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APPENDIX TO THE JOURNALS

OF THE

SENATE AND ASSEMBLY

OF THE

THIRTY-FIRST SESSION

OF THE

LEGISLATURE OF THE STATE OF CALIFORNIA.

VOLUME IV.



SACRAMENTO:

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- 2—Report of Board of Railroad Commissioners. 1893-1894.
- 3—Report of Commissioner of Public Works. 1894.
- 4—Biennial Report of Fish Commissioners. 1892-1894.

REPORT

ON THE

BUILDING AND LOAN ASSOCIATIONS

OF THE

STATE OF CALIFORNIA,

BY THE

BOARD OF COMMISSIONERS OF THE BUILDING AND LOAN ASSOCIATIONS,
IN ACCORDANCE WITH AN ACT OF THE LEGISLATURE,
APPROVED MARCH 23, 1893,

TO

His Excellency H. H. Markham, the Governor of the State of California.

MAY 31, 1894.



SACRAMENTO:

STATE OFFICE, : : : : A. J. JOHNSTON, SUPT. STATE PRINTING.
1894.

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REPORT.

OFFICE OF THE BOARD OF COMMISSIONERS OF THE }
 BUILDING AND LOAN ASSOCIATIONS, }
 SAN FRANCISCO, CAL., May 31, 1894. }

To his Excellency H. H. MARKHAM, Governor of the State of California:

In accordance with the provisions of Chapter CLXXXVIII, Statutes of California, we submit herewith our First Annual Report, covering the work of this Commission for the fiscal year from June 1, 1893, to May 31, 1894, inclusive.

It embodies the statements of 137 Building and Loan Associations, of which 127 are known as Locals, 8 Nationals, and 2 Coöperative Banks; together with a summary of all special lines of statistics drawn therefrom, and such observations concerning the status and management of Building and Loan Associations in this State as we deem of value to the general public and the organizations themselves.

The Building and Loan Associations of California have gross assets amounting to \$20,820,082 18. They hold capital invested by members, \$13,843,986 61, and accrued earnings to the amount of \$4,451,490 20. They have loans outstanding which aggregate \$19,868,041 48, for which they hold real estate mortgages and bonds and hypothecated stock as security valued at \$37,210,762 68. During the past fiscal year they have collected from members in dues \$3,759,003 85, and from borrowers, in premiums and interest, \$1,887,079 93. They have also received, on loans repaid, \$2,195,939 08. In the same period they have disbursed in loans \$4,651,389 64; have paid to retiring members on canceled and matured shares, \$2,603,333 09 (refunded capital), and \$641,089 22 as profits thereon. The aggregate profits of the associations for the fiscal year have been \$1,448,920 97.

Of the 137 Building and Loan Associations reported, all except three show a net profit on the year's business. We submit that it is a successful line of business that, in times like the present, and under so many different managements, maintains an investment of over twenty million dollars, and makes a net profit of 7.77 per cent on the entire working capital.

Taking the total assets as a basis, the Building and Loan Association business of the State is divided among the three classes, as follows:

Locals	87.99 per cent.
Nationals.....	6.52 per cent.
Coöperative Banks	5.49 per cent.
	100.00 per cent.

The total membership of Building and Loan Associations is reported as 34,169; the number of borrowers, 8,972. The average loan per borrower is \$2,214 20. The average investment of stockholders in dues and accrued earnings, per capita, is \$535 44.

DESERVED POPULARITY OF THE BUILDING AND LOAN PLAN.

It is apparent from these figures that the Building and Loan plan of investment is both popular and profitable, and it is of service to a large number of people by enabling them to acquire homes of their own, to be paid for out of their savings from month to month. Without doubt a Building and Loan Association organized on proper lines and honestly conducted, is one of the most beneficent institutions of our time. It encourages thrift and persistent effort on the part of wage earners and people with moderate incomes; it is a potent factor in building up towns and cities; it performs a valuable service for the commonwealth, by helping to establish a well-to-do population in homes of their own. People thus fixed in their habitat and having property interests to guard, make the best class of citizens.

The Building and Loan plan of mutual investments addresses itself particularly to those who need encouragement in self-help, and it has been called, not improperly, the poor man's savings bank. That it is one of the safest, as well as one of the most remunerative forms of investment, is attested by the history of such institutions, not only in this State but in every State and Territory of the Union.

STOOD THE TEST OF A FINANCIAL PANIC.

We may point to a very forcible illustration of the safety of such investments, as shown in the financial panic which overspread the country during the summer of 1893. Not a single Building and Loan Association in California was forced to suspend operations by reason of the financial stringency. Upon none of them was precipitated such a trying ordeal as that sustained by many of the best banks in a "run" of depositors. The reason for this is found in the fact that Building and Loan Associations, as a rule, command the entire confidence of their stockholders, and the plan of organization is such as to render a panic among them, tending to a sudden withdrawal of the resources, an utter impossibility. A large number of investors in the stock of a Building and Loan Association might, under sudden impulse, present notices of withdrawal, but according to the laws of this State an association is not obliged to appropriate more than one half of its monthly income to the liquidation of such stock. Hence, there is abundant means for an association to protect itself without exhausting all of its cash assets, and a run would be rendered harmless. As a matter of fact, throughout the late financial flurry there was no general or extraordinary movement for the withdrawal of stock, although the percentage of withdrawals may have been somewhat increased in consequence of the general stringency. Many associations continued to retire stock in the usual way and to make loans to their members at a time when to obtain money from savings or commercial banks was an impossibility. This free movement of capital maintained by Building and Loan Associations undoubtedly had much to do in relieving the tension of the money panic and restoring confidence to the business community.

The history of these institutions in California goes to confirm the world-wide verdict that this is the most successful form of financial coöperation ever devised for large classes of people.

THE TRUST SHOULD BE CAREFULLY GUARDED.

Inasmuch as the Building and Loan Associations have demonstrated their usefulness as savings and mutual investment societies, and as they accordingly command the confidence of the community, it is to the interest of all that their high position be jealously guarded. Since all of these associations (like all operating as joint-stock enterprises) must have the special authorization of the State by incorporation, there is a moral responsibility upon the State to see that public confidence is not abused through the agency that it provides and measurably sanctions. In the case of Building and Loan Associations this is especially desirable, because their plans of operation are necessarily somewhat intricate, and very great trusts are placed in the hands of the management. Perhaps the largest share of investors do not fully understand the operations of the association with which they are affiliated. They know in a general way that the Building and Loan plan of investment is accounted a good one, and they have enough confidence in the men who are at the head of the enterprise to believe that its affairs will be conducted honestly.

If a man who thus invests his hard-earned savings year after year should finally awaken to the knowledge that his confidence had been abused, and that all his labor and self-denial had come to naught, it would be a serious blow to him—sufficient perhaps to change the whole current of his life, and change him from an industrious and frugal citizen to a spendthrift and a ne'er-do-well.

STATE SUPERVISION.

It is to the credit of the leading men in the Building and Loan Associations in this State, that, recognizing the grave responsibility under which they were operating, and foreseeing a possible abuse of institutions grown so popular and commanding such unlimited confidence, they were the first to demand official supervision of all associations of this class.

The State of California, in taking up this responsibility, has acted wisely, and has placed herself in the advance guard of a movement which is no doubt destined to become general throughout the United States. Already the States of New York, Pennsylvania, Massachusetts, New Jersey, Maryland, Georgia, Vermont, Ohio, Minnesota, South Dakota, Nebraska, Wyoming, and Washington have established special commissions, or have delegated to an officer of the State the responsibility of supervising the operations of Building and Loan Associations, and making a public report thereon.

So far as we have been able to learn, this official supervision is regarded with favor both by the public and by the better class of associations in this State. The public consider it an effort for their protection, and the associations find it a direct benefit in the suppression of irregular and unsound enterprises, thereby securing to those that are solvent and well managed a greater measure of confidence.

The object of these public investigations is not inquisitorial nor in the nature of an interference with legitimate private enterprise, but it should be entirely for the protection of the public against fraudulent and reckless management.

A legitimate enterprise has nothing to fear from such supervision, but

on the contrary should be benefited by it. It is apparent that the management most inclined to protest against official investigation, or to evade it, is the one that most requires supervision in the interest of the public.

LAWS GOVERNING BUILDING AND LOAN ASSOCIATIONS.

The first law adopted by the State for the government of Building and Loan Associations is to be found in Title XVI of Part IV, Division First, of the Civil Code, and is comprehended in Sections 639, 640, 641, 642, 643, 644, 645, and 647. It provides generally for land and building corporations, defining their powers and privileges. Associations incorporated under these laws (previous to March 31, 1891), and not reincorporated under the provisions of the later law, are still doing business as originally contemplated, except that they all come under the provisions of the law of 1893, requiring supervision by the Board of Building and Loan Commissioners.

The second law under this head, approved March 31, 1891, repealed all of the foregoing sections (except in cases of previous incorporation as specified above), and added seventeen new sections to the Civil Code, to be known and numbered as 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, and 648½. This law provided a special form of incorporation for such associations, and general outlines as to their method of doing business. It provided that associations already doing business might reincorporate under this Act, or might elect to continue as first organized. All associations, whether reorganized or not, were to be under the supervision of the Board of Bank Commissioners, who were authorized to examine the same and publish reports.

This law was amended and, in great measure, superseded by an Act approved March 23, 1893, creating a Board of Commissioners of the Building and Loan Associations, and prescribing their duties and powers. This Act, as well as all of the preceding laws which remain in force, will be found quoted in full as an appendix to this report. It is under the provisions of the law of 1893 that this Commission was instituted and is now operating.

WORK OF THIS COMMISSION.

The work of this Commission was commenced June 1, 1893, and during the fiscal year we have examined the Building and Loan Associations whose annual statements are presented herewith. The Secretaries and other officers of Building and Loan Associations of the State have generally shown a ready acquiescence in the law, offering every facility for investigation, and answering all queries propounded to them. This Commission desires to acknowledge their uniform courtesy and coöperation.

Generally speaking, we have found the associations in a solvent and flourishing condition.

One association, that had been the subject of an adverse report from the Board of Bank Commissioners, was found in the hands of a new Secretary, who had reformed its methods of doing business and straightened out a bad financial complication created under the former management.

Another association was found somewhat crippled by reason of too extensive borrowing and the default of several loans, which had neces-

sitated the taking of unavailable property. The matter was duly reported to the Attorney-General, and with his advice and concurrence the management was given the alternative of changing their method of business and making good the impaired capital, or going into liquidation. They chose the first alternative, and the association is now in a much better condition than formerly.

A third association was found crippled as a result of bad loans, which had necessitated the taking of property. On our advice, and the concurrence of the Attorney-General, the Directors proceeded to wind up the affairs of the association.

AN ILL-ADVISED SYSTEM OF LOANING.

During the latter part of our fiscal year, some of the associations of San Francisco had an experience which will, undoubtedly, prove a useful lesson to them. A certain building contractor who carried on extensive operations, had made use of these associations in a systematic way to further his business. He was a member of the directory of several associations, served on the security committee of one, and was President of one. His method was to purchase land in considerable tracts, then erect buildings on the various lots, and sell them to his employés or whomsoever he could induce to purchase. By reason of his position in the Building and Loan Associations, he managed to secure loans on these properties up to the full amount of cost and a snug profit added, which reimbursed him, and then he turned the Building and Loan contract over to his purchaser for fulfillment. The result of his plunging methods was eventual failure, when he absconded, leaving many unsettled accounts.

The evil of this system, so far as the Building and Loan Associations were concerned, consisted in loaning too large amounts on these properties, and looking for payment to irresponsible parties. In a number of cases these contracts were defaulted by parties purchasing, and the associations were obliged to take the properties by foreclosure or compromise. They will be thus obliged to stand the loss of idle, or partially idle, capital until they can dispose of the properties in question, and must then suffer a probable shrinkage in values.

The lessons which all of the associations should learn from this are:

First: Not to allow a member of the Board of Directors to systematically further his individual schemes at the risk of the association.

Second: To scrutinize each proposed loan carefully, and see that a conservative estimate is placed upon the property offered.

Third: To consider carefully the standing and character of each applicant for a loan.

In one association we found such a faulty system of bookkeeping that we made a formal request that the books be re-written. This was complied with in a prompt and satisfactory manner. In many cases we have detected faulty methods of account-keeping, which we have pointed out, and the Secretaries have rectified the same.

In several cases we have recommended that the services of a building and loan accountant be secured to correct errors and improve methods of account-keeping.

In two instances considerable deficits have been found in the finances of Building and Loan Associations, due to misappropriations of the

Secretaries. In both cases the losses were made good to the associations, and the Secretaries subsequently resigned.

Altogether we have endeavored to make our work helpful to Secretaries, and, whenever they sought advice, have assisted them in adopting what we regard as safe and correct methods.

SYSTEM OF REPORTS.

The system of reports and examination adopted by this Commission is as follows: At the close of its fiscal year every association is required to file an annual report on a blank furnished for the purpose, the same being acknowledged before competent authority by the President and Secretary of the association. The form of this blank is as follows:

[Form 1.]

[ANNUAL STATEMENT BLANK.]

ANNUAL REPORT TO THE BOARD OF COMMISSIONERS OF THE BUILDING AND LOAN ASSOCIATIONS.

For the fiscal year ending ——— —, 189—

Of the ——— ———. Incorporated ——— —, 18—. Date of report, ———, 189—

FINANCIAL STATEMENT.

Assets.	Liabilities.
Loans on real estate	Dues paid by members
Loans on association shares	Earnings
Members' accounts in arrears:	Advance payments on shares
On shares, ----; on interest,	Advance payments on interest
----; on premium, ----; on	Loans due and incomplete
fines	Treasurer's account (overdraft)
Cash on hand	Unearned premium account
Real estate acquired by fore-	Profit and loss account (undi-
closure	vided)
Real estate acquired by purchase	All other liabilities: (Specify.)
Furniture and fixtures	
All other assets: (Specify.)	
Total assets	Total liabilities
Receipts.	Disbursements.
Cash on hand at date of last	Cash due treasurer, or bank, at
report	date of last report
Received for monthly dues on	Loans on mortgages
installment shares	Loans on association stock
Received for paid-up stock	Interest on borrowed money
Received for entrance fees	Paid for surrendered shares
Received for premiums	Profits paid to surrendered
Received for interest	shares
Received for fines	Returned premiums on loans
Received for transfer fees	repaid
Mortgage loans repaid	Salaries or fees: President, ---;
Stock loans repaid	Secretary, ---; Treasurer, ---;
Money borrowed on overdrafts	Manager, ---; Collector, ---;
Money borrowed on bills payable	Directors
All other receipts: (Specify.)	Rents, stationery, and printing
Cash due treasurer	Fees or commissions paid to
	agents
	All other expenses or disburse-
	ments: (Specify.)
	Taxes
	Cash on hand
Total receipts	Total disbursements

STATISTICAL INFORMATION.

Authorized capital stock .....	.....
Number of shares .....	.....
Par value of shares .....	.....
Number of members .....	.....
Number of borrowing members .....	.....
Monthly installments due per share .....	.....
Rates of fines imposed .....	.....
Entrance fees per share paid to association .....	.....
Entrance fees per share paid to agents .....	.....
Profit and loss account: net profit for year .....	.....
Profit and loss account: amount apportioned to shares .....	.....
Average monthly receipts for year .....	.....
Number of mortgage loans for year .....	.....
Amount of mortgage loans for year .....	.....
Number of foreclosures since organization .....	.....
Amount due on foreclosures .....	.....
Rate of interest allowed on advance payments .....	.....
Number of shares in force at last report .....	.....
Number of shares issued since last report .....	.....
Number of shares canceled since last report .....	.....

MEMORANDUM OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force	Now in Force.	Shares Loaned Upon.	Shares "Free."
.....
Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
.....
Names of Directors.		Residence.		Amount of Capital Stock Held by Each.	
.....			Shares.	Par Value.
.....	

STATE OF CALIFORNIA, }
 COUNTY OF _____, } ss.

We do solemnly swear that every allegation, statement, matter, and thing contained in this report is true, to the best of our knowledge and belief.

Subscribed and sworn to before me, this _____ }
 day of _____, 189—. }
 _____, }
 Notary Public. } President.
 Secretary.

The above Annual Statement, when properly filled out and attested, is filed, and becomes a record of this office, subject to the inspection of any one who wishes to ascertain the status of the association.

A synopsis of this statement is made out in each instance and accompanies this report. As soon as his Annual Statement is filed, we issue to the Secretary a set of detailed blanks, the forms of which are given below. The object of these detailed statements is to secure, for the purposes of the examination, and to form a permanent record in this office, an itemized list of all the assets and liabilities of each association. The Detailed Statements are made of a date concurrent with the Annual Statement, and the footings of the former should verify every item of the first statement of assets and liabilities, as well as the report of stock outstanding. The forms of these detailed blanks are as follows:

[Form 2.]

Name of Association

LIST OF MEMBERS, AND STOCK HELD BY EACH.

Name and Location.	Series.	No. Shares.	Loaned on.	Free.	Book Value.	Withdrawal Value.
-----	-----	-----	-----	-----	-----	-----

[Form 3.]

DETAILED STATEMENT OF ASSETS

Of the -----, Located at ----- Report dated -----, -----.

OUTSTANDING LOANS.

Character of Paper.	Face of Obligation.	Present Worth of Obligation.	Appraised Value of Land.	Cost or Value of Building.	Book Value of Stock Pledged.	Total Value of Security.
-----	-----	-----	-----	-----	-----	-----

[Form 4.]

DETAILED STATEMENT OF ASSETS.

DUE FROM DELINQUENT MEMBERS.

Name.	On Shares.	On Interest.	On Premium.	On Fines.	Total.
-----	-----	-----	-----	-----	-----

[Form 5.]

DETAILED STATEMENT OF ASSETS.

REAL PROPERTY OWNED BY THE ASSOCIATION.

Description of Property.	Amt. of Obligation Taken for.	Purchase Price.	Value of Land.	Value of Improvements.	Book Value of Stock Forfeited.	Total Security Taken.
-----	-----	-----	-----	-----	-----	-----

MORTGAGES IN PROCESS OF FORECLOSURE.

Character of Paper.	Face of Obligation.	Present Worth of Obligation.	Appraised Value of Land.	Value of Improvements.	Book Value of Stock Pledged.	Total Security.
-----	-----	-----	-----	-----	-----	-----

SUMMARY.

Outstanding loans, total.....
 Real property owned by the Association.....
 Mortgages in process of foreclosure.....
 Total due from members.....
 Cash on hand.....
 Cash on deposit in.....
 Furniture and fixtures consisting of-----
 Other property (in detail)-----

 Total of assets

STATE OF CALIFORNIA, }
 COUNTY OF _____, } ss.

We do solemnly swear that every allegation, statement, matter, and thing contained in this report, consisting of the foregoing — pages, is true to the best of our knowledge and belief.

Subscribed and sworn to before me, this _____	}	_____
day of _____, 189—.		President.

	Notary Public.	Secretary.

These statements, when completed, are attached with clasps, the pages numbered, and the whole verified under oath of the President and Secretary.

THE EXAMINATIONS.

When notified that the Detailed Statements are ready, or as soon thereafter as possible, we visit the office of the association, and proceed with the regular official examination. This consists in—

First: Verifying each item in the statements of assets and liabilities and receipts and disbursements, by checking with the ledger and auxiliary books.

Second: Proving the correctness of the item of liability to members for dues paid in. This is done by multiplying the number of shares outstanding in each series by the amount paid on each share, and taking the sum of products for the paid-up capital of the association.

Third: Proving the correctness of the item of accrued earnings. This is done by multiplying the apportioned profits on each share outstanding by the number of shares, and taking the sum of products for the accrued earnings.

Fourth: Checking the footings of the Detailed Statements with corresponding items in Annual Statement.

Fifth: Checking list of members and stock held by each (Form 2) with stubs in certificate book. This gives us a verification of the issuance of stock, and, as the list is generally prepared from the Stock Register or other auxiliary book, we have a valuable cross-check on the books as well.

Sixth: Checking statement of outstanding loans (Form 4) with the original notes and mortgages; also items of stock pledged with the certificates, and insurance with policies. In every instance the Secretary or Treasurer is expected to produce the securities and collateral papers to justify the detailed statement covering these matters, and the aggregate of such securities must agree with the items "Loaned on Mortgages" and "Loaned on Stock" in the Annual Statement.

Eighth: Checking statement of real estate owned and other items of property (Form 5) with evidences on file with Secretary or Treasurer.

Ninth: Checking cash on hand or in the hands of Treasurer with the Treasurer's book.

SECURITIES.

In ordinary examinations we do not attempt to visit or appraise the property held as security, because to do this properly would require more than the whole time at our disposal. In lieu thereof we accept the appraisal of the security committee, or other persons delegated by the association to pass upon loans. The law requires that every Secretary shall keep a book in which the particulars concerning each loan

are to be recorded, and also an appraisalment of the value of land and improvements thereon. In verification of such appraisements the security committee, or other officers acting in such capacity, are to sign their names opposite the record of each loan.

We accept such valuations as a finality, and if the value of land and improvements, together with the book value of stock pledged, shows a sufficient margin of security over the amount loaned, we count the loan a good asset.

In special instances we have inspected property held by an association and have made our own appraisements for the purpose of determining the solvency of the association.

TIME OF EXAMINATION.

The law requires that we examine at least once each year every Building and Loan Association in the State. Should we deem it necessary, however, we may make a special examination at any time. During the past year we have made special examinations in only two cases, and these were of associations whose solvency was in question.

We have arranged to have our annual examinations take place in each case as soon as possible after the close of the association's fiscal year. This brings it at a time when the books are fully written up, the accounts digested and profits declared, and an examination at such a time is more satisfactory to us and to the Secretaries than at any other period. As the associations mature their fiscal years at different dates, it distributes the work of the Commission throughout the year, and enables us to give proper time and attention to each association in turn. For statistical purposes it is not quite so desirable to combine reports covering different periods of time, as must be the case when returns are so made up. But what is lost in closeness of statistics is more than made up by convenience and accuracy in checking the work.

THOROUGHNESS OF THE EXAMINATION.

We have endeavored to make these examinations thorough and searching, and we believe that, with the system of reports and verifications above outlined, it would be very difficult for a Secretary to misrepresent the status of his association. A forced balance in the books or in the statements would be promptly disclosed. There would be no way to bolster up a really insolvent association and make it appear sound without the most outrageous forgeries and false entries, which would probably be self-evident. Nevertheless, it must be conceded that our examinations do not amount to a complete experting of the Secretary's books. It is impossible for us to follow his work all through, and check every entry and posting, compare disbursements with vouchers, or call in the pass books and check the receipts with them. For this reason we have advised Directors not to depend upon our examinations to take the place of the regular expert work which is usually done under the supervision of the auditing committee. Such examinations should be continued with unabated vigilance, to prove the correctness and honesty of the Secretary's work. We are then able to pass upon the solvency of the association and upon its methods of doing business.

NO CERTIFICATES OF EXAMINATION.

We have not deemed it advisable to issue a certificate, or other formal attestation, that we have examined an association, and that it is in good standing. The mere fact that we have made such examination, and that no proceedings have been taken against the association to declare it insolvent, is sufficient proof that it is deemed solvent.

The Annual Statement filed in our office, and verified in the examination, is a public record that shows the exact status of the association, and is far more valuable to an intelligent person seeking information than a mere perfunctory certificate. We have studiously avoided any act which might be construed into lending the influence of this Commission to any association for advertising purposes, and the apprehension that certificates of good standing might be so employed in some cases has been one of the principal reasons for withholding them.

As for the association itself, its officers are not left in any doubt as to the result of the examination. If any irregularities are discovered they are made known to the Secretary or other officers at the time, and if they are of such a serious character that they cannot be promptly corrected, the Directors are advised of the fact, and also notified of the course which the Commission proposes to adopt with reference to the association.

If the books, securities, and vouchers check up properly with the statements, the Secretary, who is invariably present at the examination, is aware of the fact, and can so inform his association.

ASSESSMENTS AND LICENSES.

In compliance with Section 15 of the Act creating this Commission and defining its duties and powers, we collected data of shares outstanding in all of the associations of the State on December 31, 1892, and the par value of such shares. On June 1, 1893, we levied an assessment on the associations, which was an equivalent of $1\frac{1}{2}$ cents per share of a par, or fully paid-up, value of \$200, and $\frac{9}{10}$ of a cent on a share of \$100, and \$3,546 66 received therefrom was forwarded to the State Treasurer to be placed to the credit of the Building and Loan Inspection Fund, as follows:

Salaries account.....	\$2,800 00
Rent account.....	280 00
Traveling account.....	291 66
Office expense account.....	175 00
Total.....	<u>\$3,546 66</u>

Of this on December 31, 1893, there remained to the credit of the Inspection Fund \$4 56 in traveling account and 18 cents in office expense account.

This assessment was promptly paid, providing a revenue to meet the expenses of the Commission for seven months, from June 1 to December 31, 1893, inclusive, the expenses during said time amounting to \$3,541 92.

January 1, 1894, we again collected data concerning the shares outstanding August 31, 1893, and an assessment equivalent to $1\frac{8.5}{100}$ cents on each \$200 share, or $\frac{3.7}{40}$ of a cent on each \$100 share, was levied to cover

the expenses of the Commission for the year 1894, and \$6,080 received therefrom was forwarded to the State Treasurer, to be placed to the credit of the Building and Loan Inspection Fund, in the following :

Salaries account.....	\$4,800 00
Rent account.....	480 00
Traveling account.....	500 00
Office expense account.....	300 00
Total.....	\$6,080 00

Of which amount there was expended to May 31, 1894 :

Salaries account.....	\$2,000 00
Rent account.....	200 00
Traveling account.....	207 40
Office expense account.....	213 89
Total.....	\$2,621 29

Leaving balance to credit Building and Loan Inspection Fund \$3,932 71 for expenses of balance of year 1894.

DETAILED STATEMENT OF RECEIPTS FOR SEVEN MONTHS—

June 1 to December 31, 1893, inclusive.

Name of Association.	Amount of Assessment.
Los Gatos Building and Loan Association.....	\$2 85
Nucleus Building and Loan Association—San José.....	20 90
Continental Building and Loan Association—San Francisco.....	38 15
Germania Building and Loan Association—San Francisco.....	95 76
National Home and Loan Association—San Francisco.....	57 51
Excelsior Loan Association—San Francisco.....	42 08
California Guarantee Investment Company—San Francisco.....	107 46
Atlas Building and Loan Association—San Francisco.....	23 23
Fairmount Loan Association—San Francisco.....	19 08
Mission Home and Loan Association—San Francisco.....	27 82
Pacific States Building and Loan Association—San Francisco.....	256 80
National Building and Loan Association—San Francisco.....	70 70
Visalia Building and Loan Association.....	8 58
Columbia Building and Loan Association—San Francisco.....	15 21
Bay City Building and Loan Association—San Francisco.....	24 74
Union Loan Association—San Francisco.....	34 02
Occidental Loan Association—San Francisco.....	54 18
El Dorado Loan Association—San Francisco.....	20 03
Western Loan Association—San Francisco.....	43 50
Argonaut Mutual Building and Loan Association—San Francisco.....	19 23
Pacific Loan Association—San Francisco.....	77 43
Golden West Building and Loan Association—San Francisco.....	18 98
Prudence Building and Loan Association—San Francisco.....	17 61
City Building and Loan Association—San Francisco.....	17 21
Golden Gate Mutual Building and Loan Association—San Francisco.....	11 61
Sacramento Building and Loan Association.....	40 25
Union Mutual Building and Loan Association—Los Angeles.....	31 21
Alta Building and Loan Association—San Francisco.....	21 20
Eureka Building and Loan Association—San Francisco.....	15 75
Eureka Loan Association—San Francisco.....	18 10
Provident Mutual Loan Association—San Francisco.....	30 25
West Shore Mutual Loan Association—San Francisco.....	13 30
Stockton Land, Loan, and Building Association.....	100 76
California Mutual Building and Loan Association—Los Angeles.....	12 10
Union Building and Loan Association—Sacramento.....	24 05
Occidental Building and Loan Association—San Francisco.....	19 68
People's Mutual Building and Loan Association—Bakersfield.....	12 31
Modesto Building and Loan Association.....	19 92
Capital Building and Loan Association—San Francisco.....	21 80
Italian-Swiss Building and Loan Association—San Francisco.....	49 46
Equitable Building and Loan Association—Los Angeles.....	33 58
Equity Building and Loan Association—Oakland.....	13 42

DETAILED STATEMENT OF RECEIPTS FOR SEVEN MONTHS—Continued.

Name of Association.	Amount of Assessment.
San Luis Building and Loan Association—San Luis Obispo.....	\$15 62
Silver Gate Building and Loan Association—San Diego.....	2 32
Loan and Building Association of Santa Barbara.....	14 42
Santa Clara Building and Loan Association.....	14 75
San Diego Savings and Loan Association.....	4 88
Columbia Loan and Building Association—San Francisco.....	28 86
Merced Mutual Building and Loan Association.....	8 66
Napa Building and Loan Association.....	29 71
Second Colton Building and Loan Association.....	8 05
People's Mutual Building and Loan Association—Ontario.....	7 02
Bakersfield Building and Loan Association.....	32 47
The Golden Rule Mutual Building and Loan Association—San Francisco.....	12 05
Triumph Loan Association—San Francisco.....	18 75
Republic Savings, Building, and Loan Association—San Francisco.....	4 28
Renters Coöperative Investment Company—San Francisco.....	15 78
Inter Nos Building and Loan Association—San Francisco.....	31 69
Yerba Buena Mutual Building and Loan Association—San Francisco.....	19 65
Coöperative Mutual Building and Loan Association—San Francisco.....	21 00
Enterprise Mutual Building and Loan Association—San Francisco.....	12 25
Security Loan Association—San Francisco.....	36 62
Guardian Loan Association—San Francisco.....	17 05
Merchants Loan Association—San Francisco.....	18 07
Homeseekers Loan Association—San Francisco.....	24 30
Mutual Savings Fund and Loan Association—San Francisco.....	31 74
Los Angeles Fidelity Savings and Loan Association.....	9 86
San Francisco Home Mutual Loan Association.....	20 68
West Oakland Mutual Loan Association.....	28 17
San Francisco and Oakland Mutual Loan Association.....	37 18
San Francisco Mutual Loan Association.....	55 49
Marin County Mutual Building and Loan Association—San Rafael.....	24 45
San Joaquin Valley Building and Loan Association—Stockton.....	27 94
Eintracht Building and Loan Association—San Francisco.....	24 59
Santa Paula Building and Loan Association.....	5 22
Acme Building and Loan Association—San Francisco.....	9 45
Alliance Building and Loan Association—San Francisco.....	11 95
Cosmos Loan Association—San Francisco.....	12 30
California Mutual Savings Fund, Loan, and Building Association—San Francisco.....	11 52
Economy Building and Loan Association—San Francisco.....	13 35
Los Angeles Building and Loan Association.....	8 28
Fortuna Building and Loan Association.....	1 66
Home Investment Building and Loan Association—San Francisco.....	13 67
Santa Fe Building and Loan Association—San Bernardino.....	5 34
Mutual Building and Loan Association—Fresno.....	17 41
Homestead Loan Association—Berkeley.....	41 94
Citizens Building and Loan Association—San Francisco.....	93 40
Home Mutual Building and Loan Association—San Francisco.....	30 23
Commercial Building and Loan Association—San Francisco.....	21 14
Alameda Building and Loan Association.....	38 27
Imperial Savings and Loan Company—Los Angeles.....	17 52
Home Security Building and Loan Association—Oakland.....	75 50
Benicia Building and Loan Association.....	9 10
Metropolitan Loan Association—Los Angeles.....	51 43
Mutual Building and Loan Association of Pasadena.....	6 58
Mutual Building and Loan Association of Redondo.....	2 59
Petaluma Mutual Loan Association.....	12 23
Pacific Mutual Building and Loan Association—San Francisco.....	11 85
Householders Building and Loan Association—San Francisco.....	6 56
Commonwealth Mutual Building and Loan Association—San Francisco.....	9 55
Newcastle Building and Loan Association.....	3 90
Franklin Savings, Building, and Loan Association—San Francisco.....	23 55
Home Investment Association—San Francisco.....	18 41
Pacific Coast Savings Society—San Francisco.....	218 37
Oakland Building and Loan Association.....	34 57
Anaheim Savings, Loan, and Building Association.....	3 95
Cosmopolitan Mutual Building and Loan Association—Brooklyn.....	25 31
Brooklyn Investment and Loan Association—East Oakland.....	16 94
San Diego Building and Loan Association—San Diego.....	31 18
Standard Building and Loan Association—Oakland.....	10 60
Pacific Coast Loan Association—San Francisco.....	13 76

DETAILED STATEMENT OF RECEIPTS FOR SEVEN MONTHS—Continued.

Name of Association.	Amount of Assessment.
California Building and Loan Association—San Francisco.....	\$20 04
Mechanics Building and Loan Association—San Francisco.....	12 60
Fidelity Building and Loan Association—San Francisco.....	39 95
Empire Building and Loan Association—San Francisco.....	23 15
Encinal Building and Loan Association—Alameda.....	24 31
Tulare Building and Loan Association.....	29 66
Southern California Loan Association—Los Angeles.....	35 52
Savings Fund and Building Association—Los Angeles.....	16 91
San Mateo Building and Loan Association.....	17 13
Santa Rosa Building and Loan Association.....	12 72
Germania Building and Loan Association—Sacramento.....	52 56
San José Building and Loan Association.....	68 60
People's Building and Loan Association—Oakland.....	11 05
Palo Alto Mutual Building and Loan Association.....	1 58
Humboldt Building and Loan Association—San Francisco.....	29 75
Monarch Mutual Building and Loan Association—San Francisco.....	13 67
People's Building and Loan Association—Fort Bragg.....	6 75
San Bernardino Loan and Building Association.....	3 37
Mutual Building and Loan Association—San José.....	18 84
Santa Ana Building and Loan Association.....	1 60
Total collected.....	\$3,637 90
Deposit State Treasurer.....	3,546 66
Cash on hand, credit next assessment.....	\$91 24

DETAILED STATEMENT OF RECEIPTS FOR TWELVE MONTHS ENDING DECEMBER 31, 1894.

Name of Association.	Amount of Assessment.
Los Angeles Building and Loan Association.....	\$14 91
Stockton Land, Loan, and Building Association.....	161 42
Petaluma Mutual Loan Association.....	22 00
Home Investment Association—San Francisco.....	27 34
Anaheim Building and Loan Association.....	7 80
Santa Fe Building and Loan Association—San Bernardino.....	12 05
Tulare Building and Loan Association.....	47 34
Home Mutual Building and Loan Association—Santa Ana.....	12 14
Inter Nos Building and Loan Association—San Francisco.....	47 59
Mutual Building and Loan Association of Redondo.....	3 58
San Diego Building and Loan Association.....	48 10
West Oakland Mutual Loan Association.....	41 78
San Francisco and Oakland Mutual Loan Association.....	71 25
San Francisco Mutual Loan Association.....	86 27
Italian-Swiss Mutual Loan Association—San Francisco.....	93 28
San Francisco Home Mutual Association.....	34 80
San Luis Building and Loan Association.....	25 45
Palo Alto Mutual Building and Loan Association.....	5 34
Imperial Savings and Loan Association—Los Angeles.....	11 22
Mutual Building and Loan Association of San José and College Park.....	30 36
Golden Rule Mutual Building and Loan Association—San Francisco.....	23 55
Triumph Loan Association—San Francisco.....	38 66
Commonwealth Mutual Building and Loan Association—San Francisco.....	14 81
San Mateo County Building and Loan Association.....	30 51
Franklin Savings, Building, and Loan Association—San Francisco.....	38 00
Alliance Building and Loan Association—San Francisco.....	15 98
Acme Building and Loan Association—San Francisco.....	16 32
Nucleus Building and Loan Association—San José.....	33 28
Modesto Building and Loan Association.....	32 56
San José Building and Loan Association.....	117 79
Savings Fund Building Society—Los Angeles.....	26 53
Southern California Loan Association—Los Angeles.....	63 73
Encinal Building and Loan Association—Alameda.....	43 90
The Equitable Building and Loan Association—San Francisco.....	47 60
People's Mutual Building and Loan Association—Ontario.....	10 54
Prudence Building and Loan Association—San Francisco.....	28 62
City Building and Loan Association—San Francisco.....	31 13

DETAILED STATEMENT OF RECEIPTS FOR TWELVE MONTHS—Continued.

