
Florence	43	60,000
Montezuma	6	1,000
Pat Holland	7	1,000
Alamo Aramilla	7	1,000
Brady	4	1,000
Adamsville	4	1,000
White	3	200
Walker & Dempsey	3	300
Total	96	67,160

All of the above ditches are private property, except the Florence, Montezuma, and Aramilla, which are owned by incorporated companies.

There are three private ditches on the Gila above Riverside, and below the San Pedro, as follows:

Name.	Length.	Acres.
	<i>Miles.</i>	
Shields	2 $\frac{1}{2}$	480
Winkleman	1 $\frac{1}{2}$	480
Brannaman & Co.	1 $\frac{1}{2}$	320
	5 $\frac{1}{2}$	1,280

On the San Pedro, west side, and in their order up stream are the following ditches:

Name.	Length.	Acres.
	<i>Miles.</i>	
Lattan	1	80
Harrington	1½	480
Swingle	2	480
Waterman, No. 1	1½	320
Waterman, No. 2	1½	320
Bates	1½	160
Pusch	2	640
Dodson	2	320
Cook	1½	200
Brown	1½	160
	16	3,160

These are all private ditches. About half of the land covered by the above ditches, except the Florence, is in actual cultivation.

The Florence Canal emerges from the river at a rocky point about a mile and a half below the cañon known as the Buttes. Fifteen miles of laterals and service ditches are constructed. The main canal has a capacity equal to a flow of 400 cubic feet per second, and is so constructed that it can be easily enlarged and its capacity increased. A large storage reservoir has been constructed about fifteen miles south of Florence, at a cost of \$100,000, and has a storage capacity of 8,000,000,000 gallons of water. There is a large catchment basin tributary to the reservoir, so that with little trouble or expense the reservoir can be filled at least once, and possibly twice, a year independently of the river supply. There are under cultivation under this canal more than 6,000 acres.

The soil and productions of the lands in Pinal County are practically the same as in Maricopa County.

GRAHAM COUNTY.

The irrigation district of this county lies in the valley of the Gila River, and, as will be seen by the following tables, agricultural interests are prosperous:

IRRIGATING CANALS IN THE VICINITY OF SAFFORD.

Name.	Length.	Acres irrigated.	Under this ditch were grown last year—					
			Alfalfa.	Grain.	Corn.	Vegetables.	Orchard.	Vine.
	<i>Miles.</i>							
Sunflower	2	400	175	.....	60	2	1	.....
Graham	4	500	100	200	40	20	3	.....
Union	8	1,200	300	100	100	20	10	5
Brancho of Montezuma	10	800	400	90	120	10	20	4
Total	24	2,900	975	390	320	52	34	9

CANALS OF CURTIS AND VICINITY.

Oregon	5	1,200	50	400	200	50	10	.....
Curtis	5	400	50	200	100	20	20	8
Kempton	3	400	100	200	50	10	30	10
Justman	2	200	.....	50	10	.....	.....	.....
Matthews	4	400	100	300	100	5	5	5
Dodge	4	200	50	200	50	20	20	20
Smithville	6	400	200	200	200	5	15	5
Central	4	200	100	100	100	5	10	.....
Darby	3	200	50	50	100	2	5	5
Total	36	3,600	700	1,700	910	117	115	53

IRRIGATING CANALS NEAR SOLOMONVILLE.

Brown	2½	150	40	40	60	3	1	.....
Mejia	2½	500	.....	350	.....	.....	.....	.....
Gonzales	2	200	.....	100	100	.....	.....	.....
Michelena	5	600	6	400	100	.....	2	.....
Z. Gonzales	4	800	.....	400	100	.....	.....	.....
Total	15½	2,250	46	1,290	360	3	3	.....

It will be seen from these tables that in some cases the area of small grain and corn is larger than the whole area of land irrigated by a canal. This is because the two crops follow each other on the same ground, two crops being produced in one season.

PIMA COUNTY.

This county has very great possibilities as an agricultural section and much progress has already been made. An agricultural experimental station has been established at Tucson, in Pima County, in connection with the Territorial University. The following statement presented to the Senate Committee on Irrigation gives the agricultural productions of Pima County for 1889:

There are in all 12,000 fruit trees in bearing, producing the best of fruit, full in size and delicious in flavor. There are 3,000 grape vines in bearing with 1,500 cuttings one year old. The grape comes into bearing in three years from the planting of the cutting and in two years from the planting of the rooted vines.

The culture of fruit in this country is an entirely new enterprise, and from the success attained by the experiments made bids fair to become one of the chief industries of this section.

In the valley of the Santa Cruz, from Calabasas to Tucson, there are under cultivation about 3,000 acres, yielding 5,628 tons of hay; value, \$67,547.

854,000 pounds corn	\$12,675
1,374,000 pounds wheat and barley	20,601
300,000 pounds potatoes	6,000
380,000 pounds beans	8,400
300,000 pounds vegetables	15,000
26,000 pounds red pepper	1,680

Total

131,901

On the Rillito Creek east of Tucson 500 acres of land are in cultivation, producing:

850 tons of hay	\$10,200
265,000 pounds of barley	3,975
80,000 pounds of beans	2,400
100,000 pounds of potatoes	2,000

Total

20,275

At Crittenden, Beddington, and other points lands are cultivated to some extent with the same results as reported above. There are thirty-six ditches of a total length of 52 miles used in irrigating these lands. The above products were grown from July, 1888, to July, 1889. The grain and potato crops were planted in 1888, the hay in 1889—as our lands produce two crops a year—sowing grain in December and January, and corn, beans, and potatoes in July and August. Harvesting hay and grain in May and June, and other crops in October, November, and December, excepting alfalfa hay, which is cut each month from April to September. During the months of October, December, and January

alfalfa is pastured, it keeping green and growing slowly during three months. This crop is destined to be the great hay crop of Arizona.

