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REPORT

OF THE

SURVEYOR-GENERAL

OF THE

STATE OF CALIFORNIA

From August 1, 1880, to August 1, 1882.

SACRAMENTO STATE OFFICE, J. D. YOUNG, SUPT. STATE PRINTING 1882.

REPORT.

STATE OF CALIFORNIA, OFFICE OF SURVEYOR-GENERAL, SACRAMENTO, August 1, 1882.

To his Excellency, GEORGE C. PERKINS, Governor of California:

DEAR SIR: In accordance with the requirements of the law relating to the duties of the Surveyor-General, I have the honor to submit the following report of the transactions of this office from August 1, 1880, to August 1, 1882.

JAMES W. SHANKLIN, Surveyor-General, and ex officio Register of State Land Office.

As surveys of the public land enuring to the State under the several grants made by Acts of Congress are not under the control or direction of this office, and are legal only when made under the direction of the United States Surveyor-General for California, I have to rely on said officer for the following data, which he has kindly furnished, in order that I may be enabled to meet the requirements of the State law.

AREA OF THE STATE OF CALIFORNIA.

The area of the State of California is estimated at 100,500,000 acres, apportioned as follows:

SUBDIVISION.	Area – Acres.
Agricultural and mineral lands surveyed to June 30, 1880	61,887,392
Agricultural and mineral lands unsurveyed	26,211,501
Private grants patented	8,383,375
Private grants not settled	341,650
Private grants not settled	318,631
Lakes, islands, bays, and navigable rivers	1,531,700
Swamp and overflowed lands surveyed	1,635,227
Swamp and overflowed lands unsurveyed	85,524
Salt marsh and tide lands around San Francisco Bay	100.000
Salt marsh and tide lands around Humboldt Bay	5,000
Total	100,500,000

GENERAL OFFICE BUSINESS.

From August 1, 1880, to August 1, 1882, applications to purchase school lands have been filed as follows:

DISTRICTS.	Acres.	
In the Los Angeles district.	18,346.24	
In the Los Angeles district	9,900.00	
In the Stockton district	14,023.17	
In the San Francisco district.	40,137.15	
In the Sacramento district	4,563.88	
In the Bodie district	6,398.18	
In the Marysville district	11,843.54	
In the Susanville district	15.678.83	
In the Shasta district	3,763.30	
In the Humboldt district	4,736,29	
For swamp and overflowed lands	28,138.80	

Approvals of applications have been made as follows: For School Lands, covering 75,503.36 acres, and for Swamp and Overflowed Lands, covering 21,046.39 acres.

CONTESTED CASES.

From the office of Surveyor-General, fifty-four orders of reference to the Superior Courts have been issued, and from the office of the Register, forty-seven have been issued.

LAND OFFICE GENERAL OFFICIAL BUSINESS.

From August 1, 1881, to July 31, 1882, inclusive, three hundred and four Certificates of Purchase have been issued, embracing the following number of acres under the different grants:

GRANT.	Number of certificates.	Acres.
Sixteenth and Thirty-sixth Sections	256	51,645.17
Five Hundred Thousand Acres	7	2,800.00
Swamp and Overflowed Lands	41	10,812.59
Totals	304	65,257.76

During the same time, five hundred and forty-eight Patents have been issued, embracing the following number of acres under the different grants:

GRANT.	Number of Patents.	Acres.
Sixteenth and Thirty-sixth Sections	311	114,447.29
Five Hundred Thousand Acres	55	16,804.57
Seventy-two Sections (Seminary)	1	160.00
Swamp and Overflowed Lands	178	72,689.12
Tide Land	3	546.63
Total	548	204,647.61

SWAMP LAND DISTRICTS ORGANIZED.

During this same time, twenty-five Swamp Land Reclamation Districts have been created, reported to this office, and numbered as follows:

Number of District.	County.	Number of District.	County.
396		408	Plumas Modoc Siskiyou Lassen Plumas Plumas Plumas Plumas San Mateo Lassen Fresno Sacramento (part of No. 2) Plumas

SWAMP LAND DISTRICTS RECLAIMED.

During the same time there has been received from County Boards of Supervisors evidence of completion of reclamation, or of the expenditure of two dollars per acre upon the works of reclamation of lands embraced in the following named districts, and the statements relating thereto have been sent to the County Treasurers:

No. of District.	COUNTY.	Acres.	Amount Paid.	Remarks.
387	Plumas	680.00	\$154 01	Completed.
380	Plumas	160.00	39 72	Completed.
398	Plumas	560.00	147 96	Completed.
399	Plumas	400.00	120 00	Completed.

310	San Diego	39,156.84	10,335 23	\$2 per acre.
440		0.47.00	477.04	40
118	(supplementary)	847.62	177 04	\$2 per acre.
404	Lassen	80.00	24 98	Completed.
402	Lassen	641.59	146 40	Completed.
396	Plumas	120.00	80 30	Completed.
397	Plumas	760.00	198 44	Completed.
45	Tulare	15,947.18	17,061 61	Completed.
405	Plumas	360.00	87 93	Completed.
400	Plumas	120.00	48 53	Completed.
135 (part of)	Tulare	135.52	194 14	Completed.
406	Plumas	880.00	193 60	Completed.
411	Lassen	80.00	31 38	Completed.
410	Siskiyou	520.00	138 48	Completed.
413	Plumas	120.00	52 05	Completed.
412 & 414	Plumas	2,264.84	673 95	Completed.
417	Fresno	160.00	160 00	Completed.
409	Modoc	80.00	16 35	Completed.
		64,073.59	\$30,082 12	

FEES.

Amount collected as Surveyor-General, from August 1, 1880, to August 1, 1882, \$4,554 25.

Amount collected as Register of State Land Office, from August 1, 1880, to August 1, 1882, \$4,742 05.

GENERAL OFFICE WORK.

The office of the Surveyor-General has been furnished with an entire new set of working maps, neatly backed with muslin, and well bound; and copies of United States township maps have been procured.

All the cases, both in the office of the State Surveyor-General and Register, used for filing applications, and other papers relating to titles issued, have been furnished with tin cases, and are plainly labeled, so as to show their contents.

Indexes of the names of all applicants for School Lands, or for the lands under the 500,000 acres, and for Seminary and Public Buildings grants, have been made, leaving only indexes of lands applied for under the Swamp and Overflowed Land grant to be made, to have a complete reference to all applicants for State lands. Nothing of this kind has ever before been attempted in the office.

The correspondence of the Surveyor-General's office, in answering inquiries as to the condition of State lands, and in giving information called for concerning the existence of conflicting applications, has been unusually great, taking nearly all the time of two men.

LANDS GRANTED TO THE STATE.

When I came into the office, I found such disagreement between the State and United States Land Offices in relation to the condition of the various grants, that the Secretary of the Interior had, in consequence thereof, declined to list any more land to the State. I then prepared a complete ledger statement of all the Indemnity School lands received from the United States, and took it to Washington, and made a careful comparison of this work with the maps and the records of the General Land Office. The Commissioner furnished a clerk for each department of the examination on the part of the United States, and I personally acted on the part of the State. That comparison showed, notwithstanding the fact that many corrections had been made, that the State sill had received an excess by listing of about 70,000 acres more than was justly due.

Examinations were also made as to the condition of the other grants and it was found, that while the State had applied for more land under each of the other grants, no excess had been received. This work at Washington occupied over ten weeks, and, on my return, I had duplicate copies of the comparisons made and returned to Washington to aid in future adjustments.

In addition to this work, I made maps, showing the exact lines established as the boundaries of the various railroad reservations in this State. This became necessary, not as a matter of general information, but because the Commissioner of the General Land Office has decided that when the State selects indemnity lands within such reserved limits, the land must be regarded as double minimum in price, and the State cannot select within the reserved limits, unless it has lost other lands equivalent in price, without agreeing to surrender two acres for one. This was done in some cases before I came into office, but without authority, for the Surveyor-General is not allowed to charge more than \$1 25 per acre for State land, while to surrender two acres for one would occasion a loss to the School Fund of \$1 25 per acre in all such cases, unless applicants would voluntarily pay \$2 50 per acre.

Since the completion of the Washington work, the Commissioner of the General Land Office has revoked the order prohibiting further listing to the State, and lists have been received at this office as follows:

LANDS LISTED TO THE STATE.	Acres.	
Swamp Land grants	21,503.15	
Five Hundred Thousand Acre grant	14,457.92	
Lieu grant	14,943.23	
Public Buildings grant	None.	
Seminary grant	817.94	
Agricultural College grant	4,070.64	
Total	55,792.88	

Other lists will follow, and it is likely that inside of a year all listing, except of the Lieu Land grant, will be completed and the accounts closed.

As to the Lieu Land grant, the work under that will increase if the bill now before the Congress becomes a law, which proposes the granting of indemnity to the State for school purposes on the account of the loss of the 16th or 36th Sections, or parts thereof, reserved by the United States as mineral land.

In my opinion the grant should also be increased for school purposes by the allowance of indemnity for the 16th or 36th Sections, or parts thereof, granted to the State as Swamp and Overflowed lands; because this reservation of swamp and overflowed land is as much a "public use" as the reservation of the mineral lands. The School Fund should be indemnified for the loss of one as much as for the loss of the other, since the grant was of the 16th and 36th Sections of public lands in each township for the use of schools. I think that a fair construction of the granting clause, taken in connection with the section granting indemnity for loss of Sections 16 and 36 contemplated the granting of said sections in place or an equivalent therefore when interfered with from any cause; and the Supreme Court of the United States, in the Keystone case, admits that this is the natural import of the granting words, but held that it was contrary to public policy and custom to grant away mineral lands. At the same time the Court intimated that indemnity for the loss was contemplated by the 7th Section of the granting Act of March 3, 1853. On this account the bill referred to was prepared so that the opposition of the General Land Office to allowing indemnity might be removed by Act of Congress. The bill has passed the Senate and awaits the action of the House, where it should be amended to include indemnity for loss to the schools. occasioned by the Swamp Land grant. The attention of our Representatives in Congress should be called to this matter, in order that California may be put on an equal footing with other States whose school grant is similarly interfered with, but indemnity allowed by law.

MINERAL LANDS.

The following communication will explain the course to be pursued when the 16th or 36th Section is returned as mineral land, yet considered as agricultural by persons desiring to purchase the land from the State as part of the School Land grant:

DEPARTMENT OF THE INTERIOR – GENERAL LAND OFFICE, WASHINGTON, D. C., March 26, 1881.

J. W. Shanklin, Esq., State Surveyor-General, Sacramento, California:

SIR: - I am in receipt of your communication of the 7th instant, stating that since the decision of the Supreme Court of the United States (Ivanhoe Mining Company *v*. Keystone Consolidated Mining Company), that mineral Sections 16 and 36 were not granted to the State of California by the Act of 1853, your office is "unable to determine what lands the State can sell and convey a satisfactory title for," and requesting the opinion of this office as to the effect of the said decision in the following cases:

First – Where township plats as returned by the Surveyor-General show Sections 16 and 36 to be ordinary agricultural lands.

The decision of the Supreme Court referred to excludes from the School grant to California by the Act of 1853 such of the Sections 16 and 36 as upon identification by survey are found to be mineral.

In the case of the State of California *v*. Poley and Thomas (Sickel's Mining Decisions, p. 426), the Hon. Secretary of the Interior held that where township plats as approved by the Surveyor-General and filed in the local Land Office, describe the lands embraced in such sections as agricultural, and no known mines in fact exist within their limits at the date of approval of the survey, the State acquires title to such tracts, indefeasible by subsequent discoveries of minerals thereon. The approval of the Surveyor-General in such cases will be treated conclusive, and locations of mining claims upon such sections *after*

the filing of the township plat in the office of the Register and Receiver, will not be recognized by this office.

Second – When the Secretary of the Interior revoked the order withdrawing from disposal under agricultural laws certain townships within the "mineral belt" which were not designated by the plats as mineral, did the right of the State attach to the school sections upon such revocation?

If no known mines are found to exist upon such tracts at the date of survey, the title to such sections will vest in the State in the same manner as those referred to in answer to the first proposition.

Third – Where lands are returned as mineral, but parties desire to purchase from the State, alleging that such lands are valuable only for agricultural or grazing purposes, can the State or its grantee acquire title upon making proof of those facts?

Your attention is directed to the inclosed circular (*) from this office, of date September 23, 1880, prescribing the manner of proceeding where application is made to enter or select lands (returned as mineral) under grants to States, railroads, and wagon road companies, and Act of Congress other than the preemption or homestead laws. Opportunity is given by said circular to enter or select such lands upon establishing their non-mineral character in the manner therein provided.

But this does not apply where lands mineral at date of survey have subsequently become exhausted, and are no longer valuable for mining purposes. The grant of 1853, as construed by the Supreme Court, was a grant *in praesenti*, acquiring precision upon identification of the lands granted by survey. If the lands were in fact mineral at the time when the survey determined the *locus* of the grant, they were excepted from such grant, and the title of the State never attached to them.

Such lands not answering the description of the grant when perfected, they cannot subsequently be brought within its terms.

Very respectfully,

J. A. WILLIAMSON, Commissioner.

[*Circular.]

DEPARTMENT OF THE INTERIOR – GENERAL LAND OFFICE, WASHINGTON, D. C., September 23, 1880.

Registers and Receivers, United States District Land Offices:

GENTLEMEN: Hereafter, in case of application being made in your office to enter or select, as agricultural land, under any Act of Congress other than the preemption or homestead Acts, lands returned as mineral by the Surveyor-General, you will require the applicant, at date of final proof, location, or selection, to publish for thirty days a notice describing the land applied for, and giving time and place when such proof will be submitted or selection tendered. You will also post in your office a copy of the notice for the same period. Proof of publication will consist of the affidavit of the publisher of the newspaper in which the notice was published, and you will furnish your own certificate as to posting in your office.

The revocation of the withdrawals of lands as mineral by circular of April 27, 1880, was made not only because said withdrawals had, in many instances, worked great hardship to settlers, but because it is required by law that homestead and preemption claimants shall publish notices of their intention to make final proof on their entries, and this was thought to afford sufficient protection to all parties; but in case of entries under other laws there is no such notice required. This procedure will apply to cases of application to enter under the town site, desert land, and timber culture laws; applications to select lands under grants to States, railroad, and wagon road companies; and the location of the various classes of scrip upon lands which have been returned by the Surveyor-General as mineral in character.

Where, after such publication of notice has been regularly made, no affidavits alleging the mineral character of the land have been filed with you, you will allow the entry, selection, or location, upon the filing of a proper non-mineral affidavit. If such mineral affidavits shall have been filed, you will proceed with a hearing, as directed by the circular of April 27, 1880.

J. A. WILLIAMSON, Commissioner.

PROPOSED CHANGES IN RELATION TO THE SALE OF STATE SCHOOL LANDS.

I would respectfully call attention to some of the sections of the Political Code, relating to the disposition of State lands which, in my opinion, need amendment or modification.

Section 501 should be amended, in the clause relating to the profert fee, to read, "for certifying a contested case to the Superior Court [when either of the parties demands the reference], three dollars." As the law now stands, the officer cannot refer the contest to Court without paying the fee out of his own pocket, unless some of the parties tenders the fee and demands the reference, although the officer may be satisfied that the apparent contest is in reality a sham to keep third parties from interfering with the land.

Section 3398. The Supreme Court says that the State does not have to locate the 16th or 36th sections, and, as a matter of fact, locations of them never have been made at the United States Land Offices. I would therefore recommend that it be changed to read as follows: "The Surveyor-General is the general agent of the State for the location in the United States Land Offices, of the unsold portions of the five hundred thousand acres of land granted to the State for school purposes, and for lands in lieu of the sixteenth of thirty-sixth sections granted for the use of public schools." This change will make the section harmonize with Section 3406.

Section 3410. In view of the recent change made by the Department of the Interior as to time of making payment of the fees for which this section provides, I recommend that for indemnity selections, the applicants be required to pay this fee, viz: at the rate of two dollars for each 160 acres or fraction thereof, when the application is filed. Under the present rule of the Department, the United States Register cannot receive the State application without payment of this fee, and it is impossible to draw it from our State Treasury in advance of final approval of the application. Hence it is to the interest of the applicant to pay the fee himself. Besides, no good reason can be shown why the State should pay it for him, as the law now does.

Section 3414. In this section the word "Superior" should be substituted for "District," to make it correspond with Section 3515, and at the close of the section should be added [and forwarded to the Clerk of the Court a certified copy to be filed in his office]. This would prevent parties demanding the reference to Court from receiving the order and keeping it in their pocket till the time for commencing suit has expired, thus gaining an undue advantage through the indefiniteness of the law.

Section 3417 should be amended, in order to make it effective in clearing the record, as follows: "Unless the party contestant – the second or subsequent applicant –

commences his action within sixty days after the order of reference is made, he shall be deemed to have waived and surrendered his right to purchase; and the Surveyor-General or Register shall proceed, as directed in Section 3416, the same as if final judgment had been filed," upon receiving satisfactory evidence that no suit was commenced.

Section 3533 should be amended so as to include the unsold portion of the grants to the State for seminary and public building purposes as well as of the one hundred and fifty-thousand acres, because the present laws do not give the Regents of the University control over the unsold portions of these grants, except in such cases as come within the purview of the last clause of Section 3536, Political Code; and the Surveyor-General has no authority given him by Section 3398 to make selections in satisfaction of these grants.

In my opinion, Section 3571 should be amended so as to include repayment when entries have been set aside by the Courts for defects or informality in the applications, and for school land warrants which cannot be located or satisfied after the grant under which they were issued has been exhausted – the fault being with the State officers, by exceeding their authority in locating more land that the State was entitled to after the State sold these warrants.

By amendment made April 15, 1880, in Section 3494, nearly every County Treasurer in the State, as well as the persons who purchased lands prior thereto from the State, considered that the amendment reduced the rate of interest on all outstanding certificates from ten to seven per cent. Although that may have been the intention (and no good reason can be shown why the State should continue to collect ten per cent. interest on such sales, and that, too, without rebate on taxes for the debt due the State), yet the Attorney-General and myself hold that a strict construction of the statute only reduces the interest on future purchases – that it gives no relief on past sales. I think this matter is worthy of consideration by the Legislature.

Section 3498. Section 6 of the Act of April 28, 1880, was evidently intended to be an amendment of Section 3498, but neither said section nor the subject-matter thereof, is referred to in the title of said Act. It is therefore void under the Constitution. Nor can the Surveyor-General enforce its provisions so as to make approvals within six months after filing applications, for want of evidence as to the character of the land. The Constitution prohibits the sale of any *land suitable for cultivation*, except to an actual settler. If the law were so amended as to require the applicant to make proof of the character of the land within the six months after filing, or forfeit his application, the Surveyor-General could enforce the law, or thus clear the record for other applications.

The same law of April 28, 1880, provides, by Section 3495, for one kind of affidavit to be made in case an application is made for part of a 16th or 36th Section, and by Section 3500 a different affidavit if the application is for land in lieu of a 16th or 36th Section. The effect of this difference is, that the same party can obtain 640 acres, although apparently the intention was to allow the purchase of only 320 acres of State land by any one applicant.

Another peculiarity of this law is, that it only requires that the applicant shall be an actual settler on the land at the date of application. This omission obliges the Surveyor-General to make rules not in the law, in order to guard against violating Section 3 of Article 17 of the Constitution. But in cases where the land is not suitable for cultivation the law does not require the settler to continue on the land one day after filing his application. The consequence is that the settlement clause as to lands unsuitable for cultivation is violated constantly, and the law as it stands is worthless in accomplishing what was intended, unless it was intended as a sham on its face.

Section 3502 should be amended so as to make outstanding School Land Warrants receivable in payment for any School land, without being restricted, as now, to the 500,000 acre grant. This would be accomplished by striking out the words "part of the 500,000 acres of." The reason for this is, that the outstanding warrants, for which the State received two dollars per acre, are worthless, because they cannot now be located, as the grant is exhausted.

Section 3516. If this section were amended so as to require the recording of all transfers, or a report of the name and residence of the assignee to the Register, the State would be able to reach the parties referred to in Sections 3552 and 3555, whereas, it is now almost impossible to collect the costs in foreclosure suits, and the School Fund is reduced in each case from forty to sixty dollars in consequence of not knowing the name and residence of the purchaser.

Section 3533. This section should be amended so as to give the Regents of the University authority to select any portion remaining unsold of the Seminary or Public Buildings grants; because Section 3398 has taken this power from the Surveyor-General without transferring it elsewhere, except where land selected under the grants reverts by foreclosure suits, as provided in the last clause of Section 3536.

Section 3548 should be amended by adding the word "publication" the words "to the County Treasurer, who shall immediately notify the District Attorney." Serious complications arise because of payments of interest being made to the County Treasurer after advertisement of the delinquent list, but without payment of the accrued costs, and without notice to the District Attorney. Said officer, not being aware of the partial payment, or else disregarding it, proceeds with the suit and annuls the entry, when the report of the County Treasurer sent to this office shows that the purchaser is not in arrears.

Section 3555 should be amended so as to limit the amount of costs, as was formerly done by Section 7 of the Act of April 9, 1861. As the matter now stands, the bills presented run up from \$40 to \$128 for each case – all of which comes out of the School Fund; and the Board of Examiners have no control over the amount of costs according to the decision of the Supreme Court. The service being rendered, the bill must be paid, as the law now stands. The law of 1861 referred to, fixed the cost of each annulment at \$32, and certainly it is worth no more now. But there is another view to take of this matter. As all services, except for printing, are rendered by county officers,

who are all salaried, there is no reason why any charge should be made against the State by them or for them. It is true that reasonable charges for the benefit of the county should be collected from delinquents; but in the case of failure to collect from them I do not think the charges should be taken out of the School Fund, as they are now, and especially when there is no law limiting the amount.

Section 3571. There is great difficulty experienced by the Surveyor-General under this section, because there is no provision in any State law, saving who shall determine whether land sold is not the property of the State, or how it shall be determined that land is not the property of the State. The absurdity of this section will be apparent when I state that the law contemplates the sale of land, before it becomes the property of the State, except of the 16th and 36th Sections in place of swamp land before it becomes the property of the State. A strict construction of this section would allow any man who has bought land of the State and paid interest thereon for years, but which land has not yet become the property of the State, to demand his money, and the Register would be obliged to issue the certificate of repayment. But it is evident that this was not the intention of the law-makers, but that repayment should be made when it has been proved that the land is not or cannot become the property of the State. The law is silent, however, as to how or by whom the condition of the land is to be determined. If left to the Surveyor-General to determine, or if said officer was authorized to accept the decision of the General Land Office as to the validity of the State title to the land, then the difficulty in executing this section would be removed. Modification of this section becomes necessary in view of the Act of Congress of March 1, 1877, relating to defective indemnity State selections.

TIMBER.

In my last report I referred to the necessity of greater interest being taken in timber culture in California. I would recommend to our farmers to emulate the people of some other States, where one day in the year has been set apart for tree planting, called arbor day. Were this plan adopted in California, and faithfully kept for ten years, what a difference the country would then present in point of attractive beauty and grateful shade.

But it is necessary to stop the wasteful destruction of the growing timber, both on the lands of the United States and of the State.

Complaints frequently come to this office concerning parties who go upon State lands, and apply for them merely with the view of using their application as a shield to protect them while they are removing the timber from the land, intending to abandon it when it has been despoiled of its timber, which is its real value.

It is true that the law of April 27, 1863, on this subject, is still in force; but how many of our people or officers know anything about this law, or would take the pains to have it enforced when its enforcement would entail upon them a loss of time and money? The law is as follows:

An Act to provide for the punishment of persons cutting timber upon or carrying the same, when cut down, from any of the swamp, tide, or marsh, or school lands belonging to the State.

[Approved March 27, 1863.]

SECTION 1. Any person or persons who shall cut down any timber growing or standing upon any swamp and overflowed, tide, or marsh, or school lands belonging to or claimed by the State, or who shall destroy or carry away any timber, when cut down, for the purpose of selling, or in any other manner disposing of the same for money or any valuable thing, shall, upon conviction in a Court of competent jurisdiction, be fined in any sum not exceeding one thousand dollars nor less than fifty dollars, or imprisonment in the county jail not less than twenty-five nor more than one hundred days, or both such fine and imprisonment, at the discretion of the Court; *provided*, however, that nothing in this Act shall be so construed as to prevent any person from removing and selling any wood which they may have cut or caused to be cut previous to the passage of this Act, on any lands belonging to or claimed by the State.

SEC. 2. All fines collected under the provisions of this Act shall be paid into the County Treasury of the county where the lands are situated, and placed to the credit of the School Fund, if the lands upon which the trespass was committed were school lands, otherwise to the credit of the Swamp Land Fund.

THE FIVE PER CENT FUND.

I would invite your attention to the law of Congress, approved September 4, 1841, relating to the appropriation of the proceeds of the sales of public lands, etc. This Act named the eight States in which public lands were then for sale, giving said States ten per cent of the net proceeds, and making provision for the distribution of five per cent among certain new States and Territories. But this law did not contemplate a division among other than the twenty-six States and Territories then existing. No good reason can be shown why California should be excluded from this distribution, for it is a public land State, and has contributed largely to the fund to be distributed among other States. It was evidently an oversight in not putting California upon an equal footing with other States in this matter when she came into the Union. My predecessor, William Minis, taking the same view of the matter that I do, appointed Captain John Mullan as an agent of the State to aid in procuring Congressional legislation that would give us an equitable distribution, and so well has he succeeded, that mainly through his activity in presenting and urging the matter on the attention of our Representatives and before the Land Committees in Congress, that a bill has passed one house and is now pending in the other house, which will, if it becomes a law, give California the share she is justly entitled to in connection with the other States. Captain Mullan has constantly kept this office informed of what he has been doing in the matter.

IRRIGATION.

In view of the fact that much of the land in California, though excellent in quality, is practically worthless for agricultural purposes, because of the small amount of rainfall, and the long period in the Summer in which there is no rainfall, it becomes a question of vital interest to the State, how to meet this want of water requisite for agriculture, and provide, as far as possible, for the future growth of the State in the rural districts.

There is but one way to accomplish this, viz: By a system of irrigation comprehensive enough to save and utilize the surplus waters of the State, which find

their way into the rivers and thence into the sea, and by prohibiting waste in the use of water.

To accomplish all this it is evident that to allow the control of the water sources of the State to pass into the hands of private individuals or of corporations, as it is now claimed they have, or to allow their control so to continue, no general system can be provided. The future of the State would practically be limited by the present use of these waters. Provision could not be made for sustaining an increase of population.

I therefore deem it not out of place in my report to show to some extent what was attempted in our State in early days to retain control by the people of the State over the mode of distributing water for irrigation. Also, what laws have been passed on the subject in New Mexico and Colorado, where the climactic condition is similar to that of California, and where irrigation is equally essential.

From these sources we may learn some important facts, and they may have some influence in shaping legislation, so as to accomplish the greatest good for the greatest number affected by this irrigation question.

The people of the State have said in the Constitution that "the use of all water now appropriated, or that may hereafter be appropriated for sale, rental, or distribution, is hereby declared to be a public use, and subject to the regulation and control of the State IN THE MANNER TO BE PRESCRIBED BY LAW."

This addresses itself to the Legislature, and, therefore, I have concluded to designate the laws passed from time to time on the subject in order to facilitate their references to them:

WATERCOURSES.

An Act creating a Board of Commissioners and the office of Overseer in each township of the several counties of this State, to regulate watercourses within their respective limits.

[Passed May 15, 1854.]

The People of the State of California, represented in Senate and Assembly, do enact as follows:

- SECTION 1. There shall be in each township of the Counties of San Diego, San Bernardino, Santa Barbara, Napa, Los Angeles, Solano, Contra Costa, Colusa, Tulare, a Board of Commissioners to regulate watercourses, to consist of three members, and also an Overseer, to be elected as hereafter provided.
- SEC. 2. Upon a petition of a majority of the voters of any township in said counties, the County Judge shall thereupon order an election, of which ten days notice shall be given by at least three notices, posted up at the most public places in such township, for the election of three Commissioners and an Overseer, who shall hold their office for one year. The County Judge shall, for the purpose of holding said election, appoint one Inspector and two Judges, whose duty it shall be to see that said elections are conducted in accordance with the laws regulating elections, sum up the votes, and declare the result.
- SEC. 3. The duties of the Commissioners shall be to examine and direct such watercourses, and apportion the water thereof among the inhabitants of their district, determine the time of using the same, and upon petition of a majority of the persons liable to work upon ditches, lay out and construct ditches, as set forth in such petitions.
- SEC. 4. The duties of the Overseer shall be to execute the orders of the Commissioners, to attend to and see that the water issued as apportioned by said Commissioners, to superintend the works ordered by them, to see that the water is kept clear of filth of every description, and the ditches are kept in good repair.

- SEC. 5. Each able-bodied male inhabitant in every township over the age of sixteen and under fifty, shall, when required by the Overseer, upon not less than three days verbal notice, or by notice in writing left at their residence, perform or cause to be performed, any number of days work, not exceeding twelve in any one year; *provided*, that no person shall be compelled to work more than two successive days at any one time, and in no case shall any person or persons be compelled to work or expend money on any ditch or ditches who does not use the water thereof.
- SEC. 6. In case any person, after being duly notified, as required in the preceding section, shall fail to do, or cause to be done, the amount of work required, he shall be liable to pay the sum of three dollars per day for every day that he shall fail to work, recoverable at the suit of the Overseer, before any competent tribunal, to be by him applied to the construction of ditches within his township.
- SEC. 7. In case a watercourse should run through two or more townships, and the Commissioners should not be able to agree as to the amount of water to be used by each township, the County Judge, upon application of the Commissioners, shall determine the difficulty.
- SEC. 8. The Commissioners shall allow the Overseer reasonable compensation, and for that purpose they are hereby authorized to levy a tax within their township on persons benefited, in proportion to the amount of water used by each.
- SEC. 9. Where water rises on land owned by any person, it shall not be subject to the provisions of this Act, but in all cases after it has passed beyond the limits of said lands, it may be used as provided in this Act.
- SEC. 10. In all cases the Commissioners shall have the right of way to cut ditches through their townships.
- SEC. 11. Any person obstructing the waters of any ditch, by dam or otherwise, causing the same to overflow or waste, or who shall trough, or cause to be thrown any filth in any such water ditch, shall be deemed guilty of a misdemeanor, and upon conviction thereof be fined in any sum not more than ten dollars for the first offense, and twenty for every subsequent offense of the same kind, recoverable at the suit of the Overseer before any Justice of the Peace of the township, to be appropriated as aforesaid.
- SEC. 12. In case any person should be damaged by the breaking of any such ditch, the parties using such ditch shall be liable for all such damages.
- SEC. 13. Bridges shall be constructed and kept in repair over such ditches by the parties using the water, at such points as the Board of Commissioners shall direct.
- SEC. 14. No person or persons shall direct the waters of any river, creek, or stream from its natural channel, to the detriment of any other person or persons located below them on any such stream.
- SEC. 15. Any person who, under this Act, shall conduct water by ditch or otherwise, across the lands of any person or persons, shall pay to such person or persons owning such lands, such compensation as can be agreed upon by the parties owning the lands; and in case the parties cannot agree, each party shall appoint one arbitrator, and the two so appointed shall select a third. The arbitrators so chosen shall appraise the lands used for ditching purposes, under oath, and their decision shall be final in the premises; *provided*, that nothing in this Act shall be so construed as to apply to the mining interests of this State.
- SEC. 16. The Mayor and Common Council in all incorporated cities in the counties mentioned in section first of this Act, shall ex officio be constituted the Board of Commissioners on all lands appertaining or belonging to their respective cities, and shall have power to regulate the water privileges therein.

GENERAL LAWS OF NEW MEXICO - ARTICLE I, CHAPTER I.

Acequias.

[Act of July 20, 1851.]

- SECTION 1. All the inhabitants of the Territory of New Mexico shall have the right to construct either private or common acequias, and to take the water for said acequias from wherever they can, with the distinct understanding, to pay the owner through whose land said acequias have to pass, a just compensation taxed for the land used. If the owner or owners of lands where a new ditch for an acequia is to be made, should ask an exorbitant price as a compensation therefore, which shall not be satisfactory to the owner or owners of such acequia, it shall be the duty of the Probate Judge of the county in which it may occur, to appoint three skillful men of well known honesty, to make an appraisement thereof and fix the compensation, which once done, shall be executory and without appeal from the judges trying the case. [1874, ch. 10.]
- SEC. 2. No inhabitant of said Territory shall have the right to construct any property to the impediment of the irrigation of lands or fields, such as mills or any other property that may obstruct the course of the water, as the irrigation of the fields should be preferable to all others.
- SEC. 3. All by-paths or foot-paths are prohibited across the fields under a penalty of fine or punishment.
- SEC. 4. All owners of tillable lands shall labor on public (acequias) ditches, whether they cultivate the land or not.
- SEC. 5. All persons interested in a common ditch (acequia), be they owners or lessees, shall labor thereon in proportion to their land.
- SEC. 6. It being impracticable or absolutely impossible for the fields in the Territory to be fenced in, all animals shall be kept under a shepherd, so that no injury may result to the fields; and in case any damages should result, they shall be paid by the persons causing it.
- SEC. 7. In case a community of people desire to construct a ditch (acequia) in any part of the Territory, and the constructors are the owners of all the land upon which said ditch (acequia) is constructed, in such case no one shall be bound to pay for said land, as all the persons interested in the construction of said ditch (acequia) are to be benefited by it.
 - SEC. 8. The course of ditches (acequias) already established shall not be disturbed.

[Act of January 7, 1852.]

- SEC. 9. All rivers and streams of water in this Territory, formerly known as public ditches, (acequias) are hereby established and declared to be public ditches (acequias).
- SEC. 10. It shall be the duty of the several Justices of the Peace of this Territory to call together, in their respective precincts, whenever it may be deemed convenient, all the owners of ditches (acequias), as well as the proprietors of lands irrigated by any public ditch (acequia), for the purpose of electing one or more overseers for said ditches (acequias) for the same year.
- SEC. 11. The manner of conducting the election and the number of overseers shall be regulated by the Justice of the Peace of the precinct, and the only persons entitled to vote at said election shall be the owners or renters of lands irrigated by said ditches (acequias).
- SEC. 12. The pay and other perquisites of the overseers shall be determined by a majority of the owners of the land irrigated by said ditch (acequia).
- SEC. 13. It shall be the duty of the overseers to superintend the repairs and excavations on said ditches (acequias), to apportion the persons or number of laborers furnished by the proprietors, to regulate them according to the quantity of land to be irrigated by each one from said ditch (acequia), to distribute and apportion the water in the proportion to which each one is entitled, according to the land cultivated by him, also taking into consideration the nature of the seed, crops, and plants cultivated, and to conduct and carry on said distribution with justice and impartiality.
- SEC. 14. It shall be the duty of the proprietors to furnish, each one, the number of laborers required by the overseer, at the time and place he may designate, for the purposes mentioned in the foregoing section, and for the time he may deem necessary.