Name of Association.	Amount of Assessment.
The Golden Gate Mutual Building and Loan Association—San Francisco	\$23 07
Woodland Building and Loan Association	12 51
Santa Clara Building and Loan Association	23 60
Golden West Building and Loan Association—San Francisco	31 54
Fortuna Building and Loan Association	2 80
Fidelity Savings and Loan Association—San Francisco	12 83
Santa Rosa Building and Loan Association	19 69
Benicia Building and Loan Association	13 54
Mutual Building and Loan Association of Pasadena	8 10
Metropolitan Loan Association—Los Angeles	89 60
Los Gatos Building and Loan Association	6 12
Eintracht Spar und Bau Verein—San Francisco	39 33
Merced Building and Loan Association	13 93
Cosmos Loan Association—San Francisco	17 50
San Joaquin Valley Building and Loan Association—Stockton	56 33
Homeseekers Loan Association—San Francisco	38 87
Merchants Loan Association—San Francisco	27 83
Guardian Loan Association—San Francisco	27 05
Security Loan Association—San Francisco	57 79
Coöperative Mutual Loan Association—San Francisco	42 92
Yerba Buena Mutual Building and Loan Association—San Francisco	35 64
Enterprise Mutual Building and Loan Association—San Francisco	55 92
West Shore Mutual Loan Association—San Francisco	21 05
The Eureka Loan Association—San Francisco	28 53
Provident Mutual and Loan Association—San Francisco	46 34
Santa Paula Building and Loan Association	11 22
San Bernardino Loan and Building Association	4 07
People's Building and Loan Association—Fort Bragg	21 37
Newcastle Building and Loan Association	7 97
Bakersfield Building and Loan Association	54 54
Capital Building and Loan Association—San Francisco	32 37
Mutual Building and Loan Association of Fresno	32 40
Madera Mutual Building and Loan Association	1 16
Pacific Loan Association—San Francisco	119 69
Union Loan Association—San Francisco	46 27
Occidental Loan Association—San Francisco	81 18
Western Loan Association—San Francisco	62 86
Bay City Building and Loan Association—San Francisco	41 09
Argonaut Mutual Building and Loan Association—San Francisco	33 32
Monarch Mutual Building and Loan Association—San Francisco	24 12
Humboldt Building and Loan Association—San Francisco	50 45
Germania Building and Loan Association—Sacramento	89 04
Household Building and Loan Association—San Francisco	10 53
California Mutual Savings Fund and Building Association—San Francisco	17 00
Economy Building and Loan Association—San Francisco	19 29
Columbia Loan and Building Association—Los Angeles	47 36
Fidelity Building and Loan Association—San Francisco	64 17
Empire Building and Loan Association—San Francisco	38 53
Mechanics Building and Loan Association—San Francisco	23 79
California Mutual Building and Loan Association—Los Angeles	2 00
The Home Investment Building and Loan Association—Los Angeles	23 27
Silver Gate Mutual Building and Loan Association—San Diego	4 10
Columbian Building and Loan Association—Alameda	3 33
People's Building and Loan Association—Oakland	19 32
Citizens Building and Loan Association—San Francisco	149 13
Commercial Building and Loan Association—San Francisco	35 46
Home Mutual Building and Loan Association—Santa Ana	56 01
The Homestead Mutual Building and Loan Association—Berkeley	69 67
Alameda Building and Loan Association	59 83
Sacramento Building and Loan Association	61 80
Home Security Building and Loan Association—Oakland	108 26
Sausalito Mutual Loan Association—San Francisco	14 19
California Building and Loan Association—Alameda	33 36
Pacific Coast Loan Association—San Francisco	22 25
Columbia Building and Loan Association—San Francisco	37 67
Santa Ana Building and Loan Association	56
Orange Building and Loan Association—Orange	1 46
El Dorado Building and Loan Association—San Francisco	39 59
Continental Building and Loan Association—San Francisco	55 19
Fairmount Loan Association—San Francisco	33 80

DETAILED STATEMENT OF RECEIPTS FOR TWELVE MONTHS—Continued.

Name of Association.	Amount of Assessment.
Mission Home Loan Association—San Francisco	\$46 09
Pacific States Building and Loan Association—San Francisco	423 77
Equity Building and Loan Association—Oakland	22 62
Pacific Mutual Building and Loan Association—San Francisco	21 46
California Guarantee Investment Company—San Francisco	175 50
Mutual Savings Fund, Building, and Loan Association—San Francisco	47 43
Renters Coöperative Investment Company—San Francisco	43 36
Pacific Coast Savings Society—San Francisco	288 29
Second Colton Building and Loan Association	12 22
Occidental Building and Loan Association—Sacramento	31 17
Union Building and Loan Association—Sacramento	47 90
Germania Building and Loan Association—San Francisco	161 00
Union Mutual Building and Loan Association—Los Angeles	91 31
Napa Building and Loan Association	46 04
San Diego Savings and Loan Association	8 46
Ætna Building and Loan Association—San Francisco	19 94
Atlas Building and Loan Association—San Francisco	33 33
Excelsior Building and Loan Association—San Francisco	70 28
National Home and Loan Association—San Francisco	83 73
Alta Building and Loan Association—San Francisco	39 33
Eureka Building and Loan Association—San Francisco	26 34
National Building and Loan Association—San Francisco	120 22
Cosmopolitan Mutual Building and Loan Association—San Francisco	46 84
Brooklyn Investment and Loan Association—East Oakland	29 58
California Mutual Building and Loan Association—Los Angeles	16 74
Mutual Building and Loan Association of Pomona	5 43
Marin County Mutual Building and Loan Association—San Rafael	40 68
The Loan and Building Association of Santa Barbara	29 67
Visalia Building and Loan Association	12 63
People's Mutual Building and Loan Association—Bakersfield	24 95
Oakland Building and Loan Association	52 23
Standard Building and Loan Association—Oakland	16 69
Republic Savings, Loan, and Building Association—San Francisco	5 15
Total collection	\$6,084 53
Balance from last assessment	91 24
	\$6,175 77
Deposit State Treasurer	6,080 00
Cash on hand, credit next assessment	\$95 77

In each case, on receipt of the amount of assessment, we have forwarded to the association paying the same, a license in the following form:

BOARD OF COMMISSIONERS
OF THE



Building and Loan

Associations *

STATE OF CALIFORNIA.

Know all Men by these Presents:

That....., has paid its pro rata assessment, according to Sections Five and Fifteen of "An Act creating a Board of Commissioners of the Building and Loan Associations, and prescribing their duties and powers," approved March 23d, 1893, and the Acts amendatory thereof. **Now, Therefore,** A LICENSE is hereby granted unto the said Corporation to transact a Mutual Building and Loan business, subject to the laws of this State, for the year ending December 31, 1893.

In Witness Whereof, We have hereunto set our hands, at the City of San Francisco, this first day of June, A. D. 1893.

Commissioners.

PLANS OF ASSOCIATION.

Pursuing in part the method adopted by the Board of Bank Commissioners, which formerly exercised supervision over this department, we divide Building and Loan Associations into three classes. We term them the Locals, Nationals, and Coöperative Banks. The last named class were treated as "unclassified" by the Bank Commissioners.

The Locals.—The distinguishing characteristics of the Locals are as follows:

1. They generally confine their operations in loaning money to the city or town or the immediate neighborhood in which they are organized.

2. The capital stock of Locals is generally represented by certificates of a par value of \$200 per share, with monthly payments of \$1 per share, and the stock is calculated to mature at from nine to eleven years.

3. The Locals defray their expenses from the earnings, and carry the balance of the profits up to the credit of stockholders.

4. The Locals employ no agents to solicit business and pay no commissions.

The Nationals.—The Nationals have the following characteristics:

1. They solicit subscriptions and make loans in a wider territory, sometimes comprehending several counties, sometimes several States. They have a central board of management, and local boards in various places where they operate, to pass upon the desirability of loans and transact other business.

2. The capital stock of Nationals is generally represented by certificates of the par value of \$100 per share, with monthly payments of 60 cents per share, and the stock is calculated to mature in from seven to eight years.

3. The Nationals reserve from the monthly payments from 8 to 10 cents per share, which they cover into an expense fund to meet all ordinary expenses; and all, or nearly all, of the gross earnings are carried up to the credit of the stockholders. In some cases where the expense fund becomes greater than the requirements of the association, the surplus is carried to the credit of the stockholders, thus augmenting the profits.

4. The Nationals employ agents to solicit business, and either pay such agents directly or allow them to collect a fee from subscribing members. This fee is generally \$1 per share.

Coöperative Banks.—This class, of which two associations are represented in this report, varies from the Locals and Nationals, in that it incorporates many features of a savings bank into its system, allowing interest on deposits, withdrawable after a stated time, etc. It is a question whether such associations should not be under the supervision of the Board of Bank Commissioners, in so far as their bank features are concerned, while their mutual savings and loan business should be supervised by this Commission.

Associations Unclassified and not Supervised.—There is still another kind of association which incorporates in its plan of operations the features of these Coöperative Banks and others as well, such as endowments, life insurance, etc.

These associations have thus far escaped the supervision of any State Commission, inasmuch as their systems cannot be classified under the Building and Loan plan, or the Insurance plan, or the Savings Bank

plan. Yet it is very certain that these unclassifiable associations require official supervision in the interest of the public as much as any. Their plans being intricate, and their management vested in a set of officers over whom the subscribers and members exercise little or no supervision or control, make it possible for the perpetration of extensive injustice. These associations are operated under the sanction of the State, being regularly incorporated, and there is no doubt that the State has a moral responsibility for their good conduct.

As a general rule, those organizations which are formed on a plan especially designed to clear them from official inspection are the ones that most need supervision. We recommend, therefore, that the scope of one or all of the existing Commissions be so broadened as to allow them to take cognizance of these hitherto unclassified mutual associations.

INCREASE OF BUILDING AND LOAN ASSOCIATIONS.

The oldest Building and Loan Association now doing business in the State is the Germania Building and Loan Association of Sacramento (H. J. Goethe, Secretary), which was incorporated December 31, 1872.

The development of this system of coöperative investment is shown by the following table, which gives the number of associations for each successive year from the earliest date:

1872	1	1881	9	1886	31	1890	105
1874	2	1882	11	1887	44	1891	126
1875	5	1883	14	1888	49	1892	136
1876	6	1884	16	1889	82	1893	146
1879	7	1885	24				

This statement takes account of only the associations now doing business in the State. There were doubtless a number started during this period which were subsequently closed up, and of which we have no official record.

Of the 146 associations reported as doing business in 1893, we give herewith reports from 137. Two have retired from business, and seven associations did not complete their first fiscal year in time to be included in this report. They are as follows:

- Columbian Building and Loan Association, Alameda; incorporated July 1, 1893.
- Mutual Building and Loan Association, Fort Bragg; incorporated February 7, 1894.
- Escondido Building and Loan Association, Escondido; incorporated September 19, 1893.
- Safety Mutual Building and Loan Association, San Francisco; incorporated May 12, 1894.
- Equitable Mutual Building and Loan Association, Los Angeles; incorporated September 26, 1892.*
- Ukiah Building and Loan Association, Ukiah; incorporated May 1, 1894.
- Granite Building and Loan Association, San Francisco; incorporated August 18, 1893.

The Truckee Building and Loan Association of Truckee (Local) is liquidating, and did no business in 1893.

The Santa Ana Building and Loan Association of Santa Ana (Local) is liquidating, and has its affairs about closed up.

The Republic Building and Loan Association of San Francisco (National) is also liquidating, but its business for the past fiscal year is reported herewith.

The Imperial Building and Loan Association of Los Angeles (National) was reported to the Attorney-General in August, 1893, as insolvent.

*Did no business till December, 1893.

ent, but was given further time to repair its capital under a new management. It was again reported insolvent in July, 1894, and then made an assessment upon members to cover its losses.

The San Bernardino Building and Loan Association of San Bernardino (Local) is closing up its business.

CAPITALIZATION.

From tables elsewhere presented, it appears that the total capitalization of the Building and Loan Associations of the State is \$553,700,000. This amount represents the par, or fully paid-up, value of the stock, and it also represents a large number of shares that have not been placed in the hands of stockholders. The scheme of organization provides not only for future payments for a period of seven, eight, nine, or ten years, but it also provides for the growth of associations in the meantime by the accession of new members.

The full limit of shares provided for incorporations is 4,727,500. This full capitalization may be classified as follows:

	Full Capital Stock.	No. Shares Allowed.
Locals	\$196,200,000	1,152,500
Nationals	257,500,000	2,575,000
Coöperative Banks	100,000,000	1,000,000
Totals	\$553,700,000	4,727,500

As a general rule the Local Associations issue their stock of a face value of \$200 per share. There are but sixteen exceptions in the State.

Of the 127 Local Building and Loan Associations reported, 125 are on the serial plan and one on the terminating plan.

Sixteen associations have outstanding 17,089 shares of par value of \$100 each.

One hundred and eleven associations have outstanding 250,643 $\frac{3}{10}$ shares of par value of \$200 each.

One hundred and twenty associations, with 262,586 $\frac{1}{10}$ shares, collect installments of \$1 per share per month.

Four associations, with 2,571 shares, collect installments of 50 cents per share per month.

One association, with 2,993 $\frac{1}{2}$ shares, collects installments on two series of \$1 per share per month, and of 50 cents per share on twelve series, averaging 59.3 cents per share.

Three associations, with 4,154 shares, collect installments of 60 cents per share per month.

The average monthly installment per share of all Local Associations is 98 $\frac{1}{2}$ cents.

All associations conducted on the National plan collect 60 cents per share per month.

CAPITALIZATION OF LOCALS.

111 associations at \$200 per share, 909,500 shares	\$181,900,000	909,500
16 associations at \$100 per share, 143,000 shares	14,300,000	143,000
Total capitalization of Locals	\$196,200,000	1,052,500

CAPITALIZATION OF NATIONALS.

8 associations at \$100 per share, 2,575,000 shares..... \$257,500,000 00

CAPITALIZATION OF COÖPERATIVE BANKS.

2 associations at \$100 per share, 1,000,000 shares..... \$100,000,000 00

Total capitalization of Locals, Nationals, and Coöperative Banks..... \$553,700,000 00

The actual transactions in shares are shown in the following table:

LOCALS.

Shares outstanding at dates of preceding reports.....	257,336 $\frac{3}{10}$
Shares issued since dates of preceding reports.....	52,949 $\frac{5}{8}$
Total issue.....	310,285 $\frac{3}{10}$
Shares canceled since dates of preceding reports.....	42,553 $\frac{2}{10}$
Shares in force at dates of reports herewith.....	267,732 $\frac{1}{10}$

This shows an increase (by the new issue) of 20.5 per cent; and a decrease (by the cancellations) from total issue of 13.7 per cent. The net increase of shares outstanding was 3.85 per cent.

NATIONALS.

Shares outstanding at dates of preceding reports.....	81,630 $\frac{1}{2}$
Shares issued since dates of preceding reports.....	30,427
Total issue.....	112,057 $\frac{1}{2}$
Shares canceled since dates of preceding reports.....	27,961
Shares in force at dates of reports herewith.....	84,096 $\frac{1}{2}$

This shows an increase (by the new issue) of 37.37 per cent; and a decrease (by the cancellations) of 24.95 per cent. The net increase of shares outstanding was 3.02 per cent.

COÖPERATIVE BANKS.

Shares outstanding at dates of preceding reports.....	50,522
Shares issued since dates of preceding reports.....	18,078
Total issue.....	68,600
Shares canceled since dates of preceding reports.....	19,822
Shares in force at dates of reports herewith.....	48,778

This shows an increase (by the new issue) of 35.78 per cent; and a decrease (by the cancellations—basis of total issue) of 28.9 per cent. The net decrease of shares outstanding was 3.45 per cent.

COMPARATIVE STATEMENT.

Associations.	Per Cent New Issue.	Per Cent Cancellations.	Net Increase.	Net Decrease.
Locals.....	20.50	13.70	3.85	-----
Nationals.....	37.37	24.95	3.02	-----
Coöperative Banks.....	35.78	28.90	-----	3.45

The net increase in shares outstanding of all associations taken together was 2.74 per cent.

FREE AND PLEDGED SHARES.

	Shares Free— Per Cent.	Shares Pledged— Per Cent.
Locals	65.91	34.09
Nationals	82.68	17.32
Coöperative banks.....	70.74	29.26
All associations	70.00	30.00

STATEMENT OF AGGREGATES.

Of the 137 Building and Loan Associations whose statements enter into this report, the aggregates of resources and liabilities are as follows:

<i>Aggregate Resources.</i>	
Aggregate loans	\$19,868,041 48
Aggregate arrearages	332,980 17
Aggregate cash on hand.....	172,302 56
Aggregate real estate.....	323,391 64
Aggregate other assets	118,366 33
	\$20,820,082 18
<i>Aggregate Liabilities.</i>	
Aggregate dues and advance payments.....	\$13,843,986 61
Aggregate earnings	4,451,490 20
Aggregate overdrafts and bills payable	1,609,738 72
Aggregate profits unapportioned.....	482,309 79
Aggregate of all other liabilities.....	432,556 86
	\$20,820,082 18

The aggregates of receipts and disbursements for fiscal year included in this report are shown in the following table:

<i>Aggregate Receipts.</i>	
Aggregate balance on hand	\$242,309 52
Aggregate received for dues	3,759,003 85
Aggregate received for paid-up stock	579,303 73
Aggregate received for premiums	596,900 51
Aggregate received for interest.....	1,290,179 42
Aggregate received for fees and fines.....	45,192 79
Aggregate loans repaid.....	2,195,939 08
Aggregate of overdrafts and bills payable.....	1,728,900 44
Aggregate of all other sources	1,991,087 96
	\$12,428,817 30
<i>Aggregate Disbursements.</i>	
Aggregate paid overdrafts and bills payable	\$1,728,882 41
Aggregate loans.....	4,651,389 64
Aggregate interest	145,291 87
Aggregate dues on surrendered shares.....	2,603,333 09
Aggregate profits on surrendered shares	641,089 22
Aggregate salaries.....	180,827 20
Aggregate taxes.....	188,349 36
Aggregate other expenses	101,643 75
Aggregate of all other disbursements	2,015,708 20
Aggregate balance on hand	172,302 56
	\$12,428,817 30
Aggregate authorized capital stock	\$553,700,000 00
Aggregate No. of shares authorized	4,727,500
Aggregate No. of members	34,169
Aggregate No. of borrowers	8,973
Aggregate No. of mortgage loans for year	2,538
Aggregate amount of mortgage loans for year	\$4,200,476 23
Aggregate No. of foreclosures since organization.....	72
Aggregate amount due on foreclosures.....	\$211,939 41
Aggregate No. of shares last report.....	389,488 ⁸ / ₁₀₀
Aggregate No. of shares issued since last report.....	101,454 ⁸ / ₁₀₀
	490,943 ¹⁷ / ₁₀₀
Aggregate No. of shares canceled since last report	90,336 ²⁰ / ₁₀₀
Aggregate No. of shares in force at date of report	400,607 ¹¹ / ₁₀₀

Aggregate No. shares loaned on	120,122	37	
Aggregate No. shares free	280,485	200	
			400,607 11
Aggregate surrender value of all shares			\$16,373,032 94
Aggregate present worth of mortgages (taxable value)			12,787,167 89
Aggregate appraised value of land			\$14,348,441 50
Aggregate appraised value of improvements			15,988,628 46
Aggregate book value of stock hypothecated			6,873,692 72
Aggregate value of security held			\$37,210,762 68
Aggregate net profits of the year			\$1,448,920 97
Ratio of year's profits to working capital			7.77 per cent.

STATEMENT OF AVERAGES.

By dividing each item in the foregoing tables by 137—the number of associations—we obtain the following statement of averages:

<i>Average Resources.</i>		
Average loans	\$145,022 20	
Average arrearages	2,430 51	
Average cash on hand	1,257 69	
Average real estate	2,397 02	
Average other assets	863 98	
		\$151,971 40
<i>Average Liabilities.</i>		
Average dues and advance payments	\$101,050 99	
Average earnings	32,492 63	
Average overdrafts and bills payable	11,749 92	
Average profits unapportioned	3,520 51	
Average of all other liabilities	3,157 35	
		\$151,971 40
<i>Average Receipts.</i>		
Average balance on hand	\$1,768 68	
Average received for dues	27,437 99	
Average received for paid-up stock	4,228 49	
Average received for premiums	4,356 94	
Average received for interest	9,417 37	
Average received for fees and fines	329 88	
Average loans repaid	16,028 75	
Average of overdrafts and bills payable	12,619 70	
Average of all other sources	14,533 49	
		\$90,721 29
<i>Average Disbursements.</i>		
Average paid overdrafts and bills payable	\$12,619 59	
Average loans	33,951 75	
Average interest	1,060 52	
Average dues on surrendered shares	19,002 43	
Average profits on surrendered shares	4,679 43	
Average salaries	1,319 91	
Average taxes	1,374 82	
Average other expenses	741 94	
Average of all other disbursements	14,713 16	
Average balance on hand	1,257 69	
		\$90,721 29
Average authorized capital stock		\$4,076,649 00
Average No. of shares authorized		33,777
Average No. of members		249.4
Average No. of borrowers		65.5
Average No. of mortgage loans for year		18.5
Average amount of mortgage loans for year		\$30,660 41
Average No. of foreclosures since organization .....		.52
Average amount due on foreclosures		\$1,546 28
Average No. of shares last report	2,841	
Average No. of shares issued since last report	741.6	
		3,582.6
Average No. of shares canceled since last report		658.4
Average No. of shares in force at date of report		2,924.2

Average No. shares loaned on.....	876.3
Average No. shares free.....	2,047.4
	2,924.2
Average proportion of salaries to total receipts.....	1.45 per cent.
Average proportion of expenses (including salaries and taxes) to total receipts.....	3.80 per cent.
Average surrender value of all shares.....	\$119,511 19
Average present worth of mortgages (taxable value).....	\$93,336 99
Average appraised value of land.....	\$104,733 15
Average appraised value of improvements.....	116,705 32
Average book value of stock hypothecated.....	50,172 94
Average value of security held.....	\$271,611 41
Average net profits of year.....	\$10,576 06

CLASSIFICATION OF THE ABOVE STATEMENTS.

There are three classes of Building and Loan Associations doing business in this State, which are respectively designated in this report as "Locals," "Nationals," and "Coöperative Banks." The aggregates are classified as follows:

AGGREGATE RESOURCES AND LIABILITIES.

	Locals.	Nationals.	Coöperative Banks.	Grand Totals.
<i>Resources.</i>				
Aggregate loans.....	\$17,573,972 66	\$1,251,988 37	\$1,042,080 45	\$19,868,041 48
Aggregate arrearages.....	292,165 96	35,808 38	5,005 83	332,980 17
Aggregate cash on hand.....	120,910 79	16,978 31	34,413 46	172,302 56
Aggregate real estate.....	298,337 44	30,054 20	-----	328,391 64
Aggregate of other assets.....	33,733 71	22,582 12	62,050 50	118,366 33
Totals.....	\$18,319,120 56	\$1,357,411 38	\$1,143,550 24	\$20,820,082 18
<i>Liabilities.</i>				
Aggregate dues and advance payments.....	\$12,026,580 35	\$982,512 04	\$834,894 22	\$13,843,986 61
Aggregate earnings.....	4,129,069 01	230,560 00	91,861 19	4,451,490 20
Aggregate overdrafts and bills payable.....	1,499,202 50	62,520 21	48,016 01	1,609,738 72
Aggregate profits unapportioned.....	446,523 54	30,037 23	5,749 02	482,309 79
Aggregate of all other liabilities.....	217,745 16	51,781 90	163,029 80	432,556 86
Totals.....	\$18,319,120 56	\$1,357,411 38	\$1,143,550 24	\$20,820,082 18

AGGREGATE RECEIPTS AND DISBURSEMENTS.

	Locals.	Nationals.	Coöperative Banks.	Grand Totals.
<i>Receipts.</i>				
Aggregate balance on hand.....	\$191,152 37	\$12,948 92	\$38,208 23	\$242,309 52
Aggregate received for dues.....	3,278,030 98	391,131 19	89,841 68	3,759,003 85
Aggregate received for paid-up stock.....	71,263 00	46,946 00	461,094 73	579,303 73
Aggregate received for premiums.....	478,814 94	68,026 24	50,059 33	596,900 51
Aggregate received for interest.....	1,165,686 53	66,873 08	57,619 81	1,290,179 42
Aggregate received for fees and fines.....	27,361 76	12,633 09	5,197 94	45,192 79
Aggregate of loans repaid.....	1,814,839 30	227,243 36	153,856 42	2,195,939 08
Aggregate of overdrafts and bills payable.....	1,593,990 09	52,394 34	82,516 01	1,728,900 44
All other sources—aggregate.....	216,527 83	77,305 22	1,697,254 91	1,991,087 96
Totals.....	\$8,837,666 80	\$955,501 44	\$2,635,649 06	\$12,428,817 30
<i>Disbursements.</i>				
Paid overdrafts and bills payable—aggregate.....	\$1,566,065 22	\$59,283 72	\$103,533 47	\$1,728,882 41
Aggregate loans.....	3,753,009 59	505,987 72	392,392 33	4,651,389 64
Aggregate interest.....	126,223 11	6,919 74	12,149 02	145,291 87
Aggregate dues on surrendered shares.....	2,023,191 25	224,066 28	356,075 56	2,603,333 09
Aggregate profits on surrendered shares.....	571,334 45	39,969 03	29,785 74	641,089 22
Aggregate salaries.....	129,489 24	36,385 46	14,952 50	180,827 20
Aggregate taxes.....	171,300 47	9,652 35	7,396 54	188,349 36
Aggregate of other expenses.....	42,604 93	29,778 78	29,260 04	101,643 75
Aggregate of all other disbursements.....	333,537 75	26,480 05	1,655,690 40	2,015,708 20
Aggregate balance on hand.....	120,910 79	16,978 31	34,413 46	172,302 56
Totals.....	\$8,837,666 80	\$955,501 44	\$2,635,649 06	\$12,428,817 30

AGGREGATES BY CLASSES.

	Locals.	Nationals.	Coöperative Banks.	Grand Totals.
<i>Stock and Membership.</i>				
Aggregate authorized capital...	\$196,200,000	\$257,500,000	\$100,000,000	\$553,700,000
Aggregate No. of shares authorized.....	1,152,500	2,575,000	1,000,000	4,727,500
Aggregate No. of shares outstanding last report.....	257,336 ³ / ₁₀	81,630 ¹ / ₂	50,522	389,488 ⁸ / ₁₀
Aggregate No. of shares issued since last report.....	52,949 ³ / ₈	30,427	18,078	101,454 ³ / ₈
Aggregate issue.....	310,285 ³ / ₁₆	112,057 ¹ / ₂	68,600	490,943 ¹ / ₁₆
Aggregate No. of shares canceled since last report.....	42,553 ³ / ₂₀	27,961	19,822	90,336 ³ / ₂₀
Aggregate No. of shares outstanding.....	267,732 ¹ / ₁₆	84,096 ¹ / ₂	48,778	400,607 ¹ / ₁₆
Aggregate No. of shares pledged.....	91,271 ¹³ / ₈₀₀	14,567 ¹ / ₂	14,283	120,122 ³ / ₂₀₀
Aggregate No. of shares free.....	176,461 ³ / ₂₀₀	69,529	34,495	280,485 ¹³ / ₂₀₀
Aggregate No. of shares outstanding, as above.....	267,732 ¹ / ₁₆	84,096 ¹ / ₂	48,778	400,607 ¹ / ₁₆
Aggregate surrender value of all shares.....	\$14,467,507 80	\$1,022,324 89	\$883,200 25	\$16,373,032 94
Aggregate No. of members.....	21,024	9,483	3,662	34,169
Aggregate No. of borrowers.....	7,257	1,200	516	8,973

AGGREGATES BY CLASSES—Continued.

	Locals.	Nationals.	Coöperative Banks.	Grand Totals.
<i>Loans.</i>				
Aggregate No. of foreclosures since organization -----	66	6	-----	72
Aggregate amount due on foreclosures -----	\$207,306 41	\$4,633 00	-----	\$211,939 41
Aggregate No. of mortgage loans for year -----	1,911	434	193	2,538
Aggregate amount of mortgage loans for year -----	\$3,441,709 83	\$439,633 56	\$319,132 89	\$4,200,476 28
Aggregate amount of stock loans for year -----	311,299 76	66,354 16	73,259 44	450,913 36
Aggregate amount of all loans for year -----	\$3,753,009 59	\$505,987 72	\$392,392 33	\$4,651,389 64
Aggregate present worth of all mortgages (taxable value) -----	\$11,572,482 66	\$1,058,933 22	\$155,752 01	\$12,787,167 89
<i>Security.</i>				
Aggregate appraised value of land -----	\$11,528,206 50	\$1,642,081 00	\$1,178,154 00	\$14,348,441 50
Aggregate appraised value of improvements -----	13,822,232 86	1,457,075 60	709,320 00	15,988,628 46
Aggregate appraised value of stock pledged -----	5,794,309 13	193,055 15	886,328 44	6,873,692 72
Aggregate appraised value of all security -----	\$31,144,748 49	\$3,292,211 75	\$2,773,802 44	\$37,210,762 68
<i>Profits.</i>				
Aggregate net profits of year ---	\$1,254,973 52	\$137,086 64	\$56,860 81	\$1,448,920 97

Following is a classification of the averages :

AVERAGE RESOURCES AND LIABILITIES.

	Locals—127 Associations.	Nationals— 8 Associations.	Coöperative Banks— 2 Associations.
<i>Resources.</i>			
Average loans -----	\$138,377 74	\$156,498 54	\$521,040 22
Average arrearages -----	2,300 52	4,476 04	2,502 92
Average cash on hand -----	952 05	2,122 29	17,206 73
Average real estate -----	2,349 11	3,756 77	-----
Average of other assets -----	265 62	2,822 78	31,025 25
Totals -----	\$144,245 04	\$169,676 41	\$571,775 12
<i>Liabilities.</i>			
Average dues and advance payments -----	\$94,697 48	\$122,814 00	\$417,447 11
Average earnings -----	32,512 35	28,820 00	45,930 59
Average overdrafts and bills payable -----	11,804 74	7,815 03	24,008 01
Average profits unapportioned -----	3,515 93	3,754 65	2,874 51
Average of all other liabilities -----	1,714 54	6,472 73	81,514 90
Totals -----	\$144,245 04	\$169,676 41	\$571,775 12

AVERAGE RECEIPTS AND DISBURSEMENTS.

	Locals—127 Associations.	Nationals— 8 Associations.	Coöperative Banks— 2 Associations.
<i>Receipts.</i>			
Average balance on hand	\$1,505 14	\$1,618 62	\$19,104 12
Average received for dues	25,811 27	48,891 40	44,920 84
Average received for paid-up stock	561 12	5,868 25	230,547 36
Average received for premiums	3,770 19	8,503 28	25,029 66
Average received for interest	9,178 63	8,359 13	28,809 91
Average received for fees and fines	215 44	1,579 13	2,598 97
Average received from loans repaid	14,290 07	28,405 42	76,928 21
Average received from overdrafts and bills payable	12,551 12	6,549 30	41,258 00
Average received from all other sources	1,704 94	9,663 15	848,627 46
Totals	\$69,587 92	\$119,437 68	\$1,317,824 53
<i>Disbursements.</i>			
Average paid on overdrafts and bills payable ..	\$12,331 22	\$7,410 46	\$51,766 73
Average paid on loans	29,551 26	63,248 47	196,196 16
Average paid for interest	993 88	864 97	6,074 52
Average paid for dues on surrendered shares ..	15,930 64	28,008 28	178,037 78
Average paid for profits on surrendered shares ..	4,498 69	4,996 13	14,892 87
Average paid for salaries	1,019 61	4,548 18	7,476 25
Average paid for taxes	1,348 82	1,206 54	3,698 27
Average paid for other expenses	335 47	3,722 35	14,630 02
Average paid for all other disbursements	2,626 28	3,310 01	827,845 20
Average balance on hand	952 05	2,122 29	17,206 73
Totals	\$69,587 92	\$119,437 68	\$1,317,824 53

AVERAGES BY CLASSES.

	Locals—127 Associations.	Nationals—8 Associations.	Coöperative Banks—2 Associations.
<i>Stock and Membership.</i>			
Average authorized capital stock	\$1,544,882 00	\$3,218,750 00	\$50,000,000 00
Average No. of shares authorized	9,083	321,875	500,000
Average No. of shares outstanding last report ..	2,026.2	10,203.8	25,261
Average No. shares issued since last report	416.9	3,803.3	9,039
Average No. of shares issued	2,443.1	14,007.1	34,300
Average No. of shares canceled since last report ..	335	3,495.1	9,911
Average No. of shares in force at date of report ..	2,108.1	10,512.0	24,389
Average No. of shares pledged	718.6	1,820.9	7,141.5
Average No. of shares free	1,389.5	8,691.1	17,247.5
Average No. of shares in force, as above	2,108.1	10,512.0	24,389.0
Average surrender value of all shares	\$113,917 35	\$127,790 61	\$441,600 12
Average No. of members	165.5	1,185.4	1,831
Average No. of borrowers	57.1	150	258
<i>Loans.</i>			
Average No. of foreclosures since organization ..	.52	.75	.....
Average amount due on foreclosures	\$1,632 33	\$579 12	.....
Average No. of mortgage loans for year	15	54.25	1,269
Average amount of mortgage loans for year	\$27,100 08	\$54,954 19	\$159,566 44
Average amount of stock loans for year	2,451 18	3,294 28	36,629 72
Average amount of all loans for year	\$29,551 26	\$63,248 47	\$196,196 16

AVERAGES BY CLASSES—Continued.

	Locals—127 Associations.	Nationals—8 Associations.	Coöperative Banks—2 Associations.
Average present worth of all mortgages (taxable value)	\$91,121 12	\$132,366 65	\$77,876 00
<i>Security.</i>			
Average appraised value of land	\$90,773 28	\$205,260 00	\$589,077 00
Average appraised value of improvements	108,836 48	182,134 45	354,660 00
Average appraised value of stock pledged	45,624 49	24,131 89	443,164 22
Average appraised value of all security	\$245,234 25	\$411,526 34	\$1,386,901 22
<i>Profits.</i>			
Average net profit of year	\$9,881 68	\$17,135 83	\$28,430 40
Average monthly dues paid per share	98½ cents.	60 cents.	60 cents.
Average age of shares, in months	45.6	22.7	33.24
Average profits apportioned per share	\$15 42	\$2 74	\$1 88
Average book values of stock	60 34	14 42	19 00

INCREASE OF BUSINESS.

The last preceding report of Building and Loan Associations is that compiled by the Bank Commissioners and published in 1892. We refer to that report for data to make the following comparison, showing the increase of business during the past two years:

LOCAL BUILDING AND LOAN ASSOCIATIONS.

	1892.	1894.	Per Cent Increase.	Per Cent Decrease.
<i>Resources.</i>				
Loans	\$13,564,136 63	\$17,573,972 66	29.56	-----
Arrearages	89,113 81	292,165 96	227.86	-----
Cash on hand	210,078 53	120,910 79	-----	42.44
Real estate	83,552 92	298,337 44	257.06	-----
Other assets	80,269 05	33,733 71	-----	57.97
Totals	\$14,027,150 94	\$18,319,120 56	30.60	-----
<i>Liabilities.</i>				
Dues and advance payments	\$8,573,860 73	\$12,026,580 35	40.27	-----
Earnings	3,372,590 54	4,129,069 01	22.43	-----
Overdrafts and bills payable	1,108,699 78	1,499,202 50	35.22	-----
Profits unapportioned	320,852 69	446,523 54	39.17	-----
All other liabilities	651,147 20	217,745 16	-----	66.56
Totals	\$14,027,150 94	\$18,319,120 56	30.60	-----

NATIONAL BUILDING AND LOAN ASSOCIATIONS.

	1892.	1894.	Per Cent Increase.	Per Cent Decrease.
<i>Resources.</i>				
Loans	\$851,865 86	\$1,251,988 37	46.97	-----
Arrearages	18,127 92	35,808 38	97.53	-----
Cash on hand	12,357 45	16,978 31	37.39	-----
Real estate	13,000 00	30,054 20	131.19	-----
Other assets	12,375 62	22,582 12	82.47	-----
Totals	\$907,726 85	\$1,357,411 38	49.54	-----
<i>Liabilities.</i>				
Dues and advance payments	\$678,078 63	\$982,512 04	44.88	-----
Earnings	125,027 12	230,560 00	84.40	-----
Overdrafts and bills payable	7,301 55	62,520 21	756.31	-----
Profits unapportioned	2,641 59	30,037 23	1,036.93	-----
All other liabilities	94,677 96	51,781 90	-----	45.31
Totals	\$907,726 85	\$1,357,411 38	49.54	-----

COÖPERATIVE BANKS.

	1892.	1894.	Increase— Per Cent.	Decrease— Per Cent.
<i>Resources.</i>				
Loans	\$709,192 48	\$1,042,080 45	46.94	-----
Arrearages	3,430 54	5,005 83	45.92	-----
Cash on hand	46,943 05	34,413 46	-----	26.69
Real estate	-----	-----	-----	-----
Other assets	55,877 60	62,050 50	11.05	-----
Totals	\$815,443 67	\$1,143,550 24	40.23	-----
<i>Liabilities.</i>				
Dues and advance payments	\$352,490 56	\$934,894 22	165.23	-----
Earnings	33,588 49	91,861 19	173.49	-----
Overdrafts and bills payable	-----	48,016 01	-----	-----
Profits unapportioned	5,337 29	5,749 02	7.71	-----
All other liabilities	424,027 33	63,029 80	-----	85.14
Totals	\$815,443 67	\$1,143,550 24	40.23	-----

The percentage of gain in total assets and liabilities, as shown by the above table, may be epitomized as follows:

Locals	30.60 per cent.
Nationals	49.54 per cent.
Coöperative Banks	40.23 per cent.

SHARES OUTSTANDING.

	1892.	1894.	Increase— Per Cent.	Decrease— Per Cent.
Locals	235,651 ¹³ / ₂₀	267,732 ¹¹ / ₁₀	15.55	-----
Nationals	77,333 ¹⁰ / ₂₀	84,096 ²⁰ / ₁₀	8.74	-----
Coöperative Banks	54,713	48,778	-----	10.84
All together	367,698 ²³ / ₂₀	400,607 ¹¹ / ₁₀	13.64	-----

QUESTION OF PLAN.

Without doubt the original Building and Loan plan adopted when such associations were first organized could hardly be improved upon for simplicity, safety, and fairness to all concerned. It contemplated a small organization of neighbors, who pooled their weekly or monthly savings under one management, and these accumulating funds were loaned to the members in turn, who gave proper security for the same and paid an agreed interest thereon. The amount to be borrowed was regulated by the amount of stock held, and every member was expected to be a borrower before the association wound up its affairs. Such organizations were thoroughly mutual and equitable.

Strife for precedence in borrowing led to the adoption of the premium plan, and this introduced inequalities as between members. Some would bid high premiums under the pressure of a strong demand for money, and others, on a slack market, would obtain loans below the average premium.

Another element of inequality was introduced when Building and Loan Associations began to be taken advantage of by those who simply wished to invest for the profit to be gained, and did not desire to become borrowers.