Cochise and Gila Counties, although principally engaged in mining and grazing, do more or less farming, and the same is true of Apache, Yavapai, and Mohave Counties. In Apache County the valley of the Little Colorado embraces nearly all of the irrigating and agricultural interests, and they are quite extensive and profitable. In Yavapai County most of the farming is confined to the valleys of the Verde and Agua Fria, although the higher valleys, notably Kirkland Valley, Peeples's Valley, Skull Valley, and the basin of Granite Creek produce hay and grain liberally, and also all kinds of orchard fruits. Upon the higher mesas and in the mountains, especially around Flagstaff and Williams on the "Atlantic and Pacific," potatoes are raised in great abundance and of very fine quality. Some farming is done in Mohave County along the Mohave River. Every county in the Territory has more or less interest in agriculture, although the southern counties have land and climatic conditions which give them precedence, and notwithstanding the lead which mining now has as a wealth-producing industry, agriculture is rapidly coming to the fore.

Irrigation has been practiced in Arizona for a period antedating the records of history. An extensive system of canals greater than we have now was operated in the prehistoric period, and covered nearly all of the fertile valleys of the Territory. Of the builders of the old canals no record has reached us; but their silent cities and ruined waterways give proofs of a large population and great agricultural development. The following table approximates the extent of the present irrigation system in Arizona, the amount of land now reclaimed, and the amount susceptible of reclamation:

Name of county.	Length of canal.	Acres irrigated.	Acres under pres- ent system.	Arable land.
	<i>Miles.</i>			
Maricopa.....	270	202, 000	350, 000	2, 000, 000
Yuma.....	65	17, 500	110, 500	1, 000, 000
Pinal.....	102	31, 600	80, 000	600, 000
Pima.....	52	4, 000	(*)	500, 000
Gila.....	35	5, 000	(*)	150, 000
Graham.....	75	5, 500	(*)	250, 000
Apache.....	25	12, 000	(*)	150, 000
Cochise.....	49	8, 300	(*)	300, 000
Yavapai.....	20	10, 000	(*)	400, 000
Mohave.....	8	1, 000	(*)	200, 000
Total.....	701	295, 200	.....	5, 550, 000

* Not stated.

The above table is entirely approximate and differs in some respects from the county statistics as different authorities are quoted. Under the head of arable land only acreage is given where opportunities exist for reclamation by conservation of water and otherwise.

Irrigation improvements have been at nearly a stand-still under the operation of the act of October 2, 1888, from the benefits of which act Arizona received less than \$5,000. The fact that all counties have gone boldly forward with their public improvements, trusting that the early settlement of the vacant arable lands would make the payment of debentures issued easy under a low rate of taxation, has made the feeling of uncertainty over the perfection of land titles peculiarly harmful and annoying to the people.

The extension of canals and the success of any irrigation system must be contingent on occupation and ownership of the land by settlers. This, of course, could not take place since October 2, 1888. The terms of repeal under act of August 30, 1890, practically restores our condition for successfully inaugurating and carrying forward new canal systems.

With a limitation of the gross amount of land to be acquired by one person to 320 acres the objection to the former effect of the desert land law as to large holdings is partially removed. In view of the evident desire of the Government to aid in the reclamation of the arid lands of the West (and the difficulty seems to be only in the method) I would respectfully suggest that if the General Government would donate the public lands within the arid regions to the Territories in which they lie that the necessity for all further legislation or appropriation by Congress in regard to these lands would be saved, and all the financial difficulties to self-government by the Territories would be removed.

BEE KEEPING.

Bee keeping is proving one of the most profitable industries in the Salt River Valley. The climate is well adapted for the business, and the blossoms of the alfalfa plant, the mesquite tree, and the sunflower are excellent honey producers. The bees are always healthy and require but little attention. The product is equal in quality and flavor to any made on the coast. It is white and clear, and readily commands the maximum price. There is a good market all over the Territory, and a great deal is being now exported. Several car-loads have been exported this year. A bee-keeper's association has been formed in Maricopa County, and the industry is developing into large proportions.

STOCK RAISING.

This is one of the leading and important industries of Arizona, aggregating and absorbing a larger investment of capital and yielding more regular and profitable returns hitherto than any other, with the possible exception of mining, notwithstanding values have been constantly diminishing in sympathy with the universal decline in the beef markets of the country and the world since about the year 1885.

The present outlook is exceedingly flattering, induced by a general and wide-spread belief that the production of beef cattle is now, and must continue to be for a few years to come, certainly far below the actual demand for consumption. Breeders of cattle are therefore very hopeful and confident that an era of great prosperity to their industry is about to be inaugurated.

The climate of Arizona is not surpassed, if equaled, in the known world for the successful breeding of cattle. Its vast area, embracing mountain, mesa, and plain, gives great diversity, and yet neither the cold of one section nor heat of the other is sufficient to interfere with constant and continuous growth or certainty of rearing the young, whether born in summer or winter.