- SEC. 15. If any overseer of any public ditch (acequia), after having undertaken to serve as such, shall willfully neglect or refuse to fulfill the duties required of him by this Act, or conduct himself with impropriety or injustice in his office as overseer, or take any bribe, in money, property, or otherwise, as an inducement to act improperly, or neglect the duties of his office, he shall be fined, for each of said offenses, in a sum not exceeding ninety dollars, to be reserved before any Justice of the Peace in the county, one half of which sum shall be paid to the county and the other half to the person bringing suit for the same; and on being convicted a second time, he may be removed from his office by the Justice of the precinct, on the petition of two thirds of the proprietors of the land irrigated by said ditch (acequia).
- SEC. 16. In all cases of removal, as prescribed in the previous section, the Justice of the Peace shall order a new election to fill the vacancy occasioned by said removal, which election shall be conducted in the manner prescribed in the third section of this Act.
- SEC. 17. If any proprietor of any land irrigated by any such ditch (acequia) shall neglect or refuse to furnish the number of laborers required by the overseer, as prescribed in section six of this Act, after having been legally notified by the overseer, he shall be fined for each offense in a sum not exceeding ten dollars, for the benefit of said ditch (acequia), which shall be recovered by the overseer before any Justice of the Peace in the county, and in such cases the overseer may be a competent witness to prove the offense, or any fact that may serve to constitute the same.
- SEC. 18. If any person shall in any manner obstruct, interfere with, or disturb any of said (acequias) ditches, or use the water from it without the consent of the overseer, during the time of cultivation, he shall pay for each offense a sum not exceeding ten dollars, which shall be recovered in the manner prescribed in the foregoing section, for the benefit of said ditch (acequia), and shall further pay all damages that may have accrued to the injured parties; and if said person or persons have not wherewith to pay said fine and damages, they shall be sentenced to fifteen days labor on public works.
- SEC. 19. All fines and forfeitures recovered for the use and benefit of any public ditch (acequia) shall be applied by the overseer to the improvements, excavation, and bridges for the same, wherever it may be crossed by any public road where bridges may be necessary.
- SEC. 20. In all cases of conviction under this Act, an appeal may be granted to the Probate Court, which appeal shall be taken and conducted as all other appeals from the decisions of Justices of the Peace.
- SEC. 21. The regulations of ditches (acequias) which have been worked shall remain as they were made and remain up to this day, and the provisions of this Act shall be in force and observed from the day of its publication.
- SEC. 22. If any ditch (acequia) shall be newly worked, or made for the first time, and it should become necessary to infringe upon the land of any private individual or individuals, the consent of the owners shall first be obtained; and, if they should demand it, they shall be paid by the persons owning said ditch (acequia) a just compensation for the lands so used, to be valued by the owners at a reasonable rate.
- SEC. 24. All plants, of any description, growing on the banks of said ditches (acequias) shall belong to the owners of the land through which said ditches (acequias) run.

[Act of January 29, 1861.]

- SEC. 27. From and after the passage of this Act, every person or persons, being tillers of irrigated lands, who shall have commenced the work on any public acequia in common labor, are and shall be by the present Act obligated to continue on that work until the completion of the clearing of said acequia.
- SEC. 28. If any number of laborers, or any person thereof, having their fields above on such acequias, and having reached them, shall pretend, from any cause or causes, reason or pretext, to abandon their co-laborers, he or they shall not be permitted to leave said work of the laborers in common until the completion of the cleansing of said acequia so commenced to be worked; *provided*, that, touching the repairs and excavations to be made to said acequias, the proportion of the people, or the number of laborers for such purpose, shall be furnished by the owners, and it shall be the duty of the majordomos to superintend such work, and as provided in section thirteen of an Act of January 7, 1852, relative to acequias, passed by the Legislative Assembly of the Territory of New Mexico; *provided*, further, that if any acequias already constructed there shall be included any of the dikes and dams which may have been destroyed, and the parties interested therein shall have entered into any agreement or

contract with the owners to work said acequias, then, by this Act, they shall so remain and fulfill their engagements.

- SEC. 29. As the excavations of such acequias, and in the first cleansing of some of them, the work sometimes continues for thirty days, more or less, the different majordomos shall take into consideration the small amount of land tilled by some, and not compel these to furnish an equal amount of labor in the cleansing.
- SEC. 30. If any owners of lands, or lessees thereof, shall attempt to abandon their co-laborers without complying with the first and second sections of this Act, they shall pay for each of such offenses a fine of not less than five dollars nor exceeding ten dollars, one half of which shall be paid into the Territorial treasury, and the other half shall go to the county treasury of the county in which such offense was committed.
 - SEC. 31. This Act shall be considered jointly with the Act passed January 7, 1852.

[Act of January 28, 1863.]

- SEC. 33. It shall be the duty of all overseers of ditches in this Territory, to see that the water currents run so that no injury may result to the proprietors of lands or tenements or to the public convenience; and in case danger is anywhere threatened by said ditches, either from increase of water or by inundation, from which damage might result; in such case said overseers are required, if the expected damage might result to but one precinct, to report the fact to the Justice of the Peace thereof, and if to two or more precincts, then they shall so report to the Judge of Probate of the county.
- SEC. 34. It shall be the duty of the Judge of Probate, or of the Justice of the Peace, on receiving a report of such as mentioned in the foregoing section, to appoint a committee of three suitable persons to go and examine whether such report is well founded, and should said committee sustain the report made by the overseer, the Judge of Probate, or Justice of the Peace shall, in such case, issue his order that all persons owning real estate within the limits considered in danger meet together, and either under direction of the overseer, or of such person as the Judge of Probate, or the Justice of the Peace, may appoint, set about the prevention of such damage, by the construction of breakwaters, barriers, or any other work that the person in charge deems prudent to avert the expected injury; *provided*, such labor shall be performed in proportion to the property of each person interested in the same.
- SEC. 35. In all cases that it becomes necessary to undertake any of the steps mentioned in the foregoing section, it shall be the duty of the person in charge to direct such labor, notify each person interested in the same of the number of laborers he shall have to furnish, and of what part is assigned to him of the work in hand, and informing him of the place and day the same will be commenced; *provided*, that if after receiving such notice, any person or persons fail to comply, the person so in charge may report to the Judge or Justice by whom he was appointed, and said Judge or Justice shall cause the delinquent to appear, and shall fine him in any sum not less than five dollars.
- SEC. 36. If any person or persons intentionally make lagoons of water, whether on their own or on other land, after the gathering of the crops, from which lagoons damage results to houses, common or private grounds, or public roads, the person so offending shall, on conviction, be fined by the Judge of Probate of the county wherein such injury is cased, or by any Justice of the Peace of the county, in any sum not less than five nor more than ten dollars.
- SEC. 37 An person convicted of having committed injuries mentioned in the last foregoing section shall pay to the party injured the damages, after having been assessed by three persons of known integrity, appointed for that purpose by the Judge or Justice in whose jurisdiction the complaint is made.
- SEC. 38. All fines arising from the provisions of this Act shall be applied to the repairs herein mentioned; and in case of not being so expended they shall go into the treasury of the county wherein they were collected.

[Act of January 18, 1866.]

- SEC. 39. When any public ditch or part thereof shall be destroyed by rain or in any other manner, and it shall be absolutely impossible to reconstruct it where it usually ran before it was destroyed, the majordomo of such ditch, with the consent of a majority of the common laborers of the same, should they deem it necessary, may cut through the lands of any person or persons, by first obtaining their consent, by the community of such ditch offering to pay a compensation to be agreed upon between the owner or owners of the lands through which the ditch is to be opened, and the parties interested in the said ditch.
- SEC. 40. If the owner or owners who shall be solicited to permit their lands to be ditched for the purpose of opening a new ditch, in the cases mentioned in the first section of this Act, should improperly refuse or decline to accept the compensation offered by the parties interested in such ditch, or ask a compensation which the parties interested do not agree to on account of its exorbitance, in such case the majordomo of said ditch shall lay the case before the Justice of the Peace of the precinct in which such ditch may be situated, and it shall be the duty of the Justice of the Peace to whom the case is presented, to appoint three men, experts, of known integrity, to establish a just compensation to be paid to the owner or owners solicited to permit their lands to be ditched through in the cases above mentioned.
- SEC. 41. Whenever three experts shall be appointed as appraisers, before they enter upon their duties as such appraisers, they shall file in the office of the Justice of the Peace who appointed them, an oath to faithfully, legally, and impartially, discharge the duties for which they were appointed, and they shall, as soon as possible, proceed to the place where the land or lands they were appointed to appraise are situated; and before appraising the same, they shall ascertain whether or not the ditch, for which a new channel is solicited, is entirely destroyed, and that the exorbitant labor or costs required to build it, renders its reconstruction absolutely impossible; and if in their opinion, the injury done to such ditch may be repaired, they will so report to the Justice of the Peace, and in such case the land solicited for the purpose of opening the ditch shall in no manner be touched; but if they should be of the opinion that a part of the ditch is irreparably destroyed, they shall then proceed to examine the land or lands over which the new ditch should be opened, and the place where the said ditch shall properly run.
- SEC. 42. Whenever any land or lands of any person or persons are to be appraised, as in the cases above mentioned, the experts who shall make such appraisement shall make a report, which shall be filed in the office of the Justice of the Peace who appointed them, setting forth therein the name of the person whose land was appraised, and the sum to be paid him by the parties interested in the public ditch for which the opening on the land is solicited; they shall also state in said report, in the most distinct manner possible, the direction and the place and point where the opening for such ditch shall be made upon said land.
- SEC. 43. The parties interested shall possess the right of property in the land or lands to them assigned under the provisions of this Act, and in case of legal resistance being made to the possession of the parties interested in a public ditch of the land, they may compel the person or persons who interpose such resistance to desist therefrom, by an action of forcible entry and detainer, as provided by law; but the parties interested shall first pay the appraised value of such land or lands; *provided*, that said appraisers shall be impartial persons.

[Act of 1880, Chapter 30.]

SECTION 1. In each precinct of this Territory, where public necessity requires it, an election shall be ordered and held on the third Monday of February, 1880, for the respective directors of acequias, for each one of such acequias as shall irrigate different places, as hereinafter provided.

SEC. 2. In acequias of extended irrigation, and where the lands which they irrigate are unequal, and some persons have at once several sections and parts in other sections, there shall be elected as directors of said acequias, a chief majordomo, an assistant majordomo, and three acequia commissioners; the duties of said commissioners shall be to regulate the number of laborers to the respective acequias, for which they have been elected, that shall be performed by each owner or tenant of irrigable lands to be irrigated by said acequia or acequias. And should it be necessary, or should any three persons, owners or tenants, require it under the same, said commission shall measure the lands in order to better apportion the number of laborers that each owner or tenant of the lands to be irrigated shall supply under the same for the cleaning up of said acequias, and for any subsequent work which may be demanded during the year by public necessity; the care of which is charged unto the majordomos

and assistant majordomos, the chief majordomo being always the superior officer, and he, conjointly with the assistant, shall take care that the acequias under their control shall be kept running in all their vigor from the time the water is let therein for the first time after cleansing said acequias as long as the crops may require the same.

- SEC. 3. Whenever a list has been made by the acequia commissioners, as provided in the foregoing section, at any of such acequias in this Territory, or by any majordomo and his assistant, where such commission is not elected, said officers shall make another identical list, and deliver the same to the Justice of the Peace of their precinct, who shall record it in his book of records for the reference of all the interested parties, and in order that the work may be so ordered, and not otherwise.
- SEC. 4. The penalties on those who shall fail to supply the amount of work due by them, according to the provisions of this Act, or the number of laborers on them apportioned, or for any violation of existing laws on this subject, and those penalties that are applicable under existing laws, to majordomos, shall be the same that shall be applied in these cases, and they shall be executed and shall be disbursed in the same manner; *provided*, that when any chief majordomo shall have, in person, given notice to any person who is liable and owes work to the acequia of which he is majordomo, and such person fails, then and in such case the majordomo shall impose on the person so failing the penalty or fine which the law authorizes; and if it is not paid, he shall sue them before the Justice of the Peace for the same; and there it shall be finally decided and executed, and if the defendant does not offer credible witnesses to disprove and combat the charge; in which case an examination of the whole subject shall be made by said Justice of the Peace, and he shall decide accordingly, or shall grant a change of venue to the nearest precinct, should the defendant so desire.
- SEC. 5. The chief majordomos of all such acequias shall be the receivers and disbursers of all the fines resulting from their respective acequias, and on the tenth of October in each year they shall give to the Justice of the Peace of their respective precincts an exact account of the fines received by them, and the manner in which they have disbursed any part of them.
- SEC. 6. The commissioners mentioned in the second section of this Act, should they be charged with the duty of measuring the lands, shall be paid at the rate of two dollars per diem to each, during the time they may necessarily be so occupied; which sum shall be paid from the respective funds belonging to the acequias for which they are commissioners.
- SEC. 7. In the elections provided by this Act, every owner or tenant of irrigable lands, irrigated by any of such acequias, shall be entitled to vote and be voted for. Said election shall be without informing the chief majordomo of the respective acequia about the persons remaining in his stead to comply with his or their duty regarding said acequia, and he shall even present them, to that in his presence they may assume the responsibilities during the time of absence of such person or persons that are to be absent. And all the responsibilities of such absentees, regarding such acequias, shall fall upon the substitutes left, and no other persons but those assuming the responsibility of the person by whom they are presented shall be admitted as substitutes. And if any of such owners or tenants of irrigable lands, irrigated under any of such acequias in this Territory, should absent himself from the precinct during the time the acequias are in operation, without complying with the duty upon him imposed by this Act, besides suffering the penalty fixed by the majordomo, he shall be responsible to the public where he belongs for a just and common estimate per diem of the time he was absent, conducted as heretofore provided by law: and the persons receiving the greatest number of votes shall be declared elected to their respective offices, and shall receive a certificate to that effect from the respective Justices of the Peace - making before said Justices of the Peace, previous to entering on the discharge of their duties, an oath that they shall faithfully perform them in the office to which they have been elected. And all such elections shall be held, by general rule, from and after the year 1881, on the first Monday of January in each year.
- SEC. 8. Every owner or tenant of irrigable lands, irrigated by any of such acequias in this Territory, shall be compelled to hold at all times during the operations of the acequias to which they belong, the number of laborers to them assigned according to the provisions of this Act, at the disposal and order of the respective majordomo or his assistant. And it shall not be legal for any owner or tenant of irrigable lands, irrigated by any such acequias, to absent himself for a time exceeding three days, and the number of laborers that may have been assigned to him. Nor shall any proprietor, on account of having rented his lands, reserving a part for himself, be exempt from working on the acequias at any time of said work.

GENERAL LAWS - STATE OF COLORADO - PAGE 515, CHAPTER L.

[Revised Statutes, Chapter XLV.]

- 1372. SECTION 1. All persons who claim, own, or hold a possessory right or title to any land or parcel of land within the boundary of the State of Colorado, as defined in the Constitution of said State, when those claims are on the bank, margin, or neighborhood of any stream of water, creek, or river, shall be entitled to the use of the water of said stream, creek, or river, for the purpose of irrigation, and making said claims available to the full extent of the soil for agricultural purposes.
- 1373. SEC. 2. When any person owning claims in such locality has not sufficient length of area exposed to said stream to obtain a sufficient fall of water to irrigate his land, or that his farm, or land used by him for agricultural purposes, is too far removed from said stream, and that he has no water facilities on those lands, he shall be entitled to the right of way through the farms or tracts of lands which lie between and said stream, or the farms or tracts of land which lie above and below him on said stream, for the purposes hereinbefore stated.
- 1374. SEC. 3. Such right of way shall extend only to a ditch, dike, or cutting, sufficient for the purpose required.
- 1375. SEC. 4. In case the volume of water in said stream or river shall not be sufficient to supply the continual wants of the entire country through which it passes, then the County Judge of the county shall appoint three commissioners as hereinafter provided, whose duty it shall be to apportion, in a just and equitable proportion, a certain amount of said water upon certain or alternate weekly days to different localities, as they may in their judgment think best for the interest of all parties concerned, and with due regard to the legal right of all; *provided*, that this section shall not apply to persons occupying land on what is known as Hardscrabble Creek, a tributary of the Arkansas River, but upon said stream, the owners of the ranch known as the Hardscrabble Ranch, their successors and assigns; shall have the exclusive right to all water in said Hardscrabble Creek, down said stream to the north line of said Hardscrabble Ranch; *provided*, there is not any more water in said stream, at the above named line, than would be required to irrigate one hundred and sixty acres of land.
- 1376. SEC. 5. Upon the refusal of the owners of tracts of land or lands, through which said ditch is proposed to run, to allow of its passage through their property, the person or persons desiring to open such ditch may proceed to condemn and take the right of way therefore, under the provisions of chapter thirty-one of these laws concerning eminent domain.
- 1377. SEC. 6. All persons on the margin, brink, neighborhood, or precinct of any stream of water, shall have the right and power to place upon the bank of said stream a wheel, or other machine for the purpose of raising water to the level required for the purpose of irrigation, and the right of way shall not be refused by the owner of any tract of land upon which it is required, subject of course to the like regulations, as required for ditches, and laid down in sections hereinbefore enumerated.
- 1378. SEC. 7. The owner or owners of any ditch for irrigation or other purposes, shall carefully maintain the embankments thereof, so that waters of such ditch may not flood or damage the premises of others.
- 1379. SEC. 8. Nothing in this chapter contained shall be so construed as to impair the prior vested rights of any mill or ditch owner, or other person, to use the waters of any such watercourse.
- 1380. SEC. 9. The commissioners, provided for by section four of this chapter, shall not be appointed until at least six days previous notice shall have been given to parties in interest, by posting notices of the time and place when and where such appointment will be made, in at least five public places within the region watered by said stream.
- 1381. SEC. 10. Any ditch company constructing a ditch, or any individual having ditches for irrigation, or for other purposes, wherever the same be taken across any public highway, or public traveled road, shall put a good substantial bridge, not less than fourteen feet in breadth, over such watercourse where it crosses said road.
- 1382. SEC. 11. When any such ditch or watercourse shall be constructed across any public traveled road, and not bridged within three days thereafter, it shall be the duty of the supervisor of the road district to put a bridge over said ditch or watercourse, of the dimensions specified in section ten of this chapter, and call on the owner or owners of the ditch to pay the expenses of constructing such bridge.

1383. SEC. 12. If the owner or owners of such ditch refuse to pay the bill of expenses so presented, the supervisor may go before any Justice of the Peace in the township or precinct, and make oath to the correctness of the bill, and that the owner or owners of the ditch refuse payment, and thereupon such Justice of the Peace shall issue a summons against such owner or owners, requiring him or them to appear and answer to the complaint of such supervisor, in an action of debt for the amount sworn to be due, such summons to be made returnable, and served, and proceedings to be had thereon, as in other cases; and in case judgment shall be given against such owner or owners, the Justice shall assess, in addition to the amount sworn to be due as aforesaid, the sum of ten dollars, as damages arising from the delay of such owner or owners, such judgment to be collected as in other cases, and to be a fund in the hands of the supervisor of roads, for the repairs of roads in such precinct or district.

An Act to prevent the waste of water during the irrigating season.

[Session Laws, 1876.]

1385. SECTION 1. The owner of any irrigating or mill ditch shall carefully maintain and keep the embankment thereof in good repair, and prevent the water from wasting.

1386. SEC. 2. During the summer season it shall not be lawful for any person or persons to run through his or their irrigating ditch any greater quantity of water than is absolutely necessary for irrigating his or their said land, and for domestic and stock purposes; it being the intent and meaning of this section to prevent the wasting and useless discharge and running away of water.

1387. SEC. 3. Any person who shall willfully violate any of the provisions of this Act shall, on conviction thereof before any Court having competent jurisdiction, be fined in a sum not less than one hundred (\$100) dollars. Suits for penalties under this Act shall be brought in the name of the people of the State of Colorado.

SYNOPSES OF ACTS.

Passed by the Legislature of California, relating to watercourses and their use for irrigation by the people and by corporations.

[May 15, 1854. Statutes 1854, p. 76]

This Act creates a Board of Water Commissioners and the office of Overseer in each township of the several counties of this State, to regulate watercourses within their respective limits.

Section 1. Specifies the Counties of San Diego, San Bernardino, Santa Barbara, Napa, Los Angeles, Solano, Contra Costa, Colusa, and Tulare

Section 3. The duties of the Commissioners shall be to examine and direct such watercourses and apportion the water thereof among the inhabitants of their district, determine the time for using the same, and upon petition of a majority of the persons liable to work upon ditches, lay out and construct ditches, as set forth in such petitions. No authority is given in this Act for diversion or appropriation of water for irrigation by individuals or corporations independent of the action of the Boards of Water Commissioners, and it has no reference to the use of water for mining purposes. See Section 15.

[February 19, 1857. Statutes 1857, p. 29.]

This Act amends the law of 1854 as to the counties in which it shall operate, adding San Luis Obispo and Santa Cruz Counties and excluding San Bernardino.

[April 28, 1860. Statutes 1860, p. 335.] This Act amends Section 15 of the Act of May 15, 1854.

[February 21, 1861. Statutes 1861, p. 31.] This Act also adds Tehama and Sonoma Counties.

[April 10, 1862. Statutes 1862, p. 235.] This Act amends Sections 2, 3, and 14 of the Act of May 15, 1854.

SAN BERNARDINO COUNTY.

[May 15, 1854. First Act.]

[March 6, 1857. Statutes 1857, p. 63.]

By the law of March 6, 1857, San Bernardino County was excepted from the operation of the law of May 15, 1854. This law, however, differs but little from the former law, either in form or principle.

[April 12, 1859. Statutes 1859, p. 217.]

The law of April 12, 1859, amended Section 11 of the previous Act so as to prevent an unequal distribution of water and prevent fraud therein.

[February 18, 1864. Statutes 1863-64, p. 87.]

This law of February 18, 1864, repealed the previous laws and became a substitute therefore, providing for greater efficiency in the management of the ditches and distribution of water.

[February 14, 1866. Statutes 1865-6, p. 93.]

The law of February 14, 1866, amended sections two, four, and sixteen of the previous Act, in order that redistribution of water could be made in certain cases, and the time determined for using the water by irrigators; also, for keeping the ditches in better condition, and preventing the improper use of water by persons when not authorized to use the water.

No other county in the State has so complete and satisfactory a law on the subject of irrigation as San Bernardino County, and with some modifications to extend water privileges to new settlers and enforce the economical use of water by the present users, such a law could be made applicable to the wants of irrigators in any county of the State.

LOS ANGELES COUNTY.

[May 15, 1854.]

[April 1, 1864. Statutes 1863-4, p. 289.]

Water franchise to P. Banning for supplying Camp Drum and Town of Wilmington with water for domestic uses and irrigation.

[March 10, 1874. Statutes 1873-4, pp. 312 to 318.]

An Act to promote irrigation in Los Angeles County. Section fourteen repeals all Acts inconsistent with the provisions of this Act, so far as relates to the County of Los Angeles, except as to Los Angeles River and City of Los Angeles, which are excepted by section thirteen.

[March 20, 1878. Statutes 1878, p. 374.]

An Act to provide for and regulate irrigation in Township of Los Nietos, in the County of Los Angeles. The scope of this Act is not very different in principle from the laws of 1854 and 1874, just referred to, but is more particular in pointing out the duties of officers, and what irrigators have to do in acquiring water rights and using the water for irrigation. While this law repeals all former laws as to the Township of Los Nietos, Section 23 extends the privilege of this Act to any other township in the county desiring to avail themselves of its provisions, and points out the mode of proceeding.

CITY OF LOS ANGELES.

[April 2, 1870. Statutes 1769-70, p. 645.] Concerning watercourses in the City of Los Angeles.

[April 2, 1870, p. 702.]

Act creating a Board of Water Commissioners in the City of Los Angeles, defining their powers and duties.

[January 19, 1872. Statutes 1871-2, p. 30.]

Repealing last Act, and conferring the powers and duties of Board of Water Commissioners on Mayor and Common Council.

[February 20, 1872. Statutes 1871-2, p. 128.]

Sections 2, 3, and 4 of Act amending the charter of the City of Los Angeles confers upon the Mayor and Common Council control over zanjas, watercourses, ditches, and canals within the city limits.

[March 26, 1874. Statutes 1873-4, p. 633.]

Section 1 of Article 2 of Act amending the charter of the City of Los Angeles, relates to watercourses and the control thereof within the city limits.

[April 1, 1876. Statutes 1875-6, p. 692.]

City charter again amended, and Section 1 of Article 2 defines the rights and powers of the city over Los Angeles River, and the distribution of water within the city limits.

TULARE COUNTY.

[March 15, 1864.]

[Statutes 1863-64, p. 167.]

This Act creates a special Board of Commissioners for constructing a canal for irrigation and drainage purposes from the Kaweah River to a point near the town of Visalia.

[April 4, 1864. Statutes 1863-4, p. 375.]

Creates a Board of Water Commissioners for Tulare County, defines their powers and duties, and by Section 12 repeals all Acts of a general character conflicting with the provisions of this Act, so far as Tulare County is concerned.

[March 20, 1866. Statutes 1865-6, p. 313.]

This Act is amendatory of the preceding Act, amending Sections 2, 3, 4, 5, 6, and 7. It recognizes the existence of ditches, and the ownership thereof, aside from the public ditches provided for by the Acts of 1854 and 1864, by subjecting them to the control of the Board for the equitable distribution of the water.

[March 7, 1868. Statutes 1867-8, p. 112.]

This Act permits and provides for the private and company ownership of ditches for irrigation, subject to supervision by the Bard of Water Commissioners to prevent waste, and from whom permission to construct the ditch must first be obtained, and by whom the quantity of water to be used therein must be determined. This Act repeals the Acts of April 4, 1864, and March 20, 1866.

[April 1, 1872. Statutes 1871-2, p. 945.]

This Act, though entitled "An Act to promote irrigation," applies equally to drainage. Its operation is prohibited in Fresno, Kern, Tulare, and Yolo Counties. It does not repeal any prior laws passed for special counties.

[March 20, 1876. Statutes 1875-6, p. 547.]

"An Act concerning water ditches and water privileges for irrigation, mining, and manufacturing purposes in Fresno, Tulare, and Kern." It repeals all Acts and parts of Acts in conflict with it. Like the Act of March 7, 1868, it permits the construction of private and company ditches, but gives the Board of Supervisors, instead of a Board of Water Commissioners, the authority to grant permission and declare the quantity of water which may be used.

FRESNO.

[April 2, 1866. Statutes 1865-6, p. 777.]

This Act creates a Board of Water Commissioners for Fresno County, authorizing them to establish irrigation districts, appoint Overseers, lay out ditches, and determine the quantity of water to be used, see that it is properly used to prevent waste, and that the ditches are kept in good repair. This Act repeals all Acts of a general character, so far as they affect Fresno County.

[March 29, 1876. Statutes 1876-6, p. 547.] See reference to this Act under head of Tulare County.

[March 25, 1878. Statutes 1875-6, p. 468.]

This Act created an irrigation district known as the "West Side Irrigation District," and relating to the Counties of San Joaquin, Stanislaus, Merced, and Fresno. By Section 41 of this Act, the State not only gave the right of way over State land for the contemplated canal, and provided for the condemnation of other lands required, but "dedicated and set apart for the uses and purposes of the canal, all waters and water rights belonging to the State within the district necessary for said purposes."

KERN COUNTY.

[April 2, 1866. Statutes 1865-6, p. 796. Statutes 1875-6, p. 547.]

This county was erected out of the territory of Tulare and Los Angeles Counties, and for the portions thereof as taken from the respective counties the laws on the subject of irrigation remained unchanged until March 29, 1876, when the county came under the same provisions as Tulare and Fresno above referred to in the matter of irrigation.

[April 1, 1872. Statutes 1871-, p. 945.]

From the operation of the Act of April 1, 1872, Kern County was specially excepted, as well as Fresno, Tulare, and Yolo Counties.

[March 29, 1876. Statutes 1875-6, p. 499.]

Special Act passed for improving a portion of King's River, and the construction of booms in the river for logging purposes.

COLUSA COUNTY.

[May 15, 1854. First Act.]

[March 26, 1866. Statutes 1865-6, p. 451.] Special Act for construction of canal, in Colusa, Yolo, and Solano Counties.

TEHAMA COUNTY.

[February 21, 1861. Statutes 1861, p. 31.]

By this Act Tehama County was brought under operation of the law of May 15, 1854, in relation to the use of water for irrigation, and the means for conducting the same.

[March 30, 1872. Statutes 1871-2, p. 732.]

This Act applied specially and only to Tehama County, and is supplemental to the Act of April 2, 1870 (Statutes 1869-70, p. 660), providing for the "incorporation of canal companies, and to provide for the construction of canals and ditches."

SONOMA COUNTY.

[February 21, 1861. Statutes 1861, p. 31.]

By this Act Sonoma County was brought under the operation of the law of May 15, 1854, in relation to the use of water for irrigation and the construction of canals for conducting the same, and no law has since been passed modifying its application to Sonoma County.

SAN DIEGO, SANTA BARBARA, NAPA, SOLANO, CONTRA COSTA, SANTA CRUZ, AND SAN LUIS OBISPO COUNTIES.

[May 15, 1854. Statutes 1854, p. 76.] This Act applies to these counties, and without subsequent change.

YOLO COUNTY.

[March 26, 1866. Statutes 1865-6, p. 451.]

Act to develop the agricultural interest of, and to aid in the construction of a canal for irrigation and inland trade in the Counties of Yolo, Colusa, and Solano.

[April 1, 1872. Statutes 1871-2, p. 945.]

Act to promote irrigation. Yolo, Fresno, Kern, and Tulare, excepted from its operation.

YUBA COUNTY.

[April 2, 1866. Statutes 1865-6, p. 812.]

Act authorizing certain parties named therein to construct a watercourse for irrigation and motive power from the Yuba River to Marysville.

SISKIYOU COUNTY.

[March 31, 1866. Statutes 1865-6, p. 609.]

Act creating a Board of Water Commissioners and defining their powers and duties. This Act is of the same general character as the laws of other counties amending the first law of 1854.

SAN FRANCISCO.

[Two Acts of May 3, 1852. Statutes 1852, pp. 171 and 200.]

First Act provides for the incorporation of water companies. Second ratifies the ordinance of June 11, 1851, for introducing water into the City of San Francisco.

[Two Acts of March 18, 1858. Statutes 1858, pp. 73 and 75.]

First Act ratifies ordinance of March 19, 1856, authorizing the Mountain Lake Water Company to introduce fresh water into the city, but prohibiting any construction of said Act from impairing any rights of the San Francisco City Waterworks.

Second Act ratifies ordinance of August 6, 1857, authorizing the San Francisco City Waterworks to introduce pure fresh water into the City and County of San Francisco for fire, municipal, and other purposes.

[April 22, 1858. Statutes 1858, p. 218.]

General Act for the incorporation of water companies to supply any city and county or any cities or towns in this State, or the inhabitants thereof, with pure fresh water.

[April 23, 1858. Statutes 1858, p. 254.]

Act authorizing the owners of the Spring Valley Waterworks to lay down water pipes and furnish water for fires and other municipal uses.

[April 11, 1859. Statutes 1859, p. 209.]

Act amendatory of the preceding Act, guarding against interference with other water or gas pipes, or with the right of the Mountain Lake Water Company, or the San Francisco Waterworks Company.

[April 24, 1861. Statutes 1861, p. 228.]

This Act amends Section 2 of the Act of April 22, 1858, and directs the mode of procedure in acquiring lands, water, reservoirs, etc., for supplying pure fresh water to the inhabitants of any city or town in the State.

[May 18, 1861. Statutes 1861, p. 533.]

Act for the protection of water companies and to prevent the destruction of waterworks and the fraudulent use of water.

[April 8, 1863. Statutes 1863, p. 225.]

Act extending the rights and privileges of the San Francisco City Waterworks Company and releasing said company from the payment to the city of five per cent of its gross earnings.

[April 27, 1863. Statutes 1863, p. 745.]

Act provides for the consolidation of three companies organized to supply San Francisco with pure fresh water, viz.: Glas and Salinas Water Company, Crystal Springs Water Company, and the Spring Valley Waterworks.

[March 30, 1874. Statutes 1873-4, p. 807.]

Act authorizing the City and County of San Francisco to provide and maintain public waterworks for said city and county, and to condemn and purchase private property for that purpose.

[March 1, 1876. Statutes 1875-6, p. 82.]

Act to establish water rates in the City and County of San Francisco.

[March 27, 1876. Statutes 1875-6, p. 501.]

Act to authorize the City and County of San Francisco to provide and maintain public waterworks for said city and county, and to condemn and purchase private property for said purpose.

[April 3, 1876. Statutes 1875-6, p. 706.]

Act amendatory of and supplementary to Act of March 1, 1876.

[January 22, 1880. Statutes 1880, p. 1.]

Act repealing Act of March 27, 1876, which provided for acquiring and maintaining public waterworks in the City and County of San Francisco.

ARTESIAN WELLS.

[March 18, 1876. Statutes 1875-6, p. 331.]

This Act regulates artesian wells, to prevent waste and damage by overflow thereof in Santa Clara and Los Angeles Counties.

[March 9, 1878. Statutes 1877-8, p. 195.]

This Act regulates, generally, the use of artesian wells, and to prevent the waste of subterranean waters in this State.

DISTRICT SYSTEM.

Acts passed authorizing the organization of districts for irrigation:

[April 1, 1872. Statutes 1871-2, p. 945.]

This is the first law bearing upon district organization for irrigation. Its application in Fresno, Kern, Tulare, and Yolo was prohibited by Section 26 of the Act.

[March 10, 1874. Statutes 1873-4, p. 312.]

This Act establishes the district system of irrigation for Los Angeles County, and repeals the Act of May 15, 1854, as to said county.

[March 20, 1878. Statutes 1878, p. 374.]

This Act creates a special district and law for Los Nietos, in Los Angeles County, but also, by Section 23, permits the creation of other districts in the same county, to be governed by the same law.

THE ORGANIZATION OF CORPORATIONS FOR IRRIGATION PURPOSES.

[April 22, 1850. Statutes 1850, p. 347.]

This Act authorizes the creation of corporations for the specific purposes named in the Act, but does not embrace irrigation.

[May 14, 1862. Statutes 1862, p. 540.]

This is the first Act which, in express terms, allows corporations to be organized for engaging in irrigation as a business. It increases the topics referred to in Chapter 5 of the Act of April 22, 1850, p. 347; May 3, 1852, p. 171; of April 14, 1853, p. 87; of May 18, 1853, p. 251; of April 30, 1855, p. 205; of April 22, 1858, p. 218, and includes irrigation.