It is plain that if a number of men associate themselves together in such an enterprise, and half of them become borrowers, paying a considerable premium for the privilege, and a good round rate of interest besides, while the other half do not borrow at all, but participate alike in all the profits, the non-borrowers will have much the better of the bargain. The result will be that the borrowers, after deducting their share of the common profits from premium and interest, will have paid more than current rates of interest for their accommodations, while the non-borrowers will have received more than current rates of interest on their investments. At the same time it is plainly to be seen that, if all the members had been borrowers, no matter how high the premiums (if a fixed percentage), and no matter how high the interest, it would have proven equitable in the long run, because the excessive profits would all have gone back to the borrowers in proportion to their holdings and payments.

MODIFICATIONS OF THE ORIGINAL PLAN.

A great many modern features have been incorporated upon the original Building and Loan plan, but it will be found that most of them, like those cited above, lead away from a thorough mutuality, and result in an unequal distribution of profits as between borrowing and non-borrowing members. In turn, many devices have been resorted to in order to restore this proper equilibrium.

In the by-laws of some associations there is a clause making it obligatory for holders of free shares, after a certain lapse of time, to become borrowers on their stock at a fixed premium, or, in lieu thereof, to surrender their stock at the withdrawal value. The law of 1891, quoted in the appendix to this report, provides that Directors may enforce the withdrawal of free shares in any series at any time after five years from date of issuance, paying thereon the full book value at the date of last apportionment, plus the dues subsequently paid. All of such regulations are, of course, mere expedients, and while beneficial, they do not restore

the absolute mutuality of benefits which was lost in the departure from the original scheme.

It would be folly, however, to urge Building and Loan Associations of the present day to attempt a return to first methods, which would now be found cumbersome and inadequate for the transaction of their greatly enlarged business. But we may urge that, in the organization of our improved Building and Loan Associations, the first principles of mutuality and fair division be kept constantly in mind. It seems impossible to prevent non-borrowers from obtaining membership in these associations, and it might be a very poor policy to try to exclude them, since the association, to be efficient, needs all the capital that it can handle advantageously. Non-borrowers are of great service in helping to furnish this capital.

TO MEET THE EXIGENCY.

A plan which seems to meet the exigency has been adopted by several associations in this State. These associations issue two distinct classes of stock, one of which is for intending borrowers, the other for intending investors. The investors' stock commands a fixed rate of interest, say 7 per cent per annum, and has no further participation in the profits of the association. After allowing this interest to the investors, the balance of the profit is divided entirely among the borrowers' stock, in proportion to investment. With proper regulations for obliging all holders of borrowers' stock to become borrowers, or surrender their stock at withdrawal value after a certain date, this equalizes matters. Investors receive a fair rate of interest on their money, and no more, while the borrowers get back an equitable share of the profits which they have contributed to the association.

This plan, with varying modifications, seems to be coming into vogue as a substitute for other equalizing devices which seem more arbitrary and not so easily executed. It is worthy a careful study on the part of those organizing new associations.

PREMIUMS—GROSS.

A few associations in this State maintain the original gross premium plan, in which the borrower bids such percentage as he is willing to give for the privilege of securing money. Under such competitive bidding, premiums run from 10 to 30 per cent, and in some cases higher. The whole amount of premium is then deducted from the amount of loan. For example, if a stockholder bids in a loan of \$5,000 at a premium of 20 per cent, he receives in cash \$4,000, while he executes his note and mortgage for \$5,000, and pays interest on the last named amount.

We are glad to say that this system is going out of favor, because it imposes an inequality between borrowers in the different rates of premium paid, and it also results in discrimination between borrowers and non-borrowers in the distribution of profits. A modification of this plan which is finding favor is to have a fixed rate of premium (say 15 or 20 per cent) for all, and to award the loans in succession as the applications are filed and approved by the security committee.

The treatment of gross premiums by the association, in respect of considering them an earned or an unearned profit, is touched upon in

another paragraph ("Unearned Premium Account"), and we need only reiterate here our opinion that all such amounts should be held in abeyance, in Unearned Premium Account, until the association has virtually earned them by lapse of time.

When the association is no longer liable under its by-laws to rebate any portion of the premium on repayment of the loan, it is safe to consider the gross premium earned. It is rutable to credit up to Profit and Loss Account one eighth of the premium for each year that elapses after the loan is made. This is done under the assumption that the profits accumulated in Unearned Premium Account are only tentative; that a portion of them may be refunded at any time that the borrowers choose to repay their loans in advance of maturity. It is therefore unsafe to treat as an earned profit this item, which is always subject to a reduction.

The best way to regulate the Unearned Premium Account is for the Secretary, at the time of making his annual statement, to carefully revise all of the loans, and calculate the amount of premium which would be refunded, under the by-laws, if each loan were to be paid off at that date. In this way, the sum of all tentative profits may be obtained. The difference between this sum and the balance of Unearned Premium Account is the amount that should be covered into Profit and Loss Account, and thence be apportioned to shares. The amount of tentative profits thus obtained is the balance to be carried forward in Unearned Premium Account.

INSTALLMENT PREMIUMS.

All things considered, we regard the installment premium as the most desirable plan, and it is rapidly coming into favor among experienced building and loan men. Under this plan, the borrower receives as a loan the full amount of money for which he executes his note and mortgage. Upon this sum he pays a fixed rate of interest monthly, and, in addition thereto, he pays a monthly premium, which is also fixed in proportion to the loan or the number of shares borrowed on. This premium is virtually only another name for interest. For example, if the borrower pays 9 per cent interest on his loan and 3 per cent premium, it is exactly the same in result as though he paid 12 per cent interest.

At the same time, he is not required, as in the gross premium plan, to pay interest on a portion of money that he did not receive. Altogether, the installment premium plan is much the more satisfactory to borrowers. It is also more satisfactory to associations, inasmuch as it involves no embarrassment about premiums earned and premiums unearned. When installment premiums are due they are earned; and they then find their way by natural process of account-keeping to Profit and Loss Account, where they belong.

Those who adopt the installment plan, however, soon ask themselves "What is the difference between interest and premium?" and they are compelled to answer, "Nothing, except in name." The premium is simply an augmentation of interest in regular monthly installments. When this is acknowledged, the tendency is to eliminate the premium altogether as an unnecessary complication, and to increase the rates of interest in a corresponding degree. As we prepare this report, a new association on the above plan is announced as in process of formation

in San Francisco. This association will undoubtedly represent the ultimate drift of the times—the entire abandonment of premiums.

We are unable to make our statistics of premiums as full as would be desirable, because there is such a great diversity of systems that we have found it impossible to arrange them in classes.

It may be stated that gross premiums in the Local Associations range generally from 10 to 25 per cent of the amount of the loan, or face value of stock borrowed upon. In one instance a premium of 60 per cent is secured, this amount being added to the face of the loan.

The installment premiums average about 30 per cent, being divided generally into ten equal payments of 3 per cent each.

PREMIUM STOCK.

In some of the Nationals and Coöperative Banks, the plan of issuing premium stock is in vogue. If a member borrows on 100 shares of stock he is required to take out an additional 100 shares, the latter of which is known as premium stock. He is then required to pay dues on 200 shares until maturity of the loan, as well as the agreed interest on amount borrowed. At maturity the premium stock is not liquidated, but is covered into the profits of the association. This amounts, on the part of the borrower, to the payment of a premium of 100 per cent on the amount of loan. Of course the 100 per cent is not taken out of the loan at the outset, as there would then be no loan; but it is paid in annual installments, extending through the life of the loan, and at maturity the premium stock, which is surrendered by the borrower, exactly equals the amount of borrowing stock—*i. e.*, the amount borrowed. This is 100 per cent on the loan.

The premium plans in vogue with Building and Loan Associations of the State are as follows:

Gross	64 associations.
Installment	39 associations.
Gross and installment	25 associations.
No premium	9 associations.
Four plans	137 associations.

RESERVE FUND.

We desire to commend a feature in the plan of some associations, which is the maintenance of a Reserve Fund. This fund is secured by setting aside a certain percentage of the profits, and it is held for the general betterment and strengthening of the association.

The Reserve Fund stands as a liability to stockholders, but it is not subject to distribution, except as it may be carried up in fixed installments to the credit of Capitalized Profit or Accrued Earnings Account. The objects of this fund may be:

First—In case the association is in debt to outside parties, to provide an additional guaranty for the payment of such debt, and to equalize the profits as between stockholders of various series. An association operating under the gross premium plan, where the premiums are at once carried up to Profit and Loss Account, may have an active demand for money during a certain year, and, in order to meet that demand, may borrow at bank. The result is an abnormally large business, and

the premiums carried up will swell the Profit and Loss Account of that year correspondingly. During the succeeding year the demand for loans may be less, and the association may devote a large part of its income to the discharge of its indebtedness at bank. In this case, the premiums entered will be few, and the Profit and Loss Account will show a decided falling off. Now, in case of the older series which have participated in the profits of both years, this variance of apparent profits makes no difference; but it is manifest that a new series, coming in at the beginning of the year of debt-paying, would not secure its proper share of the gains. The money which its stockholders contribute in dues will be largely devoted to paying up the association's indebtedness, and the premium gains on this capital will have been absorbed by older series. Consequently the Reserve Fund is established to carry over a percentage of the profits on borrowed capital for distribution during subsequent years. The rule is to keep back from the aggregate profits 15 per cent of the amount of outside indebtedness. All in excess of this 15 per cent of the indebtedness which may be standing in the Reserve Fund is carried up to Accrued Earnings and is subject to distribution.

Second—A Reserve Fund may be established, and a certain small percentage of profits set off to it each year. This is to provide against any losses that the association may sustain from shrinkage of values in property taken under foreclosure, etc., so that the accrued earnings which have figured in the establishment of book values may not be impaired. In cases where an association is about to mature one of its series, this Reserve Fund becomes very serviceable and very just. During the life of this maturing series a number of loans may have been made which turned out badly; *i. e.*, the association may have been obliged to take the property to satisfy the loans. This property, under a general shrinkage of values and a depressed real estate market, may not be readily salable for the amount at which it was taken. But the maturing series is about to retire, taking out its share of assets in cash, and leaving the other series to contend with the problem of getting their money from these unavailable assets. Under these conditions it is proper that there should be a Reserve Fund of profits to make good any possible losses from such hold-over property. When the retiring series takes out its share of the assets in cash or its equivalent, it should resign all interest in this Reserve Fund as an indemnity to the persistent members.

It is proper to state that a Reserve Fund as above outlined is entirely separate and distinct from the Unearned Premium Account previously discussed. The two have nothing in common, and the Reserve Fund cannot be recruited from Unearned Premiums, but must be drawn from profits that would otherwise be subject to immediate distribution.

APPORTIONMENT OF PROFITS.

There are in vogue among the associations of this State no less than ten separate rules, or plans, for distribution of profits, which are briefly stated as follows:

Dexter, or Compound Interest rule.....	49 associations.
Partnership.....	39 associations.
Wrigley.....	27 associations.
Second Dividend.....	11 associations.
Share and share alike.....	4 associations.

Meyberg plan.....	2 associations.
Hewel plan.....	2 associations.
Fortuna rule.....	1 association.
Fort Bragg rule.....	1 association.
Each series a separate association.....	1 association.
Ten plans.....	137 associations.

For the formulation of these rules and the exemplifications, we are indebted to the Fourteenth Annual Report of the Bureau of Statistics of Labor and Industries of New Jersey, and to Hon. O. Albert Bernard, Special Agent of the United States Department of Labor. Mr. Bernard collected statistics for his department relative to Building and Loan Associations on the Pacific Coast, and has made a special study of the subject. We are under obligations to him for many valuable suggestions.

GENERAL FORMULA FOR EXEMPLIFICATION.

Exemplar Building and Loan Association, of California. Par value of shares, \$200. Payments, \$1 per share per month. Net assets, \$125,000. Accrued profits for five years, \$20,600. Profits for last year, \$9,000.

Series.	Age of Series, in Months.	No. of Shares.	Book Value Per Share at Last Preceding Report.
1.....	60	800	\$59 51
2.....	48	400	42 48
3.....	36	500	26 88
4.....	24	500	12 72
5.....	12	600	.....

Required: To find the present book value of one share in each series.

AVERAGE INVESTMENT FOR THE YEAR.

Each share's investment for the year is \$12, or \$1 per month, supposed to be paid monthly in advance. By an equation of payments it will be found that the association has had the use of \$78 for one month, or \$6 50 for one year ($\$78 \div 12 = \$6\ 50$).

To make this point clear, we will carry out the calculation as follows: The association has had the use of

\$1 for 12 months, which equals	\$12 for 1 month.
1 for 11 months, which equals	11 for 1 month.
1 for 10 months, which equals	10 for 1 month.
1 for 9 months, which equals	9 for 1 month.
1 for 8 months, which equals	8 for 1 month.
1 for 7 months, which equals	7 for 1 month.
1 for 6 months, which equals	6 for 1 month.
1 for 5 months, which equals	5 for 1 month.
1 for 4 months, which equals	4 for 1 month.
1 for 3 months, which equals	3 for 1 month.
1 for 2 months, which equals	2 for 1 month.
1 for 1 month, which equals	1 for 1 month.

\$12

\$78

Total dues collected, \$12, the use of which has been equal to \$78 for 1 month.

The use of \$78 for one month is equivalent to the use of $\frac{1}{12}$ of \$78 for twelve months. \$78 divided by 12 = \$6 50. Therefore, by the payment

of \$1 per month, in advance monthly installments for one year, the payer has given the association the use of money whose equivalent is expressed as \$6 50 for one year.

Had the payments been made in the middle of each month, instead of the beginning, the equivalent would stand \$6.

Had the payments been made at the last of each month, the equivalent would stand \$5 50.

THE WRIGLEY RULE.

1. Give to each series, except the last, interest at the legal rate upon the value as declared by the last report.

2. Deduct this interest from the profit of the year and divide the remainder equally among the shares.

This rule was first published in a work entitled "How to Manage Building and Loan Associations," by E. Wrigley, a well-known expert. It is used by many associations in this State. It recognizes the compound interest principle, or profits on accrued profits, but is found to award too large a share of earnings to the younger series.

APPLICATION OF THE RULE.

Series.	Book Value per Share Last Report.	Interest on One Share.	No. of Shares.
1.....	\$59 51 on interest 1 year at 7 per cent.	= \$4 16	800 =
2.....	42 48 on interest 1 year at 7 per cent.	= 2 97	400 =
3.....	26 88 on interest 1 year at 7 per cent.	= 1 88	500 =
4.....	12 72 on interest 1 year at 7 per cent.	= 89	500 =
5.....	-----	-----	600 -----
			2,800 \$5,901

Profit for year, \$9,000 — \$5,901 = \$3,099 (net profit) ÷ 2,800 (total number of shares) = \$1 10 (proportion awarded to each share).

VALUE OF SHARES.

	1st Series.	2d Series.	3d Series.	4th Series.	5th Series.
Last book values.....	\$59 51	\$42 48	\$26 88	\$12 72	-----
Interest one year.....	4 16	2 97	1 88	89	-----
Profit.....	1 10	1 10	1 10	1 10	\$1 10
Dues paid in.....	12 00	12 00	12 00	12 00	12 00
Present book values.....	\$76 77	\$58 55	\$41 86	\$26 71	\$13 10

In this case, the percentages awarded to shares in the various series on their respective investments are as follows, one share taken as a basis :

<i>First Series</i> —Former book value.....	\$59 51
Average investment of the year.....	6 50
Total earning capital one share.....	\$66 01
Profit, \$5 26 = nearly 8 per cent.	
<i>Second Series</i> —Former book value.....	\$42 48
Average investment for the year.....	6 50
Total earning capital one share.....	\$48 98
Profit, \$4 07 = 8.3 per cent.	
<i>Third Series</i> —Former book value.....	\$26 88
Average investment for year.....	6 50
Total earning capital one share.....	\$33 38
Profit, \$2 98 = 8.9 per cent.	

<i>Fourth Series</i> —Former book value.....	\$12 72
Average investment for year.....	6 50
	\$19 22
Total earning capital one share.....	\$19 22
Profit, \$1 99=10.3 per cent.	
<i>Fifth Series</i> —Former book value.....	\$0 00
Average investment for year.....	6 50
	\$6 50
Total earning capital one share.....	\$6 50
Profit, \$1 10=nearly 17 per cent.	

Thus it appears that on the basis of capital invested, first series shares earned a little less than 8 per cent; second series, 8.3 per cent; third series, 8.9 per cent; fourth series, 10.3 per cent, and fifth series, nearly 17 per cent. This is certainly not an equitable apportionment. Of course, if the net profits of the association had amounted to just 7 per cent on the invested capital of the older series, the fifth series would have received no profit at all. This would not have been equitable either. If the margin between the 7 per cent allowed and the whole profit had been smaller than shown above, the last series would not have derived such an undue percentage, and the discrepancy would have been nearly equalized. But we submit that this hit-and-miss method is not to be depended upon for meting out equal and exact justice in a Building and Loan Association.

The profits in California Building and Loan Associations generally exceed 7 per cent on the invested capital, and when the Wrigley rule is in vogue, the greater the excess the greater will be the discrimination in favor of the younger series.

THE DEXTER RULE.

1. *To the value of all shares at the last annual report, add the average investment for the year.*
2. *Divide the net profit for the year by this sum, for the per cent of the profit.*
3. *Multiply each share's investment by the per cent of profit, for the gain on one share.*

This rule was first formulated by Judge Seymour Dexter, of New York, author of a treatise on Building and Loan Associations, late President of the United States League of Building and Loan Associations, and a leading authority in such matters.

Each share's average investment for the year is \$6 50; there are 2,800 shares; the total average investment of the year by all of the shares is 2,800×\$6 50, or \$18,200.

EXEMPLIFICATION OF THE RULE.

Series.	Book Value per Share at Last Report.	Number Shares.	Total Value of Shares at Last Report.
1	\$59 51	800	= \$47,608
2	42 48	400	= 16,992
3	26 88	500	= 13,440
4	12 72	500	= 6,360
5	-----	600	= -----
	Total value at first of year.....		\$84,400
	Total average investment.....		18,200
	Total earning capital.....		\$102,600

The total profit for the year was \$9,000, and we desire to ascertain what percentage this is of \$102,600, the earning capital. One per cent of \$102,600 is \$1,026, and \$9,000 is as many per cent as 1,026 is contained in \$9,000. $\$9,000 \div 1,026 = 8.77$. The profit is then 8.77 per cent on the earning capital.

APPORTIONMENT OF PROFITS.

	1st Series.	2d Series.	3d Series.	4th Series.	5th Series.
Values at last report.....	\$59 51	\$42 48	\$26 88	\$12 72	\$0 00
Average investment for year.....	6 50	6 50	6 50	6 50	6 50
Total earning capital.....	\$66 01	\$48 98	\$33 38	\$19 22	\$6 50
Multiplied by per cent of profit.....	.0877	.0877	.0877	.0877	.0877
Profit per share.....	\$5 789	\$4 295	\$3 027	\$1 685	\$0 57

VALUE OF ONE SHARE IN EACH SERIES.

	1st Series.	2d Series.	3d Series.	4th Series.	5th Series.
Values at last report.....	\$59 51	\$42 48	\$26 88	\$12 72	\$0 00
Profit apportioned.....	5 79	4 29	3 03	1 68	57
Dues paid in.....	12 00	12 00	12 00	12 00	12 00
Present values.....	\$77 30	\$58 77	\$41 91	\$26 40	\$12 57

Under this rule the percentages awarded to shares in the various series on their respective investments are as follows:

<i>First Series</i> —Former book value.....	\$59 51
Average investment for the year.....	6 50
Total earning capital one share.....	\$66 01
Profit, \$5 79 = 8.77 per cent.	
<i>Second Series</i> —Former book value.....	\$42 48
Average investment for the year.....	6 50
Total earning capital one share.....	\$48 98
Profit, \$4 29 = 8.77 per cent.	
<i>Third Series</i> —Former book value.....	\$26 88
Average investment for the year.....	6 50
Total earning capital one share.....	\$33 38
Profit, \$3 03 = 8.77 per cent.	
<i>Fourth Series</i> —Former book value.....	\$12 72
Average investment for the year.....	6 50
Total earning capital one share.....	\$19 22
Profit, \$1 68 = 8.77 per cent.	
<i>Fifth Series</i> —Former book value.....	\$0 00
Average investment for the year.....	6 50
Total earning capital, one share.....	\$6 50
Profit, \$0 57 = 8.77 per cent.	

It must be seen, from the nature of the calculation, that the same percentage is awarded to each share on its earning capital, and therefore there is no chance for discrimination between the shares of older and

younger series, as noted in the exemplification of the Wrigley Rule. For this reason, the Dexter Rule commends itself to us as being the more equitable; indeed, it is absolutely equitable, and cannot be improved upon if profits are to be divided on the basis of capital invested, the previously apportioned profits being treated as a part of the investment.

There is no question but that an apportionment of profits by this rule, which fully recognizes the compound interest principle, will mature shares of the first series in from two to seven months earlier than any other system in use. This will be demonstrated in a calculation introduced a little later in this report. The New Jersey report says of the Dexter Rule: "It is thoroughly sound in all its phases, and gives the most satisfactory results in practice," which opinion we indorse.

THIRD DIVIDEND RULE.

1. *To the value of all shares at the last annual report, add one half of the dues paid in during the year, for the capital.*

2. *Divide the profit for the year by the capital, for the per cent of profit.*

This rule is so nearly like the Dexter Rule, above given, that it requires no exemplification. The only difference between the two is that the Dexter Rule equates the payments on the hypothesis that they are made monthly *in advance*; the Third Dividend Rule assumes them to be made at the middle of each month. For example, if the payments are \$1 per share, the Dexter Rule makes the average annual investment of each share \$6 50, while the Third Dividend Rule makes it \$6. The difference in result per share is very slight. The practice of the association as to payment of dues must determine which of the two rules would be more accurate in application. If dues are payable monthly in advance (*i. e.*, at the beginning of the association's fiscal month, whether this fall at the first of a calendar month or not), the Dexter Rule is applicable. In all of our California Local Associations, we believe this practice of payment at the beginning of the fiscal month is observed; hence the Dexter Rule is the one to adopt.

SECOND DIVIDEND RULE.

1. *Divide the net profits for the year by the total amount of dues paid in on all shares in force, for the per cent of profit.*

2. *Multiply the total dues paid in on one share of each series by the per cent of profit, for the profit on one share.*

This rule entirely ignores the compound interest principle (earnings upon accrued earnings). It treats as earning capital only the money paid in as dues:

EXEMPLIFICATION OF THE RULE.

Series.	Dues Paid per Share to Date.	Number of Shares.	Total Dues Paid.
1	\$60	800	\$48,000
2	48	400	19,200
3	36	500	18,000
4	24	500	12,000
5	12	600	7,200
			<hr/> \$104,400

Profit \$9,000 ÷ \$1,044 (1 per cent of \$104,400) = 8.62 per cent of profit.

PROFIT PER SHARE, AND BOOK VALUE.

	First Series.	Second Series.	Third Series.	Fourth Series.	Fifth Series.
Dues paid	\$60 00	\$48 00	\$36 00	\$24 00	\$12 00
Per cent profit .....	.0862	.0862	.0862	.0862	.0862
Profit per share	\$5 17	\$4 14	\$3 10	\$2 07	\$1 03
Former values	59 51	42 48	26 88	12 72	0 00
Dues paid	12 00	12 00	12 00	12 00	12 00
Present values	\$76 68	\$58 62	\$41 98	\$26 79	\$13 03

This shows percentages of profit on the several average investments as follows: First series, 7.83 per cent; second series, 8.45 per cent; third series, 9.28 per cent; fourth series, 10.77 per cent; fifth series, 15.84 per cent. This appears to be an inequitable apportionment, in which there is a progressive discrimination in favor of the later series. The last series, for example, receives more than twice the percentage of profit on its investment, compared with that allowed the first series.

PARTNERSHIP RULE.

1. Multiply each series' investment (that is, the amount of dues paid in) by the average time of investment.

2. Take the sum of these products, and then find what fractional part each product is of the sum.

3. These fractions are the parts of the total profit belonging to each series.

This rule is fundamentally different from those previously cited. It ignores the compound interest principle, but adopts time as the factor of the investment. At each distribution all the available profits remaining in the hands of the association are taken into account, and the payments on dues are equated to find the earning capacity of each share. For example, the age of the first series being 60 months, the average time of investment is taken as 30 months (strictly speaking it should be $30\frac{1}{2}$ months, but the fraction is neglected as unimportant), and the average investment is represented by $\$30 \times 30 = \900 ; that is, the investment was equivalent to \$900 for one month, or \$1 for 900 months. This is counted as the earning capacity of one share of the first series.

It will be noted that an apportionment on the Partnership plan is only tentative; it does not stand as a fixed allotment to which future payments and profits are added; but, at the end of each fiscal year, all former apportionments are cast aside, and the value of each share is determined *de novo*. Thus the accrued payments and profits since the beginning of the association are taken into consideration, and a fresh division is made that sets aside all former divisions.

EXEMPLIFICATION OF THE RULE.

Whole profit to be divided, \$20,600.

Series.	Dues Paid per Share.	Number Shares.	Total Investment.	Average Time in Months.	Product.	Profit Fraction.
1	\$60	× 800	= \$48,000	× 30	= \$1,440,000	$\frac{1440000}{2412000}$ or $\frac{33}{55}$
2	48	× 400	= 19,200	× 24	= 460,800	$\frac{460800}{2412000}$ or $\frac{13}{55}$
3	36	× 500	= 18,000	× 18	= 324,000	$\frac{324000}{2412000}$ or $\frac{13}{55}$
4	24	× 500	= 12,000	× 12	= 144,000	$\frac{144000}{2412000}$ or $\frac{3}{55}$
5	12	× 600	= 7,200	× 6	= 43,200	$\frac{43200}{2412000}$ or $\frac{3}{55}$

Total average investment for one month \$2,412,000

APPORTIONMENT.

	Profit.	Series Profits.	Number Shares.	Profit Per Share.	Dues Paid.	Present Value.
First series...	$\frac{3}{35}$ of \$20,600 00	= \$12,299 04	÷ 800	= \$15 37 +	\$60 00	= \$75 37
Second series...	$\frac{6}{35}$ of 20,600 00	= 3,935 69	÷ 400	= 9 84 +	48 00	= 57 84
Third series...	$\frac{4}{35}$ of 20,600 00	= 2,935 69	÷ 500	= 5 53 +	36 00	= 41 53
Fourth series...	$\frac{2}{35}$ of 20,600 00	= 1,229 90	÷ 500	= 2 46 +	24 00	= 26 46
Fifth series...	$\frac{5}{35}$ of 20,600 00	= 368 97	÷ 600	= 62 +	12 00	= 12 62

There would remain \$1 profit not divided, due to variance in fractions.

Owing to the fundamental difference in method between this and the previous rules of apportionment, it is not feasible to make comparisons here as to percentages awarded to the different series; but such comparisons will be offered in a table introduced later. (See Comparison of Book Values—Various Systems).

The Partnership Rule, while simple in principle, leads to some very complex calculations in making an apportionment for a large company, and hence arbitrary methods have been devised, which eliminate unwieldy numbers and arrive at practically the same result.

SIMPLIFIED PARTNERSHIP RULE.

1. Multiply the number of shares in each series by the square of the time of investment expressed in terms of periods.

2. Take the sum of these products, and then find what fractional part each product is of the sum.

3. These fractions are the parts of the total profit belonging to each series.

The only part of this rule which is likely to puzzle the novice is the first paragraph. The clause, "time of investment expressed in periods," means simply this: If the ages of the different series, in months, have a common divisor, this divisor (or the greatest common divisor) may be taken as the basis period for purposes of calculation. Thus the ages of the different series in our Exemplar Association are 60, 48, 36, 24, and 12 months, respectively. Of these numbers 12 is the greatest common divisor. Hence, we may take 12 months (1 year) as the period for purposes of calculation, and we have the following:

Series.	Age, in Months.	Periods.
1	60	5
2	48	4
3	36	3
4	24	2
5	12	1

Hence, in following the rule we have—

Series.	Number Shares.	Period Squared.	Product.
1	800	× 5 ² (or 25)	= 20,000
2	400	× 4 ² (or 16)	= 6,400
3	500	× 3 ² (or 9)	= 4,500
4	500	× 2 ² (or 4)	= 2,000
5	600	× 1 ² (or 1)	= 600
Sum of products,			33,500

By this plan the calculator has smaller numbers to work with, and his labor and chances of error are consequently lessened. The remaining part of the process corresponds exactly to the Partnership Rule, and need not be exemplified here.

CLARK'S FORMULA.

Another plan of apportionment under the Partnership Rule has been devised by Mr. Charles K. Clark, a veteran Secretary and accountant of San Francisco. It consists of a formula, composed of arbitrary numbers, by which the number of shares are multiplied, and profits divided by products, etc. The formula is copyrighted, and we are not at liberty to present it here, but in a subsequent table we present a series of calculations by it, which shows that it varies but little in results from the other Partnership Rules.

THE HEWEL RULE.

A partnership is formed by the addition of the second series, which partnership consists of first and second series, and the profits (interest and premium) derived from the common investment are divided between them in the exact proportion which the net capital furnished by each series bears to the profits to be divided.

Thus (taking a special exemplification—not the Exemplar Association) we assume profits to be divided are: interest, \$1,200; premium, \$1,000; total, \$2,200. Income derived from first series was \$15,600; paid by first series for redemption of stock and taxes on mortgage, etc., \$600. Income from second series, \$5,350; paid by second series for redemption of stock and other separate expenses, \$350.

The joint expenses during the year were \$200. This last amount is first taken from the joint profits, leaving \$2,000 to be divided as follows: as 15,000:5,000::1,500:500.

This gives as profits of first series, \$1,500, less \$600; and its separate expenses, \$150.

The above formula of 15,000:5,000, for which may be substituted 3:1, remains the ratio of division during the entire existence of the partnership.

A new partnership, together with a new ratio established on the same principles, is formed by the addition of each new series.

This rule involves considerable complications, and necessitates, virtually, the keeping of as many sets of books as there are separate partnerships in the business. Thus, in the case of an association with six series, there would be six separate partnerships involved, as follows: First series for first year's business; first and second series for second year's business; first, second, and third series for third year's business; first, second, third, and fourth series for fourth year's business; first, second, third, fourth, and fifth series for fifth year's business; first, second, third, fourth, fifth, and sixth series for sixth year's business. This involves a complexity of account-keeping which is not to be encouraged. It necessitates great labor on the part of the Secretary to arrive at results which may be attained, with close approximation, by one of the simple average rules previously cited.

THE MEYBERG PLAN.

This can hardly be called a rule of apportionment, because it involves a system of bookkeeping by which profits are pro-rated and carried to the credit of the various series as the business is transacted. This, or a similar system, is in vogue with two or three associations of the State, but it leads into such intricacies of account-keeping that we cannot advise its

adoption. It is far easier and simpler to keep the profits in one account until the end of the year, and then apportion them by one of the rules above given.

As to results obtained by these intricate systems, they do not vary so greatly from those obtained by the shorter and simpler methods as to make compensation for the increased labor. The same charge of over-apportionment to the younger series that we have preferred against the Wrigley and other rules holds against the Hewel and Meyberg plans. (See subsequent tables giving comparisons of results.)

THE FORTUNA RULE.

1. Multiply the total amount of interest collected by the average rate paid premiums during the year, and deduct the amount from the premiums collected and add the interest collected.

2. Divide the result by value of shares at the last report plus the average investment for the year, for the per cent of profit gained from interest and premiums on interest.

3. Multiply each share's investment by per cent, for the gain on one share from interest and premiums on interest.

4. Divide balance of premiums collected during the year by number of dollars collected for dues during the year, for rate per cent of profit gained on premiums.

5. Multiply each share's investment by per cent of profit, for gain on one share from premiums.

6. Divide gross losses by value of shares at last report plus the average investment for the year, for the per cent of loss.

7. Multiply each share's investment by per cent of loss, for loss on one share, and deduct from the sum of profits gained on one share from premium and interest, the result showing the gain on one share.

FORT BRAGG RULE.

First—Find the rate of interest as follows: Add the entire value of the shares of the first series at last report to half of the amount of dues this year. Divide the interest received during the year by this amount. This gives the rate of interest.

Example.

Value of last year	\$10,000 00
One half of this year's dues.....	5,000 00
Total	\$15,000 00
Interest received during the year	1,500 00

$\$1,500 \div \$15,000 = 10$ per cent, the rate of interest.

Second—Find the rate of premium as follows: Multiply the number of shares by the amount paid in on each share. Divide the entire amount of premium received by the answer thus found and get the rate.

Example.

1,000 shares @ \$12.....	\$12,000 00
Entire premiums received.....	5,000 00

$\$5,000 \div \$12,000 = 41$ per cent, about.

Thus the value of a share of the first series at the end of the first year, \$20, added to the average dues for this year, \$6, gives \$26. Multiply this \$26 by the rate of interest found in the first paragraph, 10 per cent, and find the interest earnings of each share for the year, \$2 60.

Then find the amount of premiums earned by the interest on each share of the first series.

$$\$2\ 60 \text{ interest earnings} \times 41 \text{ per cent} = \$1\ 06.$$

Add these together:

Interest	\$2 60
Premium	1 06
Total	\$3 66

Multiply the number of shares of the first series by this amount, \$3 66.

$$1,000 \text{ shares} \times \$3\ 66 = \$3,660.$$

Follow the same plan as above for the second series and add to the result of the first (\$3,660), and deduct the amount thus found from the net profits of the association for the year. Divide the difference equally among all shares of both series.

The two rules just given appear to be the most involved of any that deserve classification as rules. They are in use by the Fortuna Building and Loan Association of Fortuna, and by the People's Building and Loan Association of Fort Bragg. They seem to present a long detour for arriving at results to be attained much more directly, and we have therefore not attempted an exemplification of them. Only the shortest and simplest processes are to be commended.

COMPARISON OF RESULTS.

For the purpose of making an accurate comparison of results obtained by the several rules and plans here given, we have calculated the following tables, based on the actual transactions of a Building and Loan Association of this State. We apprehend that a better idea of the merits of the several methods may be obtained from a careful inspection of these tables than in any other way. Here the same transactions are carried through by various systems, and various results are shown side by side.

COMPARATIVE RESULTS: ANNUAL DISTRIBUTION OF PROFITS BY VARIOUS RULES.

Given: The number of series; respective ages in months; last book value, and net profit of year. Net profit, \$42,730 19.

Required: To apportion net profit and find what is due one share in each series.

The following rules are employed to show comparative results: 1, Dexter Rule; 2, Third Dividend Rule; 3, Second Dividend Rule; 4, Meyberg Rule; 5, Wrigley Rule.

Given.				Calculated Profit of One Share in Each Series.				
No. of Series.	Age in Months.	No. of Shares.	Last Book Value.	1. Dexter Rule. Profit per Share.	2. 3d Div. Rule. Profit per Share.	3. 2d Div. Rule. Profit per Share.	4. Meyberg Plan. Profit per Share.	5. Wrigley Rule. Profit per Share.
1.....	83	1,694	\$120 57	\$15 66	\$15 69	\$14 19	\$14 34	\$13 04
2.....	70	589	91 57	12 09	12 09	11 97	9 51	11 04
3.....	49	405	54 36	7 50	7 48	8 38	8 12	8 08
4.....	46	207	48 08	6 72	6 70	7 87	8 34	7 81
5.....	42	275	42 01	5 98	5 95	7 18	7 02	7 49
6.....	36	315	31 74	4 71	4 67	6 16	6 24	6 93
7.....	24	408	15 81	2 75	2 70	4 10	5 12	5 83
8.....	12	486	-----	80	74	2 05	3 30	4 58

PERCENTAGE OF PROFIT.

The percentage of profit secured by each share on its average investment for the year appears in the following table:

Investment.				Percentage of Profit Awarded to Each Share.				
Series.	Last Book Value.	Average Investment in Dues.	Average Investment for Year.	1. Dexter Rule.	2. 3d Div. Rule.	3. 2d Div. Rule.	4. Meyberg Plan.	5. Wrigley Rule.
1.....	\$120 57	+ \$6 50	= \$127 07	12.32	12.35	11.17	11.28	10.27
2.....	91 57	+ 6 50	= 98 07	12.32	12.33	12.20	9.69	11.26
3.....	54 36	+ 6 50	= 60 86	12.32	12.29	13.77	13.34	13.27
4.....	48 08	+ 6 50	= 54 58	12.32	12.28	14.42	15.23	14.31
5.....	42 01	+ 6 50	= 48 51	12.32	12.27	14.80	14.47	15.44
6.....	31 74	+ 6 50	= 38 24	12.32	12.21	16.11	16.32	18.12
7.....	15 81	+ 6 50	= 22 31	12.32	12.10	18.38	22.95	26.13
8.....	-----	+ 6 50	= 6 50	12.32	11.31	31.54	58.46	70.45

EQUALITY AND INEQUALITY OF PERCENTAGES.

The degree of equability in the distribution of profits must be attested by the comparative percentages which the association pays on the invested capital of the various series.

It is apparent from the foregoing table that, by the Dexter Rule, an investment in one series earns the same percentage on its capital as an investment in any other series. All are treated alike in this respect. Each series realizes a gain of 12.32 per cent on its capital. While this holds true there can be no charge of favoritism or discrimination as between the different series. The holder of a share in the last series is treated just as well as the holder of a share in the first series, and no better.

By the Third Dividend Rule there is a slight discrimination in favor of the older shares, and a proportionate discrimination against the later shares. A holder in the first series earns 12.35 per cent on his money, while an eighth series member receives only 11.31 per cent.

DISCRIMINATION IN FAVOR OF YOUNGER SERIES.

By the Second Dividend Rule the discrimination is reversed, and stands in favor of the younger shares. The first series holder is given 11.17 per cent, and the eighth series holder 31.54 per cent.

By the Meyberg Plan the discrimination seems to be particularly against the holders of the second series shares. The list of awards stands:

First series.....	11.28 per cent.
Second series.....	9.69 per cent.
Third series.....	13.34 per cent.
Fourth series.....	15.28 per cent.
Fifth series.....	14.47 per cent.
Sixth series.....	16.32 per cent.
Seventh series.....	22.95 per cent.
Eighth series.....	58.46 per cent.