The rain-fall on all the mountain ranges is usually very abundant, and on the more northern and highly elevated mountain ranges snow falls to considerable depth, supplying pure water on the ranges below as well as fresh and nutritious feed until supplemented by the summer rains. For three or four years, however, the summer rain-fall has been comparatively light, and in consequence of this and the large increase

in the cattle business at about the commencement of this period, ranges became quite generally overstocked, hence a necessity arose for providing other means for fitting cattle for the beef market, and the attention of stockmen was turned to the rich agricultural valleys of the southern part of the Territory, abounding in a surplus of alfalfa pasturage, with the result that very many have adopted an entire change in their method of preparing their beef cattle for market, now sending them in the early fall in great numbers to the alfalfa pastures bordering the Salt and Gila Rivers to fatten, and to hold until the markets demand them at remunerative prices.

The annual increase of cattle in this Territory is exceptional, often averaging 80 to 85 per cent. of the breeding stock. This may not seem possible to those unfamiliar with such a high rate of increase, unless the favorable existing conditions are properly understood, which conditions conduce immeasurably to longevity, early maturity and early maternity, and the almost entire absence of loss of progeny.

SANITARY CONDITIONS.

This Territory possesses remarkable advantages in this respect. Contagious diseases, which have proved so destructive to cattle in many localities, have never caused any appreciable losses to the cattle-raiser here, and no disease common to cattle has ever become epidemic.

There has perhaps never been a time in the history of Arizona when stock-raising presented greater attractions, or gave better promise of profitable returns, than the present. The rain-fall has been unusually profuse throughout the Territory, consequently the ranges are clothed abundantly with a luxuriant growth of all food plants, grasses, and shrubs upon which cattle subsist. A very large proportion of cattle are therefore now, and will be for months to come, ready for the shambles, and the tendency of the market is toward better prices.

This industry has suffered in common with all others in the Territory for the want of proper transportation facilities. The construction of a north and south railroad connecting the two trunk lines that cross the northern and southern borders of the Territory, placing them in competition, would so increase the shipping value of cattle as to add many thousands of dollars to their commercial or home value.

EXPORTS.

The number of cattle exported during the last year has been unusually large. I have attempted to procure data enabling me to give a definite statement of facts relating to shipments, but the returns and reports at hand are so incomplete that their insertion would at least be misleading. From such information as I have, however, I estimate the number of cattle shipped from the Territory during the year 1889 and to June 30, 1890, at 200,000 head.

The total number of cattle in the Territory, as shown by assessment returns, will be found tabulated under the head of taxable property.

HORSES.

What has heretofore been written in relation to the adaptability of the Territory, its climate, water, and other advantages for the successful raising of cattle, applies with equal force to the breeding of horses and all domestic animals. I will, however, state in relation to the

raising of horses that great improvement in quality has taken place within a very few years last past. The native scrub horses, though invaluable to stockmen for saddle work, especially in the mountain districts, are fast giving way to a class of well-bred American stock, and now in the agricultural valleys and in the larger towns may be seen as fine large well-bred horses as are common in the States. Statistics are given under head of Taxable property.

SHEEP.

Sheep-raising is principally confined to two counties, Yavapai and Apache. Sheep-raising and cattle-raising do not harmonize, and the cattle men have so far quite thoroughly monopolized the open ranges. The number of sheep in the Territory is also stated in the table of Taxable property.

HOGS.

A few years ago hog-raising was carried to such an extent in some of the southern valleys, notably that of the Salt River, that the business, in the absence of cold storage and packing-houses, became overdone and unprofitable, and was practically abandoned. The climate, soil, and agricultural productions are admirably adapted to this industry, and with improved transportation facilities, cold-storage advantages, and packing-houses, it would prove very profitable. In reference to the statistics as to number given under the head of Taxable property, they were taken from the official assessment rolls, although it is conceded that the actual amount of stock in the Territory of all kinds is more than double the number stated.

MINING.

The condition of this industry is exceedingly prosperous, and in regard to the subject I submit the following data, furnished by Hon. J. F. Blandy, Territorial geologist:

A detailed statement of production, by counties, for the year 1889 is attached hereto. The year 1890 promises, so far, to be an improvement over last year in nearly all the counties. The stimulus afforded by the late large advance in the price of silver and the increase in the price of copper and the strength of the market over that of last year has made a great change in the spirit of the miners, making them more hopeful and energetic.

The copper companies are working to their full capacity, and it is expected that Graham County will increase its output about 2,000,000 pounds. About all this increase will come from a new company—the Copper King. A new 30-ton furnace is being built by the Buffalo Copper Company at Globe, and will probably be in blast this month. We may therefore look for an increase in production over last year of at least 3,000,000 pounds. Parties have in contemplation the development of some other well-known copper properties at various points in the Territory, but they will hardly be producers this year. The copper mines and furnaces at Bisbee are now and have been for years very large producers, but their output is not stated.