Section 5 of this Act has been amended at various times, as to the counties to which it may or may not apply, viz.: Statutes 1865-6, pp. 53 and 605; 1867-8, p. 134; 1871-2, p. 732.

[April 2, 1870. Statutes 1869-70, p. 660.]

This Act repeals the Act of April 14, 1853, and is a substitute therefore, applying to the same special topics, but making modifications therein and omitting the exceptions as to the particular counties named in the Act of April 14, 1853.

[April 4, 1870. Statutes 1869-70, p. 822.]

This Act relates to corporations formed for trading, manufacturing, mechanical, or other lawful business or purpose, subjecting them to the duties, conditions, and liabilities imposed therein, and by certain sections of the Act of April 14, 1853, and of all other Acts amending the sections named.

WATER RIGHTS BY APPROPRIATION UNDER THE CIVIL CODE.

Sections from 1410 to 1422, inclusive, took effect January 1, 1873, provide specific rules for the appropriation of water and have not been amended.

But while their application would seem to be general to all parts of the State, we find that Section 19, Subdivision 6, of the Political Code, makes this exception, viz.: "All Acts creating or regulating Boards of Water Commissioners and Overseers in the several townships or counties of the State," remain unaffected by either of the Codes.

[March 27, 1872. Statutes 1871-2, p. 622.] Act put into effect by the provisions of the Civil Code relative to water rights.

GENERAL LAW FOR ESTABLISHING WATER RATES FOR IRRIGATION.

[March 26, 1880. Statutes 1880, p. 16.]

Act authorizing Boards of Supervisors of the counties in which water is sold for irrigation to fix the rates at which water shall be sold.

WATER AND WATER RIGHTS AS DECLARED BY THE CONSTITUTION.

ARTICLE XIV.

SECTION 1. The use of all water now appropriated, or that may hereafter be appropriated, for sale, rental, or distribution, is hereby declared to be a public use, and subject to the regulation and control of the State, in the manner to be prescribed by law; provided, that the rates or compensation to be collected by any person, company, or corporation in this State for the use of water supplied to any city and county, or city or town, or the inhabitants thereof, shall be fixed, annually, by the Board of Supervisors, or city and county, or City or Town Council, or other governing body of such city and county, or city or town, by ordinance or otherwise, in the manner that other ordinances

or legislative acts or resolutions are passed by such body, and shall continue in force for one year and no longer. Such ordinances or resolutions shall be passed in the month of February of each year, and take effect on the first day of July thereafter. Any Board or body failing to pass the necessary ordinances or resolutions fixing water rates, where necessary, within such time, shall be subject to peremptory process to compel action at the suit of any party interested, and shall be liable to such further processes and penalties as the Legislature may prescribe. Any person, company, or corporation collecting water rates in any city and county, or city or town in this State, otherwise than as so established, shall forfeit the franchises and waterworks of such person, company, or corporation to the city and county, or city or town, where the same are collected, for public use.

SEC. 2. The right to collect rates or compensation for the use of water supplied to any county, city and county, or town, or the inhabitants thereof, is a franchise, and cannot be exercised except by authority of and in the manner prescribed by law.

WATER RIGHTS UNDER UNITED STATES LAW.

[July 26, 1866, Section 2339, R. S.]

Whenever by priority of possession, rights to the use of water for mining, agricultural, manufacturing, or other purposes, have vested and accrued, and the same are recognized and acknowledged by the local customs, laws, and the decisions of Courts, the possessors and owners of such vested rights shall be maintained and protected in the same; and the right of way for the construction of ditches and canals for the purposes herein specified is acknowledged and confirmed; but whenever any person, in the construction of any ditch or canal, injures or damages the possession of any settler on the public domain, the party committing such injury or damage shall be liable to the party injured for such injury or damage.

DESERT LAND ACT – WATER FOR RECLAMATION.

[March 3, 1877. Vol. 19, Statutes U. S., p. 377.]

The right to use of water for the reclamation of desert lands, in accordance with the provisions of an Act approved March 3, 1877, shall depend upon bona fide proper appropriation; and such right shall not exceed the amount of water actually appropriated, and necessarily used for the purpose of irrigation and reclamation; and all surplus water over and above such actual appropriation and use, together with the water of lakes, rivers, and other sources of water supply upon the public lands and not navigable, shall remain and be held free for the appropriation and use of the public for irrigation, mining, and manufacturing purposes, subject to existing rights.

WATER RIGHTS FOR IRRIGATION – CONCLUSIONS DRAWN FROM REVIEW OF THE STATE LAWS.

The following articles on the subject of irrigation, as governed by the laws of California, were contributed for the Record-Union, but are included in my report, at the request of the Governor, for general information on the subject; also an article from the State Engineer, William Ham. Hall, given in explanation of said officer's views, as embodied in his report, and for the purpose of showing the importance of legislative action on the subject for the future welfare of the State.

[First article, published July 10, 1882.]

WHAT HAS THE LEGISLATURE OF CALIFORNIA DONE IN THE MATTER OF IRRIGATION?

The Legislature of California has legislated on four different methods of irrigation.

First, for the control of watercourses, the building of canals or ditches, and the distribution of the water for the people in the counties where irrigation was considered necessary. This law was passed May 15, 1854, and can be found on page seventy-six of the statutes of that year, and was applied to the Counties of San Diego, San Bernardino, Santa Barbara, Napa, Los Angeles, Solano, Contra Costa, Colusa, and Tulare, the present County of Kern being then included in Los Angeles and Tulare, and governed, as to irrigation, by the same law.

This law, as to Los Angeles County, was never modified or repealed until March 10, 1874, (Stat., p. 312); and as to Tulare County, for one line of canal, a special Board of Commissioners was created March 15, 1864 (Stat., p. 167), independent of the Board created by the Act of 1854, but for the county generally on April 4, 1864 (Stat., p. 375), a law modeled after the law of 1854, though modifying it somewhat, was passed. Again, on the twentieth of March, 1866 (Stat., p. 313), the law of April 4, 1864, was amended. Thus the law of April 4, 1864, as amended, applying to Tulare County, and the law of May 15, 1854, applying to Los Angeles County, pointed out the only mode of irrigation applicable to the territory out of which Kern County was created on the second of April, 1866 (Stat., p. 777).

So careful was the Legislature, or rather the representatives of Tulare County, to guard against the introduction or recognition of any other mode of irrigation in the county, that Section 12 of the Act of April 4, 1864, provided that "all Acts of a general character conflicting with the provisions of this, so far as applicable to the County of Tulare, are hereby repealed," thus guarding effectually against allowing corporations to operate in the county under the assumption that they had authority given them under the Act of May 14, 1862 (Stat., p. 540), which was the second law providing for irrigation.

Again, so careful were the representatives of Kern that when the law of April 1, 1872 (Stat., p. 945) – the third law providing for irrigation – was passed, allowing districts susceptible of one mode of irrigation to be created, Kern, as well as Fresno, Tulare, and Yolo Counties, were excepted from its operation. (See Section 26, Stat., p. 948.)

Again, when the fourth mode of providing for irrigation was created by the adoption of the Codes (see Civil Code, Sections 1410 to 1422), Section 19 of the Political Code expressly said that "nothing in either of the four Codes affects any of the provisions of the following statutes," viz.: (Subdivision 6) "All Acts creating or regulating Boards of Water Commissioners and Overseers in the several townships or counties of the State."

This brings us up to the last law passed on the subject of irrigation for Kern County, viz.: the Act of March 29, 1876 (Stat., p. 547), which does not differ materially from the previous Acts, except that it changes the organization controlling the watercourses from a Board specially elected for that purpose to the Board of Supervisors, who have general charge of all county matters. This shows that the county did not intend to lose control of its water rights, the prevention of waste and the economical and equitable distribution of the water for the general good of its people.

Following this, the next Legislature memorialized Congress, by joint resolution, passed March 6, 1878 (Stat., p. 1070), "to reserve from sale, or grant no exclusive ownership in" all streams of sufficient magnitude to supply more than one family, so that the water might be free and "for the common use of all

the inhabitants for the natural purposes of drinking and washing for man and domestic beasts, for irrigating the soil, and for mining purposes."

Of what use would a memorial like this have been if the State had already allowed private appropriation to seize or absorb, under corporate control, the waters of this State capable of being utilized for irrigation? It clearly shows that the people of the State, expressing their will through the Legislature, did not consider that they had granted away their right to control the waters of the State for the general good, or that corporate interests had become paramount in controlling the watercourses. Following up this line of action, the Constitutional Convention, by Article 14, Section 1, declared: "the use of all water now appropriated, or that may hereafter be appropriated for sale, rental, or distribution, is hereby declared to be a public use, and subject to the regulation and control of the State in the manner to be prescribed by law." This emphatic declaration, that the use of all the water of the State is a public use, was ratified by the people, and the manner of its use is not left to laws of the past, but, in the language of the Constitution, is to be prescribed by law. Where, then, are vested rights over the control of water, and rights by prescription, so loudly asserted by corporations? As though either principle could prevail against the sovereign (the State) when the very Act granting them an existence (Stat. 1850, p. 350, Section 30) declares that "the Legislature may, at any time, amend or repeal this Act, and dissolve all corporations created under it."

The creature is not above the creator, and the commonly expressed fear of corporations or other organizations in controlling the waters of the State to the detriment of the people, only argues the imbecility of the people in not regulating the matter through the Legislature to suit themselves, or in not forcing the Supervisors, or Boards of Water Commissioners in counties where such organizations are provided for regulating the distribution of waters, to discharge their duties according to the present laws.

But not to speculate upon what Legislatures may or can do in the future, so that the greatest benefit from the use of water may be extended to the greatest number, the question naturally arises, how many of the present organizations in Kern County, or in the other counties in which similar laws exist, have been formed under either or any of the laws referred to for the distribution of water in such counties, or are operating in accordance with the provisions of these laws? If they are not so organized, by what right do they claim the use of water as against other users? For this is not a case in which the principle of "first in time first in right" prevails, but where first in time, in compliance with the law provided for the subject-matter in that county, prevails.

The confusion and misunderstanding of the principles which, in my opinion, govern the distribution of water for irrigation purposes in those counties named in the Act of May 15, 1854, and kindred laws, arises from the supposition that any man could take water wherever he might find it, for any purpose, provided he did not interfere with his neighbor. This was the common rule in the mines, and when the miners left the mountains to make homes for themselves and families in the valleys, they naturally adopted the same rules they had learned in the mines, not knowing that different laws had been provided for regulating the use of water in the valleys, where irrigation was and will become more and more essential as our population increases. The two modes of regulating the use of water are necessarily different, and Mexico, from whom we secured this territory, has long been using both modes, one for the mines and the other for agriculture, but never allowed the law for regulating water in the mines to operate where its use was necessary for farming. Hence, we notice that our legislators, as early as 1854, by adopting the Mexican rules for irrigation, prohibited the customs of the mines in using the watercourses, from gaining any foothold in the agricultural counties.

But as they principal business in early days in this State was mining, all the decisions of our Courts related to the use of water in the mines, and not one can be found which takes up and discusses the use and regulation of water for irrigation purposes in the agricultural counties under the Act of 1854, and kindred laws specially provided therefore in the counties named.

Precedent is so powerful a principle with our Courts, that instead of recognizing the fact that it is as impossible for the customs and laws of miners, concerning the use of water, to operate harmoniously with the irrigation law of 1854, in the same county, as it is for oil and water to unite, they are constantly trying to find some analogous principle in them governed by these old decisions that will permit corporations or individuals, as first appropriators, to control the watercourses of the State, without recognizing the fact that this is a growing State, and that the laws and the decisions must keep pace to some extent with the increasing wants of the people.

The sooner this water questions is settled by legislation and legal construction on broad and liberal principles, which will keep the control of the water where it properly belongs, viz.: with the people,

so that it can be distributed anywhere and at any time in proportion to the wants of the people, when they have provided the necessary ditches, canals, and reservoirs, to utilize it economically, the better it will be for all. The laws on this subject must be sufficiently elastic to meet the increasing wants of the people; and there would be no more sense in restricting the distribution of water to the present users than there would to pass a law that no one should be allowed to raise wheat in California except those at present engaged in that business.

[Second Article.]

IRRIGATION – WHEN AND HOW DID CORPORATIONS ACQUIRE ANY RIGHT TO ENGAGE IN IRRIGATION.

A corporation is the creature of law and can only engage in such business as the Legislature specially designates or permits. The first law authorizing the creation of corporations in California was passed April 22, 1850 (Stat., pp. 347-376), and is divided into nine chapters. Chapter 1 relates to their general powers and the mode of conducting the business of corporations. Then follows in the succeeding chapters a specification of the particular kind or character of occupation in which they are permitted to engage, with the necessary rules for regulating the same. Chapter 2 applies to insurance companies; Chapter 3 applies to railroads; Chapter 4 to turnpike or plank roads; Chapter 5 to manufacturing, mining, mechanical, or chemical purposes; Chapter 6 to telegraph companies; Chapter 7 to bridge companies; Chapter 8 to religious and other associations or societies; Chapter 9 to steam navigation companies. No other topics were there named as subject to the control of corporations, and you will notice that water is not one of them; and the necessity for controlling its use cannot be inferred or implied in connection with any of the topics named, except that of mining. It then becomes important and interesting to notice the various changes which led up to the exercise of any corporate control over water for irrigation purposes in connection with agriculture. You will notice that Chapter 5 contains only four topics.

But on April 14, 1863 (Stat., p. 87), this chapter was modified by extending the exercise of corporate powers over two other topics, viz.: "engaging in any species of trade," or "commerce, foreign or domestic" - making, so far, six topics. Next, on April 30, 1855 (Stat., p. 205), another modification occurred, embracing two new topics, viz.: "wharfage and dockage" - making eight topics. Next, on April 22, 1858 (Stat., p. 218), corporate powers were extended to "water companies for supplying any city and county, or any city or towns in this State, or the inhabitants thereof, with pure, fresh water" - making nine topics. But prior to this Act of 1858 the Legislature did, on May 3, 1852 (Stat., 1852, p. 171), so extend the scope of Chapter 5 of the Corporation Act of 1850, as to permit the "incorporation of water companies," for the purpose of supplying cities or towns in this State, or the inhabitants thereof, with pure, fresh water. This last Act was the first departure authorized by the Legislature interfering in cities and pueblos with the Mexican rule, which prohibited the exercise of individual or corporate control, other than civic, over any and all waters necessary for public use in the pueblos; the first intimation by law that water for cities or pueblos could be furnished by other means than those provided by the pueblos. All companies or corporations organized for or engaged in such business were operating without the sanction of law, but became legitimized by the Act of May 3, 1852, or by Section 1 of the Act of April 22, 1858, which extended the right of incorporation "to all corporations already formed or thereafter to be formed under the previous Acts, for the purpose of supplying any city and county, or any cities or towns in this State, or the inhabitants thereof, with pure, fresh water."

This, however, did not include corporations for irrigation, irrigation being still confined to the cooperation of the people under the law of May 15, 1854. But on May 14, 1862 (Stat., p. 540), we find the objects for which corporations can organize and operate extended to "the construction of canals for the transportation of passengers and freights, for the purpose of irrigation, or water power, or for the conveyance of water for mining or manufacturing purposes, or for all such purposes," increasing, by this Act, the topics to fourteen for which corporations could be organized under the provisions of Chapter 5. On its face this would appear to be a general law for constructing canals, or for irrigation anywhere in the State; but on page 53, Statutes of 1865-6, its operation was prohibited in the Counties of Nevada, Placer, Amador, Sierra, Klamath, Del Norte, Trinity, Butte, Plumas, and Calaveras, and on page 605 it was amended so as to prohibit its operation in Placer County. On page 134, Statutes 1867-8, it was modified so as to be applicable to Butte, but denied in Tuolumne and Lassen Counties; and on page 732, Statutes

of 1871-2, it was changed, and made applicable, as amended, to Tehama County. Again, nowhere in this Act is it stated or intimated that the Act of May 15, 1854, and the Acts modifying the same, are repealed, or that the bars, as it were, had been let down so as to permit corporations organized for irrigation purposes to operate in the counties for which the law of 1854 was provided. Nor can it be shown that the corporation law of 1862 superseded the law of 1854 in any respect, or was intended to operate jointly with it in any county.

But if it were permissible for corporations to operate under the law of 1862 jointly in any of the counties for which the law of 1854 was provided, their application and control could not possibly extend beyond the construction of the canals or ditches, for neither in the Act of 1862 or any of its modifications is there a mode provided by which corporations can acquire or appropriate water unless by subjection, in common with other users, to the rules or provisions of the law of 1854. And when they are brought down to this, the danger from the power of corporations over the water question ceases; for under that law (Section 3), as pointed out in my previous article, the regulation of the distribution of water for irrigation is retained under the control of the people through their Board of Commissioners, and no private or corporate rights to water for irrigation can, or ever has, become vested in corporations in the counties named in the Act of 1854 and Acts amendatory thereof, while said Acts remain unrepealed. I take it, then, as an indisputable conclusion, that the organization of any corporation for irrigation purposes, before the passage of the law of 1862, in the counties named in the Act of 1854, was not merely a violation of that law, but of all law, and that companies so organized could acquire no rights to the use of water by prescription, for that implies either the absence of all law on the subject, and therefore no violation of law, or else that the user has been in accordance with or in subordination to the law provided on the subject, and without adverse interference for the period of time required by law to create the right.

It was found that corporations had been organized for carrying on business under some of the heads not specified in the corporation law of 1850, and before the corporation law was extended so as to cover the topics (all of which have already been pointed out), as well as to modify or enlarge the scope of their business, it was considered by the Legislature necessary to pass a general law by means of which corporations so situated could cure such defects in their articles of incorporation. Accordingly the Act of March 1, 1870 (Stat. 1869-70, p. 107), was passed. But how many of the prematurely formed corporations availed themselves of the privilege granted? Very few indeed, for most of them considered this Act of itself curative, like the law of April 22, 1858, in its application to water companies organized to supply citizens with pure, fresh water – organized before there was any law authorizing it.

The next change of law that we find bearing upon irrigation by corporations is the Act of April 2, 1870 (Stat. 1869-70, p. 660), which was an effort to make general in its application to corporations the principles of the law of 1862, and define more specifically the mode of proceeding for acquiring the right of way for canals or ditches; but it gives them no greater facilities for acquiring the use of water, nor does it point out by what process they are to acquire it, or how they are to determine the quantity of "waters not previously appropriated." No further changes occurred in the laws by which corporations could gain any control over or acquire water for irrigation until the adoption of the Codes on January 1, 1873; and this is the first time that the mode is definitely laid down by law for acquiring the use of water, except by the law of 1854, and the Acts amendatory thereof.

But the rule of the Codes is not allowed to interfere with or supersede this law of 1854 and its amendments, for they are specially retained and protected, as already pointed out, by Section 19 of the Political Code; and whoever, whether individual or corporation, desires to operate under the Codes in the counties named in the Act of 1854 (if they can at all), must come under subjection to the control of the "Board of Commissioners" in order to get any water. So far as the people or public are concerned, it makes very little difference who builds the ditches, but it would make a great difference indeed if a corporation financially strong enough to build a ditch of sufficient capacity to carry all the water of a stream, would therefore be entitled to appropriate it all by designating the size of the ditch and turning the water into it; and it is very evident, I think, that the Legislature never contemplated any such result from a fair operation of the law of the Codes, or the previous corporation laws of 1862 and 1870.

In 1872, April 1 (Statutes of 1871-2, p. 945), the Legislature attempted to provide another system for irrigation or drainage, called the district system, whereby the lands susceptible of one mode of irrigation or drainage could be managed by the owners of the property independent of other control. The operation of this law has been confined to the drainage of swamp lands, so far as known, and yet for the purpose of obtaining the necessary capital for constructing canals, dams, reservoirs, and keeping the same in repair, there has not been devised a more simple and effective mode. Its provisions for the

construction of the works are far better than those of the law of 1854. But in the matter of regulating the distribution of the water, and keeping the control thereof free from individual or corporate influence, it does not begin to compare with it, and no law will compare with it which fails to recognize as a fundamental principle that the use of running water, when irrigation is necessary, for the welfare and maintenance of a community, is the common property of all the people, and should not be reduced to private ownership any more than the air we breathe or the light that shines upon us.

There is no intimation in this law, any more than in the laws of 1862, 1870, or in the Codes, that this Act was intended to, or could operate in any of the counties named in the Act of 1854, conjointly with said Act. As with the other Acts, so with the law of 1872, there is too much difference to permit of harmonious operation of the two laws in the same county, and I do not think it was intended that they should so operate, or the first Act would have been repealed in express terms. But the law of 1854, so far as it related to or affected the County of Los Angeles, was repealed on the tenth day of March, 1874 (Stat. 1873-4, p. 312), and never modified before in its general application. This law was modeled somewhat after the law of 1872, for raising the funds for constructing the canals, dams, and reservoirs, that might be deemed necessary, and after the law of 1854, for the distribution of the water. But it was so loaded down with machinery for official government and management that it did not meet the favor of the people; they did not adopt it cordially, and there is not to-day an organization operating under it.

It did, however, enunciate in clean and unmistakable terms the principles lying at the foundation of the law of 1854, and which must eventually govern in the distribution of water for irrigation, as provided by the Constitution of 1879, whenever the Legislature is fully aroused to the importance of the subject in preparing a comprehensive and practicable law for the future welfare of the State, viz. (p. 318): "All waters from rains, rivers, or streams, which can be applied to irrigation purposes, are hereby declared the property of the people, to be held for their use, and so utilized as to confer the greatest possible good upon the greatest number." "And to this complexion must it come at last," however our Judges may rule in the matter, or however persistently individuals or corporations may cry vested rights in an element that by nature is as free as the air which we breathe.

[Third Article.]

IRRIGATION AS AFFECTED BY AND AFFECTING RIPARIAN RIGHTS.

It is not an unusual thing to hear lawyers and even Judges say that they dislike to have anything to do with suits involving questions of State or United States land laws, because the practice is a specialty, and no one can predict with any degree of certainty what the result will be. It cannot be reduced to the certainty of a mathematical demonstration. However true this may be concerning land laws in California, there is even more uncertainty as to results when they undertake to unravel the mysteries of the laws of "riparian rights;" not as applied to the rights of owners to use and retain control over the land along the bank or banks of the stream, for as to that there is no dispute, but as to the nature or extent of their right to use and divert the water which is accustomed to flow in the streams.

The opinions of people in general on any given subject conform usually to what was regarded as the law where they came from, and are therefore as different or diversified as the climactic and topographical condition of the country; for these variations determine, in a great degree, the necessities of the people, and the laws resulting therefrom must vary to meet their demands. Uniformity of laws cannot be expected in States or localities where the natural conditions are totally different. If uniformity of climate and topography could exist all over the land, its division into different States and Territories would not be a matter of necessity but of mere convenience; a multiplicity of Legislatures would be useless; one only would be required to enact laws common for all the people, applicable alike to all parts of the country.

The term "riparian rights" is one that is in common use all over the world where the "civil law" governs, or where the "common law" prevails. Its primary signification is "right to the bank of the river, and, as an incident, to the use of the river in connection therewith;" and we find rivers or streams everywhere, and generally people living on their banks, reducing the land to private ownership and making use of the rivers – using one or both to supply the wants of nature. From this general use has arisen the expression "riparian rights," denoting a claim or a right to use the rivers in their whole length by the people who live along the banks and need them.

The first rule which obtained concerning the use of rivers was, that in order to supply the common want of water for man and beast, they must be allowed to run from source to outlet as they exist or are accustomed to run, with no more or less interruption than nature has produced. This rule was soon infringed upon, for it was found that nature's wants extended beyond the use of water for drinking purposes or cooking, and that it could be utilized, or harnessed, as it were, and made an auxiliary in supplying man's wants without detriment to any one. Hence we find in very early times that in England, France, Germany, and other northern countries, the use of the rivers for mill power was permitted, and became recognized as a "riparian right," yet so restricted as not to allow damage to be done by such use to the owners of land above or below on the same stream, or to interfere with their use of the water. But in arid countries we find the use of water extended still further, as in India, Egypt, southern Europe, and the Spanish colonies in North and South America. Wherever there is a scarcity of rain for vegetation, there the use of water for irrigation is not only permitted, but encouraged by laws which deny the proprietors of land on the banks of the rivers the exclusive ownership of the water accustomed to flow over or through their land. The laws of these countries step in and take into consideration the general necessities of the whole people, making their interest paramount to that of the riparian owner, or of any special class.

California was one of these Spanish colonies, and it is through this channel, rather than through the English "common law," that we should look for the necessary customs, rules, and laws applicable to the wants of a people settling in a country where for six or seven months in the year there is scarcely more than a passing shower. When we investigate this subject as to the older States of the Union whose origin was English, we find a close adherence to the English "common law" of riparian rights, and a marked absence of all statutory laws for the guidance of the people of the Courts; yet in examining the decisions, we occasionally find gradual yielding from the strictness of the common law principle towards permitting the use of water of streams not navigable, for more than supplying the natural wants and mill power. In Maine, Connecticut, and Massachusetts, though not in New York, its use for watering meadows was sustained by the Courts, but not allowed for general cultivation. So, to, in Illinois its use for such purposes was permitted, on condition that a quantity of water necessary for supplying the natural wants of the people below on the same stream was left unimpaired. But even in that case the Court held that "where all have a right to participate in a common benefit, none can have an exclusive enjoyment. No rule, from the very nature of the case, can be laid down as to how much each one may use without infringing upon the rights of others."

By the Roman law, running water, light, and air were put in the same category as common property, res communes, and could not be reduced to private ownership. The only deviation from this principle in England, under the "common law," is the use of the stream for mill power, in connection with the grinding of grain or in manufactures, and a similar departure extended to all the English colonies in America. But even in the use of a stream for mill power, the claimant of such right is bound to so use it as not to interfere with a similar use by others above or below him, because each owner of land along the stream is entitled to an equal use thereof without diminution in volume or velocity, as these two factors determine its availability for mill power, and they are his to the full extent of his frontage boundary, but no farther.

It this is a correct statement of the "common law" as to the extent to which a riparian proprietor can use a stream passing over or through his land, then it is evident that the right to use the water of a stream for irrigation is not an outgrowth of the "common law." But the "common law" is the law of the United States, except where the Constitution and statutory laws of the United States or of the State have superseded or modified it. Irrigation, therefore, as practiced in California, cannot be a riparian right or an outgrowth of the "common law," nor does it receive any countenance from it whatever.

Where, then, do we find any sanction for irrigation in California as a riparian right? We must look either to the laws and customs of the country from which our State was obtained, or else to the statutory laws of California passed since it became a State. It is true that Congress passed a law on July 26, 1866, general in its application to all territory or land owned by the United States, declaring "that whenever by priority of possession, rights to the use of water for mining, agricultural, manufacturing, or other purposes, have vested and accrued, and the same are recognized and acknowledged by the local customs, laws, and decisions of Courts, the possessors and owners of such vested rights shall be maintained and protected in the same." But this law gives no protection or rights to those who ignore State laws already provided for irrigation as early as 1854, nor can it extend over other than United States lands. Its provisions are all in subordination to the laws provided or the customs sanctioned by the State; and it is a

complete recognition of the right of the State to regulate by law, as to it may seem best, the use of water for any of the purposes named. It is legislative action, setting aside by the United States the "common law" principles governing the use of water.

California before it came into the Union as a State was not without law, as is well set forth by Brevet Brigadier-General B. Riley, Governor of California, in his proclamation of June 3, 1849, calling for a convention to form a Constitution of the State. He there says: "The laws of California, not inconsistent with the laws, Constitution, and treaties of the United States, are still in force and must continue in force till changed by competent authority." It then becomes important to ascertain what were the laws in California on the subject of irrigation when it came into the Union as a State, as well as the modifications which they have undergone since.

By the laws of Spain, "water, lands, and mines belonged to the King as part of his patrimony, and to the Prince belongs the right of distribution of water – that being his right, and reserved to him, it is a legitimate inference that no one can take public waters upon his private grounds for irrigation without royal permission, more particularly in what is peculiar to New Spain." And by the decree of October 15, 1754, all the necessary instructions respecting land and water were therein set forth. (See Hamilton's Mexican Law, page 111.) This work is well worth examining on the law of water rights, the rules governing its distribution for irrigation, and the mode of measuring the water. We there learn that "when the water supply is found insufficient to meet the requirements of those interested, resortment is had to distribution by turns, some using in the daytime and others by night, or in any other way which may be agreed upon. Because what belongs to the whole public should be so controlled that all may have a share in its distribution according to the canonical regulation."

The fundamental principle of the Spanish and Mexican law concerning the use of water is, that all running water having banks, or confined within banks, whether navigable or not, is the property of the Kings or the State, and must remain a reservation for the common use of all the people, except where he makes a special grant of the water as such.

The Spanish and Mexican laws say, on this subject, that a "servitude of water cannot be acquired by the fact of being a natural watercourse, nor by using it, although it may have been flowing on the lower part of the land for a thousand years; and for no other reason that from the inherent right of self-preservation and the natural course of things in respect to said water. No right thereto shall be attributed unless not only this law, but the highest will (that of the King) also concur therein." (Hamilton's Mexican Laws, page 115.) Where, then, do Mexican grantees find law giving them exclusive rights as riparian owners, and where can the foundation be laid for a claim by prescription as against the law and without the sanction of the King or State?

Now, leaving the Spanish and Mexican law, let us examine the water in question in a State and Territory, once Mexican but now American, as regulated by their Legislatures since they became a part of the United States, and it will be found that by legislative enactment the same principles which obtained under the former government have been perpetuated under ours, thus showing that the control of water for irrigation is not subject to the will or caprice of individuals, or that of the first appropriators thereby acquire a title to it in fee over others coming after them, whose need of it may be equally as great.

The General Laws of New Mexico, Act of July 20, 1851, say:

"Section 1. All the inhabitants of the Territory of New Mexico shall have the right to construct either private or common acequias (ditches), and to take the water for said acequias from wherever they can, with the distinct understanding to pay the owner through whose land said acequias have to pass, a just compensation taxed for the land used.

"Sec. 2. No inhabitant of said Territory shall have the right to construct any property to the impediment of the irrigation of lands or fields, such as mills, or any other property that may obstruct the course of the water, as the irrigation of the field should be preferable to all others." Section 9, Act of January 7, 1852: "All rivers and streams of waters in this Territory formerly known as public ditches (acequias) are hereby established and declared to be public ditches." By reading the general laws of New Mexico from pages 15 to 23 inclusive (all relating to irrigation and placed there as the first subject of legislation because of its importance), our legislators may learn some lessons beneficial to themselves and to the people of the State, if adopted in principle and practice.

Now let us turn to the general laws of Colorado and we will find as follows, on page 515, Chapter 45:

"Section 1. All persons who claim, own, or hold a possessory right of title to any land or parcel of land within the boundary of the State of Colorado, as defined in the Constitution of said State, where

those claims are on the bank, margin, or neighborhood of any stream of water, creek, or river, shall be entitled to the use of the water of said stream, creek, or river, for the purposes of irrigation and making said claims arable to the full extent of the soil for agricultural purposes.

"Sec. 2. When any person owning claims in such locality has not sufficient length of area exposed to said stream to obtain a sufficient fall of water to irrigate his land, or that his farm is too far removed from said stream, or that he has no water facilities on those lands, he shall be entitled to a right of way through the farms or tracts of land which lie between him and the stream, or the farms or tracts of land which lie above or below him on said stream, for the purposes hereinbefore stated.

"Sec. 4. In case the volume of water in said stream or river shall not be sufficient to supply the continual wants of the entire country through which it passes, then the County Judge of the county shall appoint three Commissioners, as hereinafter provided, whose duty it shall be to apportion, in a just and equitable proportion, a certain amount of said water upon certain or alternate weekly days to different localities, as they may, in their judgment, think best for the interest of all parties concerned, and with due regard to the legal rights of all."

Nothing could be more simple and comprehensive in its application to the wants of all the people, giving to each, wherever his land may be situated, a right to share in the use of water in common with his neighbor more favorably situated near the stream. "Mine and not thine" has no place in the laws of Colorado and New Mexico in giving exclusive right to the first appropriator of water. We trace their laws on the subject of irrigation to the same common origin as our own law of May 15, 1854, viz., to the laws of Spain and Mexico, and not through the "common law" of England; and none could know better the character of the country and the wants of the people in the southern part of our State than those who aided in passing the law of 1854, which is equally comprehensive in providing for the wants of the people for all coming time as the laws referred to.

By the term "riparian rights," as used in Colorado and New Mexico, and other countries of Mexican origin, they mean the common right of all the people living in the vicinity of the river to share equally in the use of the water, first for satisfying their natural wants, and after that for the artificial wants, such as irrigation and mill power. But no idea of exclusive control over or ownership in the waters as a superior right or title in fee can be found, except where the evidence is clear that a special grant of the water, as water, and not as an accident to the land, was obtained from the King or sovereign power; and this cannot be shown, I think, in connection with any of the Mexican grants in California, except to some of the pueblos.

The substitution of the authority of the United States of California in place of that of Mexico, undoubtedly introduced and made the "common law" paramount before the State was established and laws therefore were created; but by Articles 8 and 9 of the treaty of Guadalupe Hidalgo, property rights of every kind were to be inviolably respected, and therefore the change of governments neither enlarged nor diminished the rights of grant-holders to the use of water for irrigation. If, therefore, Mexican law did not give persons living on the banks of streams any superior or special privileges as riparian proprietors, different from what they in common enjoyed with others, neither did nor could they acquire any greater rights under the "common law" during the interim between the acquisition of the country and its erection into a State; for under that law, as already shown, no right to water for irrigation was ever granted or could attach. Therefore when we find the term "riparian rights" used in any of the laws modifying the law of 1854, which did not contain any such expression, we have no authority for attaching to it any greater import than it could or did have under the Mexican law or "common law," unless some special or different meaning has been given to it by statute, and none such is found in the Codes. Those who claim superior or exclusive rights because they are riparian proprietors, must either consider themselves fully sheltered behind the general ignorance which prevails as to the meaning of the words, or they must rely upon the inability of their neighbors to fully test the extent of their meaning.

My object in writing these articles has been to call attention to the necessity of providing some general law on the subject of irrigation, and to show that no vested rights have been acquired by individuals, by corporations, or by riparian proprietors, prohibiting the Legislature from enacting, as did the Legislatures of Colorado and New Mexico, a general practical law on the subject, suitable for the wants of the people in a growing State and for all time. I fully believe that whatever doubts existed as to the authority of the Legislature to enact laws on this subject, establishing a common standard for all, that the present Constitution has brushed away all such obstacles, as pointed out in my first article. This view is strengthened by the recent decision of the Supreme Court of this State in the case of the Spring Valley

Water Works vs. the board of Supervisors of San Francisco, wherein they define the power conferred by the present Constitution over the water question in all its phases.