While, in the main, there is an ascending scale of profits from the oldest to the youngest series, there are two notable exceptions, due to circumstances which we are not able to point out, as they involve transactions as between the several partnerships, whose affairs have been

handled separately in the account-keeping. But, as a general proposition, the assumed fairness of awarding a profit of only 11.28 per cent to the investment of a first series share, while giving an eighth series share 58.46 per cent, is open to serious challenge. However the accounts may be treated, the fact remains that all are members of the same association, under one management, and that this management discriminates widely between different series shares in the percentage of profits awarded.

By the Wrigley Rule this discrimination is carried to even greater lengths. The table shows:

First series.....	10.27 per cent.
Second series.....	11.26 per cent.
Third series.....	13.27 per cent.
Fourth series.....	14.31 per cent.
Fifth series.....	15.44 per cent.
Sixth series.....	18.12 per cent.
Seventh series.....	26.13 per cent.
Eighth series.....	70.45 per cent.

If there is any ground upon which to defend the award of a dividend of 70.45 per cent on the investment of an eighth series share, while giving to a first series share only 10.27 per cent, we fail to discover it. This exhibit is *prima facie* proof of an unjust discrimination by this method of apportionment.

It is urged in extenuation, that the large profits shown to accrue to the younger shares are not actually paid them. In case of withdrawal, by an arbitrary system of withdrawal values nearly all of these fanciful profits are withheld, and thus the association is protected from paying more than the shares have actually earned. This, however, is no argument in favor of an inequitable system of apportionment. If, instead of withdrawing, the younger shares remain in the association, then the apportioned profits, excessive as they are, remain to the credit of those shares, and permanently swell their book values.

Under this system, unless the withdrawal values are carefully and systematically guarded by an arbitrary rule, it would pay a member to remain in the organization for the first three or four years, and then withdraw and purchase shares in the latest series. It is not a good plan to establish such a system of premiums for withdrawal, even hypothetically.

IN A MEASURE SELF-EQUALIZING.

It may be said in justice to the Wrigley system, that shares remaining to maturity, while receiving an undue proportion of dividend credits during their earlier years, will be, in turn, discriminated against during their later years; and thus the inequality will be measurably offset in the long run, and the final result will not be far out of the way. But we fail to see the utility of this ascending and descending scale of discrimination. At best it is liable to lead to unfair results as between members of different classes. And, in the case of the original first series, which never has an older series to recoup itself from, the discrimination amounts to a permanent injustice. What this injustice amounts to will be shown in the subjoined table of book values, obtained by several systems of apportionment.

Before passing, we should state that results by the Partnership Rules are not set forth in the foregoing tables, for the reason of fundamental

differences in calculation which render comparisons as to apportionment of profits for a single year impossible. The Partnership Rules apportion all accrued profits from the beginning of the association in a lump sum. A fair comparison of results by the foregoing and by the Partnership Rules can only be made in a table of book values as shown below:

COMPARISON OF BOOK VALUES ASCERTAINED BY VARIOUS SYSTEMS.*

Series.	Dexter.	McYberg.	Wrigley.	Partnership.	Simplified Partnership.	Clark's Formula.
1-----	\$156 16	\$146 91	\$145 94	\$143 03	\$143 10	\$143 11
2-----	109 71	113 08	115 41	112 74	112 71	112 87
3-----	65 01	74 48	70 21	69 93	69 97	70 12
4-----	59 77	68 42	65 98	64 45	64 45	64 61
5-----	53 37	61 03	61 06	57 41	57 36	57 58
6-----	44 12	49 98	52 63	47 31	47 31	47 49
7-----	27 59	32 93	35 71	29 03	29 10	29 17
8-----	12 74	15 80	16 67	13 26	13 23	13 34

* In computing this table, the last preceding book values as arbitrarily taken in the table showing year's profits, was discarded, and a calculation was made going back to the beginning of the association and re-distributing the ascertained profits each year according to each system. Hence, the addition of arbitrary book values previously taken to dues paid in and profits of the year, do not check entirely with this table. The former is only a comparative statement, but this is absolute as to the workings of the several systems and final results produced.

OBSERVATIONS ON THE ABOVE EXHIBIT.

While the object must be the same with each association, *i. e.*, a fair division of the net earnings among the stockholders, the methods adopted for arriving at apportionments, as shown above, are as diverse as could well be imagined.

In summing up our observations as to the operation of these various rules and systems, we cannot do better than quote a paragraph from the Fifteenth Annual Report of the Bureau of Statistics of Labor and Industries of New Jersey (p. 534), which is as follows:

"Great diversity of opinion exists as to the best rule for dividing profits. It is an important question, and the reputation of an association depends in some measure on the solution of the problem. Every association desires to mature its old series at the earliest date compatible with equity, and the method of apportioning profits used has a marked bearing upon the date of maturity. Many associations whose reports the Secretary has examined have, by a faulty system of profit-sharing, retarded the maturity of their older series from two to eight months. The most common mistake noticed in the methods consist in allowing too much profit to the younger series and ignoring the compound interest idea."

This fully states our experience and conclusions. Without doubt many of the associations withhold from their older series a portion of the profits justly belonging to them, in order to apportion to the younger series larger profits than they are entitled to. In order to convince Secretaries of this fact, we must appeal to first principles.

Assuming as axiomatic that the object of an apportionment must be a fair division of the profits among the stockholders, the whole question resolves itself into this: "What is the basis of a fair division?" We say that the only true and equitable basis is that of investment, amount and time being both considered as factors.

There are probably few who would care to dispute the soundness of the argument thus far advanced. Throughout the commercial world it is a recognized principle that dividends in stock companies are proportioned to investment. It is capital, backed by personal effort, that secures profits. Personal effort is first recognized in salaries paid, and the balance of profits is divided among investors, so that a dollar put into the business by one man shall earn just as much as the invested dollar of any other man. Here the personal equation does not cut any figure. The division must be purely on the basis of capital. A may have an investment of \$10,000, while B has furnished only \$10. If the dividend declared is 10 per cent, A will derive a profit of \$1,000, while B gets only \$1, and this division is accounted fair because each receives the same percentage on his capital. To use the common expression, "It is money that talks."

WHAT IS THE WORKING CAPITAL ?

Now the question which excites controversy among Building and Loan Association men is this: "What is the invested capital?" Some say that it is only the amount paid in by the shareholders in the form of dues; others say it is the dues paid in, plus the accumulated earnings.

One thing is certain: The association treats as capital both dues and accumulated earnings, and on this capital makes its profits.

Certain people have supplied this portion of the capital, which is known as accumulated earnings, and these investors are entitled to the benefits thereof. If the association, instead of simply making an apportionment each year, had declared a similar dividend and paid it, every stockholder might have drawn the profits to which he was entitled. If so disposed, he might have re-invested this sum, and subsequently he would have drawn profits upon his former profits. By re-investing his dividends each year he would augment the capital of the corporation, and he would be justly entitled to the benefit of the compound interest principle (earnings upon earnings) thus set in operation. Now, the fact is that a Building and Loan Association does not declare a cash dividend each year, but, in lieu thereof, makes an apportionment of profits, and carries those profits along for the benefit of its stockholders. Ordinarily the apportionment is not paid, but, under certain circumstances, it may be. Any stockholder who desires to withdraw from the business may demand a return of his capital invested as dues, and such proportion of his capital held as earnings as the by-laws provide for.

This recognizes the principle that accumulated earnings are held for the benefit of stockholders according to apportionment, or in other words, that the accumulated earnings held for the benefit of any particular block of stock are practically a re-investment on such stock.

The compound-interest principle ought to work here the same as in the case of the man who draws his dividends every year and re-invests them in the company. In one case the re-investment is accomplished through a regular system; in the other case it is by voluntary act; but the stockholder should receive equal benefit either way. A corporation that declines to perform through its established system what it would do in individual cases is not just nor equitable.

THE BASIS OF CAPITAL INVESTED.

If this line of reasoning is correct, then the basis of capital invested, upon which this whole question turns, must be decided as follows :

1. The capital invested by any stockholder at the beginning of a year's business is the amount of dues paid in plus the accrued earnings apportioned to his stock—in other words, the book value of his stock. This investment is for one year, unless the stock is withdrawn meanwhile.

2. The capital invested by any stockholder during a year's business is proportioned to amount and time of payment. If the dues are \$1 a share per month, payable monthly in advance, and all payments are made then, an equation of payments shows that the association has had the use of money invested on this share to the equivalent of \$75 for 1 month, or \$1 for 75 months. Reducing this to the basis of a year's investment by dividing 75 by 12, we find that it is equivalent to the use of \$6 50 for one year.

The stockholder holding one share has invested, then, the book value of his share at the beginning of the year, plus his average payment of dues for the year. Say the book value was \$24, and he had paid dues monthly in advance. Then the earning capacity of his investment for the year was $\$24 + \$6\ 50 = \$31\ 50$. It is on the basis of earning capacities thus ascertained that the net profits of the year's business may be apportioned most equitably. The system which accomplishes this the most simply and directly is known as the Dexter Rule.

The last preceding table shows a difference in book values of the first series shares, as calculated by the different methods, ranging from \$9 25 to \$13 13 per share. The Dexter Rule makes the book value of a first series share the largest of any, and, consequently, the first series would be matured by this rule at an earlier date than by any of the other rules or systems. This difference in favor of the Dexter Rule would amount, in time, to something between six and nine months. This we submit is a very substantial advantage. Were it achieved by unduly discriminating in favor of the first series, the expedient would not be tenable. But when it accomplishes this desirable result merely by doing equal and exact justice to all, it must be plain that the Dexter Rule is both the fairest and the most expedient.

REPORT OF BUILDING AND LOAN ASSOCIATIONS.

SERIES MATURED DURING THIS FISCAL YEAR.

Name of Association.	Location.	Secretary.	% of Series.	Date of Maturity.	Age in Months.	No. of Shares Matured.	Pledged.	Free.	Maturity Value per Share.	No. of Shares Paid.	Dues.	Profits.
Alameda Building and Loan Ass'n.	Alameda.....	C. K. Clark.....	14th	Apr. 15, 1893.	127	62	18	14	\$200 00	62	\$7,874	\$4,526 00
Alameda Building and Loan Ass'n.	Alameda.....	C. K. Clark.....	15th	Oct. 15, 1893.	127	53	28	25	200 00	53	6,731	3,869 00
Benicia Building and Loan Ass'n.	Benicia.....	A. P. Sanborn.....	1st	July 31, 1893.	126	60	30	30	200 00	45	5,670	3,630 00
Cosmopolitan Mutual B. and L. Ass'n.	East Oakland...	P. F. Morehouse...	11th	Feb. 1, 1894.	120	41	22	19	208 54	41	4,920	3,630 14
Eintraecht Spar und Bau Verein.	San Francisco	H. Gille.....	4th	Dec. 31, 1893.	78	464	322.85	141.15	100 07	464	36,192	10,240 48
Germania Building and Loan Ass'n.	Sacramento...	H. J. Goethe.....	3d	Dec. 31, 1893.	133	789	200	589	200 00	527	70,091	35,209 00
Home Security B. and L. Ass'n.	Oakland.....	C. K. Clark.....	12th	July 30, 1892.	121	95	68	27	200 00	95	11,495	7,505 00
Home Security B. and L. Ass'n.	Oakland.....	C. K. Clark.....	13th	Jan. 31, 1893.	121	144	60 1/4	83 1/4	200 00	144	17,424	11,375 00
Occidental Loan Association	San Francisco.	Leon Dennery.....	4th	Feb. 14, 1894.	135	7	7		211 78	7	945	537 46
San Diego Building and Loan Ass'n.	San Diego.....	Theo. Fintzelberg.	1st	Sept. 1, 1893.	109	135	124	11	200 00	135	14,715	12,285 00
San Francisco Mutual Loan Ass'n.	San Francisco	A. Sbarboro.....	3d	Mar. 1, 1893.	125	538	18 1/2	353 1/2	200 00	538	67,250	40,350 00
Sausalito Building and Loan Ass'n.	Sausalito.....	Julian B. Harris...	1st	Oct. 31, 1892.	71	440	380	60	100 00	393	27,903	11,397 00
Savings Fund and Building Ass'n.	Los Angeles...	E. H. Grasset.....	3d	Nov. 30, 1893.	99	26	17,375	8,125	200 00	26	2,574	2,626 00
Union Building and Loan Ass'n.	Sacramento...	E. K. Alsip.....	5th	Dec. 20, 1893.	132	283	20	263	200 51	283	37,386	19,388 33
Union Loan Association	San Francisco	L. L. Dennery.....	3d	Sept. 15, 1893.	124	273	118	155	200 00	273	33,882	20,748 00
West Oakland B. and L. Ass'n.	Oakland.....	A. Sbarboro.....	5th	Dec. 30, 1892.	135	89	34 1/4	54 3/4	200 00	89	12,015	5,785 00
Woodland Building and Loan Ass'n.	Woodland...	E. T. Clowe.....	1st	Feb. 10, 1893.	80	464 1/2	100	364 1/2	102 37 1/2	464 1/2	37,160	10,333 19
13 associations; 17 series.						3,963 1/2	1,731,225	2,220,275		3,639 1/2	\$391,167	\$203,295 60

From this table it appears that during the fiscal year fifteen associations matured seventeen series. Total number of shares matured, 3,963½, of which 1,734¼ were pledged, and 2,229¼ were free. The pledged shares were 43.76 per cent of the whole, and the free shares 56.24 per cent. The whole number of shares paid off and canceled was 3,639½, leaving the proceeds of 324 shares to the credit of retiring members, to be paid subsequently. The total dues refunded amounted to \$394,167; profits, \$203,295 60.

The ratio of profit to dues was 51.67 per cent. The average age of shares maturing at \$100 was 76.33 months. The average age of shares maturing at \$200 was 123.9 months. On shares of \$100, the average dues paid in were \$76 62; the average profit, \$24 28, and average maturity value, \$100 90. The profits on average investment amounted to 9.96 per cent simple interest per annum.

On shares of \$200, the average dues paid in were \$126 36; the average profits, \$73 84; average maturity value, \$200 20. The profits on average investment amounted to 11.32 per cent simple interest per annum. A comparison shows:

	Average Age, in Months.	Percentage of Profit per Annum on Average Investment.
Shares \$200	123.90	11.32
Shares \$100	76.33	9.96

TO FORECAST MATURITY OF SERIES.

Many people who are interested in Building and Loan Associations, and especially Secretaries and other officers, desire to forecast the maturity of a series, and approximate its probable duration. For the benefit of such, we present the following table of maturities, prepared by Mr. J. L. Fields, expert accountant. First ascertain the average percentage of net profit which an association is making on its capital; note whether its book values are established semi-annually, quarterly, or monthly; also the face value of shares, and the amount of monthly payments. With these data at command, it will be easy to approximate the age of any particular series by consulting the following tables:

Shares, \$200. Dues, \$1 per month.

Per Cent.	Semi-Annual Compound.		Quarterly Compound.		Monthly Compound.		
	Years.	Months.	Years.	Months.	Years.	Months.	Days.
5	12	and 2	12	and 2	12	and 1	10
6	11	7	11	7	11	6	14
7	11	1	11	1	11	0	12
8	10	8	10	8	10	6	29
9	10	3	10	2	10	2	1
10	9	10	9	10	9	9	17
11	9	7	9	6	9	5	15
12	9	3	9	2	9	1	22
13	8	11	8	11	8	10	9
14	8	8	8	8	8	7	3
15	8	5	8	5	8	4	4

Shares, \$100. Dues, 60 cents.
(Credit on Loan Fund, 50 or 52 cents.)

Per Cent.	50 Cents. Compounded Monthly.			52 Cents. Compounded Monthly.			60 Cents. Compounded Monthly.		
	Years.	Months.	Days.	Years.	Months.	Days.	Years.	Months.	Days.
5	12	1	10	11	9	3	10	6	13
6	11	6	14	11	2	18	10	1	2
7	11	0	12	10	8	24	9	8	8
8	10	6	29	10	3	18	9	3	28
9	10	2	1	9	10	28	8	11	29
10	9	9	17	9	6	19	8	8	11
11	9	5	15	9	2	22	8	5	1
12	9	1	22	8	11	4	8	1	29
13	8	10	9	8	7	3	7	11	3
14	8	7	3	8	4	22	7	8	13
15	8	4	4	8	1	27	7	5	29

WITHDRAWALS.

The total number of shares canceled during the year by Local Associations was $42,553\frac{3}{10}$. Deducting from this the number of shares matured and paid by Locals, as shown above, we have as the total number of shares withdrawn $38,913\frac{13}{10}$. This makes the percentage of cancellations stand as follows: Locals matured, 1.17 per cent of total issue; withdrawn, 12.54 per cent of total issue.

The payments on shares withdrawn were as follows:

Dues refunded.....	\$1,629,024 25
Profits.....	368,038 85
Total.....	\$1,997,063 10

From this it appears that the profits paid on shares withdrawn were 22.59 per cent of dues refunded on such shares.

During the same period the shares withdrawn from National Associations amounted to 27,961. On these the payments were:

Dues refunded.....	\$224,066 28
Profits.....	39,969 03
Total.....	\$264,035 31
Percentage of profits to dues, 17.84.	

The Coöperative Banks canceled for withdrawing members 19,822 shares, upon which the payments were:

Dues refunded.....	\$356,075 56
Profits.....	29,785 74
Total.....	\$385,861 30
Percentage of profits to dues, 8.36.	

A comparative statement of profits paid to withdrawing members on money invested by them is as follows:

	Percentage of Profits.
Locals.....	22.59 per cent.
Nationals.....	17.84 per cent.
Coöperative Banks.....	8.36 per cent.

This, of course, does not take into consideration the average time of investment of dues paid in, but shows simply the gross percentage on the total amount.

The grand aggregate of withdrawals is as follows:

Locals	38,913 1/2
Nationals	27,961
Coöperative Banks	19,822
Grand total	86,696 1/2

Paid on shares withdrawn:

	Dues.	Profits.
Locals	\$1,629,024 25	\$368,038 85
Nationals	224,066 28	39,969 03
Coöperative Banks	356,075 56	29,785 74
Totals	\$2,209,166 09	\$437,793 62 2,209,166 09
Grand total dues and profits refunded		\$2,646,959 71

This shows the general average percentage of profits to dues to be 16.54 per cent.

SURRENDER VALUE OF STOCK.

The Local Associations report a total surrender value of stock amounting to \$14,467,507 80.

This should be compared with the total of book values, which are ascertained as follows:

Total dues paid in	*\$12,026,580 35
Total apportioned earnings	4,129,069 01
Total book values	\$16,155,649 36
From this deduct total surrender value	14,467,507 80
Profits to associations on withdrawals	\$1,688,141 56

This shows the gross amount which would be retained by the associations in the event of withdrawal of the stock.

It thus appears that the Local Associations, on the average, pay back to withdrawing members the full amount of dues paid in plus 59.11 per cent of apportioned earnings.

The National Associations report surrender value of all stock, \$1,022,-324 89. Comparing with total of book values we find:

Total dues paid in	\$982,512 04
Total apportioned earnings	230,560 00
Total of book values	\$1,213,072 04
From this deduct total surrender value	1,022,324 89
Profits to associations on withdrawals	\$190,747 15

This shows the gross amount which would be covered into Profit and Loss Account if all shares were withdrawn.

The amount is unduly swollen by reason of the fact that the National Associations generally do not allow withdrawals during the first year,

* Strictly, the advance payment of dues should be deducted from this item; but the amount is so small in aggregate that it may be neglected in this calculation, as with those which follow.

and fix no withdrawal value for stock until it is one year old or over. The same practice is followed by a few Local Associations.

From the foregoing statements it appears that the National Associations, on the average, pay back to withdrawing members the dues paid in plus 17.27 per cent of the apportioned profits.

The Coöperative Banks report a total surrender value of \$883,200 25.

Total dues paid in.....	\$834,894 22
Add apportioned profits.....	91,861 19
Total book values.....	\$926,755 41
Deduct total surrender value.....	883,200 25
Profits to associations on withdrawals.....	\$43,555 16

Thus it appears that the Coöperative Banks, on the average, pay back to withdrawing members the dues paid in plus 52.58 per cent of apportioned profits.

All associations together report:

Total surrender value of.....	\$16,373,032 94
Aggregate dues paid in.....	\$13,843,986 61
Aggregate apportioned earnings.....	4,451,490 20
Aggregate book values.....	\$18,295,476 81
Deduct surrender value.....	16,373,032 94
Profits to associations on withdrawals.....	\$1,922,443 87

This shows a general average for all associations of dues refunded, plus 56.81 per cent of the apportioned profits.

COMPARATIVE STATEMENT ON WITHDRAWALS.

	Average Percentage of Apportioned Profit Paid Back, with Dues Refunded.
Locals.....	59.11 per cent.
Nationals.....	17.27 per cent.
Coöperative Banks.....	52.58 per cent.
All associations.....	56.81 per cent.

TREATMENT OF WITHDRAWALS.

In no branch of Building and Loan Association work is there less concurrence of system than in the matter of withdrawals. While all allow the withdrawal of stock, with or without limitation as to the time it has run, the amount paid back varies with different associations, and there seems to be no general established rule.

Section 19 of the law of 1893 provides as follows: "Stockholders desiring to withdraw from any association, or to surrender a part or all of their stock, shall have power to do so by giving thirty days' notice, in writing, of such intention to withdraw. On the expiration of such notice, the stockholder so withdrawing shall be entitled to receive the full amount paid in by him or her, together with such proportion of the earnings thereon as the by-laws may provide, or as may have been fixed by the Board of Directors; provided, that no more than half of the monthly receipts in any one month shall be applied to withdrawals for that month without the consent of the Board of Directors, and no shareholder shall be permitted to withdraw whose stock is pledged as security to the association for a loan until such loan is fully paid. Such with-

drawals shall be paid in succession, in the order that the notices are given."

This establishes a minimum basis for the withdrawal of shares. The association is obliged to refund the full amount paid in as dues. As to the proportion of profits apportioned to such shares which the association pays to the withdrawing member, that is left to the decision of the Board of Directors, or to the by-laws of each association. This prerogative is exercised in various ways—so various, indeed, that a classification according to methods is impossible.

THE NATIONAL RULE.

The Nationals construe the law in one way and the Locals in another. The Nationals hold that the term "the full amount paid in," as specified in the law, means the full amount paid into the Loan Fund only, and not the amounts paid on premium stock or the proportion on borrowing stock which goes into the Expense Fund. On each share of stock upon which the stockholder pays 60 cents per month, the reservation for Expense Fund amounts to 8 or 10 cents per share, as the case may be. This amounts to $13\frac{1}{3}$ and $16\frac{2}{3}$ per cent, respectively, on the total amount paid in. This percentage of the total payment by members the National Associations do not hold themselves liable to refund. They do refund all amounts paid into the Loan Fund, *plus* such proportion of accrued profits as their by-laws provide for.

Of the two Coöperative Banks, one follows the rule of the Nationals, as above outlined, and one pays back the full amount of dues, including the proportion covered into the Expense Fund.

Whether the National rule, if put to the test of the courts, would hold, is yet undetermined. Only a member who has subscribed to stock since the law of 1893 went into effect would be competent to maintain an action to test this question, and thus far no such contesting member has appeared.

With respect to withdrawals from associations following the National plan, it may be stated generally that, if they retire within a period of three or four years after the commencement, their profits on the transaction are small or nothing, or they may even sustain a loss. As a rule, it requires in such associations a membership of about three years before the accrued profits equal the amount covered into the Expense Fund. When such profits equal the Expense Fund deductions, they can, on withdrawal, receive back the whole amount paid in.

From their methods of securing new business through solicitors, who operate in outside localities, and in many places where there are no Local Associations, it results that National Associations, and those operating on similar lines, secure a large proportion of the floating and unstable investors. This is shown by the high percentage of cancellations in such associations. Such people should understand that the form of investment offered them is not one of a temporary kind, but that it requires long and faithful performance of their part of the contract if they are to derive any pecuniary benefit therefrom.

It should be stated in this connection that some Local Associations do business outside of their immediate locality. Some of them also have no fixed withdrawal value for stock until after the lapse of one or two

years, and allow no withdrawals within that period. Many of them pay to withdrawing members during the first year or two only a small proportion of accrued profits. Most members of such associations who withdraw at an early date, realize but small returns on their investment. In general the full advantages of a Building and Loan Association are only to be secured by long and faithful membership.

THE THEORY OF WITHDRAWALS.

The accepted theory of withdrawals is that an association shall not take advantage of a member who has paid a certain amount on his stock and then finds that he is unable to continue his payments. After notice of withdrawal is served, and pending liquidation of stock, no fines are to be laid against it for non-payment of dues. As soon as the requisite time prescribed in the by-laws has run, or as soon thereafter as the association has funds available for the purpose, it is required to take up the withdrawing shares at their determined withdrawal value. Just what proportion of the apportioned earnings may be paid to shares withdrawn in justice to the association seems not to have been reduced to a mathematical principle, and every association follows a rule of its own. Doubtless some associations that have made a practice of treating gross premiums as accrued earnings have paid to withdrawing members a larger proportion of profits than they could afford. The result in such cases is an injustice to the persistent members, and a consequent delay in the maturity of stock.

It would be very difficult to say just what proportion of apportioned profits such an association should pay to withdrawals. A sort of hit-and-miss practice seems to have been adopted, scaling down the profits according to the age of the series; but whether the amount thus retained is sufficient to make the association good for the proportion of bad debts and unearned premiums that have figured in fixing the value of shares, the Secretaries themselves could not state with any degree of confidence. If the scaling down has been too heroic, then undoubtedly an injustice is done to the retiring member.

For this reason we have advocated, in another place, the adoption of the Unearned Premium plan of treating premiums, or what is still better, the installment system of premiums and the establishment of a Reserve Fund. Under these systems the unearned premiums, and a certain percentage of profits, do not enter into the calculation for determining the book or withdrawal value of shares, and hence all danger of an over-payment of profits to withdrawing members is averted. In such case an association can afford to pay very nearly its book value to retiring members. Whatever it deducts from such book value is in the nature of a penalty for failure on the part of the stockholder to carry out his original contract, and to make the association good for the loss of his membership. Where a retiring member receives nearly the full book value of his shares, he is far more apt to be content with his bargain than he would be if scaled down by an apparently unmerciful percentage. If he goes out feeling that he has been fairly treated, he may affiliate again when circumstances permit, or he may encourage friends to join the association. If he goes out dissatisfied, he is likely to be inimical, not only to that association, but to all Building and Loan

Associations for the rest of his life. It is the best of policies for Building and Loan Associations to let their retiring members go in a satisfied frame of mind.

NATIONALS VS. LOCALS.

There exists in this State, as elsewhere, much hostility between the ultra advocates of the Local system of Building and Loan Associations and those who maintain the National plan; and, in the journals devoted to the opposing interests, there are charges of a grave character. We deemed it expedient, in entering upon the duties of our office, to ignore this controversy entirely, and prosecute our investigations without bias or prejudice on either side. It became our duty to see that the laws of the State, so far as they relate to such organizations, are impartially enforced, to the end that stockholders may be protected from fraud and mismanagement. This we have attempted to do in every case, irrespective of plans of organization, bringing all to the same standard of requirements. For the rest, it seemed to us the best service we could render the State was to make a searching investigation of all plans which we should find in operation, to collate statistics thereon and analyze the returns in such a way as to throw light on their operations, and make it possible to institute intelligent and unbiased comparisons between the several systems. The highest advantage to be gained by the public lies in their thorough acquaintance with the plans and operations of the many associations seeking their patronage; and the best criterion by which to judge such associations is an intelligent comparison of results achieved.

In order to bring such comparisons to the same basis, and make them absolutely fair, we have required associations to report all of their receipts and expenditures, together with such other statistical information as was deemed essential. Objection was raised on the part of some of the Nationals against reporting on their Expense Fund, which they claimed did not constitute a part of the capital of the association, being contributed for the express purpose of defraying the expense of management. Our ruling on this, however, was that all funds handled by the associations should be reported upon, and in this they all finally acquiesced. Statements of amounts collected and expended on account of the Expense Fund will be found in the summaries of all associations, National as well as Local, and such items have entered into our calculations of percentages and averages.

FINES.

The law of 1891 (Section 634) provides a maximum rate of fines for delinquencies in Building and Loan Associations, as follows:

"Any such corporation shall have power by its by-laws to impose and collect a fine from each stockholder not exceeding 10 per cent of the defaulted amount, for every neglect or refusal to make his payments of dues, or premium, or interest, when due, and to impose and collect a like fine successively on every regular pay-day during such default."

This is construed by some associations to mean that a fine of 10 per cent may be imposed on the total delinquency each month, and fines are enforced at that rate. Let us see what such procedure leads to.

Suppose a member whose dues amount to \$10 per month becomes

delinquent, and continues to default on his payments throughout an entire year. His delinquencies and fines will stand on the respective pay-days of the succeeding months as follows:

	Delinquency.	Rate of Fine—Per Cent.	Amount of Fine.
January	\$10 00	10	\$1 00
February	20 00	10	2 00
March	30 00	10	3 00
April	40 00	10	4 00
May	50 00	10	5 00
June	60 00	10	6 00
July	70 00	10	7 00
August	80 00	10	8 00
September	90 00	10	9 00
October	100 00	10	10 00
November	110 00	10	11 00
December	120 00	10	12 00
Total fines imposed			\$78 00

Now, if this member had paid his dues regularly every month, he would have paid the association the gross sum of \$120, and this, by an equation of payments, would have amounted to the use of \$65 for one year. Had the association loaned the money out immediately on receipt thereof at 10 per cent per annum, it could not have realized on the capital invested by this member more than \$6 50. But, in order to make good this loss of \$6 50, and perhaps to add something by way of exemplary damages, it assesses fines against the delinquent to the amount of \$78. This is equivalent to 120 per cent on the average capital involved for one year.

It is manifest that such a system of fines is exorbitant, and should not be allowed by law. The law above quoted should be amended by the next Legislature. A penalty of 2 per cent on the amount delinquent each month would be ample to reimburse an association for its loss in the premises and to enforce prompt payments of installments. This would be equivalent to 24 per cent per annum on the average capital which the association is deprived the use of by reason of the delinquency.

The true theory of fines is that they are imposed to enforce prompt payments, and reimburse the association for capital withheld, which, under contract, should have been forthcoming. Anything beyond this in the way of fines amounts to a form of extortion.

We hold that, within their proper scope, fines are allowable and just. We advise associations: (1) To impose moderate fines; (2) To enforce them.

When this is done consistently, it will be found that the percentage of delinquencies will be reduced to a minimum. In very rare cases should fines once imposed be rebated, and then only on a vote of the Board of Directors. It is unjust to the society and the Secretary to place the responsibility of collecting or waiving fines on that officer. There should be no favoritism in the matter of imposing and collecting fines. The President or a Director, if delinquent, should be required to pay the same as any other member.

Fines, when once assessed, should be treated as an asset of the association, and regularly carried through the books. In our reports we

require a return of all delinquencies and all accrued fines, and we treat them like other assets.

LOANS AND SECURITIES.

The gross amount of loans outstanding, reported by the Local Associations, is \$17,573,972 66. For these loans they hold securities as follows:

Real estate mortgages and bonds—	
Appraised value of land.....	\$11,528,206 50
Appraised value of improvements.....	13,822,232 86
Total real estate security.....	\$25,350,439 36
Book value of stock pledged.....	5,794,309 13
Total security.....	\$31,144,748 49

This shows a margin of security over face of loans amounting to \$13,570,775 83. In other words, the face value of loans is 56.42 per cent of the total securities held.

One of the strong features of the Building and Loan plan is that, with the constant increase in value of pledged shares, the security is always augmenting and the margin of risk lessening. Our reports are so drawn as to show the annual increase in securities held.

The National Associations report loans amounting to \$1,251,988 37. For these loans they hold securities as follows:

Real estate mortgages and bonds—	
Appraised value of land.....	\$1,642,081 00
Appraised value of improvements.....	1,457,075 60
Total real estate security.....	\$3,099,156 60
Book value of stock pledged.....	193,055 15
Total security.....	\$3,292,211 75

This shows a margin of security over loans aggregating \$2,040,223 38. The Nationals have a face value of loans to the amount of 38 per cent of total securities held.

The Coöperative Banks report loans aggregating \$1,042,080 45. For these loans they hold securities as follows:

Real estate mortgages and bonds—	
Appraised value of land.....	\$1,178,154 00
Appraised value of improvements.....	709,320 00
Total real estate security.....	\$1,887,474 00
Book value of stock pledged.....	886,323 44
Total security.....	\$2,773,802 44

Margin of security over amount loaned, \$1,731,721 99. In other words, they have loans outstanding to the amount of 37.6 per cent of securities.

PRESENT WORTH OF LOANS.

We have compiled a line of statistics showing the present worth of mortgages and securities, which is the face of loans, less book values of pledged stock. The present worth of a mortgage loan is the amount usually returned by an association as its assessable value. This is on the assumption that the borrower may at any time settle up his loan, and apply his pledged stock as a partial payment thereon. In this

event he would not ordinarily be entitled to full book value on his stock, it is true, but the withdrawal value is approximately the book value. The book value represents his equity of repayments while he remains in the association.

Following is a statement showing the present worth of all loans held by Local Associations:

Aggregate face of loans.....	\$17,573,972 66
Less book value of stock pledged.....	5,794,309 13
Present worth of loans.....	\$11,779,663 53

This present worth of loans is a rough approximation of the gross amount on which the Local Associations are assessed and pay taxes.

The Nationals report as follows:

Aggregate face of loans.....	\$1,251,988 37
Book value of stock pledged.....	193,055 15
Present worth of loans.....	\$1,058,933 22

The Coöperative Banks report:

Aggregate face of loans.....	\$1,042,080 45
Book value of stock pledged.....	886,328 44
Present worth of loans.....	\$155,752 01

The comparatively small present worth in this case is due to the large aggregate of stock pledged, which is deducted from the face of loans.

LOANS REPAID.

The Local Associations report loans repaid during this fiscal year amounting in the aggregate to \$1,814,839 30. This, added to the face of loans outstanding, gives a basis for calculating the percentage of loans paid off during the year. We thus find that the loans repaid during the year amounted to 9.36 per cent of the whole. This includes loans repaid by maturity of stock as well as those discharged before maturity.

The Nationals report loans repaid during the same period to the amount of \$227,243 36. By a similar process of calculation, we ascertain that the loans repaid during the year were 15.37 per cent of the whole.

The Coöperative Banks report loans repaid \$153,856 42, which is 12.86 per cent of the whole.

All classes of associations together report loans repaid \$2,195,939 08, which is 9.95 per cent of the whole.

NEW LOANS.

The Local Associations report new loans for the year amounting to \$3,753,009 59. This is 21.36 per cent of total loans outstanding.

The National Associations report new loans for the year amounting to \$505,987 72. This is 40.41 per cent of total loans.

The Coöperative Banks report new loans, \$392,392 33. This is 37.65 per cent of total loans.

All classes of associations together report new loans, \$4,651,389 64. This is 23.41 per cent of all outstanding loans, and shows the average per cent of new business.

COMPARATIVE STATEMENT OF LOANS REPAYED AND NEW LOANS.

	Loans Paid— Percentage.	New Loans— Percentage.
Locals.....	9.36	21.36
Nationals.....	15.37	40.41
Coöperative Banks.....	12.86	37.65
Average of all.....	9.95	23.41

AN AMENDMENT SUGGESTED.

Section 638 of the law of 1891 should be amended so as to fix the time of mortgages to be received by Building and Loan Associations, as follows :

Such mortgages shall be payable on or before nine years from date. All payments on shares, and such portion of profits as the by-laws or Board of Directors may provide to be paid to withdrawing members, shall be construed as partial payments on the note or other obligation given by the borrower, in the event that the borrower elects to discharge his obligation before maturity. Interest shall be payable on the full amount of the mortgage until paid. For the purposes of taxation, the present worth of a mortgage (face of mortgage less the last determined withdrawal value and all subsequent payments as dues on the stock pledged) shall constitute the assessable value of said mortgage.

INTEREST.

The Local Associations report total receipts of interest amounting to \$1,165,686 53. We ascertain the average capital loaned out by deducting from the aggregate face of loans one half of the new loans and adding one half of loans paid off; thus:

Aggregate face of loans—Locals.....	\$17,573,972 66
Deduct one half of new loans—Locals.....	1,876,504 79
	<hr/>
Add one half of loans repaid—Locals.....	\$15,697,467 87
	907,419 65
	<hr/>
Average amount loaned for the year.....	\$16,604,887 52

The total interest collected amounts to 7.02 per cent on this amount.

The National Associations report total receipts of interest amounting to \$66,873 08. By a similar calculation to that given above we ascertain the average amount loaned by Nationals for the year to be \$1,112,616 19. The total interest collected amounts to 6.01 per cent on this amount.

The Coöperative Banks report interest collected, \$57,619 81. Their average capital loaned out for the year was \$922,812 50. Upon this they collected interest at the rate of 6.24 per cent.

COMPARATIVE STATEMENT OF AVERAGE RATES OF INTEREST.

Locals.....	7.02 per cent.
Nationals.....	6.01 per cent.
Coöperative Banks.....	6.24 per cent.

PREMIUMS COLLECTED.

Owing to the fact that gross premiums are so largely in vogue among the Local Associations, and that the gross and installment collections are all included in one sum, it is impossible to institute a comparison show-

ing the percentage of premiums to average loans of the year; or at least such a showing would convey no satisfactory meaning.

It may be stated, however, by way of estimate, that the premiums, gross and installment together, counting the average life of loans, would amount to an increase of about 3 per cent per annum in the rates of interest paid by the borrower. As a matter of fact, the premiums collected by Locals during the year, as shown by these statements, amount to 2.88 per cent on the average amount loaned out.

With the Nationals and Coöperative Banks, however, as their premiums are all on the installment plan, we can calculate the percentage of premiums more satisfactorily.

The Nationals report premiums collected during the year, \$68,026 24. This, on the average amount loaned out for the year as ascertained above, would make the percentage of premium collected 6.11 per cent.