The gold-mining is in a most promising condition. A twenty-stamp mill will shortly be started in Mohave County. The mill of the Phoenix mine, in Maricopa County, has been changed from a twenty to a thirty stamp mill, and it is expected that there will be fifty more added; and

the twenty-stamp mill at the Mammoth mine, Pinal County, has had ten stamps added to it. The Congress gold-mine, in Yavapai County, one of the largest and best opened mines in the Southwest, is a large and steady producer, and this year will far exceed its former output. It has one of the most thoroughly appointed twenty-stamp mills on the Pacific coast, and the company is now doubling the capacity by putting in twenty more stamps and a large and powerful steam-hoist.

The Ora Belle, Ryland, Castle Creek (the district of Castle Creek is producing a great deal of gold, and several new mills will soon be in operation), Crown King and Old Reliable, of the same county, will no doubt show a larger production than last year.

Several very promising and large mines are now being opened in the Weaver and Castle Creek districts of Yavapai County, but the destruction of the Hasyampa Dam has delayed the opening of several properties in that neighborhood. A large dam is being constructed on Lynx Creek, Yavapai County, for the purpose of storing water for hydraulic gold mining. The enterprise is in the hands of a strong syndicate, and the indications are promising for a very large yield. Placer mining is engaged in quite profitably on the Lower Gila and the bars of the Colorado River. Large improvements are projected for the Harqua-Hala gold mines of Yuma County. The question of erecting an additional mill of one hundred stamps at the Mammoth mine has been discussed, the management being satisfied that the mine can furnish the ore for it. Both this mine and the Phoenix are in strong hands, and their success will have the effect of developing several promising properties in their immediate neighborhood.

The silver interests throughout the Territory are showing a steady improvement. No new discoveries of note are mentioned, but the old mines are being worked with probably more vigor than for some time past, due, to a great extent, to the increased price of silver. This is particularly the case in Cochise and Pima Counties. In the latter some of the old mills have been started afresh, and those parties who have been accustomed to ship their ores are holding their own with last year. In Cochise County the ores of the Tombstone Milling and Mining Company average better than last year both in quality and quantity, and much prospecting in old mines and old claims is being carried on. The Turquoise district has increased largely over last year, and, on account of late developments in the Silver Bell mine, will show a still better record for the remainder of the year.

In the Globe and Pioneer districts of Gila County the "chloriders" are very active, and in spite of the fact that they are so far from the railroad will give a good account of themselves; were it not for the very high grade of their ores they would not be able to do much.

The Reymert mine of Pinal County has been kept back by the insufficiency of their water supply, but this trouble has been overcome and it is stated that they will largely increase their plant, the immense quantity of ore being far ahead of their milling facilities.

Report from the Vekol district speaks in the highest degree of the value of that section and of the opening of other mines.

There will probably not be much or any increase in Yavapai County in silver, although it is likely that increased activity in the Peck district will more than offset any falling off at other points. The same may be said of Mohave and Yuma Counties.

The sandstone quarries in the neighborhood of Flagstaff have become very prominent and are sure to become a leading feature in that section. The stone is of such excellent quality and beauty as to meet with

great favor in the cities of southern California, and large quantities are sent as far east as Denver. This industry must continue to grow.

The coal fields of Arizona still remain undeveloped, much to our disadvantage. So far but little coal has been found in Apache County within a reasonable distance of the railroad, and therefore the northern sections of the Territory are still dependent upon the Gallup mines in New Mexico.

It is greatly to be regretted that the General Government has not segregated the coal-lands which lie within the San Carlos Reservation in the valley of the Gila River; were this done they would soon add vastly to the wealth of southern Arizona. The title to the coal-lands lying near the border in Sonora has heretofore prevented the development of that field. It is quite possible that other detached basins of coal may yet be found within the section of country lying between the Gila River and the Sonora line, and such proving to be the case it will be the beginning of a new era in the history of our mining.

Mineral production of Arizona Territory.

Counties.	Copper in pounds.	Gold.	Silver.	Total in gold and silver.
Mohave.....	.....	\$125, 004. 73	\$260, 534. 31	\$385, 539. 04
Yavapai.....	2, 160, 000	461, 705. 47	162, 761. 57	624, 467. 04
Yuma.....	.....	85, 295. 00	33, 605. 37	118, 900. 37
Maricopa.....	.....	43, 510. 00	170. 00	43, 680. 00
Pima.....	.....	63, 584. 21	698, 373. 97	671, 958. 18
Pinal.....	.....	.....	186, 745. 26	187, 370. 88
Cochise.....	11, 232, 000	57, 955. 40	194, 926. 54	252, 881. 94
Graham.....	11, 926, 000	1, 256. 10	2, 298. 19	3, 354. 29
Gila.....	6, 003, 220	1, 060. 00	15, 720. 57	16, 720. 57
Other mines.....	438, 780	.....	.....	.....
Total.....	31, 600, 000	839, 936. 48	1, 465, 135. 78	2, 305, 072. 26
By returns from smelting companies and express companies not included above.....	.....	241, 407. 00	263, 864. 00	505, 271. 00
Copper.....	.....	.....	.....	1, 700, 000. 00
Total mineral product.....	.....	.....	.....	4, 510, 343. 26

The indications all point to a far greater yield this year.

Operations have been resumed in the Cave Creek district, Maricopa County, and several properties (notably the Union Mine) are being worked profitably there. Extensive hydraulic works are being erected on Humburg Creek.

These improvements, when completed, will no doubt largely increase the gold yield of the Territory.

FORESTS AND THE PRODUCTION OF LUMBER.