I have not aimed at pointing out what the legislation on this subject should be, but merely to show that the Legislature has entire control over the subject, and that its importance demands the serious consideration of the Legislature at as early a day as possible. The particular character of the legislation required comes especially within the province of the State Engineer, Wm. Ham. Hall, and I would call particular attention to said officer's report of 1881 to the Legislature. He has therein elaborately treated the subject of irrigation, and pointed out what he considers necessary to be done as preliminary to final legislation. Whether or not his suggestions are the best that can be devised to meet the wants of the State and guard against class legislation is a debatable question, but he has furnished valuable information on the subject for the consideration of the Legislature and the public.

We agree as to what should be done were all obstacles removed, but we differ in this: He recognizes the existence of vested and exclusive rights to the use of water by prior appropriation, or that whatever the present claims may be they must first be ascertained and defined by a Board of Commissioners or the Court, then be recorded and made a servitude for the specified quantity of water so found for all time, before intelligent legislation can be had on the question; while I hold that the right to control the water question has always been a reserved power of the State, and that the use of water for irrigation is and never has in this State been more than a usufruct, a mere lease of the right to use, terminable at any time by the will of the people when expressed through legislative action. His proposed plan would merely require legislation to quiet title in the present claimants, virtually giving them control of the waters of the State; while my idea is, that legislation is required to bring all users to a common level without giving preference or rights to favored classes, but giving to each cultivator of the soil in proportion to the land he cultivates, when there is water enough for all; or, when there is scarcity, then the distribution as to quantity shall be proportionately diminished, but no one excluded.

The importance of this matter as a State question is second to no other, and there is as much necessity for its settlement now on broad and sound principles, looking to the future welfare of the State, as there is for a determination of the debris problem, or as there once was for the settlement of the question whether stock should be allowed to roam at the will of the owner regardless of the effect produced thereby on the small agriculturists.

JAMES W. SHANKLIN.

THE IRRIGATION QUESTION.

The Views of the State Engineer as Contrasted with those of the Surveyor-General.

EDS. RECORD-UNION: I have read with much interest the articles on irrigation and riparian rights from the pen of our honorable Surveyor-General, as recently published in your paper, for I realize the importance of bringing the subject before the public, and am pleased to see this thing being done by one so competent as Mr. Shanklin.

Having been charged with an official investigation of the subject, I am not free to speak unofficially, except in so far as I have already reported; but as Mr. Shanklin, in calling attention to that which I have written and submitted, has, unintentionally, no doubt, misstated my position on the question, I venture to make a correction.

Toward the end of his third paper, in your issue of July thirty-first, after referring to my report of 1881 in a very graceful manner, and after saying, "We agree as to what should be done were all obstacles removed, but we differ in this," namely, the removal or manner of removing obstacles, Mr. Shanklin concludes: "His (my) proposed plan would merely require legislation to quiet title in the present claimants (to water), virtually giving them control of the waters of the State; while my idea is that legislation is required to bring all users to a common level without giving preferred rights to favored classes, but giving to each cultivator of the soil in proportion to the land he cultivates, when there is water enough for all, or when there is scarcity, then the distribution as to quantity shall be proportionally diminished, but no one excluded."

I make no criticism upon Mr. Shanklin's proposition, but desire to state my own position, seeing that the above interpretation is erroneous.

Being instructed under the laws to make "an investigation of the problems of irrigation," and to "make such an examination as may appear to be necessary for the full and complete solution of these problems," I find amongst other things, in the irrigation counties, hundreds of claims to water existing without intelligible record of their extent, nature, or foundation. As Mr. Shanklin has explained, there have been a number of general, and local, or special laws on the subject of irrigation enacted in the State; and many decisions under these, the common law, and the United States statutes, affecting rights of claims which have been initiated under them or under the custom of appropriation, have been made by the Courts, until, as a result, there is a perfect hodge-podge of claims and counter-claims, active, sleeping, or perhaps dead, and no one can go into any irrigation county of the State and, from the records or the facts to be ascertained by inquiry, find out what *claims* exist, much less what *rights* have been established.

Hence, there is a never-ending appeal to the Courts by water claimants for settlement of their disputes, and a very great distrust abroad in the safety of irrigation enterprise, entertained by those who would settle in the country as farmers and fruit growers.

I look upon this condition of things as most unfortunate that could well obtain, and I honestly believe that it is doing more to retard the advancement of this State in acquiring a desirable population than any other one case now operating; for I have had many opportunities of judging of the disappointment on this score which has met men of small capital who have come here in search of homes and investment, and I know of the feelings with which they have gone away.

Thinking thus, I have strongly recommended, as a first move, that the Legislature take such steps as will establish, as soon as possible, the status of each of these water claims, and make it, so far as it is a good and valid claim, properly of record; and then require each claimant of water to keep his claim posted up to date in the Recorder's office by an annual sworn statement of the extent of his diversion and distribution for use. Going beyond this, I have suggested that the State take control of the distribution of the waters from the natural streams to the artificial canals, and thus see that the water is dealt out according to the recognized claims, as it is done in every other irrigation country, and thus stop this eternal squabbling in the Courts and warfare on the streams. And going still further, I have pointed out that the State should retain the power, under any circumstances, to insist upon an economical use of waters in irrigation, so that all the lands which it is possible to serve with the supply may be watered.

The legislation outlined in my report of 1881, as was specially stated therein, was offered as a suggestion, only to serve as a starting point for discussion.

I have not ventured to express an opinion as to whether there exist any valid exclusive claims or rights to water for irrigation or not, or what is the nature of the claims, if any well founded. But I have tried, without attacking any class of claims, to point out the absurd condition in which this irrigation interest now is; to show that it is simply a bird of one kind for the legal fraternity to pluck, and at the same time, an object of another kind to scare away would-be settlers in the country; that in reality water appropriators, riparian proprietors, and dry land owners, one and all, are suffering for the want of a defined and active policy on the part of the State in the matter of irrigation, and that it is the duty of the State to initiate such proceedings as will bring these troubles to a speedy termination.

Mr. Shanklin, unintentionally perhaps, has conveyed the idea that I could confirm existing water claims as a solution of the problem. This is not in accordance with what I have reported. But I do say now, that it were better to set up and recognize water monopolies by legislative action at once, and then regulate them by statute under the Constitution, than to let matters drift as they are drifting at present in this regard, for to this end will we come at last, and then the whole matter will be in a most unmanageable form, for many reasons which it would take too much space to present here.

I see in the not distant future an outcome wherein this subject will be so muddled by piecemeal treatment in the Courts, as point by point, in no consecutive order or broad scope, the questions at law are brought before them, that nothing but continued and everlasting litigation can be made of it. When other thousands upon thousands of dollars will have been expended in wrangling, and other millions will have been wasted in flimsy works in duplicate and without system, and when a desirable class of settlers will have been kept from our State, then will there be cause for outcry more widespread than any which now exists, and one which will come as near home as any cause well can come.

Now, I want to avoid this as a first step by State legislation, authorizing and directing some constituted authority to call upon all claimants of water to prove up their claims to the extent they have been made good, if at all, under the laws and Constitution, and make them of record according to some general standard of measurement as to amount. This is a preliminary stop only, and if, perchance, there are no valid water claims for irrigation existing in the State, as I understand Mr. Shanklin to maintain, then

the Courts will so find, no doubt, and the whole matter will be greatly simplified. Or if, perchance, the Legislature has complete control over all waters in the streams, and can regulate their disposition without regard to private claims, as Mr. Shanklin thinks it can, it (the Legislature) may find this out when it comes to consider the subject on a broad basis.

My aim has been to urge legislative consideration and action looking to State regulation of irrigation affairs, to the end that the water be caused to irrigate all the land it can be made to serve, and that a minimum of cost to the irrigators.

A settlement of water right quarrels, and a State supervision of works and diversions of water, is necessary to accomplish this end.

The difference between Mr. Shanklin and myself is, therefore, that I have not ventured an opinion on legal points, as to State authority, but press the State to exercise what authority she has, at once, to effect a solution; while Mr. Shanklin, being a lawyer, has written a very interesting opinion to the point that the State has complete control over the waters, and can do as she sees fit by legislative enactment in the premises.

Respectfully yours,

WILLIAM HAM. HALL.

REPORT OF SPANISH AND MEXICAN GRANTS IN CALIFORNIA,

Complete to November 15, 1882,

PREPARED BY

JAMES T. STRATTON,

Late United States Surveyor-General, now Deputy State Surveyor-General.

GRANTS OF LAND IN CALIFORNIA MADE BY SPANISH OR MEXICAN AUTHORITIES.

Condition of Title.	Patented May 18, 1858
Area.	3,328.95 1,864.23 2,12.25 1,864.23 591.87 13,311.01 4,421.52 26,761.40 2,219.26 3,322.56 4,432 2,971.26 6,685.91 8,659.69 17,705.38 4,418.10 17,705.38 4,418.10 17,705.38 13,316.00 4,424.11 13,316.00 4,437.29 13,316.00
Confirmee.	Elam Brown. C. P. Stone. M. G. Vallejo. T. M. Leavenworth. Joseph Hooker. F. Higuera. J. M. Marron. Rodriguez & Alviso. S. Todd. B. Abila. G. Tapia. M. Villagrana. A. Stearns. J. A. de la Guerra. A. Olivera et al. B. Bernal. M. T. de la G. Hartnell. B. Bernal. M. T. de la G. Hartnell. B. Bernal. J. A. de la G. Hartnell. B. Bernal. J. A. McDougall et al. Heirs of J. M. Sanchez. J. de J. Vallejo. J. & S. Williams. Hames & Daubenbass. John Bidwell. T. B. Valentine. F. Branch. J. de la Torre.
NAME OF GRANT.	Acalanes. Agua Caliente, part of. Agua Caliente. Alamos, Los. Alamos, Los. Alamos, Los. Alamos (Los) y Agua Caliente. Alisal, El. Aptos. Arroyo de la Alameda. Arroyo de la Alameda. Arroyo de la Nueces y Bolbones. Arroyo de las Nueces y Bolbones. Arroyo de las Nueces y Bolbones. Arroyo de las Nueces y Bolbones. Arroyo de San Antonio. Arroyo Grande. Arroyo Grande.
No. on Gen'l L. O. Map.	124 67 67 67 67 67 67 67 67 136 738 282 282 282 282 282 282 282 282 282 2

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San Benito and Santa Clara. Los Angeles. Los Angeles. Los Angeles. Tehama. Marin. Marin. Marin and Sonoma. Los Angeles. Contra Costa. Los Angeles. Sonoma. Butte and Sutter. Los Angeles. Sonoma. Monterey. San Luis Obispo. Monterey. San Benito. Santa Cruz. Monterey. San Benito. Santa Cruz. Monterey. San Mateo. San Mateo. Los Angeles. San Mateo. San Mateo. Los Angeles. Sonoma. Sonoma. Sonoma.	Los Angeles. San Diego. Ventura. San Francisco. San Joaquin. Los Angeles. Yolo.
Patented April 19, 1859. Patented June 6, 1878. Patented June 6, 1878. Patented Juny 29, 1876. Patented July 3, 1860. Patented July 3, 1860. Patented July 21, 1882. Patented July 21, 1882. Patented March 1, 1879. Patented April 18, 1859. Patented August 27, 1867. Patented August 27, 1867. Patented September 20, 1873. Patented January 14, 1865. Patented January 4, 1860. Patented January 4, 1860. Patented January 10, 1862. Patented January 10, 1862. Patented January 10, 1862. Patented June 19, 1874. Patented August 27, 1877. Patented June 19, 1874. Patented August 27, 1877. Patented August 27, 1877. Patented August 27, 1873. Patented April 15, 1869. Patented August 25, 1881. Patented August 25, 1881. Patented August 25, 1881. Patented December 11, 1879. Patented December 11, 1879. Patented December 11, 1879. Patented December 11, 1879.	Patented August 2, 1872 Patented August 2, 1876 Patented March 22, 1866 Sent up for patent Oct. 20, '82 Patented March 18, 1861 Patented August 1, 1866 Patented February 16, 1865
35,504.34 6,595.62 4,431.47 13,919.90 17,707.49 8,911.34 26,759.42 6,656.93 13,316.26 6,607.37 35,487.53 22,184.66 8,107.46 30,901.34 14,335.22 6,794.76 5,496.50 6,915.77 33,460.04 4,438.67 4,438.67 4,500.42 1,667.68 640.14 6,01.44 256.16	48,799.85 9,998.29 18.57 48,747.03 5,832.10 40,078.58
F. P. Pacheco. A. Duarte. Henry Dalton. A. Machado et al. W. B. Ide. G. Briones. Heirs of S. Smith. Ysidro Reyes et al. M. M. Valencia. E. Vejar. M. T. Curtis et al. T. O. Larkin. J. Ruiz. M. A. P. de Castro et al. L. T. Burton. S. Espinosa. J. de J. Vallejo. F. P. Pacheco. S. Rodriguez. J. B. R. Cooper. S. Rodriguez. J. B. R. Cooper. B. Wachado. J. Machado. J. de la Sanchez et al. M. Rodriguez. J. J. B. R. Corillo. P. Lassen. J. J. B. R. Cooper. A. J. Rocha et al. M. Rodriguez. A. J. Rocha et al. Julo Carillo. F. Carrillo de Castro. Jas. Eldridge. John Hendley. J. de J. Mallagh. J. de J. Mallagh. J. de J. Mallagh.	D. W. Alexander et al Thos. W. Sutherland, guardian, etc. Gabriel Ruiz Ferdinand Vassault. C. M. Weber. J. R. Scott et al. Jasper O'Farrell et al. Guadalupe Mining Comp'y.
Ausaymas y San Felipe. Azusa. Azusa. Azusa. Ballona, La. Baulinas, Las. Blucher. Boca de la Cañada del Pinole. Boca de la Playa. Bodega. Bodega. Bosa Chica, La. Bolsa del Chamisal. Bolsa del Chamisal. Bolsa del Chamisal. Bolsa del Pajaro. Bolsa del San Felipe. Bolsa del Pajaro. Bolsa del San Felipe. Bolsa del Pajaro. Bolsa del Santa Rosa, part of Cabeza de	Cahuenga. Cajon, El. Calleguas. Camaritas, Las. Campo de los Franceses. Cañada, La. Cañada de Capay. Cañada de los Capitancillos.
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Cañada de Guadalupe la Visitacion y Rodeo Viejo	λ i	H. R. Payson	5,473.47	Patented December 15, 1865	San Francisco and San Mateo. San Francisco and San
	Wm. F Heirs	Wm. Pierce Heirs of D. Sais	942.93 6,658.45	Patented September 22, 1865	Mateo. Marin.
Cañada de Jonive		J. O Farrell	10,786.51 15,714.10 8 780 81	Patented February 18, 1858 Patented March 9, 1863	Sonoma. Santa Clara.
	Greer &	Greer & Coppinger	12,545.10	Patented July 19, 1859	San Mateo.
:	John Ke	Sys	6,656.21	Patented February 18, 1874	Santa Barbara.
Cañada de San Felipe y Las Animas C. M. W Cañada de San Miguelito	N N N	C. M. Weber	8,787.80	Patented August 9, 1866	Santa Clara. Ventura
Fadre Barrona		Y orda	13,316.13	Patented November 17, 1873	San Diego.
A.L	J. A. Alvis	Alviso	8,905.58	Patented December 15, 1865	San Mateo.
<u> </u>	J. D. Orteg	. Ortega	8,875.76	Patented May 30, 1866	Santa Barbara.
	Thurn & C	Thurn & Carpenter	3,565.91	Patented June 13, 1882	San Mateo.
Canada del Hambre y las Bolsas Theodora 3	I heodora	I heodora Soto	13,353.95	Patented December 31, 1866	Contra Costa.
2	Dodro Con	ric co	20 20 2	Dotontod Line A 1050	1::0
: 	Heire of J	Fedio Salisevalii	2,020.00	Patented June 4, 1000	Santa Cruz. Monterey
	F. M. Haid	ht	4.366.80	Patented February 4, 1859	Monterey.
:	J. Serano.	J. Serano	10,668.81	Patented June 27, 1871	Los Angeles.
	Livermore	Livermore & Noriega	17,760.00	Before Surveyor-General	Alameda and Contra Costa
:	A. Lestrad	A. Lestrada	28.39	Patented April 2, 1873	San Diego.
Canada de los Nogales J. M. Agull	J. M. Aguil	J. M. Aguilar	1,199.56	Patented May 4, 1882	Los Angeles.
			04,450.70	ratelited September 23, 1909	Sall Luis Obispo.
	Bishop J.	Bishop J. S. Alemany	35,499.37	Patented February 28, 1861	Santa Barbara.
Caliada Laiga 0 verde	J. Alvarado		6,659.04	Fatented March Zo, 1873	Ventura. Los Angeles and San
de Santa Ana	B. Yorba	B. Yorba	13,328.53	Patented July 21, 1866	Bernardino.
:	J. Soto		44,388.17	Patented August 18, 1859	Colusa and Tehama.
	Chas. Fos	Chas. Fossatt	3,360.48	Patented February 3, 1865	Santa Clara.
:	William Bo	ocle	2,224.79	Patented July 7, 1873	Santa Cruz.
	Heirs of EC	Heirs of Edward A. Bale	17,962.22	Patented September 4, 1879	Napa.
	Daniel Little	Daniel Littlejonn	4,482.38	Patented August 9, 1866	Monterey.
T. S	F. A. MCD	F. A. McDougal et al	1,628.70	Patented March 17, 1862	Monterey and San Benito.
= C	VIII. FOID	Forbes	20,788.30	Patented December 18, 18/4	Sonoma.
:	2 C S	A. Oliveranione	0,041.21	Patented July 30, 1863	Santa Barbara.
Catacula		J. B. Chiles	8 545 72	Patented April 22 1865	Nen. Napa
	George C	George C. Yount.	886.63	Patented April 3, 1863	Napa.
_	Juan Ter	Juan Temple	27,054.36	Patented December 7, 1867	Los Angeles.

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Monterey. Napa	Monterey and San Luis Obispo.	San Luis Obispo.	San Benito and Monterey.	San Benito. Los Angeles	Los Angeles.	Santa Barbara. Monterey.	Santa Clara.	Colusa	Los Angeles and Ventura.	San Luis Obispo.	Santa Barbara. Monterev	San Mateo.	San Mateo.	Santa Cruz. San Mateo and Santa	Clara.	Marin.	Marin. Sacramento.	Sonoma.	Los Angeles. Santa Barbara	San Diego.	San Bernardino.	San Luis Obispo. San Luis Obispo.	San Diego.	Santa Barbara. Los Andeles	Los Angeles.	Santa Clara. San Diego	Monterey.	Napa. Napa	Napa. Napa.
Patented March 20, 1877 Patented December 19, 1860	Patented April 1, 1865	Patented March 29, 1861	Patented October 15, 1867	Patented September 23, 1869 Patented Mav 22, 1873.	Patented June 15, 1871	In Court on titleBefore Surveyor-General	Patented December 31, 1857	Patented January 5, 1863 Patented July 23, 1869	Patented January 8, 1873	Patented October 29, 1867	Patented August /, 1876	Patented April 7, 1866.	Patented January 6, 1873	Patented February 28, 1861	Patented June 19, 1858	Patented May 23, 1863	Patented April 29, 1869	Patented February 18, 1858	Patented March 9, 1875 Before Com Gen'l I and Office	Patented July 22, 1878	Patented December 9, 1872	Patented July 20, 107 /	Patented December 19, 1874	Patented February 23, 1877	Patented December 11, 1876	Final decree not entered	Patented May 23, 1862	Before Surveyor-General	Patented April 1, 1881. Patented November 4, 1879.
2,737.44 17,762.44	26,621.82	3,166.99	48,780.72	8,917.52	4,439.05	28.15	2,219.34	8,241.74	48,571.56	30,911.20	13,322.29	7,766.35	4,436.18	15,440.02	13,316.05	8,878.82	4,400.24	17,238.60	48,806.17 8,888.00	2,174.25	13,045.20	48,827.50	35,501.32	15,534.76 4.460.73	1,109.65	179.60	13,391.64	400.57	2,051.04
Heirs of Felipe Vasquez Gordon & Combs	E. E. White	Juan Wilson	J. D. Carr.					Kitchie & Forbes		J. M. Villavicencio	M. A. de la G. y Latalilade H. D. McCobb		Tiburcio Vasquez					•	Andres Pico et al			Heirs of C. Lataillade		N. A. DenV. de la Osa et al	Urbano et al	B. Bernal	D. Spence	P. D. Bailey	J. Green. M. F. de Higuara
Chamisal, El.	Cholame	Chorro, El.	Cienega de Gabilan	Cienega de los Palcines	Cienegas, Las	Coches, Los	Coches, Los	Collayomi	Conejo, El	Corral de Piedra	Corral de Quati	Corral de Tierra	Corral de Tierra	Corralitos Rancho de los	Corte de Madera	Corte Madera de Novato	Cosumnes	Cotate	Coyotes, LosCruces. Las	Cuca, or El Potrero	Cucamonga	Cuyama	Cuyamaca	Dos Pueblos, LosEncino. El	Escorpion, El.	Embarcadero de Santa Clara	Encinal y Buena Esperanza	Entre Napa, part of	Entre Napa, part of
536	314	328	250	436	428	296 296	86.5	2 2 2 2	408	337	1902	165	166		173					538			512		409	142	269	74	4 4

Napa. Napa. Napa. Napa. Napa. Napa.	Napa. Butte. Sonoma. Butte. Los Angeles. San Mateo. Butte.	Monterey. Sonoma. Santa Barbara.	Santa Barbara and San Luis Obispo. Monterey. San Diego. Lake. Yolo. Sonoma. San Diego. Los Angeles. Yuba. San Luis Obispo. Santa Clara. San Luis Obispo. Los Angeles. San Luis Obispo. Los Angeles. Santa Barbara. Santa Barbara. Santa Barbara. Santa Barbara. Santa Barbara. Santa Barbara. San Diego.
Before Surveyor-General No decree filed	Patented April 8, 1858	Patented September 19, 1039 Patented April 4, 1870 Patented July 30, 1872 Patented March 10, 1865	Patented June 30, 1866 Patented June 29, 1865 Patented May 24, 1866 Patented May 22, 1865 Patented May 22, 1865 Patented June 16, 1886 Patented June 16, 1886 Patented December 4, 1872 Patented March 9, 1863 Patented March 9, 1869 Patented August 9, 1866 Patented August 9, 1866 Patented August 3, 1879 Patented August 3, 1859 Patented August 3, 1859 Patented August 3, 1867 Patented August 3, 1867 Patented April 10, 1867 Patented April 11, 1867 Patented April 11, 1867 Patented October 3, 1871 Patented April 11, 1871 Patented April 11, 1871 Patented April 11, 1871 Patented September 19, 1876
403.96 40.00 1,103.68 69.88 307.05 62.07 335.28 360.00	2,557.68 22,193.78 8,849.13 22,193.93 6,647.46 4,448.27 17,805.84	4,424.46 17,580.01 4,426.10 30,593.85	43,681.85 8,858.44 13,298.59 21,220.03 8,894.49 18,833.86 2,219.41 6,698.57 31,079.96 22,152.99 39,950.92 15,684.95 17.13 18,704.04 52,760.33 4,185.46 45,820.43 62,696.49 35,487.52 8,881.16 8,926.22
Ralph L. Kilburn. Jos. Mount et al. Mount & Cotrell. John Patchett. J. P. Walker. Edward Wilson. Charles E. Hart.	Samuel Neal	Vinc. 3. Criada. D. Perez et al. Chas. Meyer et al. Daniel Hill. Ysabel Yorba.	D. Olivera et al. Malarin, executor, etc. G. W. Hamley. Ritchie & Forbes. Wm. Gordon. Juan Wilson. A. Solma et al. Andres Pico et al. Chas. Covilland et al. I. J. Sparks. Roland & Hornsby. F. Branch. V. Reid. Juan Wilson. J. P. Leese. Andres Castillero. Peachy & Aspinwall. J. M. Covarrubias. M. C. de Jones et al. Wm. M. McKee. Wm. M. McKee. A. Lorenzana. Heirs of H. S. Burton.
Entre Napa, part of	Entre Napa, part of, or Rincon de los Carneros. Esquon. Estero Americano. Farwell Rancho. Feliz, Los. Feliz, Los.	Gatos, Los, or Santa Rita	Guadalupe Guadalupe Guadalupe y Llanitos de los Carneros. Guejito Guenoc. Guesisosi Guillicos, Los Guillicos, Los Habra, La Huasna Huecos, Los Huer de Cuati Huerte de Romualdo or El Chorro Huichica Island of Santa Cruz Island of Santa Cruz Island of Santa Rosa Island of Santa Rosa Island of Santa Rosa Island of Santa Rosa Jacinto Jamacho Jamacho Jamacho
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	Monterey. 82 San Francisco.		-	San Francisco							Venura.						Los Angeles.		:	Los Angeles.	I os Angeles				Monterey.								Sonoma.				_
Patented February 18, 1875	Patelited October 19, 1005 Sent up for Patent Aug. 26, '	Sent up for Patent Aug. 26, '82	Patented March 3, 1858	Before Surveyor-General	Rejected	Patented April 1, 1870.	Patented June 13, 1882	Patented October 12, 1882	Patented January 24, 1874	Patented May 31, 1862	Patented May 23, 1002	Patented Julie 3, 1808		Patented September 1, 1876	Patented May 31, 1864	Patented January 8, 18/3	Patented Novelliber 19, 1859		Patented November 19, 1859	Patented March 18, 1865	Patented March 1, 1879	Patented September 2, 1859	In Court on title	Patented March 18, 1865	Patented September 2, 1859	Patented October 19, 1939	Patented March 3, 1865	No decree on file	Patented September 2, 1859	Patented May 23, 1862	Patented November 19, 1859	Patented May 18, 18/4	Patented May 31, 1862	Patented Novelliber 7, 107 3	Patented August 0, 1900	Patented July 17, 1872	Patented March 19, 1859
43,280.90	1.78	.45	8.54	2.04 44	50	28.41	5.86	14,735.76	14.04	33.19	30.27 08 90	48.822.91	22.21	58,875.38	76.94	116,858.46	23.63	28.33	55.23	44.40	7.09	52.72	1.00	53.39	33.97	0.40 283 13	19.95	10.00	16.94	17.35	34.47	8,899.82	14.20	4,413.00 46,432.65	17,892,42	13,322.90	17,921.54
Ygnacio Pastor	Candelaria Valencia	Elizabeth de Zaldo	Bishop J. S. Alemany	r. Denaro	E. & J. R. Valencia	Heirs of F. G. Palomares	C. S. de Bernal et al	J. R. Malo	Bishop J. S. Alemany	Bishop J. S. Alemany	Fernando Tico	M. A. R. de Poli	Bishop J. S. Alemany	S. Arguello	Bishop J. S. Alemany	E. de Cells	R. Valenzuela et al.	Bishop J. S. Alemany	Bishop J. S. Alemany	Bishop J. S. Alemany	S Rios	Bishop J. S. Alemany.	Juan Wilson	တ် (Bishop J. S. Alemany	Bishop J. S. Alemany	Bishop J. S. Alemany	F. Arce	Bishop J. S. Alemany	Bishop J. S. Alemany	Bishop J. S. Alemany	F. Soberanes	Bisnop J. S. Alemany	Luan Forster	J. B. R. Cooper	Y. M. Alvarado.	S. Pacheco
	Mission Dolores, lot in	Mission Dolores, lot in	Dolores, two tracts at	Mission Dolores, lot in	Mission Dolores, lot in.	Mission Dolores, suerte in	Mission Dolores, suerte in	Mission la Purisima	Mission Purisima de la	Mission San Antonio	Mission San Buenaventura lot in	Mission (Ex) San Buenaventura	Mission San Diego	(Ex) San Diego	Vission San Fernando	(EX) San remando	Mission San Gabriel. lot near	San José	San Juan Bautista	Mission San Juan Capistrano		Mission San Luis Obispo	Mission San Luis Obispo, lot in	Mission (Ex) San Luis Rey	Mission San Miguel	Mission Santa Barbara	ıta Clara	Santa Clara, lot near	Mission Santa Cruz	Santa Ynez	Mission Soledad	Mission (Ex) Soledad	Mission Viets de la Durisima	Mission Viela or La Paz	Mission Vieja, or Earl az	Monserate	Monte del Diablo

Monterey. Monterey County. Monterey County.	Monterey County.	Monterey County.	San Luis Objeno	Sonoma	San Bernardino.	San Diego.	Monterey.	Napa.	Napa.	Napa.	Napa.	Napa.	Napa.	Napa.	Napa.	Napa.	Napa.	Napa.	Napa.	Napa.	Napa.	Napa.	Napa.	Napa.	Napa.	Napa.	Napa.	Napa.	Napa.	Napa.	None.	Napa.	Naca Saca Saca	Napa.	Napa.	Monterey.	Yuba, Sutter, and	Marin	Marin.	
Patented November 23, 1881 Sent up August 26, 1882	Patented July 30, 1867	Patented August 9, 1866	Patented January 19 1878	Patented February 4, 1860	Patented June 22, 1872.	Patented February 27, 1866	Patented April 7, 1866	Patented June 9, 1866	Patented June 9, 1866	Patented May 11, 1877	Sent up December 7, 1880	Before Com. Gen'l Land Office	No decree filed	Patented March 25, 1873	No decree filed	Before Surveyor-General	No decree filed	Before Surveyor-General	Defore Surveyor-General	Before Surveyor-General	No degree filed	Dotostod Lino 0 1066	Roford Surveyor Congret	Patented June 9 1866	Patented June 3 1880	Before Surveyor-General	Before Surveyor-General	Patented October 1, 1874	000 V OC 4 mill Laboration	Patented Julie 20, 1000	Patented November 1, 1861									
44.99 33.47 1,106.03	112.83	4,591.71 30 865 55	8,000,00	17,760.75	30,144.88	26,631.94	6,633.29	3,178.93	679.52	320.55	99.629	647.47	640.00	325.42	00.009	89.42	8,365.37	664.88	470.14	459.99	74.00	45.84	160.00	680.10	100.80	140.37	100.79	283.40	450.00	250.00	150.35	594.83	604 68	769.58	637.11	8,642.21	10 000 00	9.478.82	8,695.27	
Heirs of T. BlancoRufina CastroHenry Cocks	Simeon Castro	James Meadows	I McKinley	M. Torres.	M. White	Juan Forster	Vicente Cantua	S. Vallejo	Lyman Bartlett	A. L. Boggs	L. W. Boggs	J. E. Brown	L. D. Brown	Nathan Coombs	G. N. Cornwall	A. Farley	O. H. Frank	J. M. Harbin	Hart & McGarry	Johnson Horrell	H. Ingraham	Wm. Keely.	Eben Knignt	H. G. Langley	John Love	B. McCoombs	Talilial McCoollibs	Ann McDonald of al	las McNail	W H Osborno	A Dischio	J K Rose	J. P. Thompson	John Truebody	Ogden & Wyse	Ramona Burton et al	**************************************	James Black.	B. R. Buckelew.	
Monterey County, tract in	Monterey County, tract in	Monterey County, tract in	Moro v Cavicos	Muniz	Mascupiabe.	Nacion, La	Nacional	Napa, part of	Napa, part of	Napa, part of	Napa, part of	Napa, part of	Napa, part of	Napa, part of	Napa, part of	Napa, part of	Napa, part of	Napa, part of	Napa, part of	Napa, part of	Napa, part of	Napa, part of	Napa, part or	Napa, part of	Napa, part of	Napa, pari or	Napa, part of	Napa part of	Nana part of	Napa, part of	Nana part of	Napa, part of	Napa, part of	Napa, part of	Napa, part of	Natividad, La		Nicasio. part of.	Nicasio, part of	
262	258	284	325	78	480	528	263	9/	9/	9/	9/	92	9/	9/	9/	9/	9/	92	9/	9 6	9 9	9 9	9 9	9 7	9 9	9/	2 4 2	2 2	2 2	2 9	7 2	92	92	9/	9/	251	ç	32	32	

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Marin. Marin. Los Angeles. San Luis Obispo. Monterey. Los Angeles. Santa Barbara.	Santa Barbara Ventura. Monterey. Santa Clara. San Francisco.	Marin. Sacramento. Stanislaus and Merced. San Diego. Santa Clara. Los Angeles.	Merced. Monterey. Sacramento. Los Angeles. Los Angeles. Los Angeles. San Luis Obispo. Santa Clara. San Diego.	San Diego. Stan Diego. Stanislaus and San Joaquin. Monterey. San Joaquin and Alameda. Sonoma. San Luis Obispo. Contra Costa. Monterey. San Luis Obispo. Monterey. Santa Clara.
Patented November 1, 1861	Patented July 28, 1866	Patented December 18, 1862 Patented July 1, 1870 Patented July 30, 1863 Patented January 20, 1872 Patented June 13, 1872 Patented October 8, 1866 Patented June 30, 1880	Patented July 30, 1867	Patented April 13, 1876. Patented April 13, 1876. Patented January 18, 1858. Patented March 10, 1865. Patented October 9, 1876. Patented August 22, 1868. Patented April 30, 1866. Patented March 7, 1872. Patented March 7, 1872. Patented January 18, 1881.
7,598.10 30,848.35 13,316.01 37,887.91 4,411.56 1,003.67 13,284.50 8,870.62	26,529.30 17,716.83 8,900.17 8,927.10	8,877.48 18,661.86 26,668.39 6,657.98 4,437.16 4,454.08 31,629.43	22,175.34 6,584.32 44,371.42 875.99 207.79 8,991.22 25,993.18 4,172.13 26,597.96	8,486.01 35,446.06 4,426.46 35,546.39 66,622.17 48,805.59 17,760.64 13,329.28 8,838.89 13,299.27 4,166.78
Frink & Reynolds. H. W. Halleck Juan Abila et al. Wm. G. Dana. J. & J. de Monomany. Maria de J. Garcia et al. Raymundo Carillo	-			F. M. Ruiz. Hiram Grimes et al. D. Jacks. Pico & Nagle. J. J. Pico. M. A. M. de Richardson. Heirs of Joaquin Soto. I. J. Sparks. W. S. Johnson et al. M. J. C. Murphy. J. de la G. y Noriega.
Nicasio, part of. Nicasio, part of. Nicasio, part of. Niguel, El. Niguel, El. Noche Buena. Nogales, Los. Nojoqui.	Nuestra Señora del Refugio	Olompali	Panoche de San Juan y Los Carrisalitos Paraje de Sanchez Paso, Rancho del Paso de Bartolo, part of Paso de Bartolo, part of Paso de Bartolo Paso de Robles Pastoria de las Borregas Pastoria de las Borregas Pauma	Penasquitos, Los Pescadero, El Pescadero, El Petaluma Piedra Blanca Pinole, El Piojo, El Pismo Pleyto Polka, La
32 32 501 351 278 459 367 46				