The Coöperative Banks report premiums collected during the year, \$50,059 33. This, on the average amount loaned out for the year (\$922,812 50), would make the percentage of premiums collected 5.42 per cent.

As we have explained elsewhere, the difference between interest and premium is only nominal. The premium, in effect, is an augmentation of the rate of interest under another name. Hence, if we would accurately state the cost of the money to the borrower, we must combine the annual rate which he pays as interest and the annual rate which he pays as premium. Recurring to the foregoing calculations, we may sum them up in effect as follows:

	Percentage Interest.	Percentage Premium.	Percentage of Total Charge.
Locals	7.02	*3.00	10.02
Nationals	6.01	6.11	12.12
Coöperative Banks	6.24	5.42	11.66

ARREARAGES.

The Local Associations report arrearages to the amount of \$292,165 96. This includes delinquent dues, premiums, interest, fees, and fines. It averages a delinquency of \$2,300 52 to each association, and \$1 09 to each share of stock outstanding.

The National Associations report arrearages to the amount of \$35,808 38. This averages \$4,476 04 to each association, and \$4 25 to each share of stock outstanding.

Statistics of the arrearages of Coöperative Banks are not satisfactory as a basis of averages, because one of the two associations did not report arrearages at all.

CASH ON HAND.

The cash on hand is very small in proportion to the amount of business done, averaging in the Local Associations \$952 05 to each; in the Nationals, \$2,122 29, and in the Coöperative Banks, \$17,206 73.

The cash balance is necessarily larger with the last-named class, as they carry on a quasi-banking business, and have a line of deposits to meet on demand.

* Estimated.

The small cash balance necessary to carry on the average Building and Loan Association emphasizes one of the strong features of the system. It is not necessary to keep on hand a considerable amount of idle capital as a safeguard against a panic in the money market. Their capital is practically all invested and earning money for the association.

REAL ESTATE.

The Local Associations report the number of foreclosures since organization, 66; the Nationals, 6; Coöperative Banks, none. The Locals report the gross amount due on foreclosures, \$207,306 41; Nationals, \$4,633. This, however, understates the case. In many cases there have been compromises on defaulted mortgages, and property has been taken in satisfaction thereof. Such a transaction is not technically classed as a foreclosure, but it is a forced purchase, which amounts to the same thing. Generally speaking, Building and Loan Associations do not willingly deal in real estate, and they only purchase to save themselves from loss. Taking the total amount of assets in real estate, we find the following results:

Locals	\$298,337 44
Nationals	30,054 20
Coöperative Banks .....	.....
Total	\$328,391 64

This exhibit makes an average real estate holding for each Local Association of \$2,349 11, and an average to each share of stock outstanding of \$1 12.

The Nationals average a holding of \$3,756 77 by each association, and by each share of stock outstanding, 36 cents.

COMPARATIVE STATEMENT.

	Average Holding per Association.	Average Holding per Share.
Locals	\$2,349 11	\$1 12
Nationals	3,756 77	36

CAPITAL PAID IN.*

The Local Associations report a total of dues amounting to \$12,026,-580 35. This is an average to each association of \$94,697 48, and an average per share of \$44 92.

The National Associations report dues paid in, \$982,512 04. This is an average to each association of \$122,814, and an average per share of \$11 68.

*Owing to fundamental differences between associations operating under the Local and the National plans, the basis of comparison here instituted as regards Dues Paid In and Earnings is not absolutely correct.

The National Associations and one of the Coöperative Banks collect installments of 60 cents per share a month. Out of this 60 cents they cover 8 or 10 cents (as the case may be) into an Expense Fund, and the balance, 50 or 52 cents, is credited to a Loan Fund. It is this Loan Fund only which they have reported to us as Dues Paid In. If, instead of following this plan, they had credited the entire 60 cents per share per month to Dues Account, and had paid expenses out of their earnings, as the Locals do, it is plainly to be seen that the Dues Account of the Nationals would be increased from

The Coöperative Banks report dues paid in \$834,894 22. This is an average to each association of \$417,447 11, and an average per share of \$17 12.

AVERAGE AGE OF SHARES.

The average age of shares in the associations is attested by a comparison of the average dues paid in per share.

	Average Dues per Share.
Locals	\$44 92
Nationals	11 68
Coöperative Banks	17 12

15½ to 20 per cent, and Earnings Account decreased by the same amount, the aggregate liability to stockholders remaining the same.

For the purpose of making an absolutely fair comparison in this respect, we calculate what the statements would show under such a change of plan.

NATIONAL ASSOCIATIONS.

Actual dues paid in	\$1,143,281 40
Actual earnings	69,790 64
Total liabilities to stockholders in book values as at present shown	\$1,213,072 04
Average dues paid per share	\$13 60
Average age of shares	22¼ months.
Ratio of earnings to dues paid in	6.1 per cent.
Average earnings per share	83 cents.
Average dues	\$13 60
Average earnings	83
Average book value	\$14 43

COÖPERATIVE BANKS.

Actual dues paid in	\$898,863 59
Actual earnings	27,891 82
Book values as at present shown	\$926,755 41
Average dues paid per share	\$18 43
Average age of shares	30.7 months.
Ratio of earnings to dues paid in	3.1 per cent.
Average dues	\$18 43
Average earnings	57
Average book value	\$19 00

A new comparison can then be made, as follows:

PERCENTAGE OF EARNINGS TO DUES PAID IN.

Locals	34.33 per cent.
Nationals	6.1 per cent.
Coöperative Banks	3.1 per cent.

AVERAGE EARNINGS PER SHARE.

Locals	\$15 42
Nationals	83
Coöperative Banks	57

AVERAGE BOOK VALUES PER SHARE.

Locals	\$60 34 (\$200 shares).
Nationals	14 43 (\$100 shares).
Coöperative Banks	19 00 (\$100 shares).

AVERAGE AGE OF SHARES.

Locals (\$1 per month)	45.6 months.
Nationals (60 cents per month)	22.7 months.
Coöperative Banks (60 cents per month)	30.7 months.

In other words, an average share of stock in Local Associations has run 45.6 months, has paid in dues \$44 92, and is credited with earnings \$15 42.

An average share of stock in National Associations has paid in dues (including Expense Fund) \$13 60, and is credited with earnings, 83 cents.

An average share of stock in Coöperative Banks has run 30.7 months, has paid in dues \$18 43, and is credited with earnings, 57 cents.

At an average of 98½ cents per share per month paid in on the Local shares, this would make their average age 45.6 months.

At an average of 51½ cents (credited to Loan Fund) per month on National shares, this would make their average age 22.7 months.

The average age of stock in Coöperative Banks is found, by a similar process, to be 33.24 months.

ACCRUED EARNINGS.†

The Local Associations report accrued earnings amounting to \$4,129,-069 01. This is equivalent to 34.33 per cent on the capital paid in as dues.

The National Associations report accrued earnings amounting to \$230,560. This equals 23.46 per cent of the paid-in capital.

The Coöperative Banks report accrued earnings, \$91,861 19. This equals 11 per cent of paid-in capital.

The average per share of dues and earnings and the sums of these, making the average book values, are shown in the table below:

	Average Dues Paid in per Share.	Average Earnings per Share.	Average Book Values per Share.
Locals	\$44 92	\$15 42	\$60 34
Nationals	11 68	2 74	14 42
Coöperative Banks	17 12	1 88	19 00

THE YEAR'S PROFITS.

The Local Associations report an aggregate of net profits for the year amounting to \$1,254,973 52. This makes the net earnings 7.56 per cent on the working capital (average amount loaned for the year).

The National Associations report net profits for the year amounting to \$137,086 64. This shows net earnings on the average working capital of 12.34 per cent.

The Coöperative Banks report net profits for the year amounting to \$56,860 81. This shows net earnings on the average working capital of the year of 6.17 per cent.

All classes of associations together report net earnings for the year amounting to \$1,448,920 97. This makes the aggregate net earnings equal to 7.77 per cent on the average investment for the year, or working capital.

A comparison shows as follows:

	Percentage of Profits on Average Investment of the Year.
Locals	7.56 per cent.
Nationals	12.34 per cent.
Coöperative Banks	6.17 per cent.
All classes	7.77 per cent.

† It should be borne in mind that from the standpoint of stockholders the profits reported by National Associations and those doing business on the National plan are, in every instance, gross profits. That is, a stockholder must deduct from the gross profits in his favor the amount which he has contributed to the Expense Fund, in order to ascertain his net profit on the transaction. In this case, deducting the average contribution to the Expense Fund, the net profit remaining to the average share of stock in Nationals is 83 cents, instead of \$2 74; Coöperative Banks, 57 cents, instead of \$1 88.

UNAPPORTIONED PROFITS.

The Local Associations report a total of \$446,523 54 unearned and unapportioned profits. This averages \$3,515 93 to the association, and \$1 67 per share.

The National Associations report unapportioned profits \$30,037 23. This averages \$3,754 65 to the association, and 34 cents per share.

The Coöperative Banks report unearned and unapportioned profits \$5,749 02. This averages \$2,874 51 to the association, and 12 cents per share.

Recurring to the average book values previously ascertained, we find that these reserve profits should be added to them to show the average net asset per share to stockholders.

	Average Book Values Per Share.	Average Profits Per Share*.	Average Net Asset Per Share.
Locals	\$60 34	\$1 67	\$62 01
Nationals	14 42	34	14 76
Coöperative Banks.....	19 00	12	19 12

OVERDRAFTS AND BILLS PAYABLE.

The Local Associations report total liabilities for overdrafts and bills payable amounting to \$1,499,202 50, which is an average indebtedness to each association of \$11,804 74, and averages to each share \$5 60.

The National Associations report a similar indebtedness of \$62,520 21. This averages \$7,815 03 to each association, and 74 cents per share.

The Coöperative Banks report a like liability of \$48,016 01, which averages \$24,008 01 to each association, and 98 cents per share.

There has been a disposition on the part of some associations, we think, to go into debt more than was for their good. There is really a danger line in this matter for Building and Loan Associations, as there is for other corporations and for individuals. We would advise that an association should not borrow at bank or on bills payable more than it can repay with three months of its current revenues. Then there is little danger of being seriously inconvenienced if the obligation is pressed to a short settlement.

During this fiscal year the Local Associations have increased their outside indebtedness by \$1,593,990 09, and have decreased them by the payment of \$1,566,065 22, leaving a net increase of \$27,924 87.

Our next annual report will probably show a considerable diminution in this class of liability.

During the year the National Associations have increased their outside indebtedness by \$52,394 34, and have decreased them by \$59,283 72, showing a net decrease of \$6,889 38.

The Coöperative Banks have increased their outside indebtedness by \$82,516 01, and decreased them by \$103,533 47, showing a net decrease of \$21,017 46.

* Unapportioned.

SALARIES.

The Local Associations report a total expense for salaries amounting to \$129,489 24. This averages \$1,019 61 to each association, and 49 cents per share (\$200 shares). It is also equal to 1.46 per cent of total receipts.

The National Associations report salaries amounting to \$36,385 46. This is an average of \$4,548 18 to each association, and 43½ cents per share (\$100 shares). It is also 3.8 per cent of the total receipts.

The Coöperative Banks report salaries \$14,952 50, which is an average of \$7,476 25 per association, and 30½ cents per share (\$100 shares). It is also 0.56 per cent of total receipts.

A comparison shows:

	Salaries per Association.	Salaries per Share.	Percentage of Salaries to Total Receipts.
Locals -----	\$1,099 61	\$0 49 (\$200 shares).	1.46 per cent.
Nationals -----	4,548 18	43 (\$100 shares).	3.8 per cent.
Coöperative Banks -----	7,476 25	30 (\$100 shares).	0.56 per cent.
All associations -----			1.46 per cent.

TAXES.

Local Associations report taxes paid to the amount of \$171,300 47. This is an average of \$1,348 82 for each association, and average expense to each share of 64 cents. It amounts to 1.45 per cent on the present worth or taxable value of loans.

The National Associations report taxes paid \$9,652 35, which is an average expense per share of 11½ cents. It amounts to 0.91 per cent on the taxable value of loans.

The Coöperative Banks report taxes \$7,396 54, which is an average to each association of \$3,698 27, and an average expense to each share of 15 cents. It amounts to 0.8 per cent on the average loaning capital of the year.

MISCELLANEOUS EXPENSES.

The Local Associations report \$42,604 93, which is an average of \$335 47 for each association, and 16 cents per share. It is 0.48 per cent of total receipts.

The National Associations report \$29,778 78, which is an average of \$3,772 35 per association, and 35½ cents per share. It is 3.12 per cent of the total receipts.

The Coöperative Banks report \$29,260 04, which is an average of \$14,630 02 per association, and 60½ cents per share. It is 1.11 per cent of the total receipts.

TOTAL EXPENSES.

Items of expense, including salaries, taxes, and miscellaneous expenditures, are reported by the Local Associations \$343,394 64. This averages to each share \$1 29 (\$200 shares). The ratio to total receipts of the year is 3.89 per cent.

All expenses, as above reported by the National Associations, are \$75,816, which is an average of \$9,477 07 per association, and 90 cents

per share (\$100 shares). It is also 7.94 per cent on the total receipts of the year.

All expenses as above reported by the Coöperative Banks, \$51,609 08, which is an average to each association of \$25,804 54, and to each share (of \$100) of \$1 06. It is also 1.96 per cent of the total receipts of the year. This low percentage is due to the large volume of business in deposits added to the current Building and Loan Association receipts.

COMPARISON OF EXPENSES.

On the basis of stock we have the following comparison, the figures showing the average expense per share:

	Salaries.	Taxes.	Miscellaneous.	Totals.
Locals (\$200) .....	.49	.64	.16	1.29
Nationals (\$100).....	.43½	.11½	.35¼	.90
Coöperative Banks (\$100) .....	.30½	.15	.60½	1.06
All associations.....	.45½	.47½	.25½	1.18½

On the basis of total receipts we have the following comparisons, the figures showing the percentage of expense to total receipts, except in the case of taxes, when the percentage is shown on the present worth of mortgages (taxable value):

	Salaries.	Taxes.	Miscellaneous.	Totals.
Locals	1.46	1.45	0.48	3.89
Nationals	3.80	0.91	3.12	7.94
Coöperative Banks.....	0.56	0.80	1.11	1.96
All associations.....	1.46	1.26	0.81	3.80

DISSIMILARITY IN PLANS IN ACCOUNT-KEEPING.

While the Local Building and Loan Associations are quite similar in their general outlines, there still exists a wide divergence between them in their methods of transacting business and their systems of bookkeeping, and in their plans of apportioning profits. In fact, it would be difficult to find any two that are alike in all of these respects.

This dissimilarity is due to the fact that there has been no generally accepted model for the formation of these organizations. The organizers of each have pursued such plan as they had in mind, often following the lines of some Eastern association with which one or more of them may have been connected at a previous time. In some instances an expert has been called in, who has formulated a system of his own. Or, several features of different neighborhood organizations have been borrowed and incorporated in the plan. Thus has grown up this great variety of methods in transacting the business of Building and Loan Associations, while all are striving for practically the same ends.

The most thoughtful and most experienced of the Secretaries have deprecated this lack of uniformity, and have expressed the hope that this Commission might be able to bring about something like a general concurrence in the systems. This desirable end we are willing to promote by any means in our power; but it should be borne in mind that we

have no arbitrary authority in the premises. We cannot prescribe any particular system of bookkeeping and say that all Secretaries must conform to it. Our powers of interference are limited to cases where we find errors in accounts, or the pursuance of methods which will result in injustice to stockholders. Nevertheless we have exerted our influence in a purely advisory way for the adoption of what we deem the best system, and in time, no doubt, this influence, if consistently maintained by subsequent Boards, will result in greater uniformity of methods.

There can be no better way of furthering this reform than for the Secretaries and other officers of the Building and Loan Associations to meet at stated intervals and discuss these matters. They are thus enabled to compare different systems, and draw conclusions as to which is best. To this end we indorse the plan of the State League of Building and Loan Associations, and urge the Presidents and Secretaries of associations to affiliate with it. Boards of Directors can well afford to grant their Secretaries the requisite leave of absence, and defray all necessary expenses while they are attending the annual meeting of this League.

In order to place in the hands of Secretaries and those who are forming new associations an outline of a safe and desirable system, we discuss the principal books which should be kept for a Building and Loan Association, and enter somewhat into details concerning methods of distribution, etc.

THE STOCK BOOKS.

These constitute a separate and distinct system, which should be devoted to the transactions of the corporation, and the stock accounts should never be confounded or intermingled with the commercial accounts of the association.

The Record Book is that in which the Secretary records the proceedings of the annual and special meetings of stockholders, and the meetings of the Directors.

The Certificate Book contains the certificates of stock. Each certificate should have its stub, showing the number of certificate, the date of issuance, the party to whom issued, and such memoranda as may be desirable to trace the stock back to a former certificate, in place of which this one may have been issued.

In every instance the Secretary should require the signature of the party to whom stock is issued, or his authorized attorney, attesting the receipt of same. This receipt is the Secretary's protection against a possible charge of false or irregular issue of stock, and he should never allow a certificate to be taken from the book without the proper signature on the stub.

The certificates and stubs should be numbered consecutively from the beginning to the end of the book, each stub bearing the same number as its accompanying certificate. It is best to have this numbering done by the binder's machine when the book is made. Some associations have a way of beginning each series with No. 1, and thus they have a different set of numbers for each series. This is wrong, and it leads to great confusion when several series are out. An association should never issue two or more certificates of stock bearing the same number; let the numbers run from unity up to as high a figure as may be required, the progression being continuous through the life of the association. When a certificate is transferred from one holder to another, it should be

surrendered to the Secretary, properly indorsed with the name of the original holder. It should be canceled by the Secretary, and a new certificate, bearing a new number, should be issued to the party purchasing the same. It is a great mistake to issue the new certificate under the number of the old one; it is also a mistake to recognize any transfer of stock unless it had been made on the books of the association, as above outlined. When certificates are surrendered and canceled by proper indorsement across the face, each should be pasted back upon its proper stub in the certificate book. When a certificate is lost, and cannot be returned for cancellation, the owner should file an indemnity bond with the Secretary guaranteeing the association against loss in the event that the certificate should ever appear in the hands of a third party. This indemnity bond should be filed, and the Board of Directors should declare such certificate void. The Secretary should make a proper indorsement of these proceedings on the stub of the lost certificate; the stock may then be redeemed or reissued under a new number, as the owner desires. Some Secretaries paste the indemnity bond to the stub of the lost certificate, just as they would paste in the stock, if returned and canceled. This is a very good plan. If a certificate should be spoiled in filling it out, or not taken by the intending purchaser, let it be canceled, both on the face and by proper entry on the stub, and let it remain in the book; or, if it should have been torn out, paste it back; never attempt to make erasures and issue such certificates. Never allow a certificate to be removed from the book without an entry on the stub accounting for it in a legitimate way.

We urge upon Secretaries the importance of keeping the Certificate Book with scrupulous care, as it is the book of original entry in all stock transactions, and may be introduced in Court as evidence. It is the book by which this Commission checks up all statements of outstanding stock.

The Stock Journal is a book in which the Secretary first enters all stock issued and all the stock withdrawn, with the name of purchaser or holder, number of certificate, number of shares, the series, etc. Books properly ruled and printed for this purpose may be purchased from any stationer, and an accountant will readily understand the form in which entries should be made.

The Stock Ledger is the book into which the entries in the Journal are to be posted. Stock Ledgers of accepted form may also be purchased from a stationer. In this book there is an account with each stockholder, showing on one side all stock issued to him, and on the other side all stock surrendered by him. This book may, with advantage, be kept in double entry form, with a Capital Stock Account, in which all transactions are entered as an offset to the individual debits and credits, thus balancing the Ledger at all times when correctly posted.

Stock Index.—Some Secretaries of large associations keep a Stock Index Book, in which the names of all stockholders are alphabetically arranged and accompanied with references to their places in other books. But if the Journal and Ledger are properly kept, and the Ledger carefully indexed, we see no necessity of keeping this last named book. Secretaries should study to simplify the system as much as possible, keeping the least number of books consistent with a correct and easily accessible record of their business.

A *Transfer Book* is required by law; but with proper handling, the Stock Journal or Stock Index may be made to serve all the purposes of a Transfer Book.

THE COMMERCIAL BOOKS.

These are the books in which all the monetary transactions of the association are to be recorded, classified, and arranged in such a manner as to facilitate business, and show the true state of every account. It is in the keeping of these books that the widest divergence between methods is to be found, and it is not so easy to prescribe a system which will suit all associations, as in the case of the stock books outlined above. Varying regulations and restrictions as to transacting business seem to impose various systems of account-keeping, each adapted to the peculiar conditions involved. One Secretary keeps no Cash Book, carrying a Treasurer's Account in lieu thereof, and posting all of his transactions from the Journal or auxiliary books. Another Secretary keeps no Journal, but carries nearly all of his transactions through the Cash Book. Still another may dispense with both Cash Book and Journal, and post from what are ordinarily considered auxiliary books. As yet we have not found any one who has been able to dispense with a Ledger; but every other book in the category is adopted or ignored as suits the fancy and supposed requirements of the Secretary.

It should be borne in mind that the transactions of a Building and Loan Association constitute a plain, straightforward commercial business, and it would be quite feasible to keep account of them in ordinary commercial books, such as a Day Book, Journal, and Ledger. If the business were considerably expanded, the work of the bookkeeper might be facilitated by dispensing with the Day Book, and making the set up as follows: Journal-Day Book, Cash Book, General Ledger, and Petty Ledger; and we might have as auxiliaries a Register of Stockholders, a Bill Book, and an Insurance Tickler. This, in effect, is what the expert bookkeeper in Building and Loan work does, though he gives to some of his books quite different names and quite different forms from those usually in vogue. For example, his Petty Ledger and his Register of Stockholders are combined in one book, which he calls a Dues Register or Installment Register. His Bill Book and Insurance Tickler may also be combined in one book, called a Loan Register. But it would be well for the beginner in this special line to bear in mind that the basic principles of double entry account-keeping are not changed by this more elaborate and intricate system, and that the purposes in view are simply those which might be accomplished through the old-fashioned and easily understood Day Book, Journal, and Ledger.

It would be well for the experienced Secretary to bear in mind, as well, that he should not depart from the original forms of account-keeping, unless he has a good reason therefor, and that reason should be the saving of time and a greater ease and accuracy in arriving at results. There is such a thing as multiplying special books, and involving them in labyrinthine details until the work of carrying them on is greater, and the chances of error increased over the simple though cumbersome Day Book, Journal, and Ledger plan.

All things considered, the simpler and more straightforward a set of books is made the easier they are to keep, and the more accurate they become. With these views in mind, we will canvass briefly the books

which we think are adapted to the requirements of every Building and Loan Association, and none of which should be dispensed with unless something simpler and less laborious can be made to take its place.

The Cash Book.—This should be ruled in special form, with separate columns on the debit side for the entrance of Dues, Interest, Premiums, Fines, Fees, and Sundry Items. This allows the classification and assembling of various items of receipts, so that at the end of every month the aggregate receipts for dues may be posted to the Ledger as one item, and the same with interest, premiums, fines, and fees. This shortens labor and furnishes a justification for keeping the Cash Book in such an intricate form. Some Secretaries dispense entirely with the credit side of the Cash Book, for the reason that all receipts are turned over to the Treasurer, and no money is paid out except through warrant on the Treasurer. But we would not advise so radical a departure from original lines. There should be a credit side to the Cash Book, if for no other purpose than to show that the money has been turned over to the Treasurer. Then a strict balance of the Cash Book is rendered a necessity, and money held over in the Secretary's hands, pending delivery to the Treasurer, will be accounted for at all times.

In cases where the regulations of an association allow the disbursement of cash directly from the office of the Secretary, the credit side of the Cash Book may have several columns to accommodate the principal items of outgo, such as Loans, Withdrawals of Dues, Withdrawals of Profits, Expenses, and Sundry Items.

The Journal.—As the Cash Book is the book of original entry for all cash passing through the hands of the Secretary, so the Journal, or the Journal-Day Book, is the book of original entry for all transactions that do not involve the actual transference of cash. For example, if the association accepts a piece of real estate in settlement of a loan, the transaction properly involves a Journal entry, and this cannot be carried through the Cash Book without a violation of the proprieties.

If the rules of the association require that all disbursements shall be by warrants drawn on the Treasurer, then every time the Secretary draws a warrant the fact should be recorded by a journal entry. If a loan is made and a warrant drawn on the Treasurer for the whole amount, the entry would stand: "Loan Account—to Treasurer."

We believe that no special elaboration of the Cash Book or auxiliary books will allow a Secretary to dispense with the Journal. If he does dispense with it, he is liable to go a good ways around in accomplishing the same end, thereby increasing labor and multiplying chances of error.

The Dues or Installment Register.—This book, as previously explained, is made to serve the purpose of a Petty Ledger and a Stockholders' Register combined. The accepted form of Dues Register, which may be obtained from manufacturing stationers who make a specialty of such books, is so near perfect that there is nothing we can suggest in the way of improvement. It is a book with broad leaves of demy or royal sheets, and is ruled in such a way that there is room on the left for the entry of the names of stockholders. These names being alphabetically arranged by separate series or as a whole, makes the finding of any particular name an easy matter. The broad pages are ruled in sets of columns; one set for each month in the year, and each set comprising a column for Dues, a column for Interest, a column for Premiums (when

premiums are on the installment plan), a column for Fees, and one for Fines.

The account of each stockholder runs across these columns through the year, and one may tell at a glance just how his account stands, while the footings of the various columns summed up at the end of the month furnish a valuable check on the footings of the corresponding columns in the Cash Book.

The Loan Register.—This book is especially provided for by the Act of 1893 governing Building and Loan Associations, in the following:

SECTION 7. To facilitate the examinations of the Commissioners, as specified in the foregoing section, every association shall keep a book of records, written in ink, showing the values of real estate security held in connection with each loan, and signed in each case by the appraiser, or officer or committee of the association making such estimate value.

All Secretaries who are not keeping such a book should hasten to open one, as the Commission must insist on a strict enforcement of the law. The object of this provision is to furnish a basis of value which the Commissioners can take for granted in drawing conclusions as to the solvency of an association. It would be a physical impossibility for the Commissioners to visit and appraise every piece of property under mortgage to the Building and Loan Associations of the State, and the law has accordingly provided this means of establishing the value of such property, with the attesting signatures of the associations' appraisers.

This book may be a very simple affair, written up in any blank record book, but a more elaborate form has been provided by the stationers, and may be purchased on application. This provides not only for a complete record of each loan, and the appraisalment, but is arranged to keep account of the book and page where the mortgage is recorded, the premium, the insurance, value of stock hypothecated, etc. It is designed to dispense with some of the smaller auxiliary books generally kept by Secretaries, and thus to simplify the system.

The Ledger.—This, of course, is of the conventional form, and is kept in a manner that every accountant understands. It should be borne in mind that this is a general ledger, devoted to general accounts of the association, and is not to be cumbered unduly with individual accounts. In another place we will discuss methods of treating ledger accounts, ascertaining profits, closing the ledger, etc.

Auxiliary Books.—There are several auxiliary books which a society must necessarily have, such as pass books for the members, a bank book, or treasurer's book, etc. Aside from those that are absolutely indispensable, Secretaries will find it a saving of time and labor to have as few auxiliary books as they can get along with. Let the record in the main books be so full and complete that it requires no outside memoranda to explain it. All this will conduce to simplicity, clearness, and accuracy.

TREATMENT OF VARIOUS ACCOUNTS.

The principal revenue accounts of Building and Loan Associations are Dues, Interest, Premiums, Fees, and Fines. As there is much variance in the methods of treating these accounts, it may be expedient to discuss them somewhat, and set forth the plan which we deem most satisfactory.

Dues Account.—With some bookkeepers this is used to designate a general account which represents everything due the association, from installments on stock to installments of interest and premium; but we think it better to let Dues Account stand simply for installments on stock. Some call it Installment Account, some have still different names for it; but Dues Account, with the understanding of its limitation above specified, is as correct a name as any, and it has the merit of brevity.

Dues Account is to be credited with the total amount paid in as installments on stock, and at the end of the year with the delinquency on such installments. It is not a good plan to carry accrued earnings into Dues Account, or to charge to it stock withdrawn, both of which items should go to separate accounts. Dues are not profits, and profits are not dues; they should never be confounded in the same account. At the end of the year Dues Account will stand credited with all installments paid, including those paid in advance, which are to be applied to the next year's business. In order to segregate these advance dues from the current year's account, it is proper to make a debit entry (in red ink) "To Advance Dues," setting down the amount thereof as calculated. After the account shall have been closed, as hereinafter specified, this item is brought down to the credit of Dues Account for the succeeding year, like any balance entry. Thus, the advance dues are withheld from the past year's business (where they did not belong), and are carried into the forthcoming year's business (where they do belong). Many bookkeepers do not carry their delinquent dues, interest, premiums, and fines into their Ledger at all, but keep them in memorandum form in an auxiliary book. But we strongly favor carrying them into the Ledger, because they are a legitimate charge against stockholders, and, moreover, they are good accounts for which the association holds security in the installments already paid, and it can collect them by forfeiture of stock if need be. Another reason is that these delinquencies must be taken into account in determining and apportioning profits, and it is best that a permanent record of them be made in the Ledger, where it can always be found. In order to bring these delinquencies in, the most convenient method is by an entry on the credit side (in red ink), "By Delinquents," setting down the amount of delinquencies on dues. After the account has been closed up, this is brought down as a balance to the debit side of the new year's account, the exact converse of the entry made for advance dues.

With this item of delinquents carried to the credit of Dues Account, that account represents, not simply the amount of dues paid, but the total amount that should have been paid by all stockholders, the advance payments having been eliminated by the debit entry above referred to. The account is then balanced by red ink entry, "To Capital Stock," and this balance is carried to the credit of Capital Stock Account.

In this way Dues Account is closed every year, and the balance carried up to Capital Stock Account represents the augmentation of liability to stockholders for that year. The account thus closed will stand as follows:

in auxiliary books, and only credited to Fees or Fines when collected. But there is no reason why the closing entries should not be made in these accounts the same as Interest, Premiums, etc. In the main, the by-laws of an association ought to be enforced in the matter of fines, and if Secretaries would treat these items more like *bona fide* charges, more fines would be collected, and there would be less delinquencies.

Unearned Premium Account.—This is an account that is serviceable only when the system of gross premiums is in use. In such cases, we deem it of vital interest to the association that gross premiums deducted from loans be not treated as an accrued or earned profit. It requires the life of the loan (full maturity of stock) to make this profit good. Many associations have a by-law that provides for rebating the unexpired portion of premium in the event that the loan is paid before maturity. The commonly accepted plan is to charge one eighth of the premium for each year, or fraction of a year, that the loan stands. Thus, if a loan is paid at the end of the third year, and three eighths of the premium is considered earned, five eighths is deducted from the face of the note and mortgage, and rebated to the borrower. It may be readily seen that, so long as this possibility of rebating a portion of the premium exists, it is extremely hazardous to credit up the entire premium as an earned profit. Many associations have worked great injustice to themselves by so doing. By appropriating profits not accrued, they swell their earnings unduly, make the book values of their stock too great, and thus are in danger of overpaying withdrawing stockholders. It is to guard against this overpayment that many associations scale down the withdrawal value of stock considerably below the book value. But this scaling down process may or may not protect the association properly. It is an arbitrary matter at best, and may work an injustice either way. At any rate, it is likely to cause dissatisfaction on the part of withdrawing shareholders, who may feel that they are not securing the full share of profits that should go to them.

The best premium plan is undoubtedly that in which the premium is collected in monthly installments throughout the life of the loan, or for a fixed term of years. This point is now conceded by the most experienced Secretaries. Borrowers are better pleased with it, because, on making the loan, they obtain the full amount for which they give their obligation, and they can better afford to pay the premium in small monthly installments than to have it taken out in a lump sum in advance. When the gross premium plan is in use, however, it is very essential that such premiums be treated as unearned profits until made good by lapse of time. To this end Secretaries should carry the whole amount of unearned premiums that remain on the books up to Unearned Premium Account, as previously specified, and close only the balance of earned premiums into Profit and Loss Account.

At the end of each year after the first, there will be an accrued balance to come from Unearned Premium Account and go into Profit and Loss.

Withdrawals Account.—When stock is withdrawn, Secretaries should carefully discriminate between the dues refunded and the profits paid on the stock. The dues refunded should not be charged to Dues Account, but to Withdrawals Account. In some instances we have found both dues refunded and withdrawal benefits thus charged, and it invariably leads to complications and embarrassments. Withdrawals Account should represent on its debit side the exact amount of dues refunded

to withdrawing members. At the close of the year this account is to be closed into Capital Stock.

Dr.	WITHDRAWALS ACCOUNT.	Cr.
January —To dues refunded	-----	
February—To dues refunded	-----	
March —To dues refunded	-----	
Etc., etc.	-----	
		December—By capital stock.
		(To close.)

Withdrawal Benefits Account.—This represents the amount of profits on surrendered shares paid out during the year. At the close of the year this account is to be closed into Earnings Account.

Dr.	WITHDRAWAL BENEFITS ACCOUNT.	Cr.
January —To profits paid on withdrawals	-----	
February—To profits paid on withdrawals	-----	
March —To profits paid on withdrawals	-----	
Etc., etc.	-----	
		December—By Earnings Ac- count
		(To close.)

Profit and Loss Account.—This is the account in which is to be entered any item of transitory loss or gain through the year, and, on summing up the business, all accounts showing profit or loss are closed into it. The balance of Profit and Loss Account then shows the actual net gain or net loss on the year's business. Any portion of the year's profits not apportioned by reason of fractions or other cause is carried forward in Profit and Loss Account as a balance.

Dr.	PROFIT AND LOSS ACCOUNT.	Cr.
To expense	-----	By interest
To taxes	-----	By premium
To interest paid out	-----	By fees
To sundry losses of year	-----	By fines
To Earnings Account	-----	
(To close.)	-----	

Instances have come to our notice where no Profit and Loss Account is kept, but the several accounts usually balanced into it, as Premium, Interest, Expense, etc., are carried on from year to year. This is far from satisfactory, as it leaves the business in an undigested condition, and a good part of the object of double-entry bookkeeping is lost.

The Profit and Loss Account is of the utmost value in any business, in analyzing the losses and gains, and showing at a glance the result of all transactions. We think it is not the most desirable plan, however, to carry accrued profits from year to year in Profit and Loss Account. This should be a transitory account, to be closed out each year. It should be closed into Earnings Account in the general summing up at the end of the year, except as to any balance of unapportioned profits that may be carried forward to the next year's Profit and Loss Account.

Earnings Account.—This represents the accrued earnings of all past years. It is to be credited at the close of each year's business with the

balance brought from Profit and Loss Account if there be a profit, or debited in case of loss.

Withdrawal Benefits Account is closed into Earnings Account each period, thus leaving the latter charged with such portion of the accrued profits as have been disbursed on withdrawals of stock. The balance of Earnings Account shows, at the end of each year, the net amount of accrued earnings held by the association subject to distribution among the stockholders, or, in other words, the net liability of the association to the stockholders for earnings.

Dr.	EARNINGS ACCOUNT.	Cr.
1891—To Withdrawal Benefits.. .. .	1891—By Profit and Loss.....	-----
1892—To Withdrawal Benefits.. .. .	1892—By Profit and Loss.....	-----
1893—To Withdrawal Benefits.. .. .	1893—By Profit and Loss.....	-----
1894—To Withdrawal Benefits.. .. .	1894—By Profit and Loss.....	-----

Capital Stock Account.—Into this account, on the credit side, is carried the balance of Dues Account, as previously explained. Into the debit side is closed all balances of Withdrawal Account. Thus, from the total of dues paid in we take the total of dues withdrawn, and the balance at the close of business shows the net liability of the association on account of dues.

Dr.	CAPITAL STOCK ACCOUNT.	Cr.
1891—To Withdrawal Account.. .. .	1891—By Dues Account.....	-----
1892—To Withdrawal Account.. .. .	1892—By Dues Account.....	-----
1893—To Withdrawal Account.. .. .	1893—By Dues Account.....	-----
1894—To Withdrawal Account.. .. .	1894—By Dues Account.....	-----

Other Accounts.—We do not deem it necessary to review other accounts which must necessarily be kept, such as Expenses, Taxes, etc., because their treatment is simple and well known to all bookkeepers. The Loan Account in Building and Loan Association books is one of the most important, but there is only one way to keep it, and Secretaries have generally adopted that way. The debit of Loan Account should represent the aggregate face value of notes and mortgages held by the association (irrespective of premiums), and the credit should show the amount of loans repaid (the face of notes and mortgages canceled, irrespective of premiums, interest, or other charges). Some bookkeepers have a special account for Loans Repaid, and, in such cases, of course, the repaid loans do not appear in Loan Account, unless carried up in closing Loans Repaid.

If Secretaries would generally follow the system here outlined, they would find that their work would be simplified in many respects, and the business of the association would be thoroughly digested and analyzed each year. The preparation of annual reports to this Commission would be rendered easy, and the subsequent checking of their books could be performed with much less labor than is sometimes required.

RESPONSIBILITY OF OFFICERS AND DIRECTORS.

A Building and Loan Association may have a desirable plan of organization, sound by-laws, and large revenues, and yet may fail to achieve success, by reason of a lax policy on the part of those chiefly intrusted

with the management of its affairs. The President and Directors of an institution have a moral responsibility which they should guard very zealously. They are generally men well known in the community for their integrity and good business qualifications, and the confidence which they individually inspire is transferred to the organization whose management they preside over. They are disposed, in too many cases, to regard this responsibility lightly, and perform their most important duties in a perfunctory manner. While it would be very far from their intentions to defraud the stockholders who place so much confidence in them, they still, by their lax methods, invite fraud, and they may unwittingly give it their indorsement. In the event of a malfeasance of the association's affairs, their only excuse would be that they had made a mistake; but this would be no excuse at all, because in business, as in diplomacy, a mistake, especially a mistake of negligence, is as bad as a crime. The members of a directory should constantly bear in mind that they have in their keeping a sacred trust, and their own good names are pledged for its upright administration. Their clientele will insist on holding them responsible. If they are not prepared to give sufficient time and intelligent attention to the duties of Directors, they should not attempt such duties. Having attempted them, they should attend to them as scrupulously as they do to their own private affairs. Directors do not acquit themselves of responsibility when they attend regular meetings and pass upon routine matters, taking for granted every statement placed before them by the man whom they have selected to transact the business. They should go to the bottom of every transaction, and not assume that it is correct because somebody in whom they place confidence says so.