The pine forest in the San Francisco mountains in northern Arizona covers an area of about 2,700 square miles, or approximately 1,750,000 acres. Detached bodies of timber are found in various parts of the Territory at altitudes above 5,500 feet. Spruce, cypress, and other varieties of timber do not exist in large enough quantities to make them of any special commercial value. There is considerable cypress in the Tonto Basin, Gila County, which is straight and durable timber of good size but inaccessible for any but the smallest local uses. In the large San Francisco forest the trees run from the sapling size up to 4 feet in diameter. Common saw timber runs from 12 to 36 inches usually, the logs averaging about 4 to the 1,000 feet of lumber. One company,

the Arizona Lumber Company, has in its control at present about 1,000,000,000 feet of pine timber.

Arizona has timber enough for home consumption for many years, and for a large population. Lumber has been exported from this Territory with profit to Mexico and to California in competition with the immense forests and great mills of the North Pacific coast.

The price of common lumber varies in the Territory from \$15 to \$30 per 1,000 feet according to locality.

RAIN-FALL.

Official figures showing precipitation in the Territory for the present year have not been furnished this office, yet the rain-fall has undoubtedly been far in excess of 1889, and all industries directly or indirectly dependent upon water supply from rain are prosperous.

EDUCATION.

The public school system is one of the best in the Union. It provides educational advantages liberally to every child in every part of the Territory. The schools are classified as primary, grammar, and high schools, and the branches of study taught in them embrace every subject from the most elementary to those required for admission to the best colleges.

Each county is subdivided into school districts, which are controlled by three trustees, who are elected by the tax-payers and parents of children of school age at a special election, in which both men and women participate. These trustees have general supervision of the schools in their district. The probate judge of each county is *ex officio* superintendent of schools for his county. His duties are to apportion the school moneys among the districts, audit all school accounts, and draw his warrant on the county treasurer for the amounts, enforce the use of the prescribed text books, see that the course of study is pursued, and, in connection with his county board, examine teachers.

The entire system is under the supervision of the superintendent of public instruction, who, with the governor and Territorial treasurer, constitute a board of education whose duty is to adopt rules and regulations for the government of the public schools and school libraries, to adopt a uniform series of text books for the schools, to devise plans for the increase and management of the Territorial school fund, to prescribe a course of study for the schools, to grant diplomas to teachers, and revoke the same for unfitness for teaching.

The schools are supported by a direct Territorial tax of 3 cents on each \$100 value of taxable property, collected and paid into the Territorial treasury, and then apportioned to the various counties on the basis of school population. In addition a tax is levied on each county at a rate of not less than 50 cents nor more than 80 cents on each \$100 valuation for the support of the schools in that county. A special tax may also be levied by the trustees of school districts for the maintenance of schools when the electors of the districts so direct. All moneys accruing to the Territory from the sale or rents of escheated estates, as well as all receipts from fines, forfeitures, and gambling licenses, are passed to the credit of the school fund.

The school year begins on July 1 of each year and closes on June 30. All schools must be kept open for a period of five months in each year. A new school district may be formed when there are ten children residing 2 miles from a school house.

An important adjunct to the school system is the Territorial normal school, located at Tempe, in Maricopa County, and established in 1886. The course of study extends over a period of three years and includes the subjects usually taught in similar institutions in the States. Since it opened seventy-nine students have been enrolled, of which number eleven have graduated and are now teaching in the public schools of the Territory.

The Territorial university, situated at Tucson, Pima County, has not been opened for the reception of students. The building is in an unfinished condition owing to a lack of funds, but it is believed the tax levied the present year for its support will enable the regents to complete a portion of the edifice and provide accommodations for classes at an early date. With the opening of this institution facilities unsurpassed anywhere for obtaining a thorough education will be afforded the youth of the Territory.

The subjoined table exhibits the general school statistics of the Territory. It is not compiled from official returns, but is based on careful estimates and is approximately correct:

Value of public-school property.....	\$240, 000
Value of Territorial university grounds and building.....	\$30, 000
Value of normal-school grounds and building.....	\$10, 000
Expenditures for the support of the public schools.....	\$140, 000
Expenditures for the support of the normal school.....	3, 000
Number of children between six and eighteen.....	10, 700
Number of schools.....	190
Number of children enrolled in public schools.....	7, 000
Number of months public schools are open.....	7
Number of volumes in school libraries.....	2, 000

SCHOOL LANDS.

I deem this subject very important to the educational interests of the Territory, and I most earnestly urge its consideration by Congress.

While our educational system is admirable, its maintenance is comparatively burdensome, because no assistance is derived from the school lands on account of our Territorial condition, all expense being borne by direct taxation. The sixteenth and thirty-sixth sections in every township "Granted to assist in defraying educational expenses" are of no assistance except in States. It seems unfair that Territories are not granted equal advantages with the States in this respect.

It is also important that the Territories be permitted to select good land in lieu of the sixteenth and thirty sixth sections, where said sections fall upon barren and mountainous localities, otherwise all desirable land will be appropriated by settlers, and the school fund will be insignificant, when, after admission to statehood, the school lands become available for educational purposes. The attention and favorable action of Congress in regard to this question is respectfully requested.

LABOR.