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Alameda. Santa Barbara. Santa Clara. Monterey.	Los Angeles. Alameda.	Los Angeles.	Monterey. San Luis Obispo.	Santa Clara. Los Angeles		Santa Cruz. Los Angeles	Santa Barbara.	Tehama.	Los Angeles.	Los Angeles. Santa Clara	Los Angeles	Stanislaus.		San Mateo.	Monterey.	Marin. Souto Borbono	Santa Barbara and San	Luis Obispo.	Marin.	Marin.	San Mateo.	santa Ciara.	Solano.	Solano.	Santa Clara.	Stanislaus and Calaveras.	San Benito.	Santa Cruz.	San Bernardino.	Santa Barbara.	Sonto Clara	Monterey.
Patented May 25, 1872	Before Surveyor-General	Patented June 15, 1871	Patented Julie 9, 1902 Patented July 1, 1870	Patented December 30, 1861		before Surveyor-General	Patented February 19, 1875	Patented February 28, 1871	Patented December 4, 1875	Patented August 6, 1872	Patented April 19, 1867.	Patented August 15, 1864.		Patented October 2, 1857	Patented November 19, 1880	Patented April 10, 1866	rateilled Julie 10, 1000	Patented October 2, 1873	Patented June 4, 1860	Patented June 4, 1860	Patented December 3, 1857	Patented August 15, 1871	Patented January 5, 1863	Patented June 4, 1858	Patented May 14, 1866	Patented January 31, 1863	Patented September 23, 1869	Patented February 4, 1860	Patented November 14, 1879	Patented November 22, 1872	Patented Julie 9, 1000	Patented July 13, 1860
8,880.00 3,281.70 1,695.90 16,938.98	90.00	2,042.81	3,506.33	1,939.03	2	91.53	48,728.67	26,637.11	23.63	4,064.33	48.790.55	13,340.39		35,240.47	2,666.51	0,077.44	44,992.04	26,648.42	48,189.34	8,877.68	17,753.15	4,450.94	35,515.82	44,383.78	13,309.85	48,886.64	31,052.18	12,147.12	4,431.47	4,459.63	8 418 21	2,229.70
Livermore & Noriega	Valenzuela et alPacheco & Alviso	Morillo & Romero	M. C. Beronda	R. F. Stockton	100000 W. H	J. W. Kussell J. M. Sanchez	José Dominguez	J. F. Dye	R. Valenzuela et al	D. W. Alexander et al	Workman & Roland	Reed & Wade	M. de la S. O. de Arguello	et al	H. De Graw et al	A Carillo	٠٠. ره ١١٥٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠	L. Arellanes et al	Andrew Randall	Andrew Randall	Heirs of Simeon Castro	M. A. Higuera de Berrevessa	et al.	J. M. Vaca & J. F. Peña	M. Alvisu et al	Rico & Gastro	F. A. McDougal et al	F. & J. Bolcoff	Bernardo Yorba	leodoro Arelianes	TERSON BONDES	J. E. Beronda
Positas, Las. Positas (Las) y La Calera. Posolmi. Poso Gositos. Porteno de la Mission Viela de San	Gabriel Carritos Potrero de los Cerritos	Potrero de Felipe Lugo	Potrero de San Luis Obispo	Potrero de Santa Clara	Potrero y Rincon de San Pedro de	RegladoPotrero Grande	Prietos (Los) y Najalayegua	Primer Cañon ó Rio de los Berrendos	Prospero Tract	Providencia	Puente, La	Puerto, Rancho del		Pulgas, Las	Punta de Pinos	Punta de la Concepcion	direa de la Colloapololi	Punta de la Laguna	Punta de Los Reyes (Sobrante)	Punta de Los Reyes	Punta de Ano Nuevo	ruisiiia (ra) concepcion	Putas, Las	Putos, Los	Quito	Rancheria del Rio Estanislao	Real de los Aguilas	Refugio	Rincon, El	Kincon, El.	Rincon de San Franciscuito	Rincon de Sanjon
120 385 145 298	134	446 286	329	178 494	040	445	537	7	419	424 542	460	106		148	279	375	5	354	34		202	2	83	88	187	102	236	207	476	387	146	261

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516	i	Heirs of Juan B. Alvarado	_	Patented May 3, 1872	San Diego.
461	Kincon de la Brea	G. Ybarra		Patented November 14, 1864	Los Angeles.
7/7	i	Teodocio Gonzales	_	Patented November 28, 1866	Monterey.
255	Rincon de las Salinas	Rafael Estrada	2,220.02	Patented March 1, 1881	Monterey.
					San Francisco and San
153	Potrero Viejo	Heirs of J. C. Bernal	4,446.40	Patented December 31, 1857	Mateo.
435		F. Higuera et al	3.127.89	Patented August 27, 1872.	Los Angeles.
241		Rafael Alviso et al		Patented July 29 1872	Santa Clara
140		E Berreyees et al		Detented link 28 1872	Souto Clara
2 6		T. Delleyesa et al		Determined July 20, 107 July 20	Salita Ciala.
80		E. E. Wonlie		Fatented May 23, 1862	Santa Clara.
192		Hernandez & Peralta	6,631.44	Patented March 19, 1860	Santa Clara.
	Arroyo de San		,		
147	Francisquito	Heirs of M. A. Mesa	2,229.84	Patented July 26, 1872	Santa Clara.
86	Rio Jesus Maria	5	26 637 42	Patented July 3, 1858	Yolo
703	Pio de Canta Clara		14 992 20	Detected Contember 5 1070	
2 6	Die de Calità Ciala		44,003.30	ratemen September 3, 1072	venura.
S '	Klo de los Americanos		35,521.36	Patented November 4, 1864	Sacramento.
	Rio de los Molinos	A. G. Toomes	22,172.46	Patented December 3, 1858	Tehama.
87	Rio de los Putos		17,754.73	Patented December 18, 1858	Yolo and Solano.
20	Roblar de la Miseria		16,887.45	Patented January 18, 1858	Sonoma.
1	Russell Tract		145 89	Before Surveyor-General	Santa Cruz
	Colingo I oo		442.04	Defended Memb 26 4067	Marita Olaz.
	Odillida, Las		4,415.01	ratelited March 20, 1007	Monterey.
					Santa Cruz and Santa
	Salsipuedes		31,201.37	Patented March 2, 1861	Clara.
	San Andres		8,911.53	Patented January 31, 1876	Santa Cruz.
	San Antonio, part of		9,416.66	Patented February 3, 1858.	Alameda
	San Antonio, part of	A M Peralta	15,206.59	Patented June 25, 1874	Alameda
128	San Antonio part of	V & D Deralta	18 848 08	Datastad Eshripay 10, 1877	Alamoda.
	Call Autorilly, pair of	V. & U. I dialita	00,040,00	ratelited replically 10, 1017	Alailleua.
	San Antonio	A. M. Lugo	29,513.35	Patented July 20, 1866	Los Angeles.
	San Antonio	E. Mesa et al	4,440.31	Patented August 6, 1866	Santa Clara.
	San Antonio, part of		3,541.80	Patented December 18, 1857	Santa Clara.
190	San Antonio or Pescadero	<u>۔</u>	3,282.32	Patented June 7, 1866	San Mateo.
413	San Antonio, or Rodeo de Las Aguas		4,449.31	Patented June 27, 1871.	Los Angeles.
	San Augustin		4,436.78	Patented July 25, 1866.	Santa Cruz.
304	San Benito		6,671.08	Patented September 6, 1869	Monterey
303	San Bernabe		13 296 98	Patented March 27 1873	Monterey
326	San Bernardo		4 379 42	Patented April 1 1865	San Luis Ohisno
524	San Bernardo	M A Spook	17 763 07	Detented November 17 1874	San Diogo
1 0		IVI. 7. GILDON	70.507,71	ratelited Novelliber 17, 10/4	Sali Diego.
900	San Bernardo		13,345.65	Patented March 9, 18/4	Monterey.
481	San Bernardino		35,509.41	Patented November 24, 1865	San Bernardino.
	San Buenaventura		26,632.09	Patented January 17, 1857	Shasta.
369	San Carols de Jonata		26,634.31	Patented December 2, 1872	Santa Barbara.
526	San Diego, pueblo land		47,323.08	Patented April 10, 1874	San Diego.
	San Diegito		8,824.71	Patented April 18, 1871	San Diego.
343	San Emidio		17,709.79	Patented April 10, 1866	Kern.
399	San Francisco	Jacoba Feliz et al	48,611.88	Patented February 12, 1875.	Ventura and Los Angeles.
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San Lorenzo. San Lorenzo. San Lorenzo. San Lorenzo. San Lorenzo. San Lucas. San Luis Gonzaga. San Luis Obispo. San Luisito. San Marcos.	Rafael Sanchez F. Soberanez Heirs of A. Randall Barbara Sota et al. Guillermo Castro. James McKinley J. P. Pacheco. J. M. Bonilla. Guadalupe Cantua. N. A. Den et al. Ex'rs of W. D. M. Howard	48,285.95 21,884.38 22,264.47 6,685.85 26,722.52 8,874.72 48,821.43 3.85 4,389.56 35,573.10 6,438.80	Patented December 22, 1870. Patented July 28, 1866. Patented June 4, 1870. Patented April 14, 1877. Patented February 14, 1865. Patented May 16, 1871. Sent up for patent Aug. 26, '82. Patented May 18, 1860. Patented September 6, 1869. Patented November 18, 1857.	Monterey and San Benito. Monterey. Monterey. Alameda. Alameda. Monterey. Santa Clara and Merced. San Luis Obispo. Santa Barbara. San Mateo.
	J. de J. Noe. Olivas & Lorenzana. Heirs of M. West. Marianna Gonzales. Miguel Avila. J. I. Castro. B. D. Wilson. Manuel Garfias. Juan Gallardo. M. Dominguez et al. F. Sanchez. G. O. de Chapman et al.	4,443.38 4,693.91 6,663.23 22,135.89 14,198.20 17,938.59 708.57 13,693.93 700.00 43,119.13 8,926.46 4,438.00	Patented March 30, 1857 Patented March 21, 1873 Patented June 29, 1865 Patented August 8, 1867 Patented January 23, 1877 Patented January 31, 1873 Patented April 3, 1863 Not surveyed Patented December 18, 1858 In Court on title	San Francisco and San Mateo. Ventura. Sonoma. Monterey. San Luis Obispo. Contra Costa. Los Angeles. Los Angeles. Los Angeles. Los Angeles. San Mateo. Santa Barbara.
San Pedro Santa Marganta y Las Gallinas. San Rafael. San Ramon. San Ramon. San Simeon. San Vicente. San Vicente. San Vicente y Santa Monica. San Ysidro. San Psidro. San	Timothy Murphy Julio Berdugo et al J. M. Amador Leo. Norris H. W. Carpentier. J. M. Gomez. C. Munrass et al M. Z. B. Berreyesa et al M. Z. B. Berreyesa et al R. Sepulveda John Gilroy et al Quintin Ortega.	21,678.69 36,403.32 16,516.95 4,450.94 8,917.36 4,468.81 19,979.01 4,438.36 17,754.38	Patented February 21, 1866 Patented January 28, 1882 Patented March 18, 1865 Patented July 3, 1882 Patented April 7, 1866 Patented April 1, 1865 Patented June 29, 1865 Patented July 23, 1881 Patented July 23, 1881 Patented October 22, 1868 Patented October 22, 1868	Marin. Los Angeles. Contra Costa and Alameda Contra Costa. Contra Costa. San Luis Obispo. Monterey. Santa Clara. Santa Cruz. Los Angeles. Santa Clara. Santa Clara. Santa Clara.
Sanjon de los Moquelumnes	Heirs of A. Chabolla		Patented May 30, 1865	San Joaquin and Sacramento. Fresno and Merced. Ventura. San Bernardino. San Bernardino.

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Los Angeles. Santa Barbara. Santa Clara. Santa Clara. Santa Clara. Ventura. San Luis Obispo. Los Angeles. San Luis Obispo. San Luis Obispo. San Diego. Ventura. Alameda. Santa Barbara. Santa Barbara. San Diego. San Luis Obispo. San Luis Obispo. San Lus Obispo. San Lus Obispo. San Lus Obispo. San Diego. San Diego. San Luis Obispo. San Diego. San Luis Obispo. San Luis Obispo. San Luis Obispo. San Luis Obispo.	Monterey. Monterey. Tehama. Monterey. Los Angeles. Ventura. Santa Cruz. San Bernardino. Los Angeles and Ventura. San Luis Obispo and Santa Barbara. Contra Costa. San Bernardino. Santa Clara. Santa Clara. Sonoma. Sonoma. Marin. Marin. Marin.
Patented August 9, 1866. Patented May 31, 1872. Patented May 1, 1866. Patented July 19, 1871. Patented July 19, 1871. Patented August 19, 1866. Patented August 19, 1877. Patented August 22, 1868. Patented August 22, 1868. Patented April 9, 1871. Patented April 9, 1872. Patented July 15, 1872. Patented July 15, 1872. Patented June 25, 1875. Patented March 18, 1865. Patented March 18, 1865. Patented March 10, 1872. Patented March 10, 1872. Patented March 8, 1867. Patented May 14, 1872.	Patented October 7, 1862 Patented October 7, 1867 Patented October 14, 1857 Patented March 22, 1875 Patented March 14, 1872 Patented March 19, 1860 Patented March 19, 1860 Patented April 28, 1877 Patented April 28, 1877 Patented April 28, 1865 Patented April 38, 1859 Patented January 18, 1859 Patented April 30, 1866 Patented April 30, 1866 Patented January 18, 1879
13,319.06 17,826.17 710.14 358.51 13,988.91 17,602.01 16,954.83 17,734.94 13,440.78 13,440.78 13,316.05 13,183.62 15,525.55 47,815.10 9,647.13 17,774.12 17,774.12	2,211.65 2,211.65 22,211.65 22,212.21 10,241.88 22,458.94 8,880.81 17,768.89 17,776.89 17,776.89 17,776.89 17,776.89 17,776.89 17,776.89 17,776.89 17,776.89 17,776.89 17,776.89 113,009.21 35,485.90 20,565.42 8,875.46 6,063.95 1,446.79 2,266.25 3,774.20 2,266.25 3,774.20
Henry Dalton City of Santa Barbara. J. Enright. M. S. Bennett. Juan Sanchez. V. Linares. T. S. Colima. McFarland & Downey. F. Z. Branch. Joaquin Estrado. Pio Pico et all J. P. Davidson. Yountz, administrator. J. R. Malo. Julian Estrada. M. J. O. de Cota et al. Juan Morino. Agustin Bernal. Francisco Arce. J. Ortega et al. B. Yorba et al. W. A. Richardson.	Wilson et al. R. H. Thomas. J. P. Leese. A. I. Abila. T. W. Moore et al. Martina Castro. Martina Castro. Bernardo Yorba. Vicente Sepulveda. J. B. Huie et al. J. J. and V. Castro. M. de R. de Aguirre. R. Castro et al. City of Sonoma. M. G. Vallejo. Heirs of H. D. Fitch. G. N. Cornwall. L. D. Watkins. M. F. Gormley. P. J. Vasquez. J. S. Brackett.
	londo. Igmentation B San Jacinto. ueblo. ty, lot in. aart of. aart of. aart of.
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Suey, Rancho de	R. C. de Wilson. A. A. Ritchie. J. H. Fine. J. B. R. Cooper. E. Abila. Aguirre & Del Valle. R. de la Cuesta. Luis Vignes.	48,834.27 17,754.73 482.19 8,949.06 3,559.86 97,616.78 13,339.07 26,608.94	Patented August 10, 1865	Santa Barbara and San Luis Obispo. Solano. Solano. Monterey. Los Angeles. Kern. Ventura and Los Angeles. San Diego.
Tepusquet	A. M. Cota et al. A. M. Villa	8,900.75 8,919.00	Patented February 23, 1871	San Luis Obispo and Santa Barbara. Santa Barbara.
Thompson's Rancho Tinaquaic Todos Santos y San Antonio Tolenas Tomales y Baulines	A. B. Thompson	35,532.80 8,874.60 20,772.17 13,315.93 9,467.77	Patented May 18, 1858	San Joaquin and Stanislaus. Santa Barbara. Santa Barbara. Solano.
Tomales y Baulines Topanga Malibu Sequit Toro, El. Trabuco. Tres Ojos de Agua Tucho, El. Tujunga.	Bethuel Phelps	13,644.66 13,315.70 5,668.41 22,184.47 176.03 399.57 6,660.71 26,581.34	Patented February 27, 1866	Marin. Los Angeles. Monterey. Los Angeles. Santa Cruz. Monterey. Los Angeles.
Tularcitos, Las. Tulucay Two Suertes Tzabaco Ulistac Ulpinos, Los. Uvas, Las	José Higuera. C. Juarez. Gregory & Williams. Heirs of J. G. Piña. John Bidwell. M. J. C. Murphy.	4,394.35 8,865.58 37.69 15,439.32 2,217.09 17,726.43 11,079.93 8,975.17	Patented July 8, 1870	Santa Clara. Napa. Monterey. Sonoma. Santa Clara. Solano. Santa Clara.
Valle de Panno or Santa Maria. Valle de San Felipe Valle de San José Valle de San José Vega del Rio del Pajaro Vergeles, Los Virgenes, Las Yajome Yerba Buena	J. I. Ortega et al. Juan Forster. Suñol & Bernal. S. de la Portilla. F. A. McDougal et al. James Stokes. M. A. Machado. Salvador Vallejo. Antonio Chabolla.	17,708.85 9,972.08 48,435.92 17,634.06 4,310.29 8,759.82 8,885.04 6,652.58 24,331.69 35,541.33	Patented July 30, 1872 Patented August 6, 1866 Patented March 15, 1865 Patented January 10, 1880 Patented January 18, 1864 Before Surveyor-General Patented September 16, 1864 Patented January 3, 1859	San Diego. San Diego. Alameda. San Diego. Monterey. Monterey and San Benito. Los Angeles. Napa. Santa Clara.

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Santa Barbara. Monterey. Santa Cruz.	
4,458.10 Patented August 23, 1876 6,714.49 Patented August 9, 1866 2,658.21 Patented August 19, 1870	
4,458.10 6,714.49 2,658.21	
M. A. de la G. y Lataillade M. Malarin, executor Isaac Graham et al	
Zaca, La	
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STATISTICAL TABLES, 1880-1 AND 1881-2,

Compiled from the Reports of the County Assessors, by

A. S. BENDER, Chief Clerk in Register's Office.

TABLE OF STATISTICS.

Industrial and other Statistical Information for the years 1880 and 1881, as reported to the Surveyor-General by the several County Assessors, embracing the entire State.

COUNTIES.	Acres Land	Acres Land	WHE	EAT.	BARLEY.		
	Inclosed.	Cultivated.	Acres.	Bushels.	Acres.	Bushels.	
Alameda:							
Alameda Tp	-		-	-			
Brooklyn Tp	24,734	7,000	1,200	30,000	1,450	40,000	
Eden Tp	50,500	42,900	5,100	76,200	15,150	302,000	
Murray Tp	-	62,000	55,700	835,500	6,300	126,430	
Oakland Tp	40.200	- 22.400	7 500	-	- 0.000	454.000	
Washington Tp.	40,200	23,190	7,500	262,500	9,900	454,800	
AlpineAmador	4,191	1,590	107 1,770	1,550	127	3,345	
Butte	50,633 199,000	23,085 138,000	37,086	30,300 585,568	5,124 5,660	29,100	
Calaveras	54,720	49,278	27,020	39,158	5,660 5,120	89,936 61,040	
Colusa	149,493	468,832	369,759	7,594,879	34,434	765,857	
Contra Costa	232,795	123,731	96,902	1,938,040	24,829	521,409	
Del Norte	19,757	1,917	133	5,110	128	5,487	
El Dorado	53,930	5,748	977	17,165	691	12,270	
Fresno	175,000	258,858	73,248	3,780,780	10,766	84,550	
Humboldt	38,548	17,297	2,046	85,442	963	42,708	
Inyo	16,251	7,100	1,020	28,714	1,235	24,833	
Kern	44,322	34,846	23,350	342,000	5,840	96,843	
Lake	40,008	14,242	70,006	151,147	2,549	70,772	
Lassen	,	5,800	3,000	60,000	1,400	4,080	
Los Angeles	69,500	150,000	49,350	791,200	31,450	629,000	
Marin	291,783	14,208	2,916	53,219	2,309	66,943	
Mariposa	31,829	6,138	920	12,484	1,267	27,416	
Mendocino	231,416	60,108	16,280	318,742	7,920	24,614	
Merced	55,627	184,020	160,145	2,015,115	13,798	291,190	
Modoc	64,660	24,320	17,892	36,340	10,520	26,330	
Mono	38,400	9,300	500	800	1,000	2,000	
Monterey	165,000	145,000	115,000	1,665,000	40,000	680,000	
Napa	150,158	55,401	27,064	620,761	2,328	55,913	
Nevada	31,300	6,384	-	-	-	-	
Placer:							
District No. 1	163,580	96,420	37,210	533,343	16,070	287,207	
District No. 2	6,724	2,360	-	-	-	-	
District No. 3	- 00.000	- 6.500	- 4 000	-	- 050	7.500	
Plumas	60,000	6,500	1,600	30,000	250	7,500	
Sacramento	326,742	135,650	30,500	457,500	50,200	903,600	
San Benito	121,000	52,000	39,000	780,000	10,000	250,000 62,632	
San Bernardino	14,665 3,720	5,867 17,871	1,892	33,032	3,643	· · · · · · · · · · · · · · · · · · ·	
San Diego San Francisco	6,300	3,000	6,839 300	266,580	4,057 250	122,085	
San Joaquin	375,250	345,775	288,072	4,986,526	44,250	915,975	
San Luis Obispo.	196,000	82,225	45,400	635,324	11,380	341,426	
San Mateo	167,000	80,000	25,500	765,000	19,000	730,000	
Santa Barbara	43,100	55,540	28,002	737,868	16,567	522,634	
Santa Clara	417,269	251,320	120,103	2,520,436	29,130	654,310	
Santa Cruz	87,420	38,190	14,320	28,640	8,120	186,760	
Shasta	143,339	49,892	15,840	237,600	15,516	279,288	
Sierra	26,030	-	_		-	-	

Siskiyou	210,000	26,000	7,500	120,000	5,600	108,000
Solano	-	-	-	-	_	-
Sonoma	423,623	203,427	91,806	764,448	22,814	273,768
Stanislaus	68,640	274,076	255,477	3,008,896	18,599	369,886
Sutter	163,429	102,106	80,298	2,038,135	8,432	245,014
Tehama	149,350	265,150	150,000	1,500,000	25,000	500,000
Trinity	5,100	2,700	850	12,000	50	1,000
Tulare	187,230	144,370	96,210	1,490,560	17,500	525,491
Tuolumne	137,075	34,450	6,200	124,000	2,300	57,500
Ventura	100,000	112,000	3,500	87,500	7,000	21,000
Yolo	180,525	210,500	190,400	3,808,000	20,000	440,000
Yuba	109,680	58,345	25,685	586,540	7,495	151,370

TABLE OF STATISTICS – Continued.

COUNTIES.	ОАТ	⁻S.	RY	E.	CORN.	
	Acres.	Bushels.	Acres.	Bushels.	Acres.	Bushels.
Alameda:						
Alameda Tp		-	-	-	-	-
Brooklyn Tp	1,000	22,000	-	-	70	850
Eden Tp	300	6,000	-	-	1,600	36,000
Murray Tp	-	-	-	-	-	-
Oakland Tp	- 400	4 000	-	-	-	-
Washington Tp.	100 230	4,000 4,810	-	-	550	22,000
Alpine Amador	230	4,010	•	-	287	9,800
Butte	30	800	_	· []	_ 201	9,000
Calaveras	_	_	_	_	460	10,480
Colusa	110	2,700	5	30	552	12,789
Contra Costa	960	24,000	-	- "	345	7,175
Del Norte	262	13,375	-	-	-	-
El Dorado	-	-	35	630	-	-
Fresno	-	-	-	-	600	9,000
Humboldt	6,885	325,756	36	948	148	4,430
Inyo	989	29,823	-	-	1,581	33,500
Kern	-		-	-	1,684	47,520
Lake	113	2,600	-	-	288	8,650
Lassen	630	2,450	140	1,400	55	1,200
Los Angeles Marin	500 967	- 24.062	600	18,000	21,400	1,070,000
Mariposa	107	24,963 1,585	95	878	9	230
Mendocino	8,920	28,600	260	3,840	600	14,800
Merced	- 0,320	20,000	1,080	12,890	322	10,998
Modoc	420	13,600	120	1,740	40	620
Mono	400	1,200		,		-
Monterey	2,250	18,000	-	- 1	100	4,000
Napa	625	18,490	10	300	1,575	36,960
Nevada	-	-	-	-	- 1	-
Placer:						
District No. 1	-	-	-	-	-	-
District No. 2	-	-	-	* -	-	-
District No. 3	-	-	-		-	-
Plumas	3,000	60,000	200	6,000	4 200	-
Sacramento	3,000	60,000	100	2,500	4,200 1,000	146,400 50,000
San Bernardino	_	_	2	20	177	4,300
San Diego	29	530		_ 20	579	14,350
San Francisco	30	_	_	_	_ 0/0	-
San Joaquin	200	6,000	6,000	120,000	650	3,000
San Luis Obispo.	2,700	76,478	1,646	24,690	1,340	40,400
San Mateo	7,500	290,500	20	300	225	900
Santa Barbara	53	974	50	700	1,794	68,120
Santa Clara	738	19,374	250	5,610	115	4,211
Santa Cruz	720	1,080	80	1,600	1,726	2,589
Shasta	10,545	38,625	56	392	280	4,200
Sierra		-	-	-	-	-
Siskiyou	2,600	70,000	50	900	275	5,500
Solano	- 0.405	-	-	-		-
Sonoma	3,425	41,390	- , , , ,	-	55,087	1,377,175
Stanislaus	-	-	1,441	10,917	100	5,400

Sutter	24	730	-	- 1	403	8,250
Tehama	1,500	30,000	500	10,000	1,000	20,000
Trinity	225	8,000	-	-	50	1,000
Tulare	-	-	20	300	800	2,400
Tuolumne	550	16,500	25	625	85	1,700
Ventura	-	-	-	-	3,700	148,000
Yolo	-	-	-	-	800	25,000
Yuba	700	15,860	•	-	400	3,435

TABLE OF STATISTICS – Continued.

	I	1						
COUNTIES.	BUCKWHEAT.		PE.	AS.	PEAN	IUTS.	BEA	NS.
	Acres.	Bushels.	Acres.	Bushels.	Acres.	Bushels.	Acres.	Bushels.
Alameda:								
Alameda Tp	-	-	-	-	-	-	-	-
Brooklyn Tp	-	-	250	-	-	-	50	900
Eden Tp	-	-	-	450	-	-	200	6,000
Murray Tp	-	-	-	-	-	•	-	-
Oakland Tp		-	-	-	-	-	-	-
Washington Tp.	-	-	200	4,000	-	-	110	3,200
Alpine	-	-	2	20	-	-	2	24
Amador		-	-	-	-	-	-	-
Butte	-	-	-	-	-	-	-	-
Calaveras	-	-	-	-		-	22	147
Colusa	-	-	2	80	3	5,200	1	50
Contra Costa	-	-	35	420	-	-	65	1,350
Del Norte	-	-	22	340	-	-	-	-
El Dorado	-	-	-	-	-	-	-	-
Fresno	-		-	-	-	-	-	-
Humboldt	6	128	697	28,897	-	-	9	223
Inyo	-	-		-	-	-	25	900
Kern	-	-	5	150	- :	-	80	2,260
Lake	- 40	- 050	- 0	-	-	-	62	873
Lassen	40	350	8	200	- 400	400,000	4.050	-
Los Angeles	200	3,000	130	3,200	100	100,000	1,250	25,000
Marin	-	-	-	-	-	-	- =	- 60
Mariposa	-	-	-	-	-	-	5	69
Mendocino Merced	-	-	-	-	-	-	18	- 358
Modoc		<u>-</u>	_	<u>-</u>	_	_	15	125
Mono		_	_	_	_	_	- 13	123
Monterey	_	_	_	_	_	_	200	80 tons
Napa	_	_	10	800	10	4,000	16	540
Nevada	_		_	_ 000	0	-,000	_ 10	- 040
Placer:								
District No. 1		_	_	_	_	_	_	-
District No. 2	_	_	_	_	_	_	_	**
District No. 3	_	_	_	_	_	_	_	_
Plumas	_	_	20	800	_	_	5	250
Sacramento	-	_ [-	-	_	_	_	-
San Benito	-	_	-	-	_	_	-	_
San Bernardino	_	-	-	-	-	-	13	67
San Diego	_	_	3	35	-	-	33	369
San Francisco	-	_	12	75	_	_	8	50
San Joaquin	20	450	25	900	-		1,200	24,000
San Luis Obispo.	12	480	43	946	-	-	5,237	104,740
San Mateo	-	-	-	-	-	-	95	2,000
Santa Barbara	31	930	4	160	-	-	6,248	85,273
Santa Clara	-	-	68	1,475	-	-	40	451
Santa Cruz	40	920	-	-	-	-	526	6,312
Shasta	2	30	24	192	5	900	213	6,390
Sierra	-	-	-	-	-	-	-	-
Siskiyou	-	-	-	-	-	-	20	525
Solano	-	-	-	-	-	- 1	-	-
Sonoma	-	-	-	-	-	- 1	-	-
Stanislaus	-	- 1	-	-	-	-	5	50

Sutter	-	-	-	-	-	_	3	90
Tehama	-	-	-	_	110	180,000	25	500
Trinity	-	- 1	-	-	. <u>-</u>	_	-	-
Tulare	_	- i	-	-	-	-	-	-
Tuolumne	-	-	15	650	-	-	25	500
Ventura	-	-	-	- ,	-	- *	1,000	1,500
Yolo	-	-	100	6,000	40	55,000	350	1,750
Yuba	-	-	-	-	-	-	-	-

TABLE OF STATISTICS – Continued.

COUNTIES.	CASTOR	BEANS.	POTAT	OES.	SWEET POTATOES.		
	Acres.	Pounds.	Acres.	Tons.	Acres.	Tons.	
Alameda:		, ,					
Alameda Tp	-	-	-	- 4.050	-	-	
Brooklyn Tp	-	-	550	1,350	-	-	
Eden Tp	-	-	760	868	-	-	
Murray Tp	-	-	-	-	-	-	
Oakland Tp Washington Tp.	-	-	350	7 2 400	-	-	
Alpine	_	<u>-</u>	25	2,100 77	-	-	
Amador	_	_	600	500	_	_	
Butte	_	_	_ 000	_ 300	-	_	
Calaveras	_	_	532	1,000	_	_	
Colusa	_	_	69	484	7	29	
Contra Costa	_	_	789	1,578	- '		
Del Norte	_	_	70	211	_	-	
El Dorado	-	-	31	126	_	-	
Fresno	-	_	_	-	-	-	
Humboldt	-	-	1,031	4,630	37	172	
Inyo	-	-	102	363	-	-	
Kern	-	-	149	313	9	56	
Lake	-	-	76	126	-	-	
Lassen	-	-	210	1,000	-	-	
Los Angeles	900	1,350,000	3,075	7,580	280	1,680	
Marin	-	-	1,413	2,729	-	-	
Mariposa	-	-	73	177	-	-	
Mendocino	-	-	2,560	7,000	-	-	
Merced	-	-	34	142	18	78	
Modoc	-	-	285	430	-	-	
Mono	-	-	200	400	-	=	
Monterey	-	-	500	500	-	-	
Napa Nevada	-	-	72	285	-	-	
Placer:	-	- 1	- 1	-	-	-	
District No. 1	_	_	_	_	_	_	
District No. 2	_	_	_	13	_	_	
District No. 3	_	_	_	_ "	_	_	
Plumas	-	_	150	12	_	_	
Sacramento	-	-	2,200	8,800	-	_	
San Benito	-	-	-,	- ',	-	_	
San Bernardino	-	-	10	45	_	-	
San Diego	-	- 1	97	166	-	-	
San Francisco	-	-	-	-	-	-	
San Joaquin	-	-	5,500	1,200	40	75	
San Luis Obispo.	-	-	890	3,764	30	37	
San Mateo	-	-	5,000	12,500	71	175	
Santa Barbara	4	6,825	348	1,672	15	123	
Santa Clara	-	-	549	1,535	-	-	
Santa Cruz	-	-	630	680	-	-	
Shasta	-	-	108	433	3	6	
Sierra	-	-	-	150	-	_	
Siskiyou	-	-	77	500	-	-	
Solano	-	-			-	-	
Sonoma	-		6,503	3,125	-	-	
Stanislaus	-	-	20	6,400	-	-	

Sutter	-	-	455	2,202	13	52
Tehama	-	-	125	400	25	65
Trinity	-	-	60	200	-	-
Tulare	-	-	240	1,400	20	140
Tuolumne	-	-	200	600	-	-
Ventura	-	-	150	300	8	10
Yolo	-	-	500	1,500	175	250
Yuba	-	-	300	1,500	75	300

TABLE OF STATISTICS – Continued.