To this end the work of the Committee on Loans ought to be done with the utmost thoroughness. The prosperity of the association is bound up in the safety of its loans, and this principal avenue of outgo should be watched especially by every member of the committee. The law of 1893 places the responsibility where it belongs, by requiring the Secretary to keep a written Record of Loans, which shall specify in each case the appraised value of land and improvements, and to this appraisal the members of the committee making it must subscribe their names. No committeeman should sign this record without first satisfying himself by direct investigation that the representations therein made are correct.

MAKING LOANS.

There is a tendency on the part of some associations, we think, to make loans on too narrow a margin of security. While it may be allowable under the Building and Loan plan to advance more on the appraised value of the property than is considered safe by the banks, still there is a conservative line which should not be overstepped. This line may be drawn anywhere between 60 and 70 per cent of the valuation.

Not only the character of the property, but the standing and business prospects of the borrower, should always be taken into consideration. The personal equation cuts a large figure in the risk.

While discussing this subject, we may remark incidentally that small loans, well selected, are unquestionably the best investment for Building and Loan Associations. In every instance where we have found an

association embarrassed it has been through being obliged to take property in satisfaction of large loans.

AUDITING ACCOUNTS.

Another point to be carefully watched by Directors is the work usually performed by the Auditing Committee. An expense that is amply justified under every circumstance is the employment of an expert accountant to carefully go over all of the Secretary's work for the year, and see that no mistakes have been made in entries, computations, or postings; to call in all the pass books and see that they check with the Dues Register or Stockholders' Ledger; and to verify every outgo by its proper voucher. When the expert reports that he has thus examined the Secretary's work and has found it correct, and the Auditing Committee have made personal examination, and have applied the usual tests by calculating dues paid in, etc., it is safe for them to present a favorable report. If they do not employ an expert, then they should themselves perform the work above outlined. If they fail to do this, but merely assume that everything is right after a superficial glance at the books, their report is worse than useless; in fact, the very laxity of their method places temptation in the way of a Secretary or other officer charged with the conduct of affairs, since he cannot fail to see how easy it would be to deceive them.

Aside from his duties as Director, in which he is accountable like other members of the Board, there are special obligations resting upon the President. An efficient Auditing Committee may see that the affairs of the association are correctly represented at the close of the year, and if there have been irregularities, report them, but it is the province of the President to keep such a close watch over the association's business, as it progresses, that there will be no chance for irregularities to occur. The President should not sign warrants on the Treasurer without satisfying himself in every instance that the money is justly due, and that it is thereafter properly applied. An instance came to our attention during the past year in which an association had been defrauded of several thousand dollars through a lax method of signing warrants by the President. Fortunately the fraud was discovered in time to protect the association, and the loss was made good.

A President should be familiar with the Secretary's books, and should inspect them often enough to know that all the money called for by the cash balance is regularly deposited with the Treasurer. In one of our examinations we discovered that the Secretary had appropriated nearly \$2,000 of the association's money, carrying it on his books as a cash balance. If the President had taken the pains to examine the books, he might readily have seen that the Secretary had no business to retain so large an amount in his possession. Yet this President, when questioned by us, stated that he carefully watched over the affairs of the association, and that the Auditing Committee had examined the Secretary's accounts a short time before, and had found everything satisfactory. In this instance the deficit was made good through the interference and rigid insistence of the Commission.

DEBT.

Another point upon which we wish to admonish the management of Building and Loan Associations is the matter of debt. While it is generally considered allowable for an association to borrow money on bills payable or on overdraft, to supply the demand for loans, and while the margin which usually obtains between the borrowing rate and the lending rate holds a tempting inducement of profit, there is still a line of safety beyond which an association should not go, just as there is in any business. There is always danger of an association becoming so deeply involved on short time paper that it may be embarrassed in case of a sudden financial stringency, such as the country passed through in 1893. It is better to forego the opportunity to unduly extend the business and make a speculative profit, than take chances of such embarrassment. We would say that an association is not justified in incurring an outside indebtedness, payable on demand or on short time, of more than might be discharged by its regular income in three months. Even then, under pressure, it would be obliged to discontinue loans and postpone withdrawals for that period, in order to meet its outside obligations, which might be a serious inconvenience to members, and would undoubtedly injure the good name of the association. If only half of the revenues of the association were applied to its indebtedness, six months would be required for it to pay up. That is long enough under any circumstances. It would be better, indeed, to lean to the side of conservatism, and not incur outside indebtedness at all. If properly managed, an association can make money fast enough on its own capital to satisfy every investor.

SECURITIES SHOULD BE DELIVERED.

When loans are negotiated, Secretaries should make it an invariable rule not to give warrants for the money, or any part of it, until the mortgage and note are properly executed and delivered, together with the insurance policy assigned to the association in case of loss, and the hypothecated stock, properly indorsed. It sometimes happens that one or more of these points is good-naturedly waived by the Secretary, perhaps in the matter of the insurance policy or the stock, the borrower promising "to bring it right in," which he never does, or does ungraciously, perhaps, after a good deal of urging. It is due to himself, and a short way to avoid difficulties and possible irregularities, for the Secretary to demand the delivery of all necessary papers before completing the loan.

SALARIES AND EXPENSES.

In the matter of salaries and operating expenses, it is to the credit of Building and Loan Associations that they have kept them down to a very economical basis in most cases. Yet we believe there is such a thing as being too economical for profit. We believe that the Secretary, or other executive officer, should be paid fairly well for the duties and responsibilities which he incurs. He will not then be tempted to slight his work, or look for irregular perquisites, on the ground that he is not getting enough to give him a living. It is a sound maxim to pay well for good services, and then demand what is paid for.

As to paying Directors and other officers, that is a matter which should largely depend upon the size of the association and the duties required. A large association may demand the constant attention of several officers, and in that case, should pay them on the same basis as we have advocated in the payment of Secretaries. Perhaps the expense thus incurred may not be any greater in proportion to the volume of business transacted than a modest salary to one man in a small company. As a general rule, associations in their earlier years cannot afford to pay large salaries. They should not attempt to pay anything to their Board of Directors until such time as the volume of business justifies it. The greatest economy should also be exercised in the matter of fees to agents and attorneys, so that the profits of new business be not thus absorbed.

The line of percentages running through our synopses of reports showing percentage of salaries to total receipts is something of a criterion. The average payment for salaries of all associations is 1.46 per cent of total receipts. A Secretary who is paid less than this percentage on the total business of his association, is paid less than the average. As a general proposition, associations doing a comparatively small amount of business must pay a higher percentage in salaries, in order to give the Secretary a reasonable compensation.

GENERAL NOTES AND SUGGESTIONS.

During the year two National Associations, one with headquarters in Dakota, and one in Illinois, made inquiries with reference to extending their business to California. Parties through whom they applied were cited to Section 645 of the law of 1891, which reads in part as follows:

No mutual building and loan association, or company, association, or corporation, organized under the law of any other State or Territory, to carry on a business of a like character to that authorized by this title, shall be allowed to do business, or to sell their stock in this State, without first having deposited with the State Controller, or Secretary of State, the sum of fifty thousand dollars in money or United States or municipal bonds of this State, or in mortgages upon real estate located within this State, as a guarantee fund for the protection and indemnity of residents of the State of California, with whom such companies, associations, or corporations shall do business; the fund so deposited to be paid by the custodian thereof to the residents of California only, and not then until proof or claim by final judgment has been filed with the custodian of said fund against such foreign company, association, or corporation.

Subsequent to the answering of such inquiries we have heard nothing further on the subject.

Secretaries and Boards of Directors should be vigilant in the matter of looking after insurance on properties which they hold under mortgage. The insurance is a really important part of the security, and, in a certain contingency, may be the only thing to protect the association from serious loss. An insurance tickler should be kept, showing in convenient form the amount of insurance with each loan, and the date when such insurance expires. All policies should have the proper clause inserted by the agent, making loss, if any, payable to the association as its interests may appear.

The greatest care should be exercised in the matter of paying taxes, to see that none of the mortgaged properties go delinquent and suffer a cloud on the title. It is necessary to see that not only the mortgage tax is paid, but also, if there should be a balance of assessment over the deduction for the mortgage, that this is paid as well.

Some associations employ an expansive form of mortgage, which

makes the mortgaged property security for the loan first made and any subsequent loans up to a fixed limit. When an additional loan is made only a promissory note for the new amount is exacted. It is rulable with some associations to place this new note on record with the County Recorder, as notice to the world that the property is held for more than the face of the first loan. This has the sanction of good legal authority, but we think it a better plan, though involving some extra trouble and expense, to cancel the first instrument and execute a new note or mortgage for the entire amount of the expanded loan.

BUILDING AND LOAN LITERATURE.

For the benefit of those who may desire to inform themselves on the history, theory, practice, and law of Building and Loan Associations, we append the following list of books and documents on the subject:

Thompson on Building and Loan Associations (Law). Callaghan & Co., Chicago.

A Treatise on Building and Loan Associations, by Seymour Dexter. A. Carlisle & Co., San Francisco.

Rosenthal's Manual for Building and Loan Associations. A. Rosenthal & Co., Cincinnati.

How to Manage Building and Loan Associations, by E. Wrigley.

Report on the Building and Loan Associations of the United States, by the U. S. Department of Labor (forthcoming).

New York—Official Reports on Building and Coöperative Savings and Loan Associations.

The National Building and Loan Herald, New York.

Ohio—Building and Loan Association Report.

New Jersey—Report of the Bureau of Statistics of Labor and Industries.

Minnesota—Report of the Public Examiner.

Maine—Report.

New Hampshire—Report.

Massachusetts—Report.

Vermont—Report of the Inspector of Finance.

Nebraska—Report of the State Banking Board.

Maryland—Report of the State Tax Commissioners.

Wyoming—Report of State Auditor.

California—Report of the Board of Bank Commissioners.

Fourth Biennial Report of the Bureau of Labor Statistics.

The Home Builder, San Francisco (monthly periodical).

The Investor, Los Angeles (weekly paper).

ACKNOWLEDGMENTS.

This Commission desires to acknowledge its obligations to the Attorney-General, and to Hon. Wm. C. Van Fleet, for legal advice, and to Wickliffe Matthews, Esq., of the San Francisco bar, for valuable legal services and for the compilation of laws and decisions affecting Building and Loan Associations, which is presented as an appendix to this report.

All of which is respectfully submitted.

GEO. A. FISHER,
WM. A. SPALDING,

Commissioners of the Building and Loan Associations.

REPORTS OF BUILDING AND LOAN ASSOCIATIONS.

No. 1.—ALAMEDA.

ALAMEDA BUILDING AND LOAN ASSOCIATION.

Incorporated March 7, 1876.

CHAS. K. CLARK, Secretary.

C. C. VOLBERG, President.

No. of series, 21.	End of fiscal year, March 31, 1894.	No. of shares, 3,161.	
Resources.		Liabilities.	
Loans.....	\$254,050 00	Dues and advance payments... \$177,926 00	
Arrearages.....	3,300 80	Earnings.....	65,460 71
Cash on hand.....		Overdrafts and bills payable...	2,396 16
Real estate.....	3,335 54	Profits unapportioned.....	1,087 50
Other assets: furniture and fix- tures.....	150 00	All other liabilities.....	13,965 97
		Loans incomplete..	\$549 20
		Suspense.....	9 50
		Mortgage taxes re- served.....	2,135 52
		Special deposits....	8,311 35
		Matured stock and interest.....	2,960 40
Total resources.....	\$260,836 34	Total liabilities.....	\$260,836 34
Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$5,813 99	Paid overdrafts and bills pay- able.....	
Received for dues.....	39,589 00	Loans.....	\$48,806 80
Received for paid-up stock.....		Interest.....	537 54
Received for premiums.....	5,545 10	Dues on surrendered and ma- tured shares.....	50,449 00
Received for interest.....	16,005 20	Profits on surrendered shares..	8,337 23
Received for fees and fines.....	338 60	Salaries.....	1,402 00
Loans repaid.....	35,050 00	Taxes.....	2,134 74
Overdrafts and bills payable.....	2,396 16	Other expenses: Rents, sta- tionery, printing, etc.....	337 70
All other sources.....	8,925 85	All other disbursements.....	1,658 89
Rents.....	\$114 75	Retained premiums.....	\$210 00
Matured stock delin- quent.....	160 55	Insurance prem's..	64 00
Matured stock inter- est.....	60 40	Special deposits....	875 14
Insurance premiums.....	104 60	Dues returned.....	72 00
Special deposit and interest.....	8,485 55	Sundries.....	182 15
		Real estate.....	255 60
		Balance on hand.....	
Total receipts.....	\$113,663 90	Total disbursements.....	\$113,663 90
Authorized capital stock.....			\$1,000,000 00
No. of shares.....			5,000
No. of members.....			300
No. of borrowers.....			115
No. of mortgage loans for year.....			45
Amount of mortgage loans for year.....			\$45,550 00
No. of foreclosures since organization.....			3
Amount due on foreclosures.....			\$3,335 54
No. of shares last report.....			3,238

No. of shares issued since last report.....	569
No. of shares canceled since last report.....	696
Net profits of year.....	\$19,898 96
Plan of distribution.....	Partnership.
No. shares loaned on.....	1,239 1/4
No. shares free.....	1,921 3/4
Ratio of salaries to total receipts.....	1.23 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	3.45 per cent.
Surrender value of all shares.....	\$229,283 65
Total present worth of mortgages.....	234,817 75
Total appraised value of land.....	145,410 00
Total appraised value of improvements.....	222,275 00
Total book value of stock hypothecated.....	19,232 25
Total value of security held.....	386,917 25
Premium.....	Gross and Installment.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force October, 1893.	Now in Force.	Shares Loaned Upon.	Shares "Free."
16 of October, 1883.....	354	96	95	29 1/2	65 1/2
17 of April, 1884.....	239	114	114	44	70
18 of October, 1884.....	328	112	112	46	66
19 of April, 1885.....	309	107	91	32	59
20 of October, 1885.....	211	85	71	50	21
21 of April, 1886.....	283	139	139	39	100
22 of October, 1886.....	331	88	83	35	48
23 of April, 1887.....	422	217	207	62 1/2	144 1/2
24 of October, 1887.....	284	121	96	11	85
25 of April, 1888.....	306	108	72	27	45
26 of October, 1888.....	312	123	108	23	85
27 of April, 1889.....	741	294	281	146 1/2	134 1/2
28 of October, 1889.....	329	173	173	75	98
29 of April, 1890.....	356	179	179	104 1/2	74 1/2
30 of October, 1890.....	175	128	128	18	110
31 of April, 1891.....	303	213	210	132	78
32 of October, 1891.....	284	212	162	67	95
33 of April, 1892.....	254	229	206	67	139
34 of October, 1892.....	193	151	116	43 3/4	72 1/4
35 of April, 1893.....	292	292	241	109	132
36 of October, 1893.....	277	-----	277	77 1/2	198 1/2
Totals.....	6,583	3,181	3,161	1,239 1/4	1,920 3/4

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
16 of October, 1883.....	\$5,900 00	\$126 00	\$199 00	\$166 00	\$195 35
17 of April, 1884.....	8,800 00	120 00	186 85	156 30	183 50
18 of October, 1884.....	9,200 00	114 00	174 35	146 75	171 35
19 of April, 1885.....	6,400 00	108 00	162 20	137 40	159 50
20 of October, 1885.....	10,000 00	102 00	150 35	128 25	147 95
21 of April, 1886.....	7,800 00	96 00	138 87	119 25	134 55
22 of October, 1886.....	7,000 00	90 00	127 70	110 50	122 05
23 of April, 1887.....	12,500 00	84 00	116 85	101 85	110 30
24 of October, 1887.....	2,200 00	78 00	106 35	93 40	99 30
25 of April, 1888.....	5,400 00	72 00	96 20	85 10	88 95
26 of October, 1888.....	4,600 00	66 00	86 35	77 05	79 20
27 of April, 1889.....	29,300 00	60 00	76 85	69 15	70 05
28 of October, 1889.....	15,000 00	54 00	67 70	61 40	61 40
29 of April, 1890.....	20,900 00	48 00	58 85	53 80	53 80
30 of October, 1890.....	3,600 00	42 00	50 35	46 50	46 50
31 of April, 1891.....	26,400 00	36 00	42 15	39 30	39 30
32 of October, 1891.....	13,400 00	30 00	34 30	32 30	32 30
33 of April, 1892.....	13,400 00	24 00	26 80	25 50	25 50
34 of October, 1892.....	8,750 00	18 00	20 00	18 80	18 80
35 of April, 1893.....	21,800 00	12 00	13 10	12 35	12 00
36 of October, 1893.....	15,500 00	6 00	6 40	6 10	6 00
Totals.....	\$247,850 00	-----	-----	-----	-----

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
C. C. Volberg	Alameda .....	.....	\$200 00
D. Straub	Alameda .....	.....	200 00
T. F. Steinmetz	Alameda .....	.....	200 00
A. R. Denke	Alameda .....	.....	200 00
F. W. G. Moebus	Alameda .....	.....	200 00
A. Victors	Alameda .....	.....	200 00
John Dickson	Alameda .....	.....	200 00
F. A. Rütther	Alameda .....	.....	200 00
George R. Miller	Alameda .....	.....	200 00

No. 2.—ALAMEDA.

CALIFORNIA BUILDING AND LOAN ASSOCIATION.

Incorporated February 11, 1888.

CHAS. E. NAYLOR, Secretary.

GEO. E. PLUMMER, President.

No. of series, 6.

End of fiscal year, February 28, 1894.

No. of shares, 1,806½.

Resources.		Liabilities.	
Loans	\$187,750 00	Dues and advance payments	\$95,649 00
Arrearages	2,371 78	Earnings	34,877 52
Cash on hand	5 35	Overdrafts and bills payable	53,642 75
Real estate	3,000 00	Profits unapportioned	8,168 65
		All other liabilities	789 21
		Advance interest and	
		premiums	\$13 25
		Accrued taxes	775 96
Total resources	\$193,127 13	Total liabilities	\$193,127 13

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	\$15 80	Paid overdrafts and bills pay-	
Received for dues	21,455 50	able	\$64,387 68
Received for paid-up stock		Loans	14,650 00
Received for premiums	2,042 50	Interest	4,400 34
Received for interest	14,112 30	Dues on surrendered shares	5,483 00
Received for fees and fines	349 97	Profits on surrendered shares	1,295 00
Loans repaid	3,900 00	Salaries	1,326 00
Overdrafts and bills payable	48,359 00	Taxes	2,071 81
All other sources	3,669 29	Other expenses	285 13
Real estate sold	\$3,651 29	All other disbursements .....	.....
Rent	18 00	Balance on hand	5 35
Total receipts	\$93,904 36	Total disbursements	\$93,904 36

Authorized capital stock	\$1,000,000 00
No. of shares	5,000
No. of members	111
No. of borrowers	63
No. of mortgage loans for year	8
Amount of mortgage loans for year	\$14,650 00

No. of foreclosures since organization.....	-----
Amount due on foreclosures.....	-----
No. of shares last report.....	1,826 $\frac{1}{2}$
No. of shares issued since last report.....	73
No. of shares canceled since last report.....	93
Net profits of year.....	\$9,144 64
Plan of distribution.....	Wrigley.
No. of shares loaned on.....	961 $\frac{1}{2}$
No. of shares free.....	845
Ratio of salaries to total receipts.....	1.41 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	3.92 per cent.
Surrender value of all shares.....	\$123,490 84
Total present worth of mortgages.....	137,778 74
Total appraised value of land.....	113,650 00
Total appraised value of improvements.....	155,600 00
Total book value of stock hypothecated.....	49,971 26
Total value of security held.....	319,221 26
Premium.....	Gross, 15 per cent; and Installment.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Foree -----	Now in Foree.	Shares Loaned Upon.	Shares "Free."
First.....	826	-----	582	77	505
Second.....	648	-----	470	130	340
Third.....	186	-----	157 $\frac{1}{2}$	157 $\frac{1}{2}$	-----
Fourth.....	397	-----	377	377	-----
Fifth.....	147	-----	147	147	-----
Sixth.....	73	-----	73	73	-----

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$15,100 00	\$72 00	\$103 55	\$84 96	\$101 55
Second.....	25,350 00	60 00	82 63	69 00	77 63
Third.....	31,400 00	48 00	62 66	53 76	53 76
Fourth.....	74,200 00	36 00	43 85	39 24	39 24
Fifth.....	29,500 00	24 00	27 56	25 44	25 44
Sixth.....	12,200 00	12 00	13 20	12 36	12 36

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Geo. E. Plummer.....	Alameda.....	60	\$200 00
J. E. Youngberg.....	Alameda.....	13	200 00
Chas. H. Shattuck.....	Alameda.....	17	200 00
Robert H. Swayne.....	Alameda.....	53	200 00
Frank H. McCormick.....	Alameda.....	10	200 00
W. W. Cunningham.....	Alameda.....	10	200 00
E. J. Holt.....	Alameda.....	21	200 00
Geo. H. Murdock.....	Alameda.....	29	200 00
L. H. Jacobi.....	Alameda.....	10	200 00

No. 3.—ALAMEDA.

ENCINAL BUILDING AND LOAN ASSOCIATION.

Incorporated December 23, 1888.

E. MINOR SMITH, Secretary.

D. L. RANDOLPH, President.

No. of series, 9.

End of fiscal year, December 31, 1893.

No. of shares, 2,231.

Resources.		Liabilities.	
Loans.....	\$137,050 00	Dues and advance payments...	\$94,542 00
Arrearages.....	940 43	Earnings.....	27,003 23
Cash on hand.....		Overdrafts and bills payable...	18,141 20
Real estate.....	4,336 00	Profits unapportioned.....	1,897 53
Other assets.....	254 53	All other liabilities: loans due and incomplete.....	997 00
Furniture and fixtures \$140 00			
Assessments advanced 114 53			
Total resources.....	\$142,581 01	Total liabilities.....	\$142,581 01
Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....		Paid overdrafts and bills pay- able.....	\$24,533 02
Received for dues.....	\$27,930 00	Loans.....	41,223 80
Received for paid-up stock.....		Interest.....	1,387 56
Received for premiums.....	3,411 74	Dues on surrendered shares....	9,174 00
Received for interest.....	10,150 82	Profits on surrendered shares..	1,310 69
Received for fees and fines.....	172 00	Salaries.....	806 00
Loans repaid.....	24,820 80	Taxes.....	1,763 31
Overdrafts and bills payable.....	18,141 20	Other expenses.....	196 56
All other sources.....	174 70	All other disbursements.....	4,406 32
		Balance on hand.....	
Total receipts.....	\$84,801 26	Total disbursements.....	\$84,801 26

Authorized capital stock.....	\$1,000,000 00
No. of shares.....	5,000
No. of members.....	179
No. of borrowers.....	55
No. of mortgage loans for year.....	19
Amount of mortgage loans for year.....	\$37,000 00
No. of foreclosures since organization.....	
Amount due on foreclosures.....	
No. of shares last report.....	2,161
No. of shares issued since last report.....	311
No. of shares canceled since last report.....	241
Net profits of year.....	\$11,209 63
Plan of distribution.....	Dexter.
No. shares loaned on.....	696
No. shares free.....	1,535
Ratio of salaries to total receipts.....	.95 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	3.26 per cent.
Surrender value of all shares.....	\$109,841 90
Total present worth of mortgages.....	105,201 55
Total appraised value of land.....	88,950 00
Total appraised value of improvements.....	125,450 00
Total book value of stock hypothecated.....	31,848 45
Total value of security held.....	246,248 45
Premium.....	Gross and Installment.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force Dec. 31, 1892.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....	1,324	1,035	916	227	689
Second.....	459	337	317	35	282
Third.....	105	105	95	21	74
Fourth.....	202	192	178	48	130
Fifth.....	128	118	106	65	41
Sixth.....	266	254	248	140	103
Seventh.....	120	120	117	30	87
Eighth.....	258	-----	201	107	94
Ninth.....	53	-----	53	23	30
Total.....	-----	-----	2,231	-----	-----

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$44,100 00	\$60 00	\$81 13	\$69 98	\$72 00
Second.....	7,000 00	48 00	60 64	54 23	54 90
Third.....	4,100 00	42 00	51 32	46 77	47 30
Fourth.....	9,600 00	36 00	42 77	39 48	39 90
Fifth.....	12,800 00	30 00	34 60	32 40	32 70
Sixth.....	27,850 00	24 00	26 89	25 54	25 75
Seventh.....	5,900 00	18 00	19 60	18 88	19 00
Eighth.....	21,200 00	12 00	12 74	12 39	12 40
Ninth.....	4,500 00	6 00	6 20	6 10	6 10
Total.....	\$137,050 00	-----	-----	-----	-----

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
D. L. Randolph.....	Alameda.....	25	\$200 00
Columbus Bartlett.....	Alameda.....	5	200 00
J. F. Forderer.....	Alameda.....	165	200 00
James Millington.....	Alameda.....	10	200 00
Hermann Cordes.....	Alameda.....	10	200 00
Hy. Sevensing.....	Alameda.....	10	200 00
E. B. Dunning.....	Alameda.....	10	200 00
F. W. Vooght.....	Alameda.....	10	200 00
James B. Barber.....	Alameda.....	10	200 00

No. 4.—ANAHEIM.

SAVINGS, LOAN, AND BUILDING ASSOCIATION.

Incorporated January 8, 1889.

H. W. CHYNOWETH, Secretary.

JOHN P. ZEYN, President.

No. of series, 5.

End of fiscal year, April 30, 1894.

No. of shares, 846.

Resources.		Liabilities.	
Loans.....	\$17,675 00	Dues and advance payments ..	\$16,068 00
Arrearages.....	346 11	Earnings	3,305 31
Cash on hand.....	1,578 35	Overdrafts and bills payable ..	.....
Real estate .....	.....	Profits unapportioned	226 15
Other assets .....	.....	All other liabilities .....	.....
Total resources	\$19,599 46	Total liabilities	\$19,599 46

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	\$764 07	Paid overdrafts and bills payable.....	.....
Received for dues	4,893 50	Loans.....	\$5,100 00
Received for paid-up stock .....	.....	Interest.....	.....
Received for premiums	399 50	Dues on surrendered shares	314 00
Received for interest	1,125 56	Profits on surrendered shares	53 03
Received for fees and fines	7 00	Salaries.....	115 00
Loans repaid .....	.....	Taxes.....	.....
Overdrafts and bills payable.....	.....	Other expenses	37 00
All other sources	7 75	All other disbursements.....	.....
Total receipts.....	\$7,197 38	Balance on hand	1,578 35
		Total disbursements.....	\$7,197 38

Authorized capital stock.....	\$500,000 00
No. of shares	5,000
No. of members	80
No. of borrowers.....	19
No. of mortgage loans for year	5
Amount of mortgage loans	\$5,100 00
No. of foreclosures since organization .....	.....
Amount due on foreclosures.....	.....
No. of shares last report.....	697
No. of shares issued since last report.....	165
No. of shares canceled since last report	16
Net profits of year.....	\$1,457 10
Plan of distribution	Dexter.
No. shares loaned on.....	178
No. shares free	668
Ratio of salaries to total receipts.....	1.60 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	2.11 per cent.
Surrender value of all shares.....	\$19,373 31
Total present worth of mortgages.....	13,309 17
Total appraised value of land	7,230 00
Total appraised value of improvements.....	15,800 00
Total book value of stock hypothecated.....	4,255 83
Total value of security held.....	27,285 83
Premium	Gross.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Foree -----	Now in Foree.	Shares Loaned Upon.	Shares "Free."
First.....	369	-----	263	63	200
Second.....	129	-----	99	17	82
Third.....	209	-----	164	34	130
Fourth.....	155	-----	155	30	125
Fifth.....	165	-----	165	34	131

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$6,250 00	\$0 50	\$38 09	-----	\$38 09
Second.....	1,700 00	50	29 37	-----	29 37
Third.....	3,400 00	50	20 58	-----	20 58
Fourth.....	2,925 00	50	13 13	-----	13 13
Fifth.....	3,400 00	50	6 29	-----	6 29

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
F. A. Backs.....	Anaheim.....	5	\$100 00
J. H. Bullard.....	Anaheim.....	60	100 00
H. A. Diekel.....	Anaheim.....	15	100 00
W. L. Dunlap.....	Anaheim.....	15	100 00
W. R. Harker.....	Anaheim.....	6	100 00
Jos. Helmsen.....	Anaheim.....	10	100 00
H. A. McWilliams.....	Anaheim.....	10	100 00
R. Melrose.....	Anaheim.....	20	100 00
Chas. Albrecht.....	Anaheim.....	20	100 00
J. P. Zeyn.....	Anaheim.....	20	100 00
B. R. Grogan (deceased; vacancy).....	-----	-----	-----

No. 5.—BAKERSFIELD.

BAKERSFIELD BUILDING AND LOAN ASSOCIATION.

Incorporated May 14, 1890.

GEO. W. PRICE, Secretary.

H. A. JASTRO, President.

No. of series, 3.

End of fiscal year, June 1, 1893.

No. of shares, 2,876.

Resources.		Liabilities.	
Loans.....	\$157,150 00	Dues and advance payments ..	\$85,614 50
Arrearages.....	529 75	Earnings.....	40,403 66
Cash on hand.....	4,059 41	Overdrafts and bills payable...	30,000 00
Real estate.....	-----	Profits unapportioned.....	6,000 00
Other assets: furniture and fixtures.....	279 00	All other liabilities.....	-----
Total resources.....	\$162,018 16	Total liabilities.....	\$162,018 16

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$577 55	Paid overdrafts and bills payable.....	
Received for dues.....	34,368 00	Loans.....	\$67,150 00
Received for paid-up stock.....		Interest.....	2,412 50
Received for premiums.....	14,308 00	Dues on surrendered shares.....	855 00
Received for interest.....	11,427 65	Profits on surrendered shares.....	
Received for fees and fines.....	279 08	Salaries.....	480 00
Loans repaid.....		Taxes.....	853 47
Overdrafts and bills payable.....	15,000 00	Other expenses.....	149 90
All other sources.....		All other disbursements.....	
		Balance on hand.....	4,059 41
Total receipts.....	\$75,960 28	Total disbursements.....	\$75,960 28

Authorized capital stock.....	\$1,000,000 00
No. of shares.....	5,000
No. of members.....	234
No. of borrowers.....	65
No. of mortgage loans for year.....	29
Amount of mortgage loans for year.....	\$67,150 00
No. of foreclosures since organization.....	
Amount due on foreclosures.....	
No. of shares last report.....	2,443
No. of shares issued since last report.....	468
No. of shares canceled since last report.....	35
Net profits of year.....	\$27,191 93
Plan of distribution.....	Partnership.
No. shares loaned on.....	785 $\frac{3}{4}$
No. shares free.....	2,090 $\frac{1}{4}$
Ratio of salaries to total receipts.....	.63 per cent.
Ratio of expenses (including salaries) to total receipts.....	1.95 per cent.
Surrender value of all shares.....	\$93,770 00
Total present worth of mortgages.....	130,390 00
Total appraised value of land.....	113,373 00
Total appraised value of improvements.....	253,929 00
Total book value of stock hypothecated.....	26,760 00
Total value of security held.....	394,062 00
Premium.....	Gross.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force -----	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....	1,958	-----	1,848	320	1,528
Second.....	570	-----	560	220 $\frac{1}{2}$	339 $\frac{1}{2}$
Third.....	468	-----	468	245 $\frac{1}{4}$	222 $\frac{3}{4}$
Series.	Amount of Loans, Each Series,	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$64,000 00	\$36 00	\$53 78	-----	\$40 00
Second.....	44,100 00	24 00	30 27	-----	25 00
Third.....	49,050 00	12 00	13 42	-----	12 50

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
H. A. Jastro	Bakersfield	25	\$200 00
J. Niederaur	Bakersfield	10	200 00
H. A. Blodget	Bakersfield	20	200 00
H. C. Park	Bakersfield	10	200 00
W. E. Houghton	Bakersfield	25	200 00
L. P. St. Clair	Bakersfield	10	200 00
H. Hirshfeld	Bakersfield	30	200 00
A. Weill	Bakersfield	25	200 00
A. C. Maude	Bakersfield	10	200 00

No. 6.—BAKERSFIELD.

PEOPLE'S MUTUAL BUILDING AND LOAN ASSOCIATION.

Incorporated January 27, 1892.

F. W. ROBINSON, Secretary.

E. E. ELLIOTT, President.

No. of series, 2. End of fiscal year, January 10, 1894. No. of shares in force, 2,745.

Resources.		Liabilities.	
Loans	\$59,667 86	Dues and advance payments...	\$35,599 20
Arrearages	592 83	Earnings	5,519 53
Cash on hand	2,056 53	Overdrafts and bills payable...	18,000 00
Real estate	-----	Profits unapportioned	543 12
Other assets	60 96	All other liabilities	2,716 38
Total resources	\$62,378 23	Total liabilities	\$62,378 23

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	\$4,519 07	Paid overdrafts and bills pay- able	\$5,000 00
Received for dues	19,546 80	Loans	30,232 86
Received for paid-up stock	-----	Interest	1,733 07
Received for premiums	3,737 81	Dues on surrendered shares	-----
Received for interest	3,093 95	Profits on surrendered shares	-----
Received for fees and fines	282 06	Salaries	350 00
Loans repaid	500 00	Taxes	224 71
Overdrafts and bills payable	8,000 00	Other expenses	76 51
All other sources	55 84	All other disbursements	61 80
		Balance on hand	2,056 58
Total receipts	\$39,735 53	Total disbursements	\$39,735 53

Authorized capital stock	\$1,000,000 00
No. of shares	10,000
No. of members	147
No. of borrowers	43
No. of mortgage loans for year	21
Amount of mortgage loans for year	\$26,000 00
No. of foreclosures since organization	-----
Amount due on foreclosures	-----
No. of shares last report	2,191
No. of shares issued since last report	822
No. of shares canceled since last report	268
Net profits of year	\$4,745 87

Plan of distribution	Dexter Rule.
No. shares loaned on	622
No. shares free	2,123
Ratio of salaries to total receipts .....	.89 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	1.63 per cent.
Surrender value of all shares	\$39,544 69
Total present worth of mortgages	51,149 66
Total appraised value of land	36,260 00
Total appraised value of improvements	64,025 00
Total book value of stock hypothecated	8,518 20
Total value of security held	108,803 20

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	2,191	-----	2,191	409	1,782
Second	554	-----	554	213	341

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$38,467 86	\$14 40	\$16 77	\$15 30	\$16 17
Second	21,200 00	7 20	7 79	7 43	-----

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
E. E. Elliott	-----	37	\$100 00
Wm. S. Tevis	-----	100	100 00
Frank A. Stuart	-----	45	100 00
John M. Keith	-----	25	100 00
D. Hershfeld	-----	50	100 00

No. 7.—BENICIA.

BENICIA BUILDING AND LOAN ASSOCIATION.

Incorporated January 11, 1883.

A. P. SANBORN, Secretary.

A. ROBINSON, President.

No. of series, 10.

End of fiscal year, January 31, 1894.

No. of shares, 652.

Resources.		Liabilities.	
Loans	\$79,746 00	Dues and advance payments ..	\$54,069 90
Arrearages	1,363 25	Earnings	21,562 91
Cash on hand	1,935 61	Overdrafts and bills payable ..	-----
Real estate	1,164 00	Profits unapportioned	5,265 95
Other assets: members' accounts	44 00	All other liabilities	3,354 10
		Advance interest ..	\$1 80
		Matured shares un-	
		paid	3,000 00
		Surrendered shares	
		unpaid	352 30
Total resources	\$84,252 86	Total liabilities	\$84,252 86

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$14 07	Paid overdrafts and bills pay- able.....	-----
Received for dues.....	7,925 25	Loans.....	-----
Received for paid-up stock.....	-----	Interest.....	-----
Received for premiums.....	-----	Dues on surrendered shares.....	\$13,559 35
Received for interest.....	5,562 40	Profits on surrendered shares.....	5,799 90
Received for fees and fines.....	55 75	Salaries.....	720 00
Loans repaid.....	10,050 00	Taxes.....	1,210 81
Overdrafts and bills payable.....	-----	Other expenses.....	109 20
All other sources.....	-----	All other disbursements.....	272 60
		Returned premiums.....	\$238 20
		Taxes advanced.....	34 40
		Balance on hand.....	1,935 61
Total receipts.....	\$23,607 47	Total disbursements.....	\$23,607 47

Authorized capital stock.....	\$600,000 00
No. of shares.....	3,000
No. of members.....	81
No. of borrowers.....	48
No. of mortgage loans for year.....	-----
Amount of mortgage loans for year.....	-----
No. of foreclosures since organization.....	1
Amount due on foreclosures.....	\$1,164 00
No. of shares last report.....	811
No. of shares issued since last report.....	-----
No. of shares canceled since last report.....	159
Net profits of year.....	\$5,728 92
Plan of distribution.....	Dexter.
No. shares loaned on.....	414
No. shares free.....	238
Ratio of salaries to total receipts.....	3.03 per cent.
Ratio of expenses (including salaries) to total receipts.....	8.73 per cent.
Surrender value of all shares.....	\$56,690 61
Total present worth of mortgages.....	38,164 56
Total appraised value of land.....	30,575 00
Total appraised value of improvements.....	74,800 00
Total book value of stock hypothecated.....	41,581 44
Total value of security held.....	146,956 44
Premium.....	Gross, 20 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force	Now in Force.	Shares Loaned Upon.	Shares "Free."
Second.....	535	-----	130	25	105
Third.....	385	-----	125	65	60
Fourth.....	120	-----	25	15	10
Fifth.....	50	-----	30	30	-----
Sixth.....	180	-----	130	130	-----
Seventh.....	429	-----	131	113	18
Eighth.....	35	-----	10	5	5
Ninth.....	80	-----	39	9	30
Tenth.....	45	-----	32	22	10

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
Second.....	\$5,000 00	\$120 00	\$186 10	-----	\$182 79
Third.....	13,000 00	108 00	160 23	-----	155 62
Fourth.....	3,000 00	96 00	136 05	-----	132 05
Fifth.....	5,500 00	84 00	113 99	-----	108 00
Sixth.....	24,296 00	72 00	93 19	-----	86 83
Seventh.....	22,600 00	60 00	71 92	-----	66 56
Eighth.....	300 00	48 00	53 76	-----	50 30
Ninth.....	1,700 00	36 00	38 89	-----	36 85
Tenth.....	4,350 00	24 00	25 41	-----	24 28

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
A. Robinson.....	Benicia.....	10	\$200 00
A. Dalton, Jr.....	Benicia.....	5	200 00
W. A. Moore.....	Benicia.....	5	200 00
W. L. Crooks.....	Benicia.....	10	200 00
W. D. Phillipson.....	Benicia.....	10	200 00
G. R. Duval.....	Benicia.....	10	200 00
C. Stewart.....	Benicia.....	15	200 00

No. 8.—BERKELEY.