This question has not yet reached such proportions in Arizona as to disturb or materially affect in any way the public welfare. There is no friction here between capital and labor. The supply equals the demand, the wages paid are satisfactory, and the Territory is happily free from organized conflicts on this subject and the consequent disturbing influences which have frequently affected society and progress in many of the more populous parts of the Union.

PUBLIC BUILDINGS.

The public buildings of Arizona consist of the Territorial prison, situated at Yuma, the Territorial University at Tucson, the Insane Asylum at Phoenix, and the Normal School at Tempe. All have been erected at Territorial expense and are creditable structures. Not a dollar has ever been appropriated by the General Government for public buildings in Arizona, which neglect is unaccountable in view of the fact that the Government pays annual rentals for offices for United States officials in sums amounting to more than liberal interest on the cost of suitable buildings for the public service.

CONDITION OF THE INDIANS IN THE TERRITORY.

The Territorial authorities having no jurisdiction over the Indians except in so far as the same has been conferred upon the courts for the trial and punishment of criminals, and as no reports, statistical or otherwise, are made to this office by the authorities having charge of the Indians within the Territory, it is impossible for me to furnish detailed and explicit information in regard to their condition.

It is safe to say, however, that no question more materially affects the welfare and progress of our people than this. It has been in the past, and is now, one of the most troublesome problems before us. Notwithstanding the watchful care of the Interior Department and the constant surveillance of the military authorities, the Indians in Arizona are a continued menace to our civilization and a serious obstacle to progress, and it is the earnest prayer of our people that such of them as have for years required military surveillance be removed from the Territory, and their reservations opened for settlement. While there has been no regular outbreak and extensive warfare since the surrender and exile of the notorious Geronimo in 1883, yet several murders have been committed by Indians, and a general feeling of distrust prevails in portions of the Territory adjacent to the San Carlos Reservation, upon which the most objectionable Indians are placed. While the reservations really occupy but a comparatively small portion of our domain, and even during hostile raids therefrom a very little of our great Territory is subjected to danger and depredation, yet this is not understood abroad, and immigration is consequently deterred. In the month of November, 1889, while Sheriff Jeff. Reynolds and his deputy, of Pinal County, were taking eight convicted Apache murderers to their punishment, the officers were overpowered and killed, and the Indians escaped. The outlaws have all been run down and killed or captured except one, who has been located and is now being vigorously pursued, and will probably soon be taken. There have been several murders committed by Indians since the escape of these prisoners, but in nearly every case the crimes have been directly traceable to them, although in one or two instances it is clearly evident that other renegades from the reservation were the guilty parties. Both the military and civil authorities have been very active and persistent in the pursuit and capture of the renegades, and they are entitled to much praise therefor. Indian scouts have been used in some instances with great success as trailers, and when they have been directly instrumental in the death or capture of any of the outlaws a reward has been paid them by the Territorial authorities, as it was deemed wise to encourage them in this way to assist in the punishment of crime.

The Navajos, who live upon a reservation in northeastern Arizona

and northwestern New Mexico, are the most powerful of any of the Indian tribes of the Southwest, and it is conservatively estimated that they could muster a fighting force of five thousand warriors fully armed and equipped, but although having been warlike and troublesome for many years they are now peaceful and occupied in pastoral pursuits, and with careful management they will probably so continue, more particularly on account of community and property interests, as they own large herds of cattle, horses, and sheep. Aside from their peacefulness they show few signs of civilization. They retain their barbarous customs and indifference to Christianizing influences, and it is believed that were it not for their property interests it would not require great provocation to drive them to warfare. As their herds roam over the public domain untaxed, it is not unlikely that when the restraints of advancing civilization confine them within the limits of their reservations resistance and trouble may be had. Some little friction has already occurred between these Indians and neighboring stockmen and mining prospectors who have been hunting for mines upon the reservation. It is therefore very necessary that great care be exercised by the authorities in dealing with this tribe.

The Papagos, Pimas, and Maricopas have always been peaceful and harmless. They sustain themselves by farming and making baskets and pottery. They live on small reservations in Pima, Pinal, and Maricopa Counties.

The Yumas, Mohaves, Hualapais, and Supais have been peaceful for many years, and support themselves by comparatively little assistance from the General Government. The Yumas and Mohaves labor for the whites, and do some little farming along the Colorado River in Yuma and Mohave Counties. The Hualapais maintain themselves (with what little aid they get from the Government) by laboring along the Atlantic and Pacific Railroad, in the mines, and by hunting. The Supais are a very interesting people, about three hundred and fifty in number, who live in a deep cañon on Cataract Creek, a tributary of the Grand Cañon of the Colorado, about 5,000 feet below the level of the plateau. They live upon fruit and vegetables, and by hunting; their social regulations are strict; they are free from disease, and are a happy and contented community. They do not seem to seek nor desire any of the innovations of civilization.

The Navajoes are said to be the only Indians in the Territory who are increasing.

With reference to the Indians who now live upon the San Carlos Reservation under surveillance, a great deal of discussion has been had as to their disposition. The people of Arizona most earnestly desire their removal from the Territory, in which desire I most respectfully concur. Some of the military authorities have recommended that a majority of the Indians be sent back to those portions of the Territory from which they were originally taken, and there maintained under surveillance if necessary, upon the theory, it is presumed, that they would be more contented in their former homes, and it is stated that such a request has been made most earnestly by the Indians themselves. If such action were taken much of the San Carlos Reservation could be opened for settlement. So far as the Indians upon the reservation who are and have been of peaceful character are concerned, and whose former homes are in localities where their presence would not retard civilization and progress, I can see no objection to the proposed plan, but many of the Indians are of such a character that, in my judgment, there is no hope of their ever becoming permanently peaceful, except under the restraints of strict discipline; and to return such Indians to their former homes

now occupied to a considerable extent by thrifty white settlers would be, in my opinion, extremely unwise, and would surely result in trouble.