COUNTIES.	ONIONS.		HA	AY.	FLAX.	
	Acres.	Bushels.	Acres.	Tons.	Acres.	Pounds.
Alameda:						
Alameda Tp	-	-	-	-	-	-
Brooklyn Tp	30	-	2,500	4,655	-	-
Eden Tp	462	28,000	6,500	72,000	-	-
Murray Tp	-	-	-	15,600	-	-
Oakland Tp	130	-	- 2 200	- 6 600	-	-
Washington Tp. Alpine	130	30,000	3,300 1,135	6,600 1,208	-	-
Amador	-	<u>-</u>	5,690	5,735	<u>-</u>	_
Butte	_	-	2,876	3,976	_	14,000
Calaveras	96	3,417	16,028	20,035	_	14,000
Colusa	19	250	17,459	34,745	_	_
Contra Costa	42	1,680	43,655	76,485	_	_
Del Norte	_ '~	-	1,304	2,536	_	_
El Dorado	_	_	4,014	7,225	_	_
Fresno	_	_	5,192	4,545	_	_
Humboldt	4	160	2,628	6,950	_	-
Inyo	1	200	4,299	7,728	-	_
Kern	4	180	9,224	16,832	-	-
Lake	-	-	4,894	627	-	-
Lassen	6	600	15,000	20,000	-	-
Los Angeles	215	43,000	10,630	21,260	200	120,000
Marin	-	-	7,603	10,361	-	-
Mariposa	1	360	3,891	3,416	-	-
Mendocino	-	-	15,000	26,000	-	-
Merced	~	-	8,120	9,018	-	-
Modoc	12	470	37,000	42,500	-	-
Mono	-	-	15,000	15,000	- ,	-
Monterey	-	-	5,000	10,000	-	-
Napa	5	150	10,817	16,585	-	-
Nevada Placer:	-	-	2,580	2,700	-	-
District No. 1	_	_	22,130	23,725		
District No. 2	_	_	22,130	1,410	_	_
District No. 3	_	_	_	- 1,710	_	_
Plumas	40	1,600	20,000	15,000	_	_
Sacramento	_	,	45,150	44,250	-	_
San Benito	-	<u>-</u>	8,000	15,000	-	_
San Bernardino	-	-	1,793	4,627	85	21,000
San Diego	_	-	6,151	8,939	-	- 1
San Francisco	_	-	-	-	-	-
San Joaquin	30	2,000	8,000	12,000	-	-
San Luis Obispo.	17	560	9,300	17,343	4,230	3,807,445
San Mateo	45	5,000	16,000	23,000	6,194	4,977,020
Santa Barbara	1/2	150	1,686	4,794	225	227,000
Santa Clara	62	3,310	36,360	72,720	-	-
Santa Cruz	-	-	12,000	36,000	-	-
Shasta	5	150	15,720	16,327	18	1,080
Sierra		-	12,380	12,380	-	-
Siskiyou	9	2,800	8,000	17,000	-	-
Solano	-	-	- 00 407	-	-	-
Sonoma	-	-	23,437	25,000	-	-
Stanislaus	-	-	10,000	10,861	-	-

Sutter	6	900	12,572	18,198	-	-
Tehama	23	850	65,000	65,000	-	-
Trinity	3	300	800	1,500	-	-
Tulare	2	80	4,800	6,200	-	-
Tuolumne	50	2,750	25,000	25,000	-	<u> </u>
Ventura	-	-	1,500	3,000	1,000	1,000,000
Yolo	75	3,500	17,000	25,000	-	-
Yuba	12	278	7,065	6,840	-	-

TABLE OF STATISTICS – Continued.

COUNTIES.	НОІ	PS.	TOBA	ACCO.	сот	TON.
	Acres.	Pounds.	Acres.	Pounds.	Acres.	Pounds.
Alameda:						
Alameda Tp	-	-	-	-	-	-
Brooklyn Tp	22	22,000	-	-	-	-
Eden Tp	-	-	-	-	-	-
Murray Tp	-	-	-	-	-	-
Oakland Tp		-	-	-	-	
Washington Tp.	50	40,000	-	-	-	-
Alpine Amador	31	47,800	-	-	-	-
Butte	_ 3'	47,000	_	_	_	<u>-</u>
Calaveras	_	550	-		-	<u>-</u>
Colusa	_		-	_	_	-
Contra Costa	_	_	-	_	_	_
Del Norte	_	_	_	_	_	_
El Dorado	-	-	<u>-</u>	_	-	_
Fresno	-	•	-	-	-	_
Humboldt	-	-	-	-	-	-
Inyo	-	-	-	-	-	-
Kern	- 1	-	-	-	59	20,000
Lake	69	90,800	-	-	-	-
Lassen		-	-	-	-	-
Los Angeles	75	120,000	95	95,000	-	-
Marin	-	-	- 1,		-	
Mariposa	- 405	-	¹ / ₈	30	-	-
Mendocino	435	56,000	-	-	- 205	404.000
Merced Modoc	60	52,000	-	-	325	121,000
Mono	_	-	_	-	-	-
Monterey	_	_	_	_	_	-
Napa	58	58,750	_	_	_	_
Nevada	-	-	_	_	<u>.</u>	_
Placer:	Ī					
District No. 1	-	-	-	-	-	-
District No. 2	-	-	-	-	-	-
District No. 3	-	-	-	-	-	-
Plumas	-	-	-	-	-	-
Sacramento	300	540,000	-	-	-	-
San Benito	-	-	65	75,000	-	-
San Bernardino	-	-	-	-	-	-
San Diego San Francisco	-	-	-	-	-	-
San Joaquin	60	30,000	<u>-</u>	-	-	-
San Luis Obispo.	_ 00	30,000	_	_	_	_
San Mateo	10	18,880	_	_	_	_
Santa Barbara	0	-	_	_	_	-
Santa Clara	-	8,000	_	_	-	_
Santa Cruz	_	-	-	_	-	_
Shasta	1	500	-	_	_	_
Sierra	-	-	-	_	-	-
Siskiyou	-	-	-	-	-	-
Solano	-	-	-	_	-	-
Sonoma	355	-	-		-	-
Stanislaus	-	-	-	-	-	-

Sutter	-	-	-	-	-	-
Tehama	-	-	-	-	_	-
Trinity	-	-	-	-	-	-
Tulare	-	-	-	-	-	-
Tuolumne	-	-	-	-	-	-
Ventura	-	-	-	-	-	_
Yolo	100	60,000	-	-	-	_
Yuba	_	20,000	-	_	_	_

	,				
COUNTIES.	SUGAR BEETS.		Pounds of	Pounds of	Pounds of Wool.
	Acres.	Tons.	Butter.	Cheese.	
Alameda:					
Alameda Tp	-	-	-	-	-
Brooklyn Tp				-	-
Eden Tp	1,100	13,400	18,550	-	-
Murray Tp	-	-	-	-	-
Oakland Tp	- 1,000	- 20,000	75 000	-	- 40,000
Washington Tp. Alpine	1,000	20,000	75,000 30,000	-	19,000
Amador	_	- 1	30,000	-	270,000
Butte	-	_	_	-	
Calaveras	_	-	127,705	2,648	262,317
Colusa	-	-	19,410	-	516,385
Contra Costa	-	-	205,481	19,395	60,000
Del Norte	-	-	156,600	6,000	600
El Dorado	-	-	120,140	21,200	112,850
Fresno	-	-	-		-
Humboldt	1 ½	22	12,560	450	400
Inyo	-	-	25,054	- 1	-
Kern	-	-	18,943	1,260	1,516,000
Lake Lassen	-	-	32,100	1,150 20,000	180,100
Los Angeles	170	3,400	65,000 115,000	547,500	140,000 3,402,536
Marin	_ 170	_ 3,400	3,711,000	- 347,300	3,402,330
Mariposa	_	_	-	_	243,800
Mendocino	-	-	- 1	_	1,531,488
Merced	-	-	9,000	4,200	1,250,000
Modoc	-	-	52,120	3,100	14,500
Mono	-	-	200,000	-	-
Monterey	-	-	-	-	350,000
Napa	7	32	123,900	7,000	160,993
Nevada	-	-	-	-	-
Placer: District No. 1					400.005
District No. 2	-	-	-	-	180,295
District No. 3	_	_ [-	_	_
Plumas	_	_	20,000	10,000	30,000
Sacramento	_	_	367,425	-	425,000
San Benito	-	-	60,000	400,000	-
San Bernardino	4	80	-	-	-
San Diego	-	-	23,780	2,000	540,750
San Francisco	-	-	-	-	-
San Joaquin	5	70	200,000	6,000	300,000
San Luis Obispo.	1 ½	22	1,418,845	941,236	943,851
San Mateo	-	-	85,300	194,500	-
Santa Barbara	-	-	147,913	- 440 000	793,935
Santa Clara Santa Cruz	-	-	162,449	110,906	513,220
Santa Cruz Shasta	_	_	85,960 21,000	51,216	- 97,220
Sierra	_	-	70,000	-	91,220
Siskiyou	_		105,000	16,000	144,000
Solano	_	_	-	- 10,000	-
Sonoma	_	-	-	-	-
Stanislaus	-	-	-	-	-

Sutter	-	-	_	-	183,694
Tehama	=	-	30,000	-	1,282,000
Trinity	-	-	-	-	123,044
Tulare	-	-	643,025	-	1,475,915
Tuolumne	-	-	23,000	1,500	20,890
Ventura	-	-	-	-	375,525
Yolo	-	-	-	-	-
Yuba	-	-	-	-	85,000

			The second secon	,	
COUNTIES.	Pounds of Honey.	Value of Fruit Crop.	Number of Bearing Lemon Trees.	Number of Bearing Orange Trees.	Number of Bearing Olive Trees.
Alameda:					
Alameda Tp	-	\$1,100	6	8	-
Brooklyn Tp	-	8,000	20	10	_
Eden Tp	- 1	49,765	30	468	50
Murray Tp	- i	-	-	-	-
Oakland Tp	-	-	-	-	-
Washington Tp.	500	55,000	150	225	900
Alpine	-	-	-	-	-
Amador	5,000	6,466	-	-	-
Butte	-	10,000	1	100	1
Calaveras	2,398	58,320	27	108	32
Colusa	3,470	13,093	49	95	42
Contra Costa	-	48,260	40	75	25
Del Norte	-	1,550	-	-	-
El Dorado	2,000	190,000	-	20	-
Fresno	-	-	97	960	28
Humboldt	357	1,488	-	-	-
Inyo	14,695	3,445	-	-	-
Kern	4,300	8,000	26	23	2
Lake	-	6,685	-	126	-
Lassen	1,000	15,000	-	-	-
Los Angeles	575,000	750,000	41,250	256,135	3,056
Marin	-	-	-	-	-
Mariposa	-	2,938	11	49	2
Mendocino	-	9,500	-	-	-
Merced	-	13,000	24	52	75
Modoc	305	1,621	-	-	-
Mono	-	-	-	-	-
Monterey	36,000	-	-	200	80
Napa	3,650	406,540	2	45	8
Nevada	-	3,075	-	-	-
Placer:					
District No. 1	-	-	582	1,097	127
District No. 2	-	-	1	14	-
District No. 3	- 0.000	- 0.000	=	-	-
Plumas	3,000	6,000	-	-	-
Sacramento	2,500	- 40,000	125	425	-
San Benito	- 20.725	10,300	- 0.400	- 7.077	- 000
San Bernardino	39,735	15,340	2,199	7,077	308
San Diego	1,248,670	10,105	1,192	2,680	2,037
San Francisco	- 2.500	- 45,000	-	-	- 75
San Joaquin	2,500	15,000	-	250	75
San Luis Obispo. San Mateo	87,700	8,248	28	13	100
San Mateo	3,000	2,500	43	153	74
t e e e e e e e e e e e e e e e e e e e	230,980	8,370	1,728	405	4,220
Santa Clara Santa Cruz	47,751	976,475	430	1,694	1,905
	-	16,230	40	120	-
Shasta Sierra	-	42,700	2	10	-
	-	15,000	-	-	-
Siskiyou	-	15,000	-	-	-
Solano	-	-	- 4 704	3 600	- 000
Sonoma Stanislaus	-	585	1,724	3,693	823
Sutter	-	27,035	6	20	5
Juilei	-	27,035	-	- 1	-

Tehama	-	100,000	35	145	_
Trinity	-	-	-	_	-
Tulare	28,000	-	3	40	-
Tuolumne	1,600	75,000	100	200	25
Ventura	300,000	10,000	200	200	250
Yolo	-	-	-	1,200	-
Yuba	-	-	60	200	2

COUNTIES.	Number of Acres of Grapevines.	Wine, Number of Gallons.	Brandy, Number of Gallons.	Number of Breweries.	Beer, Number of Gallons.
Alameda:					
Alameda Tp	-	-	-	1	8,000
Brooklyn Tp	-	-	-	-	85,540
Eden Tp	-	-	-	-	75,400
Murray Tp	-	-	-	-	-
Oakland Tp		· -	-	-	550,480
Washington Tp.	11,000	100,000	300	1	12,000
Alpine	-	-		-	-
Amador	- 4,000	155,300	1,000	-	-
Butte	4,000	- 60.067	4 600	-	- 44 000
Calaveras	623	60,267	1,600	-	41,960
Colusa Contra Costa	100 540	- 00 000	-	-	- 20,000
Del Norte	340	80,000 300	-	-	20,000 3,000
El Dorado	1,161	230,320	20,949	- 2	
Fresno	1,000	60,000	3,500		23,310
Humboldt	9 3/4	980	3,500	-	20,000
Inyo	25	500		<u>-</u>	5,310
Kern	27		_	<u>.</u>	9,300
Lake	66	500		3	9,000
Lassen	3	_		-	3,000
Los Angeles	9,342	2,800,000	150,000	7	94,500
Marin	- 0,042	2,000,000	100,000	_	34,000
Mariposa	_	14,205	150	2	19,500
Mendocino	450	- 1-1,200		_	- 10,000
Merced	123	2,000	4,000	_	_
Modoc	20		- 1,000	2	36,000
Mono	_	_	_	-	600,000
Monterey	_	_	_	_	-
Napa	6,155	2,106,900	45,714	-	63,500
Nevada	155	5,000	- 1	10	533,340
Placer:		,			,
District No. 1	610	19,745	1,472	-	-
District No. 2	187	19,900	-	-	24,300
District No. 3	-	-	-	-	-
Plumas	-	-	-	-	15,000
Sacramento	-	195,435	6,450	7	-
San Benito	-	12,000	1,000	2	24,000
San Bernardino	-	5,367	-	1	18,631
San Diego	212	4,030	-	-	12,000
San Francisco	<u>-</u>	-	-	45	3,750,000
San Joaquin	700	-	-	-	130,000
San Luis Obispo.	29	1,000	-	2	31,286
San Mateo	110	1,000	-	3	50,000
Santa Barbara	107	2,200		-	4,500
Santa Clara	11,440	181,865	63,240	-	2,093,400
Santa Cruz	1,640	29,400	-	-	638,240
Shasta	500	4,000	250	1	12,000
Sierra	-	-	-	6	28,640
Siskiyou	-	-	-	-	27,000
Solano	-	0.700.000	- 004 000	-	-
Sonoma	22,104	2,763,000	224,000	-	- 05.000
Stanislaus	151	10,600	700	-	35,000
Sutter	164	5,400	-	. 1	12,000
Tehama	-	- <u>-</u>	- I	-	22,000

Trinity	-	805	_	-	10,000
Tulare	400	5,000	-	-	32,000
Tuolumne	775	90,400	2,500	3	33,000
Ventura	-	4,000	1,000	_	-
Yolo	1,250	35,000	4,000	_	60,000
Yuba	-	175,000	1,500	-	-
		-			

TABLE OF STATISTICS – Continued.

COUNTIES.	Number of Horses.	Number of Mules.	Total number of Horned Cattle.	Number of Sheep.	Number of Hogs.
Alameda:					
Alameda Tp	399	-	373	-	75
Brooklyn Tp	939	34	881	75	103
Eden Tp	902	123	1,932	5,360	745
Murray Tp	2,400	170	3,049	34,970	2,477
Oakland Tp	563	4	-	-	11
Washington Tp.	1,657	42	-	2,474	265
Alpine	198	39	232	539	121
Amador	2,013	580	2,800	15,000	300
Butte	4,506	1,200	11,024	49,712	9,120
Calaveras	2,690	134	8,322	66,832	3,816
Colusa	7,771	4,008	5,810	173,794	19,243
Contra Costa	5,480	330	9,992	12,327	7,727
Del Norte	473	163	3,301	1,297	775
El Dorado	2,404	53	10,627	20,990	-
Fresno	4,325	532	29,988	637,363	17,105
Humboldt	3,904	841	21,605	166,045	6,649
Inyo	2,781	485	5,089	5,377	1,456
Kern	3,563	702	35,686	449,769	14,469
Lake	1,858	149	4,240	48,470	4,988
Lassen	5,065	210	13,904	14,200	1,500
Los Angeles	8,681	621	13,749	425,317	21,167
Marin	2,064	56	30,198	1,538	6,620
Mariposa	1,609	209	6,617	79,965	6,418
Mendocino	4,292	392	12,412	285,454	8,792
Merced	3,491	1,058	12,805	208,453	6,085
Modoc	5,790	337	15,871	26,722	2,601
Mono	1,904	125	8,300	2,000	150
Monterey	5,491	645	31,034	83,750	10,167
Napa	3,858	498	9,642	60,612	6,457
Nevada	2,456	106	6,724	6,873	1,565
Placer:					
District No. 1	1,814	110	3,350	80,916	2,238
District No. 2	807	44	1,930	541	935
District No. 3	- 0.475	-		-	
Plumas	2,175	100	9,500	11,000	1,500
Sacramento	7,942	334	24,178	146,237	19,572
San Benito	2,241	74	9,759	28,897	3,743
San Bernardino	2,709	172	6,465	74,981	2,064
San Diego	4,147	243	9,939	124,700	5,530
San Francisco	10,549	75 4 500	44 200	430	3,471
San Joaquin	11,626	1,598	14,326	77,451	10,530
San Luis Obispo.	4,388	195	41,719	171,305	10,630
San Mateo	2,728	192	10,027	1,348	2,738
Santa Barbara	4,260	339	14,741	245,375	10,574
Santa Clara	9,067	206	25,592	18,353	10,425
Santa Cruz	3,668	62	8,873	807	1,637
Shasta	3,130	130	10,874	40,012	5,400
Sierra	857	69	2,952	1,020	196
Siskiyou	5,432	663	22,260	36,014	4,093
Solano	- 0.705	-	- 07 500	450 504	- 40 40-
Sonoma	8,705	423	27,586	153,534	19,437
Stanislaus	6,423	1,985	8,458	154,500	8,158
Sutter	4,316	804	3,909	38,819	8, 499
Tehama	4,536	1,100	7,774	214,921	5,950

Trinity	978	342	3,165	30,761	569
Tulare	6,794	554	14,539	247,138	24,489
Tuolumne	2,075	113	7,217	17,388	2,289
Ventura	2,736	279	2,145	128,202	20,087
Yolo	6,502	1,510	9,104	74,850	18,756
Yuba	3,456	323	8,712	53,121	4,856
	1			·	

COUNTIES.	NUMBER OF G	GRIST MILLS.	Barrels of Flour	Bushels of Corn Ground.	
	Steam Power.	Water Power.	Made.		
Alameda:				40.000	
Alameda Tp	1	-	-	40,000	
Brooklyn Tp Eden Tp	1	<u>-</u> 1	-	- (Barley) 14,500	
Murray Tp	'	_ '		(Dariey) 14,500	
Oakland Tp	2	-	54,500	-	
Washington Tp.		2	1,800	400	
Alpine	_			-	
Amador	1	1	500	2,000	
Butte	4	2	200,000	5,000	
Calaveras	-	- 1	- '	-	
Colusa	-	-	- 1	-	
Contra Costa	1	-	4,000		
Del Norte	- 1	1	500	50	
El Dorado		1	-	-	
Fresno	2	1	-	-	
Humboldt	2	2	3,000	- 0.000	
Inyo	- ,	3	4,150	2,933	
Kern Lake	2 3	1 2	11,380 16,087	6,200	
Lassen	3	2	45,000	1,500 1,000	
Los Angeles	4	4	65,304	115,000	
Marin		_	- 00,004	-	
Mariposa	_	_	_	_	
Mendocino	3	2	_	-	
Merced	-	2	16,000	4,160	
Modoc	3	3	10,900	260	
Mono	-	1	-	-	
Monterey	3	-	10,850	1,000	
Napa	3	1	8,500	7,300	
Nevada	-	-	-	-	
Placer:			ļ		
District No. 1	1	-	-	-	
District No. 2	-	-	-	-	
District No. 3	-	-	3,000	-	
Plumas Sacramento		2	3,000	-	
San Benito	1	1	_	_	
San Bernardino	'	3	_	<u>-</u>	
San Diego	2	_	4,500	1,517	
San Francisco	8	_	204,000	110,000	
San Joaquin	6	-	200,272	8,000	
San Luis Obispo.	4	2	14,261	6,463	
San Mateo	4	-	2,100	1,000	
Santa Barbara	3	-	12,250	6,000	
Santa Clara	6	1	32,589	9,763	
Santa Cruz	2	-	16,000	23,040	
Shasta	-	2	3,100	275	
Sierra	-	1	-	-	
Siskiyou	1	5	8,000	2,500	
Solano	- <u>-</u>	-	- 400.000	-	
Sonoma Stanislaus	5 2	- 5	100,000 10,000	10,000 150	

Sutter	1	_		5,000	200
Tehama	1		1	55,000	11,000
Trinity	2		7	-	-
Tulare	3		2	27,000	2,500
Tuolumne	1		3	14,500	860
Ventura	-		2	5,724	295
Yolo	4	-		85,000	5,000
Yuba	2	-		200,000	-

COUNTIES.	SAW MILLS.		Feet of	Number of	QUARTZ	Z MILLS.
	St'm power.	Wat'r pow'r.	Lumber Sawed.	Shingles Made.	Number.	Tons Crushed.
Alameda: Alameda Tp					-	
Brooklyn Tp	-	_	•	-	-	-
Eden Tp	_	_	-	-	-	-
Murray Tp	_	_	-	-	-	-
Oakland Tp	_	_	_	_	-	_
Washington Tp.	_	_	_	_	_	_
Alpine	1	1	_	_	4	100
Amador	2	_ '	4,000,000	500,000	18	265,000
Butte	5	14	30,000,000	1,000,000	9	14,000
Calaveras	5	2	2,980,000	1,860,000	46	52,680
Colusa	-		-	-	0	-
Contra Costa	-	-	_	- 1	-	_
Del Norte	2	5.	11,800,000	100,000	-	-
El Dorado	12	4	7,500,000	-	30	_
Fresno	6	-	-	-	2	_
Humboldt	17	5	36,969,766	19,618,000	-	-
Inyo	-	3	400,000	-	8	700
Kern	3	-	600,000	-	4	-
Lake	3	-	1,500,000	-	-	-
Lassen	3	3	2,500,000	-	2	-
Los Angeles	4	-	102,000	-	-	-
Marin	-	-	-	-	-	-
Mariposa	4	2	2,075,000	-	-	25,900
Mendocino	19	3	-	-	-	-
Merced	-	-	-	-	-	-
Modoc	3	8	3,200,000	1,800,000	-	-
Mono	3	7	20,000,000	300,000	-	100,000
Monterey	-	-	-	-	-	-
Napa	-	- ,	- 07 000 000	-	1	-
Nevada Placer:	15	2	27,000,000	1,000,000	17	80,000
District No. 1 District No. 2	10	-	23,000,000	-	9	- 600
District No. 3	10	-	23,000,000	-	-	600
Plumas	- 4	7	6,000,000	1,000,000	_	100,000
Sacramento	_ +	_ ′	0,000,000	1,000,000	_	100,000
San Benito	_	_	_	_	_	_
San Bernardino	3	_	3,000,000	_	_	_
San Diego	_	3	201,000	_	1	200
San Francisco	_	_	_	_	_ '	_
San Joaquin	1	_		_	_	_
San Luis Obispo.	3	_	249,680	_	_	-
San Mateo	10	-	3,000,000	16,000,000	_	_
Santa Barbara	-	_	-	-	_	-
Santa Clara	-	_	-	-	_	_
Santa Cruz	18	2	63,000,000	13,600	_	-
Shasta	4	6	1,000,000	500,000	6	1,975
Sierra	10	7	7,480,000	2,400,000	7	120,000
Siskiyou	2	9	3,500,000	_	-	20,000
Solano	-	-	-	-	-	-
Sonoma	15	-	40,000	10,000	-	-

Stanislaus	-		-		-	-	-	-
Sutter	-		-		-	-	-	-
Tehama		8		1	40,000,000	-	-	-
Trinity	-		-		3,000,000	180,000	4	300
Tulare		5		1	1,200,000	-	-	200
Tuolumne		5		1	5,400,000	2,350,000	34	85,000
Ventura	-		-		-	-	-	-
Yolo	-		-		-	-	-	-
Yuba		4		1	1,800,000	-	-	- .

	MINING D	ITCHES.	IRRIGATION	DITCHES.	WOOLEN MILLS.	
COUNTIES.	Number.	Miles in Length.	Number.	Miles in Length.	Number.	Pounds of Wool Used.
Alameda:						
Alameda Tp	-	-	-	-	-	-
Brooklyn Tp	-	-	-	-	-	-
Eden Tp	-	-	-	-	-	-
Murray Tp	- 1	-	-	-	-	-
Oakland Tp	-	-	1	5	-	-
Washington Tp. Alpine	<u>-</u>	-	1	25	-	-
Amador	- 1	350	-	50	-	-
Butte	40	501	25	200	-	_
Calaveras	_ 40	525		_ 200	_	_
Colusa	_		_	_	-	_
Contra Costa	_	_	_	_	_	_
Del Norte	_	400	_	2	-	_
El Dorado	5	500	30	150	_	<u>-</u>
Fresno	- 1	10	_	64	_	-
Humboldt	-	23	-	-	_	-
Inyo	1	6	5	30	-	-
Kern	-	-	-	212	-	-
Lake	-	-	-	-	_	-
Lassen	-	-	-	6	-	-
Los Angeles	-	-	-	345	-	85,000
Marin	-	-	-	-	-	-
Mariposa	-	91	-	1 3/4	-	-
Mendocino	-	-	-	-	-	-
Merced	-	-	-	57	-	400,000
Modoc	-	-	-	362	-	-
Mono	-	40	-	-	-	-
Monterey	-	-	-	6	-	-
Napa	- 247	- 000	-	-	-	-
Nevada	217	830	-	-	-	-
District No. 1	2	40	-	-	-	-
District No. 2	-	127	-	-	- 4	-
District No. 3	-	- 4 000	-	- 400	1	-
Plumas	-	1,000	-	100	-	-
San Benito	-	-	_	-	-	-
San Bernardino	_	-	_	-	-	_
San Diego	_	_	_	_	<u>-</u>	_
San Francisco	_	-	_	_	_	3,000,000
San Joaquin	_	_		_	_ 1	200,000
San Luis Obispo.	_	_	_	_		200,000
San Mateo	_	_	_	_	_	_
Santa Barbara	_	_	_	_	_	-
Santa Clara	-	_	_	_	_	357,000
Santa Cruz	.	_	_	62	-	-
Shasta	300	720	75	260	-	-
Sierra	-	266	-	246	-	-
Siskiyou	-	250	-	-	-	-
Solano	-	-	-	-	-	-
Sonoma	-	-	-	-	-	-

Stanislaus	-	9	-	26	_	-
Sutter	-	-	-	-	-	-
Tehama	-	1 -	-	15	_	-
Trinity	-	165	-	-	_	_
Tulare	-	-	_	256	_	-
Tuolumne	17	152	10	30	_	2,000
Ventura	-	-	-	-	_	-
Yolo	-	-	-	100	_	-
Yuba	-	55	-	38	-	600,000
						,

	COTTO	N MILLS.	COAL.	RAILROADS.		
COUNTIES.	Number.	Pounds of Cotton Used.	Tons Mined.	Number.	Miles in Length.	
Alameda:						
Alameda Tp	-	-	-	-	-	
Brooklyn Tp	-	-	-	-	-	
Eden Tp	-	-	-	-	-	
Murray Tp	-		-	-	-	
Oakland Tp	-	-	-	-	-	
Washington Tp.	-	-	-	-	-	
Alpine Amador	-		-	-	-	
Butte	-	-	-	-	-	
Calaveras	-	-	-	-	_	
Colusa	<u>-</u>	_	<u>-</u>	<u>-</u>		
Contra Costa	-	_	97,000	- -		
Del Norte		_	37,000	_	_	
El Dorado	_	_	_	_	_	
Fresno	_	_	_	-	_	
Humboldt	_		_	-	_	
Inyo	_	-	_	_	_	
Kern	_	-	_	_	_	
Lake	-	_	_	-	_	
Lassen	-	-	-	-	_	
Los Angeles	-	-	2,250	_	-	
Marin	-	-	_ `	-	_	
Mariposa	-	-	-	-	-	
Mendocino	-	-	-	-	-	
Merced	-	200,000	-	-	_	
Modoc	-	-	-	-	-	
Mono	-	-	-	-	-	
Monterey	-	-		-	-	
Napa	-	-	-	-	-	
Nevada Placer:	-	-	-	-	-	
District No. 1	-	-	-	-	-	
District No. 2	-	-	-	-	-	
District No. 3	-	-	-	-	-	
Plumas	-	-	-	-	-	
Sacramento	-	-	-	-	=	
San Benito	-	-	-	-	-	
San Bernardino	-	-	-	-	-	
San Diego San Francisco	-	-	-	-	-	
San Joaquin	-	4,000	-	-	<u>-</u>	
San Joaquili San Luis Obispo.	-	4,000	-	-	_	
San Mateo	-	-	-	-	-	
San Mateo	-	_	-	-		
Santa Clara	_	26,555	_	-		
Santa Cruz		20,000	_	-	_	
Shasta	-	_ [_	<u>-</u>	_	
Sierra		<u> </u>	_	-	_	
Siskiyou	-	<u> </u>	_	-	_	
Solano	_	_ [_	- -	1 -	
Sonoma		·	1		<u> </u>	

Stanislaus	-	_	-	-	_
Sutter	-	-	-	-	-
Tehama	-	-	-	-	-
Trinity	-	-	-	-	<u>-</u>
Tulare	-	_	-	<u>-</u>	-
Tuolumne	- ,	- .	-	_	-
Ventura	-	-	-	-	_
Yolo	-	-	_	<u>-</u>	_
Yuba	-	_	-	<u>-</u>	-

	ASSESSED V	ALUE OF PROPER	TY FOR 1881		
COUNTIES.	ACCECCED V	ALUE OF FROFER	1110111001.	Estimated Total	Registered
·	Real Estate.	Personal Prop'ty.	Total Valuation.	Population.	Voters.
Alameda:	A. 222 155	4001000	A. - - - - - - - - - -		
Alameda Tp	\$4,396,499	\$364,850	\$4,761,338	-	
Brooklyn Tp	5,476,365	563,397	6,039,762	-	
Eden Tp	3,081,945	405,730	3,487,675	-	-
Murray Tp Oakland Tp	2,561,370 22,257,614	636,788 2,094,866	3,198,158 24,352,480	-	-
Washington Tp.	2,977,260	507,950	3,971,116	-	_
Alpine	222,053	90,454	312,507	_	<u>-</u>
Amador	3,086,647	1,483,301	4,569,948	_	_
Butte	11,428,164	2,485,791	13,913,955	-	-
Calaveras	1,830,660	893,375	2,724,035	-	-
Colusa	17,195,655	3,974,136	21,169,791	-	-
Contra Costa	6,842,298	1,908,982	8,751,280	-	-
Del Norte	503,110	299,687	802,797	-	•
El Dorado	1,941,903	954,940	2,896,843	-	-
Fresno	6,758,071	1,972,670	8,730,741	-	
Humboldt	5,457,390	1,721,020	7,178,410	-	-
inyo	625,360	432,035	1,057,395	-	
Kern	4,438,899	1,524,370	5,963,269	-	-
Lake	1,824,063	567,614	2,391,677	-	-
Lassen Los Angeles	672,564 16,758,665	542,789 3,262,892	1,215,353 20,021,557	_	-
Marin	6,369,103	1,234,847	7,603,950	_	_
Mariposa	1,117,706	517,730	1,635,436	_	- -
Mendocino	5,133,445	1,897,925	7,031,370	_	-
Merced	5,066,403	1,563,761	6,630,164	_	-
Modoc	993,094	772,848	1,765,942	-	-
Mono	2,390,119	783,671	3,173,790	-	-
Monterey	6,731,643	1,631,060	8,362,703	-	-
Napa	7,124,287	2,036,240	9,160,527	_]	-
Nevada	7,773,040	1,782,845	9,555,885	-	-
Placer:					
District No. 1	2,402,439	699,403	3,101,842	-	-
District No. 2	1,496,579	2,743,734	4,240,313	-	-
District No. 3	- 1,557,222	- 000 400	-	-	-
Plumas		802,408 5,576,420	2,359,630	-	-
Sacramento	17,083,119 3,225,974	5,576,420 902,767	22,659,539 4,128,741	_	_
San Bernardino	3,448,698	724,949	4,173,647	-	<u>-</u>
San Diego	6,103,946	1,029,106	7,133,052	-	_
San Francisco	155,736,869	66,547,386	222,284,255	233,000	40,000
San Joaquin	22,960,659	5,936,960	28,897,719	-	-
San Luis Obispo.	3,385,853	1,627,605	5,013,458	-	-
San Mateo	6,805,850	1,204,245	8,010,095	-	-
Santa Barbara	3,763,912	1,246,969	5,010,881	-	-
Santa Clara	21,316,369	4,756,220	26,072,589	-	-
Santa Cruz	5,800,095	825,580	5,812,480	-	-
Shasta	1,909,045	944,563	2,853,608	-	-
Sierra	1,151,276	408,454	1,559,730	-	-
Siskiyou	1,968,927	1,550,772	3,519,699	-	-
Solano	8,277,806	2,310,005	11,617,736	-	-
Sonoma	14,200,555	3,638,223 2,475,556	17,838,778	-	
Stanislaus	9,669,471	2,475,556	12,145,027	- 1	-

Sutter	3,443,505	1,163,429	4,606,934	-	-
Tehama	6,626,379	1,505,327	8,131,706	-	-
Trinity	641,240	431,760	1,073,000	-	-
Tulare	5,981,637	1,863,973	7,845,610	-	-
Tuolumne	1,219,616	866,554	2,086,170	-	-
Ventura	2,503,939	931,061	3,435,000	-	-
Yolo	10,051,759	3,258,766	13,310,525	-	_
Yuba	3,280,099	1,542,085	4,822,184	-	_

TABLE OF STATISTICS.

Industrial and other Statistical Information for the years 1881 and 1882, as reported to the Surveyor-General by the several County Assessors, embracing the entire State.