HOMESTEAD LOAN ASSOCIATION.

Incorporated March 3, 1886.

CHARLES K. CLARK, Secretary.

I. A. BOYNTON, President.

No. of series, 16.

End of fiscal year, March 30, 1894.

No. of shares, 3,524.

Resources.		Liabilities.	
Loans.....	\$260,425 00	Dues and advance payments ..	\$172,814 00
Arrearages.....	4,605 05	Earnings.....	71,029 42
Cash on hand.....	.....	Overdrafts and bills payable...	8,277 43
Real estate.....	.....	Profits unapportioned.....	9,668 00
Other assets (furniture and fixtures).....	236 90	All other liabilities.....	3,478 10
		Advertising, interest, and prem.	\$143 25
		Loans incomplete..	1,734 65
		Mortgage taxes due	1,200 00
		Special deposit ..	336 45
		Suspense account..	63 75
Total resources.....	\$265,266 95	Total liabilities.....	\$265,266 95
Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	.....	Paid overdrafts and bills payable.....	\$16,800 43
Received for dues.....	\$42,712 00	Loans.....	36,263 60
Received for paid-up stock.....	.....	Interest.....	732 39
Received for premiums.....	9,468 40	Dues on surrendered shares ..	35,256 00
Received for interest.....	17,236 55	Profits on surrendered shares ..	10,625 80
Received for fees and fines ..	574 80	Salaries.....	1,080 00
Loans repaid.....	20,400 00	Taxes.....	2,050 16
Overdrafts and bills payable.....	12,677 43	Other expenses.....	474 10
All other sources.....	2,791 25	All other disbursements.....	2,577 95
Taxes.....	\$11 00	Sundry items.....	\$11 55
Insurance premium.....	183 80	Office furniture ..	104 50
Special deposit ..	2,586 45	Special deposits ..	2,250 00
Sundry items.....	10 00	Insurance premium ..	211 90
		Balance on hand.....	.....
Total receipts.....	\$105,860 43	Total disbursements.....	\$105,860 43

Authorized capital stock.....	\$1,000,000 00
No. of shares.....	5,000
No. of members.....	300
No. of borrowers.....	142
No. of mortgage loans for year.....	48
Amount of mortgage loans for year.....	\$36,650 00
No. of foreclosures since organization.....	-----
Amount due on foreclosures.....	-----
No. of shares last report.....	3,682
No. of shares issued since last report.....	566
No. of shares canceled since last report.....	724
Net profits of year.....	\$27,573 23
Plan of distribution.....	Partnership.
No. shares loaned on.....	1,302½
No. shares free.....	2,221½
Ratio of salaries to total receipts.....	1.02 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	3.40 per cent.
Surrender value of all shares.....	\$227,161 04
Total present worth of mortgages.....	175,756 00
Total appraised value of land.....	141,705 00
Total appraised value of improvements.....	261,760 00
Total book value of stock hypothecated.....	85,169 00
Total value of security held.....	488,634 00
Premium.....	Installment, 50 cents to 65 cents; interest, 7½ per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force September, 1893.	Now in Force.	Shares Loaned Upon.	Shares "Free."
1 of April, 1886.....	1,202	470	395	141	254
2 of October, 1886.....	313	164	139	14½	124½
3 of April, 1887.....	369	178	156	78	78
4 of October, 1887.....	400	196	161	60½	100¾
5 of April, 1888.....	314	173	157	82¼	74¾
6 of October, 1888.....	310	147	137	48	89
7 of April, 1889.....	406	277	274	69½	204½
8 of October, 1889.....	420	161	153	68	85
9 of April, 1890.....	530	280	274	113¾	160¼
10 of October, 1890.....	317	207	192	108	84
11 of April, 1891.....	324	244	202	66¾	135¼
12 of October, 1891.....	372	183	176	56¼	119¾
13 of April, 1892.....	376	286	256	92½	163½
14 of October, 1892.....	418	358	339	163¼	175¾
15 of April, 1893.....	328	328	275	57¾	217¼
16 of October, 1893.....	238	-----	238	82½	155½
Totals.....	6,642	3,652	3,524	1,302½	2,221½

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
1 of April, 1886.....	\$28,200 00	\$96 00	\$153 00	\$119 25	\$144 45
2 of October, 1886.....	2,900 00	90 00	140 00	110 50	132 50
3 of April, 1887.....	15,600 00	84 00	127 75	101 85	121 20
4 of October, 1887.....	12,050 00	78 00	115 80	93 40	110 10
5 of April, 1888.....	16,425 00	72 00	104 25	85 10	99 40
6 of October, 1888.....	9,600 00	66 00	93 15	77 05	89 05
7 of April, 1889.....	13,900 00	60 00	82 40	69 15	79 05
8 of October, 1889.....	13,600 00	54 00	72 25	61 40	63 90
9 of April, 1890.....	22,750 00	48 00	62 45	53 80	55 35
10 of October, 1890.....	21,600 00	42 00	53 10	46 50	47 25
11 of April, 1891.....	13,350 00	36 00	44 20	39 30	39 60
12 of October, 1891.....	11,250 00	30 00	35 80	32 30	32 30
13 of April, 1892.....	18,500 00	24 00	27 75	25 50	25 50
14 of October, 1892.....	32,650 00	18 00	20 25	18 80	18 75
15 of April, 1893.....	11,550 00	12 00	13 25	12 35	12 35
16 of October, 1893.....	16,500 00	6 00	6 60	6 10	6 08
Totals.....	\$260,425 00	-----	-----	-----	-----

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
I. A. Boynton	Berkeley		\$200 00
J. W. Richards	415 Montg'y, S. F. (Berkeley)		200 00
Ed. F. Niehaus	West Berkeley		200 00
Jos. McClain	Berkeley		200 00
C. A. Lord	Berkeley		200 00
W. C. Sell	224 Cal. St., S. F. (Berkeley)		200 00
J. K. Stewart	Berkeley		200 00
M. M. Rhorer	401 Cal. St., S. F. (Berkeley)		200 00
H. W. Taylor	West Berkeley		200 00

No. 9.—COLTON.

SECOND COLTON BUILDING AND LOAN ASSOCIATION.

Incorporated January 1, 1888.

GEO. M. HUBBARD, Secretary.

W. W. WILCOX, Vice-President.

No. of series, 4.

End of fiscal year, December 31, 1893.

No. of shares, 664.

Resources.		Liabilities.	
Loans	\$46,600 00	Dues and advance payments	\$31,615 00
Arrearages	485 19	Earnings	16,932 78
Cash on hand	3,052 63	Overdrafts and bills payable	04
Real estate	1,400 00	Profits unapportioned	04
Other assets	10 00	All other liabilities	
Total resources	\$51,547 82	Total liabilities	\$51,547 82

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	\$2,262 42	Paid overdrafts and bills payable	\$9,400 00
Received for dues	8,153 27	Interest	8,196 67
Received for paid-up stock		Dues on surrendered shares	1,475 40
Received for premiums	366 00	Salaries	240 00
Received for interest	5,107 00	Taxes	507 72
Received for fees and fines	85 48	Other expenses	106 75
Loans repaid	7,000 00	All other disbursements	3,052 63
Overdrafts and bills payable		Balance on hand	
All other sources		Total disbursements	\$22,979 17
Total receipts	\$22,979 17		

Authorized capital stock	\$200,000 00
No. of shares	1,000
No. of members	115
No. of borrowers	51
No. of mortgage loans for year	13
Amount of mortgage loans for year	\$9,400 00
No. of foreclosures since organization	1
Amount due on foreclosures	\$1,400 00
No. of shares last report	738
No. of shares issued since last report	83

No. of shares canceled since last report	157
Net profits of year	\$4,593 16
Plan of distribution	Dexter Rule.
No. shares loaned on	233
No. shares free	431
Ratio of salaries to total receipts	1.04 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	3.71 per cent.
Surrender value of all shares	\$50,921 00
Total present worth of mortgages	33,070 44
Total appraised value of land	32,150 00
Total appraised value of improvements	32,450 00
Total book value of stock hypothecated	13,965 78
Total value of security held	48,565 78

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force January 1, 1893.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....	500	431	353	68	285
Second.....	230	146	107	53	54
Third.....	231	161	121	67	54
Fourth.....	83	-----	83	45	38

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$13,600 00	\$72 00	\$113 08	\$87 06	\$112 00
Second.....	10,600 00	45 00	59 83	50 06	59 00
Third.....	13,400 00	28 00	33 87	29 96	33 00
Fourth.....	9,000 00	12 00	13 62	12 30	13 00

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
W. W. Wilcox.....	Colton.....	20	\$200 00
E. E. Thompson.....	Colton.....	15	200 00
D. Johnston.....	Colton.....	7	200 00
C. B. Hamilton.....	Colton.....	4	200 00
E. A. Pettijohn.....	Colton.....	10	200 00
H. B. Smith.....	Colton.....	10	200 00
Geo. E. Burrell.....	Colton.....	10	200 00
C. M. Newell.....	Colton.....	10	200 00
Geo. M. Hubbard.....	Colton.....	10	200 00

No. 10.—FORT BRAGG.

PEOPLE'S BUILDING AND LOAN ASSOCIATION.

Incorporated October 14, 1889.

F. A. WHIPPLE Secretary.

CALVIN STEWART, President.

No. of series, 1. End of fiscal year, November 13, 1893. No. of shares, 1,145.

Resources.		Liabilities.	
Loans.....	\$67,104 00	Dues and advance payments ..	\$41,120 00
Arrearages.....	556 12	Earnings.....	16,311 20
Cash on hand.....	1,451 69	Overdrafts and bills payable.....	279 75
Real estate.....	-----	Profits unapportioned.....	11,682 70
Other assets: furniture and fixtures.....	300 00	All other liabilities: advance interest.....	18 16
Total resources.....	\$69,411 81	Total liabilities.....	\$69,411 81
Receipts.*		Disbursements.*	
Balance on hand.....	-----	Paid overdrafts and bills payable.....	\$71,502 00
Received for dues.....	\$43,688 87	Loans.....	-----
Received for paid-up stock.....	-----	Interest.....	-----
Received for premiums.....	22,685 60	Dues on surrendered shares.....	2,963 50
Received for interest.....	6,961 16	Profits on surrendered shares.....	201 03
Received for fees and fines.....	1,313 18	Salaries.....	700 00
Loans repaid.....	4,398 00	Taxes.....	628 14
Overdrafts and bills payable.....	-----	Other expenses.....	204 67
All other sources.....	-----	All other disbursements.....	1,395 78
Total receipts.....	\$79,046 81	Returned premiums \$1,095 78	-----
		Furniture & fixtures 300 00	-----
		Balance on hand.....	1,451 69
		Total disbursements.....	\$79,046 81

* NOTE.—Total receipts and disbursements since beginning of organization.

Authorized capital stock.....	\$1,000,000 00
No. of shares.....	5,000
No. of members.....	Not reported.
No. of borrowers.....	62
No. of mortgage loans for year.....	22
Amount of mortgage loans for year.....	\$18,334 00
No. of foreclosures since organization.....	-----
Amount due on foreclosures.....	-----
No. of shares last report.....	Not reported.
No. of shares issued since last report.....	Not reported.
No. of shares canceled since last report.....	Not reported.
Net profits of year.....	Not reported.
Plan of distribution.....	Fort Bragg Rule.
No. shares loaned on.....	337
No. shares free.....	808
Ratio of salaries to total receipts.....	.89 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	1.94 per cent.
Surrender value of all shares (estimated).....	\$50,906 72
Total present worth of mortgages (estimated).....	52,104 00
Total appraised value of land (estimated).....	50,000 00
Total appraised value of improvements (estimated).....	50,656 00
Total book value of stock hypothecated (estimated).....	15,000 00
Total value of security held.....	115,656 00
Premium.....	Gross.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force. -----	Now in Force.	Shares Loaned Upon.	Shares "Free."
First			503	119	384
Second			329	85	244
Third			103	50	53
Fourth			210	83	127

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First		\$48 00	\$70 35		
Second		36 00	48 66		
Third		24 00	29 70		
Fourth		12 00	13 47		

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Calvin Stewart	Fort Bragg, Cal.		\$200 00
H. F. Milliken	Fort Bragg, Cal.	10	200 00
G. J. Brown	Fort Bragg, Cal.	20	200 00
Leo Leiser	Fort Bragg, Cal.	25	200 00
C. P. Higgins	Fort Bragg, Cal.	25	200 00
D. W. Miller	Fort Bragg, Cal.	25	200 00
Solomon Marks	Fort Bragg, Cal.	25	200 00

No. 11.—FORTUNA.

FORTUNA BUILDING AND LOAN ASSOCIATION.

Incorporated April 13, 1889.

W. P. McINTYRE, Secretary.

C. A. EASTMAN, President.

No. of series, 9.

End of fiscal year, May 31, 1894.

No. of shares, 306.

Resources.		Liabilities.	
Loans	\$11,935 00	Dues and advance payments ..	\$9,960 00
Arrearages	196 65	Earnings	2,556 25
Cash on hand	388 56	Overdrafts and bills payable ..	-----
Real estate	-----	Profits unapportioned	3 96
Other assets	-----	All other liabilities	-----
Total resources	\$12,520 21	Total liabilities	\$12,520 21

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	\$429 84	Paid overdrafts and bills payable	
Received for dues	3,790 00	Loans	\$1,880 00
Received for paid-up stock		Interest	
Received for premiums	345 50	Dues on surrendered shares	2,400 00
Received for interest	613 90	Profits on surrendered shares	135 75
Received for fees and fines	61 15	Salaries	120 00
Loans repaid		Taxes	190 00
Overdrafts and bills payable		Other expenses	133 03
All other sources on account	6 95	All other disbursements	
		Balance on hand	388 56
Total receipts	\$5,247 34	Total disbursements	\$5,247 34

Authorized capital stock		\$100,000 00
No. of shares		1,000
No. of members		57
No. of borrowers		26
No. of mortgage loans for year		11
Amount of mortgage loans for year		\$1,880 00
No. of foreclosures since organization		
Amount due on foreclosures		
No. of shares last report		297
No. of shares issued since last report		75
No. of shares canceled since last report		66
Net profits of year		\$806 25
Plan of distribution		Fortuna
No. shares loaned on		119 ³⁵ / ₁₀₀
No. shares free		186 ⁵⁵ / ₁₀₀
Ratio of salaries to total receipts		2.28 per cent.
Ratio of expenses (including salaries and taxes) to total receipts		8.44 per cent.
Surrender value of all shares		\$11,755 17
Total present worth of mortgages		6,798 30
Total appraised value of land		8,375 00
Total appraised value of improvements		12,925 00
Total book value of stock hypothecated		5,136 70
Total value of security held		26,436 70
Premium		Gross, 20 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force Last Report.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	100	70	40	20.40	19.60
Second	76	64	64	17.00	47.00
Third	17	17	10	5.00	5.00
Fourth	45	45	40	23.90	16.10
Fifth	19	19	19	3.70	15.30
Sixth	45	45	40	16.40	23.60
Seventh	37	37	32	17.95	14.05
Eighth	53		50	9.50	40.50
Ninth	22		11	5.50	5.50

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$2,040 00	\$59 00	\$78 96		\$75 63
Second	1,700 00	48 00	61 60		59 33
Third	500 00	39 00	48 88		45 58
Fourth	2,390 00	34 00	41 95		37 97
Fifth	370 00	29 00	34 97		31 98
Sixth	1,640 00	24 00	28 51		26 25
Seventh	1,795 00	18 00	20 92		18 97
Eighth	950 00	12 00	13 54		12 51
Ninth	550 00	6 00	6 58		6 19

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital stock Held by Each.	
		Shares.	Par Value.
C. A. Eastman.....	Fortuna.....	5	\$100 00
Fred. Newell.....	Fortuna.....	10	100 00
W. P. McIntyre.....	Fortuna.....	15	100 00
W. J. Swartzel.....	Fortuna.....	3	100 00
A. W. Pratt.....	Fortuna.....	13	100 00
James Bryan.....	Fortuna.....	5	100 00
John W. Munroe.....	Fortuna.....	12	100 00

No. 12.—FRESNO.

MUTUAL BUILDING AND LOAN ASSOCIATION OF FRESNO.

Incorporated March 17, 1892.

A. V. LIENBY, Secretary.

ALEXANDER GORDON, President.

No. of series, 4.

End of fiscal year, March 12, 1894.

No. of Shares, 1,718.

Resources.		Liabilities.	
Loans.....	\$56,475 00	Dues and advance payments ..	\$39,384 00
Arrearages.....	146 00	Earnings.....	8,320 32
Cash on hand.....	2,247 92	Overdrafts and bills payable...	10,000 00
Real estate.....	.....	Profits unapportioned.....	1,164 60
Other assets.....	.....	All other liabilities.....	.....
Total resources.....	\$58,863 92	Total liabilities.....	\$58,868 92

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	.....	Paid overdrafts and bills pay- able.....	\$8,000 00
Received for dues.....	\$20,796 00	Loans.....	30,855 00
Received for paid-up stock.....	.....	Interest.....	1,050 30
Received for premiums.....	4,421 25	Dues on surrendered shares.....	1,322 00
Received for interest.....	4,220 55	Profits on surrendered shares...	33 00
Received for fees and fines.....	34 10	Salaries.....	600 00
Loans repaid.....	800 00	Taxes.....	365 61
Overdrafts and bills payable.....	14,387 91	Other expenses.....	80 98
All other sources.....	.....	All other disbursements.....	105 00
		Returned premiums. \$105 00	
		Balance on hand.....	2,247 92
Total receipts.....	\$44,659 81	Total disbursements.....	\$44,659 81

Authorized capital stock.....	\$2,000,000 00
No. of shares.....	10,000
No. of members.....	119
No. of borrowers.....	39
No. of mortgage loans for year.....	22
Amount of mortgage loans for year.....	\$25,075 00
No. of foreclosures since organization.....	.....
Amount due on foreclosures.....	.....
No. of shares last report.....	1,598
No. of shares issued since last report.....	190
No. of shares canceled since last report.....	70
Net profits of year.....	\$5,902 22
Plan of distribution.....	Second Dividend.

No. shares loaned on	302
No. shares free	1,416
Ratio of salaries to total receipts	1.34 per cent.
Ratio of expenses (including salaries) to total receipts	2.34 per cent.
Surrender value of all shares	\$39,562 50
Total present worth of mortgages	49,906 97
Total appraised value of land	30,200 00
Total appraised value of improvements	53,525 00
Total book value of stock hypothecated	6,568 03
Total value of security held	90,296 03
Premium	Gross, 15 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force March 1, 1893.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	1,500	1,500	1,434	134	1,300
Second	98	98	98	60	38
Third	154	-----	150	85	65
Fourth	36	-----	36	23	13

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$24,900 00	\$24 00	\$30 27	-----	\$25 00
Second	12,200 00	18 00	21 29	-----	18 75
Third	14,275 00	12 00	13 70	-----	12 50
Fourth	5,100 00	4 00	4 20	-----	-----

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Alexander Gordon	Fresno	10	\$200 00
F. K. Prescott	Fresno	11	200 00
A. Dinkelspiel	Fresno	50	200 00
Alex. Goldstein	Fresno	25	200 00
W. W. Shipp	Fresno	30	200 00

No. 13.—LOS ANGELES.

CALIFORNIA MUTUAL BUILDING AND LOAN ASSOCIATION.

Incorporated August 11, 1891.

J. V. WACHTEL, Secretary.

WILLIAM PRIDHAM, President.

No. of series, 3.

End of fiscal year, August 17, 1893.

No. of shares, 1,023.

Resources.		Liabilities.	
Loans	\$22,200 00	Dues and advance payments	\$20,313 00
Arrearages	1,548 50	Earnings	3,766 48
Cash on hand	1,216 03	Overdrafts and bills payable	-----
Real estate	3,264 75	Profits unapportioned	144 50
Other assets	-----	All other liabilities: loans incomplete	4,005 30
Total resources	\$28,229 28	Total liabilities	\$28,229 28

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	\$4,415 15	Paid overdrafts and bills payable	
Received for dues	12,299 00	Loans	\$14,000 95
Received for paid-up stock		Interest	54 00
Received for premiums	2,720 00	Dues on surrendered shares	6,795 00
Received for interest	890 30	Profits on surrendered shares	25 22
Received for fees and fines	41 10	Salaries	975 00
Loans repaid	7,120 00	Taxes	77 00
Overdrafts and bills payable		Other expenses	75 60
All other sources	200 00	All other disbursements	4,466 75
		Balance on hand	1,216 03
Total receipts	\$27,685 55	Total disbursements	\$27,685 55

Authorized capital stock	\$1,600,000 00
No. of shares	8,000
No. of members	107
No. of borrowers	10
No. of mortgage loans for year	6
Amount of mortgage loans for year	\$15,800 00
No. of foreclosures since organization	1
Amount due on foreclosures	\$3,264 75
No. of shares last report	1,228
No. of shares issued since last report	186
No. of shares canceled since last report	391
Net profits of year	\$2,498 80
Plan of distribution	Partnership.
No. shares loaned on	116
No. shares free	907
Ratio of salaries to total receipts	3.52 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	4.07 per cent.
Surrender value of all shares	\$20,971 43
Total present worth of mortgages	20,364 06
Total appraised value of land	15,950 00
Total appraised value of improvements	20,350 00
Total book value of stock hypothecated	1,878 24
Total value of security held	33,178 24
Premium	Gross, 25 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Foree August 18, 1892.	Now in Foree.	Shares Loaned Upon.	Shares "Free."
First	1,000	940	664	24	642
Second	365	288	173	26	147
Third	186		186	66	120

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$3,800 00	\$24 00	\$28 46		\$24 89
Second	5,200 00	21 00	24 90		21 39
Third	13,200 00	4 00	4 70		4 00

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
William Pridham	10	\$200 00
John Q. Tufts	10	200 00
James Cuzner	10	200 00
Eugene Germain	10	200 00
I. N. Moore	10	200 00
H. W. O'Melveny	10	200 00
F. A. Walton	10	200 00

No. 14.—LOS ANGELES.

COLUMBIA LOAN AND BUILDING ASSOCIATION.

Incorporated February 14, 1887.

LEWIS THORNE, Secretary.

CHARLES B. PIRONI, President.

No. of series, 7.

End of fiscal year, January 31, 1894.

No. of shares, 2,465.

Resources.		Liabilities.	
Loans	\$181,700 00	Dues and advance payments ..	\$108,471 00
Arrearages .....	.....	Earnings	54,721 89
Cash on hand .....	.....	Overdrafts and bills payable...	4,869 46
Real estate	5,900 00	Profits unapportioned	19,000 88
Other assets (furniture and fixtures)	450 00	All other liabilities (advance interest)	986 77
Total resources	\$188,050 00	Total liabilities	\$188,050 00
Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand .....	.....	Paid overdrafts and bills payable	\$29,178 11
Received for dues	\$31,213 00	Loans	6,230 00
Received for paid-up stock .....	.....	Interest	1,152 89
Received for premiums	1,500 00	Dues on surrendered shares	18,915 00
Received for interest	16,575 79	Profits on surrendered shares ..	9,986 10
Received for fees and fines	492 25	Salaries	1,200 00
Loans repaid	5,200 00	Taxes	5,498 03
Overdrafts and bills payable	20,369 46	Other expenses	526 51
All other sources	100 00	All other disbursements	2,763 86
Total receipts	\$75,450 50	Balance on hand .....	.....
		Total disbursements	\$75,450 50

Authorized capital stock	\$1,000,000 00
No. of shares	5,000
No. of members	183
No. of borrowers	66
No. of mortgage loans for year	1
Amount of mortgage loans for year	\$5,000 00
No. of foreclosures since organization	1
Amount due on foreclosures	\$5,200 00
No. of shares last report	2,573
No. of shares issued since last report	296
No. of shares canceled since last report	404

Net profits of year	\$14,800 99
Plan of distribution	Partnership.
No. shares loaned on	908½
No. shares free	1,556½
Ratio of salaries to total receipts	1.59 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	9.57 per cent.
Surrender value of all shares	\$125,140 69
Total present worth of mortgages	89,449 18
Total appraised value of land	112,950 00
Total appraised value of improvements	148,850 00
Total book value of stock hypothecated	83,149 36
Total value of security held	344,949 36
Premium	Gross, average, 28.64 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force January 31, 1893.	Now in Foree.	Shares Loaned Upon.	Shares "Free."
First	2,056	892	693	554½	138½
Second	768	690	635	89	546
Third	253	205	205	119	86
Fourth	286	275	235	75	160
Fifth	515	511	428	46	382
Sixth	184	-----	169	25	144
Seventh	112	-----	100	-----	100

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$110,900 00	\$84 00	\$142 70	\$101 64	\$104 49
Second	17,800 00	42 00	56 67	46 41	45 37½
Third	23,800 00	36 00	46 76	39 24	38 40
Fourth	15,000 00	24 00	28 79	25 44	24 90
Fifth	9,200 00	18 00	20 69	18 81	18 37½
Sixth	5,000 00	12 00	13 13	12 36	12 00
Seventh	-----	6 00	6 28	6 09	6 00

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
W. F. Bosbyshell	Los Angeles	5	\$200 00
John Dieterich	Los Angeles	25	200 00
A. M. Edelman	Los Angeles	6	200 00
A. Jacoby	Los Angeles	10	200 00
C. J. Kuback	Los Angeles	35	200 00
J. Kurtz, M.D.	Los Angeles	15	200 00
A. F. Mackay	Los Angeles	10	200 00
C. B. Pironi	Los Angeles	30	200 00
L. Thorne	Los Angeles	55	200 00

No. 15.—LOS ANGELES.

HOME INVESTMENT BUILDING AND LOAN ASSOCIATION.

Incorporated August 21, 1889.

W. A. BONYNGE, Secretary.

F. W. BRAUN, President.

No. of series, 8.

End of fiscal year, September 30, 1893.

No. of shares, 1,276.

Resources.		Liabilities.	
Loans	\$70,460 00	Dues and advance payments...	\$45,330 00
Arrearages	175 50	Earnings	26,589 02
Cash on hand	2,675 83	Overdrafts and bills payable...	1,331 04
Real estate		Profits unapportioned	10 12
Other assets	264 85	All other liabilities: loans in-	
Insurance advanced	\$40 00	complete	316 00
Office furniture	224 85		
Total resources	\$73,576 18	Total liabilities	\$73,576 18

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	\$309 49	Paid overdrafts and bills pay-	
Received for dues	15,512 00	able	\$12,200 00
Received for paid-up stock		Loans	24,315 03
Received for premiums	3,882 00	Interest	234 96
Received for interest	5,541 45	Dues on surrendered shares	595 00
Received for fees and fines	82 45	Profits on surrendered shares	57 15
Loans repaid	8,386 00	Salaries	877 50
Overdrafts and bills payable	8,531 04	Taxes	542 19
All other sources	9 55	Other expenses	213 82
		All other disbursements	542 50
		Balance on hand	2,675 83
Total receipts	\$42,253 98	Total disbursements	\$42,253 98

Authorized capital stock	\$3,000,000 00
No. of shares	15,000
No. of members	103
No. of borrowers	37
No. of mortgage loans for year	11
Amount of mortgage loans for year	\$13,000
No. of foreclosures since organization	
Amount due on foreclosures	
No. of shares last report	1,171
No. of shares issued since last report	136
No. of shares canceled since last report	31
Net profits of year	\$7,353 96
Plan of distribution	Wrigley Rule.
No. shares loaned on	317
No. shares free	959
Ratio of salaries to total receipts	2.08 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	3.86 per cent.
Surrender value of all shares	\$56,745 21
Total present worth of mortgages	52,352 14
Total appraised value of land	35,475 00
Total appraised value of improvements	41,660 00
Total book value of stock hypothecated	11,754 86
Total value of security held	88,889 86
Premium	Gross, 30 per cent

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force Now.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	682	572	-----	48	524
Second	72	45	-----	30	15
Third	134	103	-----	14	94
Fourth	192	179	-----	78½	100½
Fifth	128	118	-----	27½	90½
Sixth	135	119	-----	57	62
Seventh	74	74	-----	31	43
Eighth	61	61	-----	31	30

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$9,600 00	\$48 00	\$80 22	-----	\$64 10
Second	6,000 00	42 00	67 20	-----	51 45
Third	2,800 00	36 00	54 80	-----	43 05
Fourth	15,700 00	30 00	46 18	-----	34 04
Fifth	5,500 00	24 00	32 79	-----	26 19
Sixth	11,400 00	18 00	23 97	-----	18 74
Seventh	6,200 00	12 00	14 25	-----	12 28
Eighth	6,200 00	6 00	7 31	-----	6 00

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
F. W. Braun	Los Angeles	25	\$200 00
R. M. Baker	Los Angeles	25	200 00
H. T. Newell	Los Angeles	75	200 00
F. Rader	Los Angeles	44	200 00
D. R. Rozell	Los Angeles	25	200 00
I. B. Newton	Los Angeles	25	200 00
E. T. Park	Los Angeles	10	200 00

No. 16.—LOS ANGELES.

LOS ANGELES BUILDING AND LOAN ASSOCIATION.

Incorporated March 26, 1891.

WM. MEAD, Secretary.

HENRY T. HAZARD, President.

No. of series, 6.

End of fiscal year, March 31, 1894.

No. of shares, 757.

Resources.		Liabilities.	
Loans	\$29,255 00	Dues and advance payments...	\$18,668 00
Arrearages	544 40	Earnings	3,408 48
Cash on hand	525 00	Overdrafts and bills payable...	8,500 00
Real estate	-----	Profits unapportioned	97 77
Other assets: furniture and fix- tures	440 00	All other liabilities	90 15
		Advance interest and premium	\$20 00
		Due Secretary	70 15
Total resources	\$30,764 40	Total liabilities	\$30,764 40

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$1,978 40	Paid overdrafts and bills payable.....	\$12,000 00
Received for dues.....	10,728 00	Loans.....	7,413 20
Received for paid-up stock.....	-----	Interest.....	1,179 05
Received for premiums.....	931 00	Dues on surrendered shares and advances refunded.....	5,997 00
Received for interest.....	2,555 60	Profits on surrendered shares.....	415 05
Received for fees and fines.....	24 65	Salaries.....	450 00
Loans repaid.....	8,760 00	Taxes.....	268 25
Overdrafts and bills payable.....	3,570 15	Other expenses.....	1,227 25
All other sources: rent.....	927 00	All other disbursements.....	-----
		Balance on hand.....	525 00
Total receipts.....	\$29,474 80	Total disbursements.....	\$29,474 80

Authorized capital stock.....	\$2,000,000 00
No. of shares.....	10,000
No. of members.....	78
No. of borrowers.....	27
No. of mortgage loans for year.....	2
Amount of mortgage loans for year.....	\$4,200 00
No. of foreclosures since organization.....	-----
Amount due on foreclosures.....	-----
No. of shares last report.....	756
No. of shares issued since last report.....	310
No. of shares canceled since last report.....	309
Net profits of year.....	\$1,288 05
Plan of distribution.....	Dexter.
No. shares loaned on.....	212
No. shares free.....	545
Ratio of salaries to total receipts.....	1.52 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	3.45 per cent.
Surrender value of all shares.....	\$19,285 08
Total present worth of mortgages.....	22,480 26
Total appraised value of land.....	22,000 00
Total appraised value of improvements.....	40,307 00
Total book value of stock hypothecated.....	6,774 74
Total value of security held.....	69,081 74
Premium.....	Installment.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force March 31, 1893.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....	497	325	228	84	144
Second.....	228	178	144	47	97
Third.....	162	122	77	10	67
Fourth.....	136	131	58	28	30
Fifth.....	180	-----	130	33	97
Sixth.....	130	-----	120	10	110

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$10,115 00	\$36 00	\$44 64	\$39 24	\$40 32
Second.....	6,450 00	30 00	36 00	32 25	32 62½
Third.....	2,000 00	24 00	27 84	25 44	25 68
Fourth.....	5,000 00	18 00	20 16	18 81	18 81
Fifth.....	3,690 00	12 00	12 96	12 36	12 36
Sixth.....	2,000 00	6 00	6 24	6 09	6 00

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
H. T. Hazard	Los Angeles	10	\$200 00
Jos. Schoder	Los Angeles	18	200 00
J. B. Lankershim	Los Angeles	30	200 00
Jas. A. Craig	Los Angeles	20	200 00
R. J. Adcock	Los Angeles	3	200 00
W. A. Driscoll	Los Angeles	20	200 00
D. Lawson	Los Angeles	10	200 00
Wm. Alex. Ryan	Los Angeles	5	200 00
Wm. Mead	Los Angeles	10	200 00

No. 17.—LOS ANGELES.

METROPOLITAN LOAN ASSOCIATION.

Incorporated July 30, 1886.

ISAAC NORTON, Secretary.

MAX MEYBERG, President.

No. of series, 8.

End of fiscal year, June 30, 1893.

No. of shares, 4,380.

Resources.		Liabilities.	
Loans	\$401,100 00	Dues and advance payments...	\$249,749 00
Arrearages	1,130 35	Earnings	163,250 53
Cash on hand	3,426 69	Overdrafts and bills payable	1,130 35
Real estate	11,757 84	Profits unapportioned	3,285 00
Other assets		All other liabilities	
Total resources	\$417,414 88	Total liabilities	\$417,414 88

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	\$3,120 34	Paid overdrafts and bills payable	\$15,000 00
Received for dues	54,278 00	Loans	60,081 15
Received for paid-up stock		Interest	193 83
Received for premiums	13,190 00	Dues on surrendered shares	37,187 00
Received for interest	31,340 40	Profits on surrendered shares	14,785 09
Received for fees and fines	210 65	Salaries	1,982 50
Loans repaid	22,850 00	Taxes	3,726 51
Overdrafts and bills payable	15,000 00	Other expenses	757 43
All other sources	536 05	All other disbursements	3,380 24
		Balance on hand	3,426 69
Total receipts	\$140,525 44	Total disbursements	\$140,525 44

Authorized capital stock	\$1,000,000 00
No. of shares	5,000
No. of members	312
No. of borrowers	145
No. of mortgage loans for year	17
Amount of mortgage loans for year	\$52,100 00
No. of foreclosures since organization	1
Amount due on foreclosures	\$1,785 00
No. of shares last report	4,509
No. of shares issued since last report	491
No. of shares canceled since last report	620
Net profits of year	\$42,730 19

Plan of distribution.....	Meyberg Rule.
No. shares loaned on.....	2,005½
No. shares free.....	2,374½
Ratio of salaries to total receipts.....	1.41 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	4.60 per cent.
Surrender value of all shares.....	\$347,122 05
Total present worth of mortgages.....	221,577 40
Total appraised value of land.....	227,950 00
Total appraised value of improvements.....	228,500 00
Total book value of stock hypothecated.....	272,949 87
Total value of security held.....	729,399 87
Premium.....	Gross, 20 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force 1892.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....	2,546	2,097	1,694	1,078½	615½
Second.....	1,448	614	589	318½	271½
Third.....	605	461	405	109½	294½
Fourth.....	300	235	207	64½	142½
Fifth.....	500	291	275	103¼	171¾
Sixth.....	629	361	316	78½	237½
Seventh.....	546	450	408	78¾	329¼
Eighth.....	491	491	486	174	312

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$215,700 00	\$83 00	\$146 91	\$100 04	\$124 54
Second.....	63,700 00	70 00	113 08	82 25	95 84
Third.....	21,900 00	49 00	74 48	54 12	61 74
Fourth.....	12,900 00	46 00	68 42	51 10	54 96
Fifth.....	20,650 00	42 00	61 03	46 41	49 61
Sixth.....	15,700 00	36 00	49 98	39 24	41 59
Seventh.....	15,750 00	24 00	32 93	25 44	25 78
Eighth.....	34,800 00	12 00	15 80	12 36	12 38

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Max Meyberg.....	Los Angeles.....	120	\$200 00
Charles Seyler.....	Los Angeles.....	30	200 00
W. J. Brodrick.....	Los Angeles.....	25	200 00
J. W. Montgomery.....	Los Angeles.....	50	200 00
I. B. Newton.....	Los Angeles.....	59	200 00
S. B. Lewis.....	Los Angeles.....	25	200 00
W. C. Furrey.....	Los Angeles.....	25	200 00
M. S. Hellman.....	Los Angeles.....	70	200 00
L. E. Mosher.....	Los Angeles.....	20	200 00

No. 18.—LOS ANGELES.

SAVINGS FUND AND BUILDING SOCIETY.

Incorporated March 13, 1883.

E. H. GRASSETT, Secretary.

J. F. HOLBROOK, President.

No. of series, 8.

End of fiscal year, August 31, 1893.

No. of shares, 1,434.