The most serious feature of this plan of which I am advised is a proposition to return some six hundred Tonto Apaches to the Verde Valley, in Yavapai County, and to which the citizens have most strenuously objected. The Verde Valley is filled with industrious settlers and their families, school-houses, and all the conditions of an advanced civilization. The presence of these Indians, as proposed, would disturb the security of the neighborhood, check progress, and stand as a constant menace to the general welfare. The Indians are deluded by believing that the country in that neighborhood is still unsettled as when they were there formerly and that if sent back they will be allowed to roam at will over a large section of country; when the fact is, the original reservation has been opened for settlement and is fully occupied, and but a small military reservation exists, to which it is not at all likely the Indians would desire to be confined. Such action would be, therefore, in my judgment, very injurious. In reference to the abandonment of the military post of Fort McDowell and the establishment of an Indian school, I have no knowledge as to the progress made.

I have to recommend in regard to the Indians on San Carlos Reservation:

(1) That all branches of the Apache Nation confined on this reservation under military guard be removed from the Territory and the reservation opened to entry and settlement.

(2) That should it be determined not to remove these Indians, that the limits of the reservation be reduced and the mineral and coal lands segregated and made available.

(3) That whether these Indians are removed or not, I most earnestly recommend that they be disarmed and prohibited from the possession of rifled guns and fixed ammunition, and that it be made a felony for any person who shall be convicted of selling or furnishing to said Indians any such arms or ammunition under such penalties and provisions as are now in force in reference to selling liquor to Indians.

THE MORMONS.

The influences of the Mormon Church upon the progress of Western civilization, and their effect socially and morally, are vexatious. It seems to be generally accepted by the highest modern intelligence that the public welfare and the general good of our people will be best subserved by legislative restrictions upon the Mormons, and it has been the policy of the Government and of communities wherever the followers of Mormonism have gained a foothold in this country to restrain by legislative enactment the extension of Mormon power and influence; and the recent interpretations of the Constitution by the Supreme Court and Congress of the United States in reference to this question sustain the legality of the restrictions had. Advancing civilization crowded the Mormons from the States to the far western Territories, and now those Territories, having become populated, are contending for relief from Mormon influences. The new State of Idaho, while a Territory, fought those influences step by step until, crowned with success, she entered the sisterhood of States under a constitution which virtually made Mormon power ineffectual within her borders; and even in Utah, the stronghold of the Church, where its power has grown and flourished for nearly half a century, where its great wealth is centered, and from where its teachings go out to the world, the people have in many communities thrown off the yoke, and such legislation is promised by Con-

gress as will relieve them as Idaho has been relieved. The cry is raised of religious intolerance and persecution, and many specious arguments are presented in appealing to the sympathies of a free American people, and as methods of intolerance and persecution are vigorously repudiated in this country, the arguments are more or less effective. The Mormons also claim that they no longer practice polygamy and bigamy, and therefore they violate no law. As polygamy and bigamy are recognized crimes under the laws of the country, there would seem to be a clear anomaly in the Mormon position that the enforcement of the "Idaho test-oath" is persecution and intolerance, when the language of the oath requires the challenged party to swear that he does not belong to "an order, sect, or organization that teaches, practices, or encourages polygamy or bigamy." Another version, and one of the same import, would be: "I do not belong to a sect that practices, teaches, and encourages organized crime." The Supreme Court of the United States has decided that the tenets and teachings of the Mormon Church are in conflict with the Constitution and the laws of the country, and recent Congressional enactments on the subject have met with almost universal approval.

It is not my purpose to present any argument upon this question beyond a statement of the facts as they appear to me in reference to the relations of Arizona in the premises. This Territory borders Utah on the south, and is very accessible to immigration from that Territory, and at this time the county government and the public schools of Apache County are largely subservient to Mormon influences, and a great deal of dissatisfaction is expressed by the people. Yavapai County also borders on Utah, and the northeastern part of the county has several Mormon settlements. Graham County lies directly south of Apache County, and has quite a large Mormon population. Cochise County forms the southern boundary of Graham County, and has a Mormon colony. Maricopa County is immediately south of Yavapai, and has a larger Mormon population than any county except Apache. Gila County also lies south of Yavapai, and has a number of these people. Pinal and Pima Counties have comparatively few. As stated under the head of population the number of Mormons in the Territory is placed at 12,000.

I am not prepared to say that they are all vicious people. Many of them are industrious and law-abiding, and actively engaged in agricultural and other beneficial pursuits, and in developing the resources of the country, and it can not be said of individuals nor of some isolated communities that they are altogether prejudicial to the best interests of the neighborhood in which they live. Yet the principle involved must be met, and it is clearly important, in view of the geographical position of Arizona, lying, as it does, immediately south of Utah and in the direct line of intercourse between that Territory and Mexico, and in view of the colonization movements towards the south from Idaho and Utah, and the great probability that unless restrictive measures are adopted this Territory will become mormonized and occasion controversies to such an extent as to seriously disturb society and the affairs of government, and prejudicing our chances for statehood, that such action be had by Congress as will give to Arizona the protection enjoyed by Idaho.