COUNTIES.	Acres Land	Acres Land Acres Land		ĒAT.	BAR	LEY.
:	Inclosed.	Cultivated.	Acres.	Bushels.	Acres.	Bushels.
Alameda:						
Alameda Tp	-	-	-	-	-	-
Brooklyn Tp	-	8,453	1,400	33,000	1,850	44,000
Eden Tp	50,650	42,900	5,250	76,450	15,000	301,000
Murray Tp	-	79,100	63,700	921,315	6,850	136,100
Oakland Tp		-	-	-	-	-
Washington Tp.	40,200	23,500	8,000	240,000	9,600	384,000
Alpine	3,827	2,045	219	3,315	142	2,975
Amador	60,600	30,300	2,000	30,000	6,000	90,000
Butte	308,740	340,400	183,000	2,013,000	50,000	652,000
Calaveras	62,500	50,250	20,510	143,570	7,460	89,520
Colusa	162,420	524,640	395,480	6,753,160	35,480	780,560
Contra Costa	250,794	143,074	111,910	2,797,750	26,618	570,480
Del Norte	20,410	1,752	14	3,698	123	6,820
El Dorado	66,840	9,577	-	8,707	-	7,070
Fresno	185,000	280,000	130,240	4,780,807	12,000	95,500
Humboldt	70,824	22,311	1,769	39,079	379	11,593
Inyo	18,300	7,500	910	18,200	1,451	32,197
Kern	47,210	32,380	25,220	361,000	4,960	99,200
Lake	35,707	12,923	4,870	91,205	1,563	39,849
Lassen	-	21,452	3,480	69,430	1,400	41,312
Los Angeles	92,000	212,000	85,000	1,700,000	36,450	729,000
Marin	292,867	14,521	3,014	54,365	2,141	62,189
Mariposa	32,796	6,668	902	8,613	917	15,500
Mendocino	136,214	60,711	16,372	323,640	8,044	25,620
Merced	169,027	2,025,539	172,924	1,934,464	14,235	303,235
Modoc	97,180	65,223	34,685	711,042	29,949	927,216
Mono	38,450	9,360	500	800	1,000	2,000
Monterey	165,560	145,100	100,450	1,954,750	30,250	675,500
Napa	150,491	55,856	27,190	406,785	2,220	66,600
Nevada Placer:	35,934	7,010	-	-	-	-
District No. 1	4,725	72,365	24 472	787,800	0.460	200.420
District No. 2	8,190	2,705	31,472	707,000	9,460	208,120
District No. 3	0,190	2,705	-	-	-	1,200
Plumas	60,000	6,000	1,000	30,000	300	10,000
Sacramento	326,742	129,284		333,600		
San Benito	228,000		27,800		46,645	684,675
San Bernardino	20,205	54,000 14,546	42,000	76,000	8,000	31,000
San Diego	5,162	22,997	3,105 11,209	33,817	6,995	89,593
San Francisco	6,300	3,000	11,209	142,499	3,260 250	58,024
San Joaquin	380,100	340,000	222,000	3,728,795	40,900	750,000
San Luis Obispo.		· ·	·		·	
San Mateo	215,600 170,000	74,363 70,000	36,384 24,000	508,263 613,000	8,454 14,580	128,373
San Mateo	48,200		41,320		14,580	375,000
Santa Clara	421,359	88,500 243,276	110,240	1,267,480 2,240,019	30,480 31,211	1,378,000
Santa Cruz	87,420	38,190	14,320			763,372
Shasta	145,337	50,640	18,260	28,640 254,009	8,120 17,204	186,760 283,445
Sierra	26,030	2,803	140	2,085	1,190	203, 44 3 19,096
Ol o i (a	20,030	2,003	140	2,000	1,190	19,090

Siskiyou	215,000	24,350	7,000	133,000	5,700	114,000
Solano	-	-	-	_	- '	_
Sonoma	569,843	222,642	100,565	804,520	24,613	295,365
Stanislaus	99,497	459,835	432,103	5,227,937	17,605	278,450
Sutter	122,006	61,214	48,101	672,570	6,187	132,512
Tehama	149,550	275,250	170,000	1,700,000	25,000	500,000
Trinity	6,000	3,000	800	12,000	55	1,100
Tulare	194,320	661,033	626,645	1,665,634	3,653	109,500
Tuolumne	138,025	35,200	6,225	124,550	2,380	58,000
Ventura	50,000	150,000	3,500	40,000	10,000	220,000
Yolo	182,460	225,500	180,460	2,508,600	10,500	220,240
Yuba	110,240	60,450	30,240	483,840	8,000	168,000

TABLE OF STATISTICS – Continued.

COUNTIES.	OATS.		RY	E.	CORN.	
	Acres.	Bushels.	Acres.	Bushels.	Acres.	Bushels.
Alameda:						
Alameda Tp	-	-	-	-		-
Brooklyn Tp	1,200	25,000	-	-	60	650
Eden Tp	300	6,000	-	- 1	1,450	31,900
Murray Tp	-	-	-	-	-	-
Oakland Tp Washington Tp.	100	4,000	-	-	550	22,000
Alpine	293	6,353	-	_	550	22,000
Amador	_ 293	0,333	_	_ 1	300	1,500
Butte	4,200	73,000	_	_	2,700	89,700
Calaveras	- 1,200	-	_	_	525	2,625
Colusa	87	1,566	56	672	580	12,760
Contra Costa	1,160	26,500	-	-	1,300	27,301
Del Norte	279	15,353	-	-	54	2,370
El Dorado	-	135	-	375	-	-
Fresno	-	-	-	-	800	1,208
Humboldt	11,297	433,000	22	700	22	585
Inyo	413 1/2	17,200	-	-	1,324	26,480
Kern			-	-	1,842	52,600
Lake	147	4,314		-	478	12,330
Lassen	694	26,100	120	1,200	62	1,290
Los Angeles	525	-	500	12,500	25,340	1,267,500
Marin	889 18	22,380 255	- 27	170	- 8	- 125
Mariposa Mendocino	8,870	27,560	21	_ 170	750	135 15,000
Merced	_ 0,070	- 27,500	5,170	27,500	330	13,200
Modoc	510	1,560	53	1,520	26	480
Mono	400	1,200	-	- 1,020		-
Monterey	3,250	39,500	-	-	600	2,500
Napa	300	10,500	-	-	975	39,000
Nevada	-	- j	-	-	-	-
Placer:						
District No. 1	†_	†_	†_	†_	-	-
District No. 2	-	-	- [-	-	-
District No. 3	- 0.000	-	- 050	- 7.500	- 40	-
Plumas	2,000	60,000	250	7,500	10	500
Sacramento San Benito	2,200 200	39,600 6,000	200	4,000	4,800 100	154,600 3,000
San Bernardino	22	650	_	_	166	4,443
San Diego	10	300	20	300	229	4,480
San Francisco		_		_ 000	_	-,400
San Joaquin	300	4,500	5,000	100,000	800	4,200
San Luis Obispo.	2,932	72,864	3,145	52,320	2,622	104,880
San Mateo	4,590	173,000	50	2,550	200	8,000
Santa Barbara	47	1,060	40	750	1,428	79,860
Santa Clara	672	17,229	167	3,514	125	5,497
Santa Cruz	720	1,680	80	1,600	1,726	2,580
Shasta	4,600	2,500	50	400	200	5,000
Sierra	975	23,730		-		
Siskiyou	2,600	65,000	50	850	300	5,400

^{*}Thirty acres cut green.
† Cut for hay.

Solano	-	-	-	_	-	_
Sonoma	4,324	64,860	-	-	58,701	1,144,020
Stanislaus	108	1,600	2,660	47,100	102	3,595
Sutter	-	-	- '	-	1,372	23,055
Tehama	1,500	30,000	5,000	10,000	1,000	1,800
Trinity	250	10,000	-	-	60	2,000
Tulare	-	-	35	500	400	9,250
Tuolumne	550	16,500	35	625	90	1,750
Ventura	-	-	-	-	90	80,000
Yolo	-	-	-	-	-	-
Yuba	600	15,000	-	-	100	2,100

TABLE OF STATISTICS – Continued.

COUNTIES.	BUCKV	BUCKWHEAT.		AS.	PEAN	IUTS.	BEA	NS.
	Acres.	Bushels.	Acres.	Bushels.	Acres.	Pounds.	Acres.	Bushels.
Alameda:								
Alameda Tp	-	-	-	· -	-	-	- t	-
Brooklyn Tp	-	-	225	-	-	-	[†] 55	800
Eden Tp	-	-	400	-	-	-	250	700
Murray Tp Oakland Tp	-	-	-	-	-	-	-	-
Washington Tp.	_	_	200	4,000	-	_	110	3,200
Alpine	_	_	8	160	_	_	8	190
Amador	_	_	_	- 100	_	_	_	- 100
Butte	-		_	_	_	_	_	_
Calaveras	-	_	_	-	_	-	50	400
Colusa	-	-	18	365	5	8,665	4	160
Contra Costa	-	-	40	580	-	_	85	1,425
Del Norte	-	-	14	500	-		3	100
El Dorado	-	-	-	-	-	-	-	-
Fresno	-	-	-	-	-	-	-	-
Humboldt	12	200	980	42,883	- , .	-	4	47
Inyo	-	-	-	-	-	-	-	-
Kern	-	-	-	-	-	-	100	2,500
Lake	-	-	-	-	-	-	-	-
Lassen	25	250 1,500	10	300	- 00		-	-
Los Angeles Marin	100	1,500	140	5,000	80	80,000	1,100	33,000
Mariposa	_	-	-	-	-	-	- 8 ³ / ₈	207
Mendocino	_	_	_	_	_		- 0 /8	207
Merced	_	_	_	_	<u>-</u>	_	_	_
Modoc	_	_	26	160	_	_	14	21
Mono	-	_			_	_		
Monterey	-	_	-	_	-	-	315	_
Napa	-	-	10	800	-	-	10	400
Nevada	-		-	-	-	-	-	_
Placer:			i					
District No. 1	-	-	-	-	-	-	-	-
District No. 2	-	-	-	-	-	-	-	-
District No. 3	-	-	-	-	-	-	315	
Plumas	-	-	20	1,000	-	- !	10	600
Sacramento	-	-	-	-	-	-	-	-
San Benito San Bernardino	-	-	-	-	-	-	-	-
San Diego	-	-	-	-	-	-	- 6	- 25
San Francisco	_	-	12	-	-	-	6 8	35 50
San Joaquin	_	_	30	600	_	_	1,000	20,000
San Luis Obispo.	75	602	40	817	3	2,200	4,685	87,784
San Mateo		-	"	- 017		-	50	1,200
Santa Barbara	-	_	3	175	_	_	9,765	146,700
Santa Clara	_	_	86	2,320	_	29	-	311
Santa Cruz	40	920	-	-	_	_	526	6,212
Shasta	_	-	-	-	_	_	200	6,003
Sierra	-	-	-	-	-	-	-	-
Siskiyou	-	-	-	-	-	-	20	525
<u></u>		<u> </u>	•		•			

^{*} Sold green.
† 30 sold green.

Solano	-	-	-	- !	-	-	-	-
Sonoma	-	-	-	-	-	-	-	-
Stanislaus	-	-	-	-	-	-	-	-
Sutter	45	200	-	-	-	-	20	913
Tehama	-	-	-	-	110	18,000	25	500
Trinity	-	-	-	-	-	-	-	-
Tulare	-	-	- 1	-	-	-	50	1,250
Tuolumne	-	-	20	675	-	-	26	510
Ventura	-	-	-	-	- 1	- 1	2,000	30,000
Yolo	-	-	-	-	-	-	-	-
Yuba	-	-	-	-	-	-	-	-

TABLE OF STATISTICS – Continued.

COUNTIES.	CASTOR BEANS.		POTAT	OES.	SWEET PO	OTATOES.
	Acres.	Pounds.	Acres.	Tons.	Acres.	Tons.
Alameda:						
Alameda Tp	-	-	-	-	-	-
Brooklyn Tp	-	-	600	1,170	1	1
Eden Tp	-	-	800	1,050	-	-
Murray Tp	-	-	-	-	-	-
Oakland Tp	-	-	-	-	-	-
Washington Tp.	_	-	260	3,160	- '	-
Alpine	-	-	39	113	-	-
Amador	-	-	700	500	-	-
Butte	-	-	400	747	. -	-
Calaveras	-	-	650	1,300	-	-
Colusa	-	-	78	390	6	27
Contra Costa	-	-	1,184	2,368	-	-
Del Norte	-	-	61	130	-	-
El Dorado	-	-	-	245	-	-
Fresno	-	-	-	-	-	-
Humboldt	-	-	980	2,907	-	_
Inyo	-	-	137	519	-	_
Kern	-	-	142	426	10	48
Lake	-	-	93	74 ½	7 ½	7
Lassen	-	-	200	1,000	-	-
Los Angeles	900	1,200,000	3,500	7,000	310	1,860
Marin	-	-	1,523	2,980	-	-
Mariposa	-	-	51 3/4	127 ½	1/2	1/2
Mendocino	-	-	2,000	5,400	-	-
Merced	-	-	70	332	21	97
Modoc	-	-	155	320	-	-
Mono	-	-	250	460	-	-
Monterey	-	-	650	795	-	-
Napa	-	-	80	320	-	-
Nevada	-	-	-	-	-	-
Placer:						
District No. 1	-	-	-	-	-	-
District No. 2	-	-	-	18	-	-
District No. 3	-	-	-	-	-	-
Plumas	- 1	-	150	10	-	-
Sacramento	-	-	3,500	1,400	-	-
San Benito	-	-	-	-	-	-
San Bernardino	-	-	9	16	-	-
San Diego	-	-	60	113	54	19
San Francisco	-	-	-	-	-	-
San Joaquin	-	-	6,000	12,000	30	60
San Luis Obispo.	-	-	950	3,828	22	23
San Mateo	-	-	3,500	8,800	75	230
Santa Barbara	-	-	326	1,730	12	116
Santa Clara	-		650	1,944	-	-
Santa Cruz	-	-	620	900	-	-
Shasta	-	-	112	450	10	15
Sierra	-	-	-	150	-	_
Siskiyou	-	-	120	900	-	-
Solano	-	-	-	-	-	-
Sonoma	-	-	6,560	9,840	-	-
Stanislaus		-	25	84	-	_

Sutter	-	-	161	642	32	144
Tehama	-	-	130	400	25	65
Trinity	-	-	65	260	-	-
Tulare	-	-	250	1,500	30	180
Tuolumne	_	-	220	625	-	-
Ventura	_	-	-	-	-	-
Yolo	-	-	-	-	-	· -
Yuba	-	-	300	1,600	75	250

TABLE OF STATISTICS - Continued.

COUNTIES.	ONIC	DNS.	HAY	<i>(</i> .	FLA	.X.
	Acres.	Bushels.	Acres.	Tons.	Acres.	Pounds.
Alameda:						
Alameda Tp		-	-	-	-	-
Brooklyn Tp	*40	750	3,000	5,250	-	-
Eden Tp	500	28,100	6,400	71,150	-	-
Murray Tp	-	-	-	111,500	-	-
Oakland Tp	- 400	-	- 0.400	- 0.000	-	-
Washington Tp.	130	30,000	3,400	6,800	-	-
Alpine Amador	20	2,000	1,197	1,510	-	-
Butte	10	400	6,000 62,700	7,000 61,300	-	-
Calaveras	85	1,800	10,560	19,850	-	-
Colusa	22	290	92,624	72,467	_	<u>-</u>
Contra Costa		_ 230	44,290	66,438	_	_
Del Norte	_	_	1,184	2,621	_	<u>-</u>
El Dorado	-	_	_ 1,104	8,377	_	_
Fresno	-	_	7,182	15,455	_	•
Humboldt	-	-	4,589	10,772	_	_
Inyo	2	400	5,216	7,824	- 1	-
Kern	5	220	12,840	18,320	_	-
Lake	-	-	6,310	8,551	30	3,000
Lassen	7	600	15,300	21,000	-	•
Los Angeles	275	55,000	12,555	28,250	-	-
Marin	-	-	6,950	10,271	-	-
Mariposa	2 ³ / ₈	385	3,868	3,672	-	-
Mendocino	-	-	17,000	30,000	-	-
Merced	-	-	9,179	9,662	-	-
Modoc	40	2,100	58,240	60,000	-	-
Mono	-	-	15,000	15,000	-	-
Monterey		- 450	6,500	12,750	-	-
Napa	5	150	12,820	19,420	-	-
Nevada	-	-	2,600	2,300	-	-
Placer:			44 745	40.705	ļ	
District No. 1	-	-	11,745	12,795	-	-
District No. 2 District No. 3	-	-	-	1,437	-	-
Plumas	20	800	20,000	25,000	-	-
Sacramento		_ 000		40.004	_	-
San Benito	_	_	45,541 6,000	42,384 9,000	_	_
San Bernardino	_	_	3,528	10,456	_	-
San Diego	_	_	8,125	8,914	24	5,500
San Francisco	- 1	- 1	,,,			-
San Joaquin	40	10,000	7,000	10,000	_	-
San Luis Obispo.	12	425	9,420	18,735	2,832	3,115,200
San Mateo	50	5,000	17,000	25,500	2,000	1,390,000
Santa Barbara	-	- '	1,465	3,885	472	514,000
Santa Clara	220	4,672	50,421	104,639	_	-
Santa Cruz	- 1	- '	12,000	36,000	-	-
Shasta	-	-	17,036	18,000	-	-
Sierra	-	-	15,900	24,350	-	-
Siskiyou	9	2,400	8,500	23,250	-	-
Solano	-	- 1	-	-	-	-

^{*}One half sold green.

Sonoma	-	-	27,524	30,000	_	-
Stanislaus	-	-	7,232	8,130	-	-
Sutter	4	3 tons	5,292	7,842	-	_
Tehama	28	680	65,000	70,000	-	_
Trinity	4	400	1,000	2,000	-	-
Tulare	-	-	6,500	7,200	-	-
Tuolumne	52	2,755	25,050	25,050	-	-
Ventura	-	-	3,000	3,000	-	-
Yolo	-	-	17,000	24,000	_	_
Yuba	10	300	8,050	7,000	-	-
				•		

TABLE OF STATISTICS – Continued.

COUNTIES.	НОІ	PS.	TOBA	.cco.	COT	TON.
	Acres.	Pounds.	Acres.	Pounds.	Acres.	Pounds.
Alameda:	45	45.000				
Alameda Tp Brooklyn Tp	15 22	15,000 22,000	-	-	- -	<u>-</u>
Eden Tp		22,000	_	<u>-</u>	_	_
Murray Tp		_	_	_	_	_
Oakland Tp	_	_	_	<u>-</u>	_	-
Washington Tp.	50	40,000	_	_	-	-
Alpine	-	-	<u>-</u>	-	-	-
Amador	40	50,000	_	-	-	-
Butte	-	- 1		-	-	-
Calaveras	-	- 1	-	-	-	-
Colusa	100	5,000	-	-	-	-
Contra Costa	-	-	-	-	-	-
Del Norte	-	-	-	-	-	-
El Dorado	-	· <u>-</u>	-	-	-	-
Fresno	-	-	-	-	- ,	-
Humboldt	-	-	-	-	-	-
Inyo	-	-	-	<u>-</u>	-	-
Kern	-	-	-	-	92	27,600
Lake	90	-	-	-	-	-
Lassen		-	-	-	-	-
Los Angeles	75	120,000	25	25,000	-	-
Marin	-	-	-	-	-	-
Mariposa	- 400	-	1/2	35	-	-
Mendocino Merced	480 60	62,000 64,000	-	-	- 550	222.000
Modoc	00	04,000	-	-	550	222,000
Mono	_	_	_		_	<u>-</u>
Monterey	_	_	_	_	_	_
Napa	43 ½	51,000	<u>:</u>	_	_	_
Nevada	0 /2	-	_	-	_	_
Placer:						
District No. 1	-	_	-	-	-	-
District No. 2	-	_	-	-	-	-
District No. 3	-	_	-	-	-	-
Plumas	-	-	- 1	-	-	-
Sacramento	600	1,200,000	-	-	-	-
San Benito	-	-	-	65	-	-
San Bernardino	-	3,000	-	-	-	-
San Diego	-	-	-	-	-	-
San Francisco	-	-	-	-	-	-
San Joaquin	70	35,000	-	-	-	-
San Luis Obispo.	-		2	1,500	-	-
San Mateo	10	17,500	-	-	-	-
Santa Barbara	-	-	-	-	-	-
Santa Clara	-	-	-	-	-	-
Santa Cruz	-	-	-	-	-	-
Shasta	-	-	-	-	-	-
Sierra	-	-	-	-	-	-
Siskiyou	-	-	-	-	-	-
Solano	-	-	-	-	-	-

Sonoma	355	-	-	-	-	-	
Stanislaus	-	-	-	-	-	_	
Sutter	-	-	-	_	-	_	
Tehama	-	-	-	-	-	-	
Trinity	-	-	-	_	-	-	
Tulare	-	-	-	-	-	-	
Tuolumne	-	-	-	_	-	-	
Ventura	-	-	_	-	-	_	
Yolo	220	124,000	-	_	-	-	
Yuba	-	-	-	-	-	_	

* Not known.

TABLE OF STATISTICS - Continued.

El Dorado.	COUNTIES.	SUGAR BEETS.		Pounds of	Pounds of	Pounds of Wool.
Alameda Tp Brooklyn Tp Eden Tp 1,100		Acres.	Tons.	Butter.	Cheese.	
Brooklyn Tp				*		
Eden Tp.		-	-	-	-	<u>-</u>
Murray Tp				-	-	-
Oakland Tp		1,100	13,400	18,400	-	-
Washington Tp. 1,000 20,000 75,000 - 19,00 Alpine		-	-	-	-	-
Alpine		1,000	- 00 000	75 000	=	- 40.000
Amador		1,000	20,000	75,000	-	19,000
Butte		-	-	20,000	-	200,000
Calaveras - 120,450 - 487,56 Colusa - 215,673 22,120 - Del Norte - 308,300 10,000 3,26 El Dorado - 159,100 8,000 85,02 Fresno - - - - Humboldt - 612,594 400 611,56 Inyo - 27,083 - - Kem - 24,000 8,200 2,293,72 Lake - 15,720 300 214,00 Lassen - 71,000 19,200 220,000 855,450 3,555,67 Marin - 3,872,228 95,000 - - 234,88 Mendocino - - - 160,000 6,000 109,22 Morin - - - 160,000 - - 254,36 Mendocino - - - - 1,600,00 -<		_	_	20,000	<u>-</u>	
Colusa		_	_	120.450	115 620	230,400
Contra Costa - 215,673 22,120 - Del Norte - 308,300 10,000 3,20 El Dorado - 159,100 8,000 85,00 Fresno - 612,594 400 611,56 Inyo - 27,083 - - Kern - 24,000 8,200 2,293,74 Lake - 15,720 300 214,00 Lassen - 71,000 19,200 - Lassen - 71,000 19,200 - Lassen - 71,000 19,200 - Lassen 950 19,000 220,000 855,450 3,555,67 Marin - - 3,872,228 95,000 - Mariposa - - 12,500 9,000 1,326,55 Modoc - 170,000 6,000 109,28 Mono - 12		_	_		-	487 564
Del Norte - 308,300 10,000 3,26 El Dorado - 159,100 8,000 85,00 Fresno - - 159,100 8,000 85,00 Fresno - - 612,594 400 611,56 Inyo - 27,083 - - Kern - 24,000 8,200 2,293,74 Lake - 15,720 300 214,00 Lassen - 71,000 19,200 - Los Angeles 950 19,000 220,000 855,450 3,555,67 Marin - - 3,872,228 95,000 - Mariposa - - - 234,86 Mendocino - - 12,500 9,000 1,326,55 Modoc - 170,000 6,000 109,28 Mono - - - 254,30 Napa - - - <td< td=""><td>ř</td><td>_</td><td>-</td><td></td><td>22.120</td><td></td></td<>	ř	_	-		22.120	
El Dorado	ľ	-	-		10.000	3,200
Fresno	El Dorado	-	_			85,025
Inyo		-	-	-	-	- ′
Inyo	Humboldt	-	-	612,594	400	611,565
Lake	Inyo	-	-	27,083	-	-
Lassen		-	-			2,293,740
Los Angeles 950 19,000 220,000 855,450 3,555,67 Marin		-	-			214,000
Marin		-	-			-
Mariposa		950	19,000			3,555,675
Mendocino		-	-	3,872,228	95,000	-
Merced		-	-	-	-	234,880
Modoc	ı	-	-	- 40 500	- 0.000	
Mono	ı	-	-			
Monterey	ı	-	-		0,000	109,280
Napa		_	_	100,000	<u>-</u>	254 300
Nevada		_	_	127 193	7 000	
Placer: District No. 1 - - 318,24 District No. 2 - - - - - District No. 3 -		_	_	-	-	-
District No. 2 -						
District No. 2 -	District No. 1	-	-	-	-	318,240
Plumas	District No. 2	-	-	-	-	-
Sacramento - - 486,325 - 525,00 San Benito - - 78,000 480,000 11,00 San Bernardino - - 90,256 - - San Diego - - 80,005 - 950,35 San Francisco - - - - - San Joaquin 5 100 230,000 5,000 150,00 San Luis Obispo. 5 86 1,331,160 872,362 933,66 San Mateo - - 148,000 275,000 -	District No. 3	-	-	-	-	-
San Benito - - 78,000 480,000 11,00 San Bernardino - - 90,256 - - San Diego - - 80,005 - 950,38 San Francisco - - - - - - San Joaquin 5 100 230,000 5,000 150,00 San Luis Obispo. 5 86 1,331,160 872,362 933,66 San Mateo - 148,000 275,000 -	Plumas	-	-		30,000	20,000
San Bernardino - - 90,256 - - San Diego - - 80,005 - 950,35 San Francisco - - - - - - San Joaquin 5 100 230,000 5,000 150,00 San Luis Obispo. 5 86 1,331,160 872,362 933,66 San Mateo - 148,000 275,000 -		-	-		-	525,000
San Diego - - 80,005 - 950,35 San Francisco - - - - - - San Joaquin 5 100 230,000 5,000 150,00 San Luis Obispo. 5 86 1,331,160 872,362 933,66 San Mateo - - 148,000 275,000 -		-	-		480,000	11,000
San Francisco - - - - San Joaquin 5 100 230,000 5,000 150,00 San Luis Obispo. 5 86 1,331,160 872,362 933,66 San Mateo - - 148,000 275,000 -		-	-		-	•
San Joaquin 5 100 230,000 5,000 150,00 San Luis Obispo. 5 86 1,331,160 872,362 933,66 San Mateo - - 148,000 275,000 -		-	-	80,005	-	950,354
San Luis Obispo. 5 86 1,331,160 872,362 933,66 San Mateo - 148,000 275,000 -			- 400	-		-
San Mateo 148,000 275,000 -						
		5	86			933,668
		-	-			4 400 700
		_	-	226,450	8,400 453 703	1,128,700
		-	-			429,620
		_	_		50,000	- 133,690
Sierra 87,050		_	_		_	-
		_	_		- 15 000	- 153,000
Solano		_	_	_ 100,000	- 10,000	-

^{*} Milk sold.

Sonoma	-	-	-	-	-
Stanislaus	-	-	16,840	6,780	1,049,965
Sutter	-	-	- ,	-	221,400
Tehama	-	-	10,000	-	7,055,000
Trinity	-	-	-	-	130,000
Tulare	-	-	163,250	-	1,225,690
Tuolumne	-	-	21,500	1,800	18,740
Ventura	-	-	-	10,000	400,000
Yolo	-	-	-	-	-
Yuba	<u>-</u>	-	-	-	90,000

TABLE OF STATISTICS – Continued.

COUNTIES.	Pounds of Honey.	Value of Fruit Crop.	Number of Bearing Lemon Trees.	Number of Bearing Orange Trees.	Number of Bearing Olive Trees.
Alameda:					
Alameda Tp	-	\$1,135	8	10	-
Brooklyn Tp	-	8,500	25	50	-
Eden Tp	-	50,875	25	350	40
Murray Tp	-	-	-	-	-
Oakland Tp	-	-	-	-	-
Washington Tp.	500	75,000	150	225	900
Alpine	-	-	-		-
Amador	4,000	25,000	-	-	100
Butte	-	-	2,400	2,960	-
Calaveras	12,345	70,000	27	117	32
Colusa	3,186	14,368	16	56	2
Contra Costa	-	-	-	-	-
Del Norte	-	3,000	-	-	-
El Dorado	-	-	-	25	-
Fresno	-	-	25	860	-
Humboldt	50	2,695	-	-	-
lnyo	16,257	4,000	-	-	-
Kern	24,000		30	25	5
Lake	-	10,747		-	-
Lassen	200	-	-		-
Los Angeles	275,000	950,000	48,350	450,125	3,155
Marin	-	-	-		•
Mariposa		2,810	12	83	3
Mendocino	740	12,000	-		.
Merced	-	19,935	34	56	176
Modoc	250	2,250	-	-	-
Mono	- 05 000	-	-	- 000	-
Monterey	25,000	-		200	80
Napa	3,780	354,633	2	50	8
Nevada	-	2,000	-	-	-
Placer: District No. 1			247	E20	4
District No. 2	-	2 640	317	532 234	4
District No. 3	-	3,610	1	234	3
Plumas	5,000	6,000	-	-	-
Sacramento	2,000	0,000	130	520	-
San Benito		978	- 130	46	<u>-</u>
San Bernardino	48,861	106,457	3,749	15,435	106
San Diego	246,989	9,045	1,257	3,390	2,807
San Francisco	240,000	_ 5,045	1,201	3,330	2,007
San Joaquin	2,000	13,000	_	300	70
San Luis Obispo.	65,440	9,897	42	65	86
San Mateo	2,000	3,500	45	170	90
Santa Barbara	26,800	16,480	1,840	612	4,580
Santa Clara	26,200	1,047,295	547	1,635	1,128
Santa Cruz		- 1,0-17,200	_	- 1,000	- 1,120
Shasta	_	47,961	6	13	_
Sierra	_	7,501	_	_ 13	-
Siskiyou	_	15,000	_	_	·-
Solano	_	_ 10,000	_	_	-
		.	1,893	3,927	894

^{*} Not estimated.

Stanislaus	_	13,040	9	56	3
Sutter	-	15,300	-	10	-
Tehama	-	110,000	55	160	-
Trinity	-	10,000		-	-
Tulare	34,650	-	5	75	-
Tuolumne	1,750	78,000	75	175	25
Ventura	140,000	-	1,000	200	150
Yolo	-	-	-	1,300	-
Yuba	-	20,000	55	180	2

23724C-13	· · · · · · · · · · · · · · · · · · ·					
COUNTIES.	Number of Bearing Apple Trees.	Number of Bearing Pear Trees.	Number of Bearing Fig Trees.	Number of Bearing Plum Trees.	Number of Bearing Peach Trees.	Number of Bearing Quince Trees.
Alameda:						
Alameda Tp	1,500	821	19	528	229	98
Brooklyn Tp	7,356	5,200	150	2,730	2,032	175
Eden Tp	11,800	31,900	50	65,050	39,800	1,275
Murray Tp	-	-	_	-	-	-
Oakland Tp	-	-	_	-	-	-
Washington Tp.	20,000	4,000	350	4,000	9,000	600
Alpine	200	-	-	50	-	-
Amador	7,000	1,000	900	3,000	1,500	200
Butte	14,800	2,350	2,100	3,900	47,400	300
Calaveras	500,000	116,000	30,500	50,420	535,000	2,200
Colusa	5,678	3,127	1,612	2,433	8,089	257
Contra Costa	-	-	-	-	-	-
Del Norte	6,256	170	1	409	50	24
El Dorado	52,523	12,287	765	17,787	58,269	353
Fresno	8,000	10,000	6,697	5,712	35,000	700
Humboldt	22,211	950	19	2,034	2,817	42
Inyo	1,100	261	17	288	4,000	-
Kern	6,723	1,141	280	1,260	6,280	40
Lake	8,185	1,545	190	1,639	4,048	88
Lassen	11,122	600	500	-	1,000	150
Los Angeles	64,384	23,640	10,225	8,335	38,175	3,100
Marin	36,823	3,602	-	961	716	63
Mariposa	5,382	951	658	748	2,846	74
Mendocino	60,500	10,000	200	15,000	43,500	-
Merced	7,490	2,041	701	1,119	9,065	135
Modoc	708	65	-	210	35	-
Mono	-		-	-	-	-
Monterey	9,500	3,700	·	2,000	250	120
Napa	41,230	11,280	700	6,150	17,105	800
Nevada	33,800	4,900	800	3,280	5,500	800
Placer:	7.045	0.470	400	0.070	0.40=	
District No. 1	7,345	2,476	480	2,072	9,425	460
District No. 2	15,546	3,583	544	3,043	18,226	361
District No. 3	- 0.000	-	-	-	-	-
Plumas	6,000	200	-	500	2,000	-
Sacramento	- 00 700	47.000	- 400		-	-
San Benito	29,780	17,826	400	5,600	11,870	400
San Bernardino	8,837	1,910	1,604	1,171	31,631	139
San Diego	7,359	2,559	1,820	648	7,833	267
San Francisco	40.000	-	- 0000	- 0.000	-	- 4.000
San Joaquin	40,000	16,000	6,000	9,000	10,000	1,000
San Luis Obispo.	4,286	1,692	830	526	4,484	381
San Mateo	11,000	3,075	261	2,820	2,750	330
Santa Barbara	10,470	1,248	790	4,120	4,349	437
Santa Clara	79,735	70,422	836	97,375	72,815	3,573
Santa Cruz	24,000	4,000	75	3,000	6,000	300
Shasta	11,300	971	347	1,641	10,340	409
Sierra	1,728	130	-	80	150	30
Siskiyou	50,000	3,000	-	3,000	7,400	-
Solano	107.044	46 004	- 4 000	00.700	444 044	0.040
Sonoma	197,214	46,881	4,990	26,732	141,211	2,810
Stanislaus	720	360	767	333	2,365	42

Sutter	13,678	3,200	3,257	5,836	26,550	40
Tehama	3,562	600	591	340	4,000	54
Trinity	5,000	500	3	300	2,000	20
Tulare	19,200	4,600	2,500	2,400	27,000	500
Tuolumne	45,640	21,300	1,550	30,600	22,650	250
Ventura	2,000	1,000	1,000	500	2,000	100
Yolo	14,500	35,400	4,500	3,800	11,500	650
Yuba	22,500	20	560	19,600	600	300

^{*} Peach and Apricot.