STATEHOOD.

The people are very desirous for self-government, and in my judgment the Territory is ready and qualified therefor. The standard of intelligence and education will compare favorably with that of any

other subdivision of the Union. We have ample financial strength, and it is believed that the progress and prosperity of the Territory are retarded by the dependency of the Territorial relation to the General Government. We are now legislated for without representation. With statehood a greater degree of confidence in the stability of our institutions and the reliability of values would be attained. Our natural resources would be more rapidly developed and our wealth proportionately increased with the right to tax ourselves for public and internal improvements, which is now denied us by Congressional limitation. The General Government, through its agents, can not possibly have the knowledge of, nor the interest in, the affairs of the commonwealth of Arizona that the people of the Territory possess. Our citizens are thoroughly patriotic and loyal to American institutions, and they simply ask the heritage of law-abiding freemen, and that is, the right of representation when taxed, which it is believed the General Government, by its policy, means to protect.

Arizona has an area of 113,000 square miles, and the advantage of owning the "school lands" would be very great. The Territory has an immense area of arable land, nearly equal in extent to the State of Illinois, all of which could be made productive with irrigation, while hundreds of thousands of acres are already productive and covered by irrigating canals, representing millions of dollars of capital. A great timber belt crosses from north to south the central part of the Territory, which, for the purpose of home consumption, can not be exhausted by a densely populated State in a hundred years. We have grazing uplands and mesas for the production of beef cattle more than sufficient for home purposes of a large population, and ample for a profitable export industry for many years. The mineral wealth of the Territory is unquestioned and is rapidly increasing with development, and in this respect Arizona can not be excelled in any other part of the Union. The fruit lands are more bountifully productive than in any other section of the country.

With increased transportation facilities and internal improvements now contemplated (and which will be assured if we are allowed statehood), bringing different localities representing different industries into closer communication with each other, and making all the resources of the Territory available, Arizona will be an empire in herself, with the balance of commercial traffic so largely in her favor that few subdivisions of the nation will equal her in wealth.

All doubt would be dispelled, if any exists, as to our capability for self-government if the General Government would donate to Arizona all the public lands within her borders to be reclaimed, developed, and utilized under State regulations the same as in Texas. There would then be no question as to our ability to take care of ourselves, and all further necessity for Congressional action in reference to this part of the "arid region" would be saved.

RECOMMENDATIONS.

Legislation by Congress and action of the Interior Department is recommended upon the following subjects:

- (1) That an enabling act for the admission of Arizona as a State be passed by Congress at the earliest possible moment.
- (2) That all the public lands within Arizona be donated to the Territory, title to pass upon admission as a State.
- (3) That all school lands within Arizona be donated to the Territory

for school purposes, and provision be made for the selection of good sections in lieu of bad.

(4) That the Apache Indians, who are now under military surveillance, on San Carlos Reservation, be removed from the Territory, and the reservation opened for settlement.

(5) It is further recommended that all Apache Indians on reservations under military guard be disarmed, and that they be prohibited from the possession of rifled guns and fixed ammunition, and that it be made a felony for any person to sell or furnish the Indians such guns and ammunition under similar penalties as are imposed for the sale of liquor to Indians.

(6) It is earnestly urged that if the Indians are not removed that the limits of their reservation be reduced, and the mineral and coal lands on the reservation be segregated and made available.

(7) It is requested that Congress appropriate for the erection of buildings for the use of the public service in Arizona.

(8) It is recommended that the provisions of what is known as the "Idaho test oath" be made applicable in Arizona.

(9) That the act now before Congress which provides for a fourth judge in Arizona be passed.

(10) That the salaries of the present judges in Arizona be increased to \$5,000 per annum.

(11) That the pay of legislators in Arizona be increased to \$10 per day.

(12) That appropriations be had by Congress to pay the governors and secretaries of Territories the amounts allowed them by law under section 1845, Revised Statutes of the United States, 1878.

(13) That Congress appropriate a reasonable sum for artesian well-boring in this Territory.

(14) That all public lands within the Territory be surveyed.

UNDEVELOPED RESOURCES.

The possibilities of Arizona's full development cannot be anticipated and the probabilities are also beyond any possible conservative estimate. Opportunities for profitable mining, grazing, and agriculture are practically limitless. The scope of our industries can not be measured. There are millions in precious metals in the rock-ribbed crevices of the mountains; millions in the nutritious grasses of the mesas and plains; millions in the extensive and marvelously productive agricultural valleys, and millions in the broad forests of timber in Arizona. Well directed labor and energy are at all times productive of independence and comfort here. The Territory is an empire within herself, with agricultural land enough for the home consumption of a population as large as that of any State in the Union; with a grazing territory unsurpassed anywhere; with forests of timber sufficient for the building purposes of a populous State for many years; with untold millions of mineral wealth in her mountains for export. Arizona, when appropriate legislation is had, and proper facilities afforded for the development of her great resources, will take a place of deserved prominence in the Union of States.

Respectfully submitted.

N. O. MURPHY,
Acting Governor.

Hon. JOHN W. NOBLE,
Secretary of the Interior.