COUNTIES.	Number of Acres of Grapevines.	Wine, Number of Gallons.	Brandy, Number of Gallons.	Number of Breweries.	Beer, Number of Gallons.
Alameda:					
Alameda Tp	_	- .	-	-	7,000
Brooklyn Tp	6	-	-	2	94,000
Eden Tp	-	-	-	-	74,550
Murray Tp	-	-	-	-	-
Oakland Tp		-	-	-	55,000
Washington Tp.	1,284 ½	150,000	-	-	12,000
Alpine		-	-	-	
Amador	300	148,000	2,000	-	10,000
Butte	2,100	20,400	1,730	-	5,700
Calaveras	700	94,575	800	-	35,460
Colusa Contra Costa	778 787	-	-	-	28,460
Del Norte	6	100	_		3,000
El Dorado	1,299	220,690	37,300	3	3,000
Fresno	1,200	70,000	50,000	-	_
Humboldt	1,200	- 70,000		<u>-</u>	10,590
Inyo	32	520	_	-	15,784
Kern	30	- 020	_	_	- 10,70-1
Lake	1,083	600	_	•	34,000
Lassen	2	-	_	-	12,000
Los Angeles	11,440	3,100,000	145,000	-	(Bbls.) 7,000
Marin	36,304	-	-	-	
Mariposa	62,564	10,055	587	-	21,000
Mendocino	600	-	-	-	-
Merced	131	19,935	-	-	-
Modoc	-	-	-	-	10,140
Mono	-	-	-	-	550,000
Monterey		<u>-</u>	-	-	-
Napa	8,385	1,194,318	52,628	-	93,000
Nevada	163	6,000	-	-	526,200
Placer:	707	00 740	4.005		
District No. 1	797	28,740	4,325	-	-
District No. 2 District No. 3	247 ⁷ / ₈	20,000	500	-	30,000
Plumas	5	100	-	-	- 50,000
Sacramento	2,700	182,431	60,800	-	50,000
San Benito	391	14,000	800	<u>-</u>	27,000
San Bernardino	741	80,000	30,000	<u>-</u>	21,000
San Diego	308	3,920		-	18,000
San Francisco	-	- 0,020	_	-	3,000,000
San Joaquin	900	-	_	-	140,000
San Luis Obispo.	52	2,120	236	-	26,296
San Mateo	112	1,000	-	-	50,000
Santa Barbara	117	1,750	_	-	3,800
Santa Clara	15,590	218,329	72,417	-	2,417,550
Santa Cruz	1,200	35,000	-	-	85,000
Shasta	530	4,600	341	-	-
Sierra	-	-	-	-	31,960
Siskiyou	-	-	2,000	-	28,000
Solano	-		-	-	-
Sonoma	13,414	2,523,845	213,690	-	-
Stanislaus	180	6,500	1,200	-	45,000
Sutter	203	-	-	-	10,980
Tehama	1,200	-	-	_	25,000

Trinity	-	-	<u>-</u>	_	10,000
Tulare	420	4,000	-	_	33,000
Tuolumne	778	91,550	2,800	-	37,700
Ventura	80	8,000	1,000	-	-
Yolo	1,850	44,000	5,000	-	54,000
Yuba	28,900	150,000	17,000	-	30,000
!					

COUNTIES.	Number of	Number of	Total	Number of	Number of	TELEGRAPH LINES.		
COUNTIES.	Horses.	Mules.	Number of Horned Cattle.	Sheep.	Hogs.	No.	Miles.	
Alameda:								
Alameda Tp	388	1	351	-	103	-	7.50	
Brooklyn Tp	981	15	1,209	75	208	2	13.00	
Eden Tp	1,302	120	3,493	5,250	-	-	-	
Murray Tp	2,483	103	3,066	17,760	2,721	2	60.00	
Oakland Tp	671	2	242	-	-	5	-	
Washington Tp.	1,982	34	2,185	2,887	836	-	46.40	
Alpine	- 0.500	- 500	- 000	-		-	-	
Amador	2,500	500	6,200	20,000	500	-	60.00	
Butte Calaveras	10,699 2,177	1,878 210	10,219 11,748	81,005 74,652	9,708 3,332	-	69.00 50.00	
Colusa	7,471	4,283	7,203	160,027	3,332 18,456	- -	4.00	
Contra Costa	8,603	352	10,330	16,275	6,740	1	28.00	
Del Norte	601	109	3,799	2,701	2,878	<u> </u>	20.00	
El Dorado	2,031	60	16,979	19,983	2,192	_	_	
Fresno	6,215	650	27,830	408,209	19,720	_	_	
Humboldt	3,950	932	19,393	176,905	6,929	1	90.00	
Inyo	3,451	372	6,911	2,222	1,699	_	-	
Kern	4,781	488	36,011	383,386	12,775	-	-	
Lake	2,063	177	6,532	54,225	4,617	1	100.00	
Lassen	6,501	225	14,620	12,000	1,500	-	-	
Los Angeles	10,476	741	15,412	305,512	16,632	3	307.56	
Marin	2,026	48	6,826	2,402	7,776	- ,	-	
Mariposa	1,974	276	6,631	89,114	7,633	4	69.50	
Mendocino	4,340	412	13,451	278,579	8,134	1	124.00	
Merced Modoc	4,433 7,650	1,174 403	13,460	251,029	5,087	3	81.50	
Mono	7,630	110	18,226 3,280	25,477	4,018 140	_	-	
Monterey	6,656	525	20,451	51,960	8,345	1	90.00	
Napa	4,757	502	5,247	58,821	5,408		46.00	
Nevada	2,857	86	6,300	8,025	1,191	_ '	106.50	
Placer:	_,		0,000	5,525	.,			
District No. 1	2,250	126	3,659	78,811	1,814	2	73.50	
District No. 2	904	38	1,492	724	934	4	176.00	
District No. 3	-	-	-	-	-	-	-	
Plumas	1,620	100	4,100	5,500	1,000	1	60.00	
Sacramento	13,035	307	24,077	134,120	18,485	-	-	
San Benito	923	54	9,983	35,685	3,740	2	32.50	
San Bernardino	3,796	198	10,883	37,976	1,633	- ,	-	
San Diego	4,706	252	11,597	141,286	2,811	4	360.85	
San Francisco	10,587	132	5,391	1,489	2,279	-	400.05	
San Joaquin San Luis Obispo.	13,567 6,137	1,893 155	15,273 44,699	87,236 122,143	9,700	- ₁	103.25	
San Mateo	3,689	164	11,319	364	7,990 2,329	_ '	108.00 96.20	
Santa Barbara	4,242	340	15,542	158,858	6,718	1	90.00	
Santa Clara	12,205	196	25,564	29,931	10,125	2	107.20	
Santa Cruz	3,190	97	6,586	1,214	2,344	2	59.00	
Shasta	3,932	120	9,497	36,314	5,300	3	78.00	
Sierra	1,134	101	2,366	533	210	2	52.00	
Siskiyou	6,200	675	21,652	43,350	4,400	1	70.00	
Solano		-	-	- '	- '	-	-	
Sonoma	10,990	420	27,597	147,916	17,232	-	-	
Stanislaus	7,958	2,352	9,082	165,144	6,015	2	36.29	

Sutter	5,272	813	11,333	40,884	9,360	4	28.00
Tehama	4,198	1,096	5,859	275,571	8,388	-	96.08
Trinity	1,021	318	3,167	28,300	7,063	1	38.00
Tulare	9,999	696	15,391	258,808	20,451	-	134.00
Tuolumne	2,329	110	6,472	15,660	2,250	-	-
Ventura	3,712	192	3,473	102,935	12,986	1	67.50
Yolo	7,584	1,460	147,885	88,560	15,520	2	64.45
Yuba	3,783	322	7,760	54,840	4,774	3	64.87

TABLE OF STATISTICS – Continued.

	NO. OF GR	IST MILLS.	Barrels of	Bushels of	JU	TE MILLS.	FUSE	E FACTORY.
COUNTIES.	Water Power.	Steam Power.	Flour Made.	Corn Ground.	No.	No. of Bags Made.	No.	No. of Feet Made.
Alameda:								
Alameda Tp	-	- *,	-	-		-	١	
Brooklyn Tp	- ,	1	-	+	1	3,500,000	1	9,500,000
Eden Tp	1	1	<u>.</u>	[†] 14,800	-	-	-	-
Murray Tp	-	1	10,000	-	-	-	-	-
Oakland Tp		2	59,000	-	-	-	-	-
Washington Tp.	2	-	1,800	400	-	-	-	-
Alpine	-	-	-	-	-	-	-	-
Amador	1	1	500	2,000	-	-	-	-
Butte	1	4	106,000	22,000	- '	-	-	-
Calaveras	-		-	-	-	-	-	-
Colusa	1	3	15,560	5,000	-	-	-	-
Contra Costa	-	-	-	-	-	-	-	-
Del Norte	1	-	500	100	-	-	-	-
El Dorado	1	-	-	-	-	-	-	-
Fresno	3	1	-	-	-	-	-	-
Humboldt	2	<i>"</i> 3	2,300	30	-	-	-	-
Inyo	3	-	4,912	8,147	-	-	-	-
Kern	1	2	12,000	5,800	-	-	-	-
Lake	2	2	2,000	1,200	-	-	-	-
Lassen	2	1	-	-	-	-	-	-
Los Angeles	4	6	-	-	-	-	-	-
Marin	-	-	-	-	-	-	-	_
Mariposa	-	-	-	-	-	-	-	-
Mendocino	2	3	_	-	-	-	-	_
Merced	3	-	21,00	4,000	-	-	-	-
Modoc	3	4	9,375	220	-	-	-	-
Mono	1	-	-	-	-	-	-	-
Monterey	-	3	15,750	1,100	_	_	-	-
Napa	2	4	19,300	17,060	-	-	-	-
Nevada	-	-	-	-	-	-	-	-
Placer:							ļ	
District No. 1	-	1	-	- :	-	-	-	-
District No. 2	-	-	-	-	-	-	_	-
District No. 3	-	-	-	- 1	-	-	_	-
Plumas	2		3,000	-	-	-	_	_
Sacramento	-	5	-	-	-	-	_	-
San Benito	1	1	550	1,165	-	<u>-</u>	-	_
San Bernardino	4	-	-		_	-	- 1	-
San Diego	1	2	5,500	2,000	-	-	-	-
San Francisco	Total	No. 8	200,000	100,000	_	-	_	-
San Joaquin	_	6	215,100	5,000	_	_	_	_
San Luis Obispo.	2	4	13,143	5,870	_	-	_	_
San Mateo		3	3,500	1,000	_	-	_	_
Santa Barbara	_	3	15,800	8,100	_	_	_	_
Santa Clara	1	6	29,763	8,598	_	_	_	_
Santa Cruz	_ '	3	20,000	25,000	_	_	_	_
Shasta	2	3	3,900	314	_	_	_	_
Sierra	1	J	-					

^{*} Not running.
† Barley.

Siskiyou	5	1	9,000	2,000	_	-	i -	-
Solano	-	-	-	-	-	-	-	_
Sonoma	5	5	100,000	10,000	-	-	-	-
Stanislaus	1	3	20,000	5,000	-	_	-	-
Sutter	-	1	7,200	210	-	-	-	-
Tehama	1	1	75,000	15,000	-	-	-	-
Trinity	-	-	-	_	-	-	-	_
Tulare	2	3	3,500	2,000	-	-	-	_
Tuolumne	3	1	14,500	700	_	_	-	-
Ventura	2	-	10,000	1,000	-	_	-	-
Yolo	-	3	-	-	_	_	-	-
Yuba	-	2	216,000	-	-	_	-	_
			,					

TABLE OF STATISTICS – Continued.

COUNTIES.	SAW	MILLS.	Feet of	Number of	QUARTZ	MILLS.
	Steam Power.	Water Power.	Lumber Sawed.	Shingles Made.	Number.	Tons Crushed.
Alameda: Alameda Tp						
Brooklyn Tp	-	-	-	-	<u>-</u>	-
Eden Tp	_	_	_	_		-
Murray Tp	-	_	_	_		-
Oakland Tp	_	_		_	_	_
Washington Tp.	_	_	_	_	_ [-
Alpine	_	_	_	_	_	-
Amador	2	_	4,000,000	500,000	19	26,500
Butte	6	_	10,500,000	125,000	_ 13	20,000
Calaveras	5	2	3,000,000	1,950,000	_	_
Colusa	2		-	1,550,000	_	_
Contra Costa	-	_	_	_	_	_
Del Norte	2	3	11,291,000	300,000	_	_
El Dorado	11	6	7,000,000	300,000	30	_
Fresno	6	1	7,000,000	_	4	_
Humboldt	18	2	64,305,510	58,627,250	_	_
Inyo	-	3	500,000	8,000		3,980
Kern	3	_	400,000		_	- 0,000
Lake	4	_	200,000	_	_	_
Lassen	4	5	-	_	_	_
Los Angeles	4	-	120,000	_	_	_
Marin	_	-	-	_	_	_
Mariposa	4	1	1,546,828	_	_	18,300
Mendocino	21	3	-	_	_	-
Merced	-	-	-	_	_	_
Modoc	2	7	3,200,000	900,000	_	_
Mono	4	4	10,000,000	1,000,000	-	118,280
Monterey	-	-	-	-	-	-
Napa	_	-	-	-	-	-
Nevada	11	5	23,000,000	1,500,000	37	110,000
Placer:						·
District No. 1	-	-	-	<u>-</u>	4	15,720
District No. 2	10	1	22,100,000	-	3	1,000
District No. 3	-	-	-	-	-	-
Plumas	2	11	10,000,000	1,000,000	-	100,000
Sacramento	-	-	-	-	-	-
San Benito	-	-	-	-	-	-
San Bernardino	4	-	4,000,000	5,000,000	-	-
San Diego	-	-	-	-	-	200
San Francisco	-	-	-	-	-	-
San Joaquin	-	-	-	-	-	-
San Luis Obispo.	3	-	187,373	-	-	-
San Mateo	11	-	3,500,000	10,000,000	-	-
Santa Barbara	-	-	-	-	-	-
Santa Clara	-	-			-	-
Santa Cruz	16	2	50,000,000	2,500,000	-	-
Shasta	4	6	1,300,000	450,000	6	2,695
Sierra	-	9	13,230,000	1,200,000	-	100,000
Siskiyou	2	9	3,300,000	-	-	18,000
Solano	-	-	-	-		•

Sonoma	15	_		·-	*-	_	-
Stanislaus	-	-		-	-	-	-
Sutter	-	-		-	-	-	_
Tehama	8	-		60,000,000	-	-	_
Trinity	3		8	1,900,000	50,000	†1	4,500
Tulare	5	-		800,000	-	3	_
Tuolumne	5		1	6,200,000	2,350,000	34	75,000
Ventura	-	-		-	-	[‡] 1	-
Yolo	-	-		-	-	-	-
Yuba	4		1	150,000	-	_	-

* Not estimated.
† 6 Arastas.
‡ Not running.

TABLE OF STATISTICS – Continued.

	MINING DITCHES.		IRRIGATING	DITCHES.	WOOLEN MILLS.		
COUNTIES.	Number.	Miles in Length.	Number.	Miles in Length.	Number.	Pounds of Wool Used.	
Alameda:							
Alameda Tp	-	-	-	-	-	-	
Brooklyn Tp	-	-	-	-	-	-	
Eden Tp	-	-	-	-	-	-	
Murray Tp	-	-	-	-	-	-	
Oakland Tp	-	-	-		-	-	
Washington Tp.	-	-	-	*5	-	-	
Alpine	-	-	-		-	-	
Amador	-	400	-	50	-	-	
Butte	-	164	-	36	-	-	
Calaveras	-	525	-	[†] 700	-	-	
Colusa	-	-	-	-	-	-	
Contra Costa	<u>-</u>		-	-	-	-	
Del Norte	17	64		-	-	-	
El Dorado	[‡] 5	500	100	300-400	-	-	
Fresno	-	10	-	64	-	-	
Humboldt	-	23	-		-	-	
Inyo	-	10	-	37	-	-	
Kern	-	-	-	-	-	-	
Lake	-	-	-		-	-	
Lassen	-	6	-	60	-	-	
Los Angeles	-	15	-	415	-	110,000	
Marin	-	-	-	- 45.17	-	-	
Mariposa	-	109 ½	-	15 1/4	-	-	
Mendocino	-	- [-	50	-	900,000	
Merced	-	-	-	305	-	<u>-</u>	
Modoc Mono	-	- 40	-	305	-	-	
	- 1	40	-	- 6	-	-	
Monterey Napa	-		-	١٥	-	_	
Napa Nevada	240	830	-	-	-	_	
Placer:	240	630	-	-	-	-	
District No. 1	_	_	_	_	_	_	
District No. 2	5	147	_	_	_	_	
District No. 3	_	_ '-''	_	-	-	_	
Plumas	_	500	_	25	_	_	
Sacramento	_	_ 000	_		1	_	
San Benito	_	_	_	_	_ '	_	
San Bernardino		2 1/2	_	24	_	_	
San Diego	_		_		_	_	
San Francisco	_	_	_	_	_	3,250,000	
San Joaquin	_	_	_	_	1	126,629	
San Luis Obispo.	_	_	_	3	- '	-	
San Mateo	_	_	_	_ "	_	_	
Santa Barbara	_	_	_	_	_		
Santa Clara	_			_	_		
Santa Cruz	_	_	_	_	_	_	
Juliu Viue				1			

^{*} Washington & Murray Water Ditch.

† Acres irrigated.

‡ Principle lines.

Sierra	_	260	_	24	_	l -
Siskiyou	-	250	-	-	_	-
Solano	-	-	-	-	-	-
Sonoma	-	-		-	-	-
Stanislaus	-	-	-	26	-	-
Sutter		-	-	-	-	-
Tehama	-	8	1	15	-	-
Trinity	-	200	-	10	-	-
Tulare	1	1	-	300	-	-
Tuolumne	7	152	-	30	-	2,000
Ventura	-	-	-	15	-	-
Yolo	-	-	-	60	-	-
Yuba	-	55	-	38	-	_

	COTTON MILLS.		COAL.	RAILROADS.	
COUNTIES.	Number.	Pounds of Cotton Used.	Tons Mined.	Number.	Miles in Length.
Alameda:			70		
Alameda Tp	-	-	70	-	-
Brooklyn Tp	-	-	-	-	-
Eden Tp	-	-	-	-	-
Murray Tp	-	-	-	-	-
Oakland Tp	-	-	- 40	-	-
Washington Tp.	-	-	10	-	-
Alpine	- .	-	-	-	-
Amador	-	-	-	-	-
Butte	-	<u>-</u>	-	-	-
Calaveras	-	-	-	-	-
Contra Costa	-	-	115 000	-	-
Contra Costa Del Norte	-	-	115,000	-	-
El Dorado	-	-	-	-	-
	-	-	-	-	-
Fresno Humboldt	-	-	-	-	-
	-	-	-	-	_
Inyo Kern	-	-	-	-	-
Lake	-	-	-	-	-
	-	-	-	-	-
Lassen	-	- 1	- 1000	-	_
Los Angeles	-	-	1,800	-	-
	-	-	-	-	-
Mariposa Mendocino	-	· ·	-	-	-
Merced	-	150,000	-	-	_
Modoc	-	150,000	-	-	-
Mono	_	_	_	_	_
Monterey	_	<u> </u>	_	_	
Napa	_	_	_	_	
Nevada	•	_	-	-	_
Placer: District No. 1					
District No. 2	-	-	-	-	-
District No. 3	-	-	-	-	-
Plumas	-	· .	-	-	-
Sacramento	-	-	-	-	-
San Benito	-	- I	-	-	_
San Bernardino		I	-	-	-
	-	-	-	-	-
San Diego	-	-	-	-	-
San Joaquin	-	-	-	-	-
San Luis Obispo.	-	-	-	-	_
San Mateo	-	-	-	-	-
Santa Barbara	-		_	<u>-</u>	_
Santa Clara	-		_ [-	
Santa Cruz	<u>-</u>	-	-	-	_
Shasta	_	[-	-	_
Sierra	_		-	-	-
Siskiyou	<u>-</u>	_	-	-	_
Solano	-	-	_	<u>-</u>	_
Sonoma	-	i -	-	•	•

Stanislaus	-	-	_	-	_
Sutter	-	-	-	-	_
Tehama		-	. -	, -	-
Trinity	-	-	-	-	-
Tulare	-	-	-	-	-
Tuolumne	-	-	-	-	-
Ventura	-	-	-	-	-
Yolo	-	-	-		-
Yuba	-	-	-	-	-

COUNTIES.	ASSESSED VALUE OF PROPERTY FOR 1882.			Estimated Total	Registered
	Real Estate.	Personal Property.	Total Valuation.	Population.	Voters.
Alameda:	£4.477.000.00	#20F 40F 00	\$4.042.00F.00		
Alameda Tp Brooklyn Tp	\$4,477,900 00 4,332,479 00	\$365,125 00 515,494 00	\$4,843,025 00	-	-
Eden Tp	3,182,510 00	362,755 75	4,847,973 00 3,545,265 75	_	_
Murray Tp	2,627,885 00	445,869 00	3,073,754 00	_	_
Oakland Tp	23,140,971 00	2,190,388 00	25,331,359 00	_	_
Washington Tp.	3,511,621 00	493,330 00	4,004,951 00	_	-
Alpine	204,687 00	90,249 00	264,936 00	_	_
Amador	2,984,121 00	1,470,750 00	4,454,871 00	<u>-</u>	<u>-</u>
Butte	9,936,849 00	2,392,405 00	12,329,254 00	-	-
Calaveras	1,845,061 00	843,308 00	2,688,369 00	-	-
Colusa	13,799,118 00	3,633,527 00	17,432,645 00	-	-
Contra Costa	6,913,375 00	1,642,589 00	8,555,964 00	-	-
Del Norte	551,732 00	312,058 00	863,790 00	-	-
El Dorado	1,968,898 00	952,520 00	2,921,418 00	-	-
Fresno	6,624,464 00	1,957,620 00	8,582,084 00	-	-
Humboldt	4,573,534 00	1,821,775 00	6,395,309 00	-	-
Inyo	646,436 00	446,930 00	1,093,366 00	-	-
Kern Lake	3,744,876 00	1,599,838 00	5,344,714 00	-	-
Lassen	1,732,332 00 820,064 00	618,172 00 585,452 00	2,350,504 00 1,405,516 00	<u>-</u>	_
Los Angeles	17,479,083 00	3,330,767 00	20,809,850 00	_	_
Marin	6,381,864 00	1,172,050 00	7,553,914 00	_	_
Mariposa	982,581 00	523,022 00	1,505,603 00	_	_
Mendocino	4,185,450 00	1,968,641 00	7,269,693 00	-	_
Merced	4,844,883 00	1,386,011 00	6,230,894 00	-	_
Modoc	892,994 00	857,105 00	1,750,099 00	-	-
Mono	2,201,976 00	726,799 00	2,928,775 00	-	-
Monterey	6,474,855 00	1,611,932 00	8,086,787 00	-	-
Napa	7,108,452 00	2,029,218 00	9,137,670 00	-	-
Nevada Placer:	6,838,830 00	1,630,725 00	8,469,555 00	-	-
District No. 1	2,262,623 00	616,744 00	2,879,367 00	-	-
District No. 2	3,289,813 00	772,491 00	4,062,304 00	-	-
District No. 3	4 400 050 00	-	-	-	-
Plumas	1,466,853 00	575,192 00	2,042,045 00	-	-
Sacramento	16,017,039 00	4,815,170 00	20,832,209 00	-	-
San Benito San Bernardino	3,173,940 00	977,877 00 942,515,00	4,151,817 00	-	-
San Diego	2,966,307 00 5,492,831 00	842,515 00 1,828,916 00	3,808,822 00 7,321,747 00	-	-
San Francisco	151,930,702 00	50,396,712 00	202,327,414 00	_	_
San Joaquin	23,086,048 00	5,045,177 00	28,131,225 00	_	_
San Luis Obispo.	3,598,919 00	1,619,896 00	5,218,850 00	_	-
San Mateo	6,196,680 00	2,070,555 00	8,267,235 00	-	_
Santa Barbara	3,772,225 00	1,168,667 00	4,940,892 00	-	_
Santa Clara	21,614,936 00	4,400,003 00	26,014,939 00	-	_
Santa Cruz	4,754,904 00	862,564 00	5,617,468 00	-	_
Shasta	1,641,459 00	898,514 00	2,539,973 00	-	-
Sierra	1,210,519 00	453,453 00	1,663,972 00	_	-
Siskiyou	1,952,880 00	1,534,739 00	3,487,619 00		-
Solano	<u>.</u>	<u>.</u>	<u>-</u>	-	-
Sonoma	14,639,938 00	3,272,955 00	17,912,893 00	-	-

Stanislaus	8,079,835 00	2,106,593 00	10,186,428 00	-	-
Sutter	3,317,495 00	939,713 00	4,257,208 00	-	-
Tehama	5,387,011 00	1,387,013 00	6,774,024 00	-	_
Trinity	693,691 00	425,420 00	1,119,111 00	-	_
Tulare	5,905,880 00	2,094,596 00	8,000,476 00	-	_
Tuolumne	1,374,542 00	623,270 00	1,997,812 00	-	-
Ventura	2,239,335 00	838,860 00	3,078,195 00	-	-
Yolo	10,188,290 00	2,848,223 00	13,036,513 00	-	-
Yuba	2,964,472 00	1,335,825 00	4,300,297 00	-	-
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ANNUAL REPORT

OF THE

Mechanical and Manufacturing Industries of the City and County of San Francisco during the Year 1881.

ALEXANDER BADLAM, Assessor.

SUMMARY OF STATISTICS.

ASSESSOR'S OFFICE, SAN FRANCISCO, July 14, 1882.

To the Hon. John W. Shanklin, Surveyor-General of the State of California:

SIR: - In obedience to the requirements of law, I herewith submit to you my annual report of the mechanical and manufacturing industries of this city and county during the year 1881.

All of which is respectfully submitted.

ALEXANDER BADLAM, City and County Assessor.

Agricultural implements manufactories	2 80 \$165,000
Air compressor manufactories	20 \$40,000
Antimony manufactory	1 5 200 \$55,000
Artificial stone manufactories. Men employed. Value of manufactures.	3 90 \$420,000
Axle grease manufactories. Men employed	3 11 1,428 29,000 25,000 \$40,000
Barrel manufactories. Men and boys employed. Barrels, half barrels and kegs, made annually. Horse power of steam engines. Barrels made for use of sugar refineries. Syrup kegs made by tub and pail factories. Aggregate value of manufactures.	3 259 498,807 112 103,250 19,110 \$310,170

Bag manufactories	3 405 \$2,450,000 9,150,000
Bed spring manufactories Men employed Copper wire used, tons Aggregate value manufactured	3 7 16 \$15,000
Bedstead manufactories. Men employed. Lumber consumed annually, feet. Value of manufactures.	5 264 440,000 \$143,000
Bellows manufactories. Men employed. Bellows manufactured. Value of manufactures.	2 12 1,600 \$32,000
Bedding manufactories. Men employed. Value of manufactures.	7 75 \$450,000
Billiard table manufactories. Men employed. Billiard tables made. Value of manufactures.	2 48 1,100 \$25,000
Boots and shoes and slippers manufactories	141 3,482 \$5,501,000
Box manufactories (wooden)	6 345 330 15,000,000 \$600,000
Box manufactories (paper)	5 62 698,500 \$47,000

Box manufactories (cigar)	3 280 2,250,000 \$260,000
Brass foundries	8 265 500 \$490,000
Breweries. Men employed Hops consumed annually – pounds Barley consumed annually – tons. Beer made annually – barrels. Aggregate value of manufactures.	34 356 632,500 26,450 290,363 \$2,205,000
Broom manufactories	6 71 18,500 \$53,000
Brush manufactories. Men employed. Value of manufactures.	3 40 \$90,000
Candle manufactories. Men employed Candles manufactured – boxes Value of manufactures	2 70 150,000 \$350,000
Cigar manufactories	223 7,478 102,547,500 14,850,000
Cracker manufactories. Men employed Horse power of engines. Aggregate value of manufactures.	4 160 110 \$750,000
Chemical works Men employed Nitrate of soda used – tons Sulphur used – tons Nitric acid produced annually – pounds	2 45 1,500 1,500 2,000,000

Sulphuric acid produced annually – pounds	8,000,000 300,000 \$410,000
Carriage and wagon manufactories. Men employed Carriages and wagons made annually Railroad street cars and dummies. Horse power of engines. Aggregate value of all branches.	30 300 510 140 129 \$140,000
Car manufactory	1 30 500 \$226,000
Coffee and spice mills. Coffee ground and roasted annually – pounds. Chocolate made annually – pounds. Spices ground annually – pounds. Horse power of engines. Aggregate value of manufactures.	16 3,240,000 400,000 295,000 230 \$810,000
Corset manufactories	4 20 \$15,000
Coffin manufactories	4 15 \$45,000
Cordage and rope manufactory. Men employed	1 150 3,000 250 \$600,000
Carriage and locomotive car spring manufactory Men and boys employed. Springs made – tons. Aggregate value of manufactures.	1 16 150 \$40,000
Cutlery manufactories	2 32 \$47,000

Dry docks (floating)	2 16 2,600
Dry dock – stone. Length of excavation in solid rock – feet. Width of top – feet. Depth – feet. Width of entrance – feet. Capacity of length – feet. Capacity of drawing – feet. Capacity of pumps for cleaning, per hour – cubic feet. Tubular boilers, of four-inch tubes. Dimensions of each boiler – diameter in inches. Dimensions of each boiler – length in feet. Fire surface of boilers – square feet. Men employed. Total cost of work.	1 450 120 30 90 425 22 325,368 4 25 16 3,800 6 \$675,000
Electrical machinery works	2 45 \$165,000
Elevator manufactories Men employed Aggregate value of manufactures	4 24 \$150,000
Fringe factories	5 95 \$110,000
Flour and feed mills. Men employed. Flour made annually – barrels. Hominy made annually – tons. Buckwheat and rye flour annually – tons. Cornmeal and groats annually – tons. Cornmeal and farina annually – tons. Feed barley – tons. Cracked wheat –tons. Split peas – tons. Graham flour – pounds. Cracked corn – tons. Ground feed – tons. Pearl barley – tons. Horse power of engines.	8 184 320,300 715 781 2,940 9,600 9,900 1,290 475 1,650 3,060 3,370 670 880

Foundries, boiler and iron works. Men employed. Pig iron annually – tons. Bar iron used annually – tons. Rivets used annually – tons. Horse power of engines. California iron used to June 30 – tons. Aggregate value of manufactures.	17 2,200 24,200 21,000 780 2,100 6,300 \$4,160,000
Fur manufactories	3 50 \$150,000
Furniture manufactories	18 1,260 6,600,000 \$1,940,000
Gas works	2 60 \$20,000,000
Glassworks	1 180 2 14 \$215,000
Glass cutting	3 20 \$55,000
Glove manufactories	12 210 \$205,000
Glue manufactories. Men employed. Glue made – tons. Neatsfoot oil – gallons. Aggregate value of manufactures.	2 27 250 2,500 \$45,000
Gold refineries. Men employed. Horse power of engines.	1 50 40

Gutta percha and rubber manufactories	2 14 2 \$20,000
Hat and cap manufactories Men employed Aggregate value of manufactures	18 75 \$350,000
Hose and belting	5 32 1,200 300,000 \$212,000
Harness manufactories	50 450 \$1,250,000
Ink and mucilage	1 13 13,000 \$15,000
Iron working machines	2 30 \$100,000
Ice manufactories	1 5 2,000 \$108,000
Japanning and galvanizing manufactories. Men and boys employed. Aggregate value of manufactures.	2 12 \$23,000
Jewelry manufactories	16 160 \$500,000
Laundries – white Men, women, and boys employed	105 915

Laundries – Chinese	186 1,335
Lead pipe and shot manufactory Men employed Lead pipe and shot made – tons Horse power of engines (two) Aggregate value of manufactures.	1 30 1,500 500 \$190,000
Lead smelting works	1 116 60 \$400,000
Last manufactories. Men employed Horse power of engines Lasts manufactured annually Aggregate value of manufactures.	12 22 18,700 \$24,200
Linseed oil works. Men employed. Oilcake – tons. Capacity of works yearly – gallons. Value of oil. Value of cake.	2 60 4,300 8,000,000 \$580,000 \$135,000
Marble works	35 175 \$250,000
Macaroni and vermicelli manufactories. Men and boys employed. Macaroni and paste made – boxes. Wheat used – sacks. Horse power of engines. Aggregate value of manufactures.	5 36 154,000 6,930 110 \$154,000
Match factories	2 60 145,000 \$82,000

Malt houses	6 100 25,000 \$150,000
Mirror manufactories	2 7 5,000 \$175,000
Musical instruments manufactories. Men employed	2 30 \$40,000
Oil clothing manufactories	4 35 \$55,000
Oakum manufactory	1 25 13,000 \$52,000
Pickle and fruit preserving manufactories. Men and women employed. Fruit and meat put up – dozen cans. Pickles put up in kegs. Aggregate value of manufactures.	12 2,350 525,000 80,000 \$1,500,000
Provisions packing. Number of men employed. Meats packed – barrels. Pork packed – barrels. Ham and bacon – pounds. Lard – pounds. Tallow – pounds. Value of investment in real estate, fixtures, etc. Aggregate value of products.	2 170 10,500 11,000 3,200,000 2,100,000 1,200,000 \$165,000 \$2,100,000
Rolling mill Men employed Horse power of engines Scrap iron used – tons Coal consumed – tons Aggregate value of manufactures	1 425 650 19,000 13,200 \$1,505,000

Salt works Men employed Run of stones Number of tons annually Aggregate value of salt ground	3 30 8 20,000 \$240,000
Safe and vault works. Men employed. Bar and plate iron used – tons. Horse power of engines. Steel used – tons. Aggregate value of manufactures.	4 20 50 60 30 \$80,000
Saw manufactories	2 40 44 60 \$120,000
Sash, door, and finishing manufactories. Men employed. Horse power of engines. Lumber consumed annually – feet. Aggregate value of manufactures.	15 1,550 1,050 10,055,000 \$5,010,000
Silverware manufactories	3 50 \$150,000
Shipyards	4 220 35 6,100 \$530,000
Shirt manufactories	7 2,550 \$950,000
Soap manufactories	17 125 15,256,000 \$715,000

Soda works – Bicarb, soda and saleratus. Men employed	1 10 1,000 400 \$116,000
Sugar refineries Men employed Sugar (raw), used – pounds. White sugar made – pounds. Yellow sugar made – pounds. Syrup made – gallons. Aggregate value of manufactures.	2 360 77,000,000 48,687,500 27,288,750 400,000 \$8,205,000
Tanneries Men employed Horse power of engines Bark used annually – cords Hides of all kinds Aggregate value of manufactures.	43 340 172 5,300 363,300 \$1,729,000
Tinware, and tin box and can manufactories. Men and boys employed. Value of manufactures.	4 175 \$525,000
Type foundries	2 39 \$33,000
Vinegar manufactories	2 20 1,500,000 \$250,000
White lead factory Building 45X275, four stories, brick – men employed Number of tons manufactured Capital employed	1 75 2,400 \$250,000
Windmill manufactories. Men employed. Mills made annually. Aggregate value of manufactures.	2 15 150 \$40,000

Willow and wooden ware and basket manufactory Men employed Value of manufactures	1 35 \$250,000
value of manufactures	Ψ200,000
Wine and beer cask manufactory	1
Men employed	100
Number of casks made annually	3,000
Value of manufactures	\$200,000
Wire and wire rope manufactory	1
Men employed	50
Horse power of engines	125
Amount of wire consumed annually – tons	750
Aggregate value of manufactures	\$360,000
Woolen mills	2
Men and women employed	1,830
Number of power looms	162
Cards – sets	43
Frames for knitting underwear	59
Frames for knitting hosiery	59
Spindles	15,000
Blankets made annually – pairs	106,000
Hosiery – dozens	14,000
Wool used – pounds	4,100,000
Cloth and tweed – yards made	685,000
Flannels – yards	1,000,000
Aggregate value of manufactures	\$1,875,000