Resources.		Liabilities.	
Loans.....	\$93,575 00	Dues and advance payments ..	\$64,716 00
Arrearages.....	721 44	Earnings.....	26,878 99
Cash on hand.....	1,846 61	Overdrafts and bills payable.....	
Real estate.....	2,294 35	Profits unapportioned.....	7,048 91
Other assets.....	326 00	All other liabilities: suspense	
Insurance advanced ...	\$26 00	account.....	119 50
Furniture, fixtures, etc.	300 00		
Total resources.....	\$98,763 40	Total liabilities.....	\$98,763 40
Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$737 81	Paid overdrafts and bills pay-	
Received for dues.....	18,516 50	able.....	
Received for paid-up stock		Loans.....	\$28,100 00
Received for premiums.....	3,485 69	Interest.....	
Received for interest.....	7,010 12	Dues on surrendered shares.....	8,301 00
Received for fees and fines.....	498 67	Profits on surrendered shares.....	1,251 44
Loans repaid.....	10,825 00	Salaries.....	923 00
Overdrafts and bills payable		Taxes.....	872 55
All other sources.....	691 32	Other expenses.....	444 51
		All other disbursements.....	26 00
		Balance on hand.....	1,846 61
Total receipts.....	\$41,765 11	Total disbursements.....	\$41,765 11

Authorized capital stock.....	\$1,000,000 00
No. of shares.....	5,000
No. of members.....	220
No. of borrowers.....	108
No. of mortgage loans for year.....	22
Amount of mortgage loans for year.....	\$23,600 00
No. of foreclosures since organization.....	3
Amount due on foreclosures.....	\$2,294 35
No. of shares last report.....	1,438
No. of shares issued since last report.....	348
No. of shares canceled since last report.....	352
Net profits of year.....	\$8,332 38
Plan of distribution.....	Second Dividend.
No. shares loaned on.....	467 7/8
No. shares free.....	966 1/2
Ratio of salaries to total receipts.....	2.21 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	5.36 per cent.
Surrender value of all shares.....	\$86,368 07
Total present worth of mortgages.....	21,136 81
Total appraised value of land.....	22,350 00
Total appraised value of improvements.....	39,450 00
Total book value of stock hypothecated.....	11,851 23
Total value of security held.....	73,651 23
Premiums.....	Installment.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force September 1, 1892.	Now in Force.	Shares Loaned Upon.	Shares "Free."
Third	135	26	26	17 $\frac{3}{8}$	8 $\frac{5}{8}$
Fourth	520	184	176	76 $\frac{5}{8}$	99 $\frac{5}{8}$
Fifth	778	166	160	49 $\frac{7}{8}$	110 $\frac{1}{8}$
Sixth	295	151	109	31 $\frac{1}{2}$	77 $\frac{1}{2}$
Seventh	622	347	267	66 $\frac{1}{2}$	200 $\frac{1}{2}$
Eighth	421	260	220	59 $\frac{1}{2}$	160 $\frac{1}{2}$
Ninth	369	304	244	80	164
Tenth	276	286	232	86 $\frac{1}{2}$	145 $\frac{1}{2}$

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
Third	\$3,475 00	\$96 00	\$194 61	\$119 04	\$179 82
Fourth	15,325 00	84 00	149 19	101 64	136 16
Fifth	9,975 00	72 00	111 97	84 96	101 97
Sixth	6,300 00	60 00	80 94	69 00	74 66
Seventh	13,300 00	48 00	58 33	53 76	54 71
Eighth	11,900 00	36 00	40 40	39 24	39 24
Ninth	16,000 00	24 00	25 50	25 44	25 20
Tenth	17,300 00	12 00	12 31	12 36	12 24

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
J. F. Holbrook	Los Angeles	5	\$200 00
Wm. F. Marshall	Los Angeles	10	200 00
F. M. Coulter	Los Angeles	15	200 00
Louis Roeder	Los Angeles	30	200 00
N. S. Averill	Los Angeles	15	200 00
John Horner	Los Angeles	10	200 00
L. M. Anderson	Los Angeles	5	200 00
E. H. Grassett	Los Angeles	20	200 00

No. 19.—LOS ANGELES.

SOUTHERN CALIFORNIA LOAN ASSOCIATION.

Incorporated March 11, 1887.

JULIUS H. MARTIN, Secretary.

GEORGE GREGG, President.

No. of series, 8.

End of fiscal year, August 31, 1893.

No. of shares, 3,445.

Resources.		Liabilities.	
Loans	\$173,352 20	Dues and advance payments ..	\$125,668 00
Arrearages	702 00	Earnings	47,046 85
Cash on hand		Overdrafts and bills payable ..	229 90
Real estate	4,513 68	Profits unapportioned	292 35
Other assets	217 50	All other liabilities	5,548 28
Insurance advanced ..	\$18 00	Loans incomplete ..	\$4,887 30
Furniture and fixtures	199 50	Reserve	491 98
		Members' accounts ..	169 00
Total resources	\$178,785 38	Total liabilities	\$178,785 38

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	\$5,034 14	Paid overdrafts and bills payable	
Received for dues	56,393 00	Loans	\$58,664 10
Received for paid-up stock		Interest	
Received for premiums	6,073 77	Dues on surrendered shares	27,156 00
Received for interest	17,660 94	Profits on surrendered shares	5,419 35
Received for fees and fines	423 25	Salaries	1,142 00
Loans repaid	8,090 00	Taxes	1,544 86
Overdrafts and bills payable	229 90	Other expenses	451 74
All other sources	490 80	All other disbursements	26 75
		Balance on hand	
Total receipts	\$94,404 80	Total disbursements	\$94,404 80

Authorized capital stock	\$1,000,000 00
No. of shares	5,000
No. of members	309
No. of borrowers	122
No. of mortgage loans for year	44
Amount of mortgage loans for year	\$56,325 20
No. of foreclosures since organization	1
Amount due on foreclosures	\$4,513 68
No. of shares last report	3,353
No. of shares issued since last report	919
No. of shares canceled since last report	827
Net profits of year	\$24,081 24
Plan of distribution	Dexter.
No. shares loaned on	888
No. shares free	2,557
Ratio of salaries to total receipts	1.20 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	3.32 per cent.
Surrender value of all shares	\$153,560 63
Total present worth of mortgages	129,698 74
Total appraised value of land	133,350 00
Total appraised value of improvements	167,650 00
Total book value of stock hypothecated	42,429 58
Total value of security held	343,429 58
Premium	Gross, 10 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force	Now in Foree.	Shares Loaned Upon.	Shares "Free."
A	1,400		526	73	453
B	460		132	64	68
C	822		386	96	290
D	697		307	108	199
E	1,617		847	220	627
F	584		491	107	384
G	82		82	72	10
H	783		674	140	534

series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
A	\$14,600 00	\$76 00	\$120 68		\$109 51
B	12,010 20	67 00	101 04		87 42
C	18,672 00	55 00	77 14		66 07
D	21,125 00	43 00	55 81		49 42
E	43,745 00	31 00	37 17		34 08
F	21,300 00	19 00	21 10		20 05
G	14,100 00	13 00	14 03		13 51
H	27,800 00	7 00	7 33		7 16

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
George Gregg	Los Angeles	25	\$200 00
C. E. Donnatin	Los Angeles	15	200 00
W. Devereux	Los Angeles	20	200 00
George Basserman	Los Angeles	25	200 00
George S. Bennett	Los Angeles	9	200 00
O. K. Cushing	Los Angeles	30	200 00
Fred. L. Baker	Los Angeles	15	200 00
Percy R. Wilson	Los Angeles	10	200 00
W. S. Pottoex	Los Angeles	10	200 00

No. 20.—LOS GATOS.

LOS GATOS BUILDING AND LOAN ASSOCIATION.

Incorporated April 27, 1889.

A. BERRYMAN, Secretary.

CHARLES F. SCAMMON, President.

No. of series, 2.

End of fiscal year, April 30, 1894.

No. of shares, 326.

Resources.		Liabilities.	
Loans	\$20,850 00	Dues and advance payments ..	\$14,808 00
Arrearages	328 50	Earnings	5,518 34
Cash on hand	1 12	Overdrafts and bills payable ..	-----
Real estate	-----	Profits unapportioned	838 28
Other assets	-----	All other liabilities (personal accounts)	15 00
Total resources	\$21,179 62	Total liabilities	\$21,179 62
Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	\$385 02	Paid overdrafts and bills pay- able	-----
Received for dues	3,871 00	Loans	\$4,200 00
Received for paid-up stock	-----	Interest	-----
Received for premiums	1,050 00	Dues on surrendered shares	1,539 50
Received for interest	1,158 00	Profits on surrendered shares ..	151 00
Received for fees and fines	22 20	Salaries	300 00
Loans repaid	-----	Taxes	267 63
Overdrafts and bills payable	-----	Other expenses	26 97
All other sources (personal accounts)	15 00	All other disbursements	-----
Total receipts	\$6,501 22	Balance on hand	1 12
		Total disbursements	\$6,501 22

Authorized capital stock	\$1,000,000 00
No. of shares	5,000
No. of members	56
No. of borrowers	17
No. of mortgage loans for year	4
Amount of mortgage loans for year	\$4,200 00
No. of foreclosures since organization	-----
Amount due on foreclosures	-----
No. of shares last report	257
No. of shares issued since last report	99
No. of shares canceled since last report	30

Net profits of year.....	\$1,635 00
Plan of distribution.....	Dexter.
No. shares loaned on.....	107
No. shares free.....	219
Ratio of salaries to total receipts.....	4.63 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	9.17 per cent.
Surrender value of all shares.....	\$16,886 64
Total present worth of mortgages.....	13,356 80
Total appraised value of land.....	7,750 00
Total appraised value of improvements.....	18,800 00
Total book value of stock hypothecated.....	7,493 20
Total value of security held.....	34,043 20
Premium.....	Gross, 25 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....			227	86	141
Second.....			99	21	78

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$16,650 00	\$60 00	\$84 07	\$69 15	
Second.....	4,200 00	12 00	12 55	12 39	

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
C. F. Scammon.....	Los Gatos.....	5	\$200 00
P. Simon.....	Los Gatos.....	15	200 00
A. Berryman.....	Los Gatos.....	15	200 00
J. H. Lyndon.....	Los Gatos.....	5	200 00
J. R. Hewitt.....	Los Gatos.....	5	200 00
J. L. Gelatt.....	Los Gatos.....	10	200 00
H. A. Merriam.....	Los Gatos.....	5	200 00

No. 21.—MADERA.

MADERA MUTUAL BUILDING AND LOAN ASSOCIATION.

Incorporated June 16, 1893.

R. M. SEELY, Secretary.

M. J. LADD, President.

No. of series, 2.

End of fiscal year, May 31, 1894.

No. of shares, 357.

Resources.		Liabilities.	
Loans.....	\$3,900 00	Dues and advance payments...	\$2,693 00
Arrearages.....	459 85	Earnings.....	990 19
Cash on hand.....	44 39	Overdrafts and bills payable.....	
Real estate.....		Profits unapportioned.....	
Other assets: furniture and fixtures.....	60 00	All other liabilities.....	781 05
		Loans incomplete.....	\$756 05
		Due Secretary.....	25 00
Total resources.....	\$4,464 24	Total liabilities.....	\$4,464 24

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand		Paid overdrafts and bills payable	
Received for dues	\$2,553 00	Loans	\$2,199 95
Received for paid-up stock		Interest	
Received for premiums		Dues on surrendered shares	259 50
Received for interest	85 25	Profits on surrendered shares	
Received for fees and fines	5 50	Salaries	35 00
Loans repaid		Taxes	
Overdrafts and bills payable		Other expenses	104 91
All other sources		All other disbursements	
		Balance on hand	44 39
Total receipts	\$2,643 75	Total disbursements	\$2,643 75

Authorized capital stock	\$500,000 00
No. of shares	5,000
No. of members	42
No. of borrowers	5
No. of mortgage loans for year	5
Amount of mortgage loans for year	\$3,900 00
No. of foreclosures since organization	
Amount due on foreclosures	
No. of shares last report	
No. of shares issued since last report	524
No. of shares canceled since last report	167
Net profits of year	
Plan of distribution	Dexter.
No. shares loaned on	39
No. shares free	318
Ratio of salaries to total receipts	1.32 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	5.29 per cent.
Surrender value of all shares	\$2,634 98
Total present worth of mortgages	3,371 65
Total appraised value of land	1,250 00
Total appraised value of improvements	4,800 00
Total book value of stock hypothecated	528 35
Total value of security held	6,578 35
Premium	Gross.

MEMORANDA OF STOCK, SERIES, LOANS, AND VALUE OF SHARES OR STOCK.

Series.	Original Issue.	In Force	Now in Force.	Shares Loaned Upon.	Shares "Free."
First—June 3, 1893	205		113	23	90
Second—January 1, 1894	319		244	16	228

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First—June 3, 1893	\$2,300 00	\$12 00	\$18 45	\$12 36	\$12 36
Second—January 1, 1894	1,600 00	5 00	6 50	5 07	5 07

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
B. A. Maxson, Treasurer.....	Madera	5	\$100 00
W. B. Thurman	Madera	5	100 00
M. J. Ladd, President.....	Madera	3	100 00
S. Clark	Madera	5	100 00
E. E. Young	Madera	16	100 00
E. Buchanan	Madera	5	100 00
J. L. Hoffman	Madera	5	100 00
J. W. Watkins	Madera	10	100 00
R. C. Joy	Madera	8	100 00

No. 22.—MERCED.

MERCED MUTUAL BUILDING AND LOAN ASSOCIATION.

Incorporated June 22, 1891.

H. H. WORDEN, Secretary.

R. F. BARTLETT, President.

No. of series, 4.

End of fiscal year, June 30, 1893.

No. of shares, 804.

Resources.		Liabilities.	
Loans.....	\$19,000 00	Dues and advance payments ..	\$15,378 00
Arrearages.....	65 00	Earnings	1,477 41
Cash on hand.....	664 81	Overdrafts and bills payable.....	.....
Real estate.....	.....	Profits unapportioned	2,103 80
Other assets	167 90	All other liabilities	938 50
Total resources	\$19,897 71	Total liabilities	\$19,897 71

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$1,156 34	Paid overdrafts and bills payable.....	.....
Received for dues.....	9,524 00	Loans.....	\$12,299 75
Received for paid-up stock .....	.....	Interest.....	.....
Received for premiums.....	1,923 00	Dues on surrendered shares	470 00
Received for interest	965 69	Profits on surrendered shares.....	3 70
Received for fees and fines	94 30	Salaries.....	120 00
Loans repaid .....	.....	Taxes.....	63 17
Overdrafts and bills payable.....	.....	Other expenses	134 90
All other sources	93 00	All other disbursements .....	.....
Total receipts.....	\$13,756 33	Balance on hand	664 81
		Total disbursements	\$13,756 33

Authorized capital stock	\$500,000 00
No. of shares	2,500
No. of members	118
No. of borrowers	12
No. of mortgage loans for year	6
Amount of mortgage loans for year	\$11,900 00
No. of foreclosures since organization .....	.....
Amount due on foreclosures .....	.....
No. of shares last report	594
No. of shares issued since last report	255
No. of shares canceled since last report	45
Net profits of year.....	\$2,664 92

Plan of distribution	Hewel-Meyberg.
No. shares loaned on	112
No. shares free	692
Ratio of salaries to total receipts .....	.87 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	2.31 per cent.
Surrender value of all shares	\$15,596 88
Total present worth of mortgages	16,409 72
Total appraised value of land	8,275 00
Total appraised value of improvements	27,399 00
Total book value of stock hypothecated	2,590 28
Total value of security held	38,264 28
Premium	Gross, 60 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force -----	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	492	Less 47	445	77	368
Second	149	Less 15	134	-----	134
Third	186	Less 30	156	16	140
Fourth	69	-----	69	19	50
Totals	896	Less 92	804	112	692

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$12,500 00	\$24 00	\$26 55	-----	\$24 45 $\frac{1}{2}$
Second	-----	18 00	19 55	-----	18 12 $\frac{1}{4}$
Third	2,700 00	12 00	12 77	-----	12 00
Fourth	3,800 00	6 00	19	-----	6 00
Totals	\$19,000 00	-----	-----	-----	-----

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
J. G. Elliott	Merced	20	\$200 00
John B. Olcese	Merced	10	200 00
George Conway	Merced	10	200 00
John B. Garibaldi	Merced	10	200 00
C. E. Kocher	Merced	10	200 00
A. C. Swain	Merced	10	200 00
R. Barcroft	Merced	10	200 00
Thomas Harris	Merced	10	200 00
R. F. Bartlett	Merced	5	200 00

No. 23.—MODESTO.

MODESTO BUILDING AND LOAN ASSOCIATION.

Incorporated October 10, 1889.

GEO. PERLEY, Secretary.

A. HEWEL, President.

No. of series, 4.

End of fiscal year, December 31, 1893.

No. of shares, 1,731.

Resources.		Liabilities.	
Loans.....	\$116,841 50	Dues and advance payments ..	\$83,790 86
Arrearages.....	91 20	Earnings.....	25,180 80
Cash on hand.....	6,320 56	Overdrafts and bills payable.....	.....
Real estate.....	.....	Profits unapportioned.....	14,281 60
Other assets.....	.....	All other liabilities.....	.....
Total resources.....	\$123,253 26	Total liabilities.....	\$123,253 26
Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$2,444 86	Paid overdrafts and bills payable.....	.....
Received for dues.....	21,452 00	Loans.....	\$20,900 00
Received for paid-up stock.....	.....	Interest.....	15 96
Received for premiums.....	34 40	Dues on surrendered shares.....	3,743 00
Received for interest.....	6,905 59	Profits on surrendered shares.....	360 72
Received for fees and fines.....	73 75	Salaries.....	300 00
Loans repaid.....	2,398 40	Taxes.....	1,559 94
Overdrafts and bills payable.....	.....	Other expenses.....	57 62
All other sources.....	50 05	All other disbursements.....	101 25
Total receipts.....	\$33,359 05	Balance on hand.....	6,320 56
Total disbursements.....	.....	Total disbursements.....	\$33,359 05

Authorized capital stock.....	\$600,000 00
No. of shares.....	3,000
No. of members.....	141
No. of borrowers.....	47
No. of mortgage loans for year.....	13
Amount of mortgage loans for year.....	\$20,900 00
No. of foreclosures since organization.....	.....
Amount due on foreclosures.....	.....
No. of shares last report.....	1,771
No. of shares issued since last report.....	66
No. of shares canceled since last report.....	106
Net profits of year.....	\$14,946 60
Plan of distribution.....	Hewel Rule.
No. shares loaned on.....	520
No. shares free.....	1,211
Ratio of salaries to total receipts.....	.90 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	5.75 per cent.
Surrender value of all shares.....	\$86,458 28
Total present worth of mortgages.....	89,528 41
Total appraised value of land.....	136,300 00
Total appraised value of improvements.....	76,260 00
Total book value of stock hypothecated.....	27,312 59
Total value of security held.....	239,872 59
Premium.....	Gross, 50 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force -----	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....	1,336	-----	1,216	260	956
Second.....	544	-----	403	148	255
Third.....	54	-----	51	51	-----
Fourth.....	66	-----	61	61	-----

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$28,502 00	\$50 00	\$72 24	\$56 37½	\$56 37½
Second.....	31,128 50	36 00	46 54	39 33	39 33
Third.....	32,378 00	24 00	28 64	25 50	25 50
Fourth.....	24,833 00	12 00	13 46	12 39	12 39

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors:	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
A. Hewel.....	Modesto.....	30	\$200 00
G. D. Plat.....	Modesto.....	15	200 00
J. F. Tucker.....	Modesto.....	5	200 00
J. E. Ward.....	Modesto.....	23	200 00
Jas. Johnson.....	Modesto.....	10	200 00
J. S. Alexander.....	Modesto.....	20	200 00
Theo. Turner.....	Modesto.....	8	200 00

No. 24.—NAPA.

NAPA BUILDING AND LOAN ASSOCIATION.

Incorporated April 22, 1886.

PETER LYLE, Secretary.

R. H. STERLING, President.

No. of series, 8.

End of fiscal year, May 14, 1894.

No. of shares, 2,344.

Resources.		Liabilities.	
Loans.....	\$193,505 00	Dues and advance payments...	\$144,143 00
Arrearages.....	931 88	Earnings.....	55,577 66
Cash on hand.....	3,336 97	Overdrafts and bills payable.....	-----
Real estate.....	2,469 50	Profits unapportioned.....	548 69
Other assets: insurance advanced.....	26 00	All other liabilities.....	-----
Total resources.....	\$200,269 35	Total liabilities.....	\$200,269 35

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$5,048 51	Paid overdrafts and bills payable.....	
Received for dues.....	29,591 00	Loans.....	\$19,305 00
Received for paid-up stock.....		Interest.....	
Received for premiums.....	2,659 75	Dues on surrendered shares.....	21,929 00
Received for interest.....	12,774 81	Profits on surrendered shares.....	9,197 35
Received for fees and fines.....	434 02	Salaries.....	720 00
Loans repaid.....	7,175 00	Taxes.....	2,833 37
Overdrafts and bills payable.....		Other expenses.....	327 40
All other sources: rent.....	144 00	All other disbursements.....	178 00
		Returned premiums.....	\$152 00
		Insurance advanced.....	26 00
		Balance on hand.....	3,336 97
Total receipts.....	\$57,827 09	Total disbursements.....	\$57,827 09

Authorized capital stock.....	\$1,200,000 00
No. of shares.....	6,000
No. of members.....	259
No. of borrowers.....	124
No. of mortgage loans for year.....	3
Amount of mortgage loans for year.....	\$12,550 00
No. of foreclosures since organization.....	
Amount due on foreclosures.....	
No. of shares last report.....	2,592
No. of shares issued since last report.....	53
No. of shares canceled since last report.....	301
Net profits of year.....	\$11,830 00
Plan of distribution.....	Partnership.
No. shares loaned on.....	1,128
No. shares free.....	1,126
Ratio of salaries to total receipts.....	1.25 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	6.74 per cent.
Surrender value of all shares (estimated).....	\$177,489 60
Total present worth of mortgages (estimated).....	\$129,003 00
Total appraised value of land (estimated).....	145,000 00
Total appraised value of improvements (estimated).....	145,257 50
Total book value of stock hypothecated (estimated).....	64,502 00
Total value of security held.....	354,759 50
Premium.....	Gross, 20 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....			181	85	96
Second.....			174	35	139
Third.....			248	149	99
Fourth.....			611	260	351
Fifth.....			750	219	531
Sixth.....			219	219	
Seventh.....			65	65	
Eighth.....			96	96	
Totals.....			2,344	1,128	1,216

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....		\$96 00	\$149 05		\$111 36
Second.....		89 00	134 59		102 20
Third.....		77 00	111 13		86 88
Fourth.....		65 00	89 32		72 04
Fifth.....		53 00	69 17		57 68
Sixth.....		41 00	50 67		43 80
Seventh.....		29 00	33 84		30 40
Eighth.....		17 00	18 66		17 45

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
R. H. Sterling	Napa	1	\$200 00
E. D. Beard	Napa	25	200 00
J. L. Shearer	Napa	17	200 00
Henry Brown	Napa	25	200 00
J. A. McClelland	Napa	10	200 00
J. H. Boke	Napa	12	200 00
L. T. Hayman	Napa	10	200 00
L. A. Bickford	Napa	5	200 00
D. M. Stockman	Napa	15	200 00

No. 25.—NEWCASTLE.

NEWCASTLE BUILDING AND LOAN ASSOCIATION.

Incorporated May 23, 1889.

ED. KATZENSTEIN, Secretary.

C. H. KELLOGG, President.

No. of series, 5.

End of fiscal year, May 26, 1894.

No. of shares, 316.

Resources.		Liabilities.	
Loans	\$21,100 00	Dues and advance payments ..	\$13,530 75
Arrearages	209 05	Earnings	4,091 31
Cash on hand .....	.....	Overdrafts and bills payable...	41 47
Real estate .....	.....	Profits unapportioned	3,729 37
Other assets: furniture and fix- tures	101 25	All other liabilities	17 40
		Advance interest	\$17 40
Total resources	\$21,410 30	Total liabilities	\$21,410 30

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	\$961 88	Paid overdrafts and bills pay- able .....	.....
Received for dues	4,521 15	Loans	\$7,700 00
Received for paid-up stock .....	.....	Interest	19 80
Received for premiums	1,540 00	Dues on surrendered shares	4,822 00
Received for interest	1,591 80	Profits on surrendered shares...	298 85
Received for fees and fines	151 79	Salaries	165 00
Loans repaid	5,250 00	Taxes	333 75
Overdrafts and bills payable	41 47	Other expenses	45 57
All other sources .....	.....	All other disbursements	673 12
		Returned premiums. \$673 12	
Total receipts	\$14,058 09	Balance on hand .....	.....
		Total disbursements	\$14,058 09

Authorized capital stock	\$1,000,000 00
No. of shares	5,000
No. of members	51
No. of borrowers	22
No. of mortgage loans for year	7
Amount of mortgage loans	\$7,300 00
No. of foreclosures since organization .....	.....
Amount due on foreclosures .....	.....

No. of shares last report	346
No. of shares issued since last report	70
No. of shares canceled since last report	100
Net profits of year	\$2,739 27
Plan of distribution	Second Dividend Rule.
No. shares loaned on	134
No. shares free	182
Ratio of salaries to total receipts	1.17 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	3.87 per cent.
Surrender value of all shares (estimated)	\$15,706 44
Total present worth of mortgages (estimated)	14,667 72
Total appraised value of land (estimated)	10,100 00
Total appraised value of improvements (estimated)	13,100 00
Total book value of stock hypothecated	6,432 28
Total value of security held (estimated)	29,632 28
Premium	Gross, 20 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	272	272	162	54	108
Second	70	70	45	13	32
Third	24	24	11	10	1
Fourth	48	43	28	16	12
Fifth	70	70	70	41	29

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$8,175 00	\$60 00	\$79 00	\$68 35	\$69 50
Second	2,300 00	48 00	60 16	53 03	52 86 ² / ₃
Third	1,650 00	36 00	42 84	38 33	38 05 ¹ / ₃
Fourth	2,175 00	24 00	27 04	25 50	24 61 ² / ₃
Fifth	6,800 00	12 00	12 76	12 39	12 03 ¹ / ₃

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
C. H. Kellogg	Newcastle	15	\$200 00
Geo. D. Kellogg	Newcastle	10	200 00
W. W. Woodruff	Newcastle	5	200 00
Geo. W. Bisbee	Auburn	10	200 00
F. J. Mason	Newcastle	10	200 00
W. R. Taylor	Newcastle	5	200 00
E. M. Kellogg	Newcastle	5	200 00
Jos. Smith	Newcastle	5	200 00
C. P. Byers	Newcastle	10	200 00

No. 26.—OAKLAND.

EQUITY BUILDING AND LOAN ASSOCIATION.

Incorporated August 21, 1888.

G. A. WILLARD, Secretary.

J. B. MCCHESENEY, President.

No. of series, 10.

End of fiscal year, June 30, 1893.

No. of shares, 1,312 $\frac{3}{4}$.

Resources.		Liabilities.	
Loans.....	\$129,580 00	Dues and advance payments....	\$69,653 00
Arrearages.....	710 75	Earnings.....	27,940 33
Cash on hand.....	4,122 71	Overdrafts and bills payable....	33,800 00
Real estate.....		Profits unapportioned.....	1,220 38
Other assets: furniture and fix- tures.....	515 10	All other liabilities: loans in- complete.....	2,314 85
Total resources.....	\$134,928 56	Total liabilities.....	\$134,928 56
Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$2,405 59	Paid overdrafts and bills pay- able.....	\$9,100 00
Received for dues.....	30,898 00	Loans.....	42,119 03
Received for paid-up stock.....		Interest.....	1,918 69
Received for premiums.....	6,310 57	Dues on surrendered shares....	11,309 00
Received for interest.....	8,621 23	Profits on surrendered shares..	4,027 48
Received for fees and fines.....	197 58	Salaries.....	2,204 00
Loans repaid.....	13,420 00	Taxes.....	1,156 21
Overdrafts and bills payable....	14,500 00	Other expenses.....	395 85
All other sources.....		All other disbursements.....	
Total receipts.....	\$76,352 97	Balance on hand.....	4,122 71
		Total disbursements.....	\$76,352 97

Authorized capital stock.....	\$5,000,000 00
No. of shares.....	25,000
No. of members.....	97
No. of borrowers.....	76
No. of mortgage loans for year.....	34
Amount of mortgage loans for year.....	\$41,650 00
No. of foreclosures since organization.....	
Amount due on foreclosures.....	
No. of shares last report.....	1,219 $\frac{3}{10}$
No. of shares issued since last report.....	391
No. of shares canceled since last report.....	297 $\frac{1}{2}$
Net profits of year.....	\$12,001 33
Plan of distribution.....	Wrigley.
No. shares loaned on.....	646
No. shares free.....	666 $\frac{1}{10}$
Ratio of salaries to total receipts.....	2.66 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	4.84 per cent.
Surrender value of all shares.....	\$95,745 77
Total present worth of mortgages.....	101,981 41
Total appraised value of land.....	102,757 00
Total appraised value of improvements.....	111,800 00
Total book value of stock hypothecated.....	26,256 86
Total value of security held.....	240,813 86
Premium.....	Installment, 32 cents per share.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Date of Issue.	In Foree -----	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....	Sept., 1888	623	78	33	45
Second.....	Jan., 1889	325½	115	65	50
Third.....	July, 1889	293½	123	39½	88½
Fourth.....	Jan., 1890	173¼	44½	22½	22
Fifth.....	July, 1890	172	109¾	48¾	61
Sixth.....	Jan., 1891	144¼	118½	29	89½
Seventh.....	July, 1891	196¾	126⅞	67	59⅝
Eighth.....	Jan., 1892	277½	219½	135½	84
Ninth.....	July, 1892	131¼	127¾	80¼	47½
Tenth.....	Jan., 1893	250¾	244¾	125½	119¼

Series.	Amount of Loans, Each Series.	Dues Paid Per Share, Borrowing Stock.	Value Per Share, Borrowing Stock.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$6,600 00	\$53 00	\$98 22	-----	-----
Second.....	13,000 00	54 00	89 60	-----	-----
Third.....	7,900 00	48 00	79 12	-----	-----
Fourth.....	4,500 00	42 00	69 34	-----	-----
Fifth.....	9,750 00	36 00	59 15	-----	-----
Sixth.....	5,800 00	30 00	49 57	-----	-----
Seventh.....	13,400 00	24 00	40 23	-----	-----
Eighth.....	27,100 00	18 00	29 73	-----	-----
Ninth.....	16,050 00	12 00	19 58	-----	-----
Tenth.....	25,100 00	6 00	9 57	-----	-----

Free stock receives a fixed rate of interest, 7 per cent per annum compounding semi-annually, and nothing more.

After taking out of each six months' earnings interest at the rate of 7 per cent per annum for the credit of both free and borrowing stock, and then all expenses, there was left in the last six months' term an amount that gave each borrowing stockholder a pro rata of \$3 57 per share for the credit of his account.

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
J. B. McChesney.....	Oakland.....	2	\$200 00
Paul Lohse.....	Oakland.....	38	200 00
D. Stuart.....	Oakland.....	15	200 00
J. R. Capell.....	Oakland.....	5	200 00
C. L. Ingler.....	Oakland.....	11	200 00
Al. Wood.....	Oakland.....	14½	200 00
John A. Hoots.....	Oakland.....	5	200 00
H. A. Thompson.....	Oakland.....	5	200 00
O. Duval.....	Oakland.....	20	200 00

No. 27.—OAKLAND.

HOME SECURITY BUILDING AND LOAN ASSOCIATION.

Incorporated July 20, 1875.

CHAS. K. CLARK, Secretary.

J. GREENHOOD, President.

No. of series, 20.

End of fiscal year, June 30, 1893.

No. of shares, 6,100.

Resources.		Liabilities.	
Loans.....	\$562,640 00	Dues and advance payments and paid-up stock.....	\$417,425 00
Arrearages.....	7,776 95	Earnings.....	138,325 02
Cash on hand.....		Overdrafts and bills payable...	18,685 86
Real estate.....	6,466 98	Profits unapportioned.....	
Other assets.....	1,372 10	All other liabilities.....	3,820 15
Furniture and fix- tures.....	\$1,000 00	Loans incomplete..	\$3,757 35
Accounts of mem- bers.....	372 10	Suspense account..	62 80
Total resources.....	\$578,256 03	Total liabilities.....	\$578,256 03
Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....		Paid overdrafts and bills pay- able.....	\$56,677 58
Received for dues.....	\$75,045 00	Loans.....	92,417 30
Received for paid-up stock.....	55,460 00	Interest.....	1,000 00
Received for premiums.....	13,616 65	Dues on surrendered shares.....	142,248 25
Received for interest.....	34,580 76	Profits on surrendered shares..	26,357 41
Received for fees and fines.....	832 70	Salaries.....	3,200 00
Loans repaid.....	93,282 30	Taxes.....	4,531 67
Overdrafts and bills payable.....	58,583 16	Other expenses.....	1,895 98
All other sources.....	24,388 25	All other disbursements.....	27,458 63
Total receipts.....	\$355,786 82	Balance on hand.....	
		Total disbursements.....	\$355,786 82

Authorized capital stock.....	\$5,000,000 00
No. of shares.....	25,000
No. of members.....	677
No. of borrowers.....	281
No. of mortgage loans for year.....	Not answered.
Amount of mortgage loans.....	\$89,432 30
No. of foreclosures since organization.....	3
Amount due on foreclosures.....	\$2,702 90
No. of shares last report.....	6,517
No. of shares issued since last report.....	781
No. of shares canceled since last report.....	1,198
Net profits of year.....	\$44,048 20
Plan of distribution.....	Partnership.
No. shares loaned on.....	2,794½
No. shares free.....	3,305½
Ratio of salaries to total receipts.....	.90 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	2.70 per cent.
Surrender value of all shares.....	\$400,295 55
Total present worth of mortgages.....	328,369 85
Total appraised value of land.....	342,634 50
Total appraised value of improvements.....	407,790 00
Total book value of stock hypothecated.....	210,407 17
Total value of security held.....	960,831 67
Premium: Gross and Installment.....	

.....Gross, 20 per cent to 23 per cent; Installment, 50c. to 55c.; interest, 7½ per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force Dec. 31, 1892.	Now in Force.	Shares Loaned Upon.	Shares "Free."
13 of January, 1883.....	328	144			
14 of July, 1883.....	265	150	150	105½	44½
15 of January, 1884.....	509	301	238	115	123
16 of July, 1884.....	327	210	202	115	87
17 of January, 1885.....	320	202	175	52	123
18 of July, 1885.....	564	393	348	173	175
19 of January, 1886.....	442	261	229	94½	134½
20 of July, 1886.....	384	217	192	103	89
21 of January, 1887.....	413	240	220	142	78
22 of July, 1887.....	347	266	256	165	91
23 of January, 1888.....	98	96	96	96	None.
24 of July, 1888.....	936	534	504	182¾	321¼
25 of January, 1889.....	700	358	358	129	229
26 of July, 1889.....	828	451	451	166	285
27 of January, 1890.....	707	444	444	63	381
28 of July, 1890.....	500	282	271	149¾	121¼
29 of January, 1891.....	576	515	451	212½	238½
30 of July, 1891.....	260	215	193	65½	127½
31 of January, 1892.....	649	643	581	262	319
32 of July, 1892.....	432	432	392	267¾	124¼
33 of January, 1893.....	349	-----	349	135¼	213¾
Totals.....	-----	6,554	6,100	2,794½	3,305½

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
13 of January, 1883.....					
14 of July, 1883.....	\$21,100 00	\$120 00	\$197 00	\$156 30	\$193 15
15 of January, 1884.....	23,000 00	114 00	133 35	146 75	179 80
16 of July, 1884.....	23,000 00	108 00	170 25	137 40	167 10
17 of January, 1885.....	10,400 00	102 00	157 55	128 25	154 75
18 of July, 1885.....	34,600 00	96 00	145 25	119 25	149 30
19 of January, 1886.....	18,900 00	90 00	133 30	110 50	126 80
20 of July, 1886.....	20,600 00	84 00	121 75	101 85	114 20
21 of January, 1887.....	28,400 00	78 00	110 50	93 40	102 35
22 of July, 1887.....	33,000 00	72 00	99 80	85 10	91 45
23 of January, 1888.....	19,200 00	66 00	89 35	77 05	81 15
24 of July, 1888.....	36,550 00	60 00	79 35	69 15	71 60
25 of January, 1889.....	25,800 00	54 00	69 70	61 40	61 40
26 of July, 1889.....	33,200 00	48 00	60 45	53 80	53 80
27 of January, 1890.....	12,600 00	42 00	51 60	46 50	46 50
28 of July, 1890.....	29,950 00	36 00	43 10	39 30	39 35
29 of January, 1891.....	42,500 00	30 00	34 90	32 30	32 30
30 of July, 1891.....	13,100 00	24 00	27 20	25 50	25 50
31 of January, 1892.....	52,400 00	18 00	19 85	18 85	18 85
32 of July, 1892.....	53,550 00	12 00	12 87	12 40	12 40
33 of January, 1893.....	27,050 00	6 00	6 30	6 10	6 10
Totals.....	\$558,900 00	-----	-----	-----	-----

Paid-up stock, 424½. Stock loans, \$3,740.

Series No. 13 matured. Series 14 will mature on payment of July and August dues.

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
J. S. Burpee.....	Oakland.....	7	\$200 00
Wm. H. Friend.....	Oakland.....	50	200 00
Geo. T. Burtchaell.....	Oakland.....	19	200 00
Jacob Greenhood.....	Oakland.....	50	200 00
T. A. Leach.....	Oakland.....	10	200 00
W. W. Whitman.....	Oakland.....	43	200 00
M. W. Upton.....	Oakland.....	10	200 00
J. Tyrrell.....	Oakland.....	35	200 00
Wm. Moller.....	Oakland.....	5	200 00

No. 28.—OAKLAND.

OAKLAND BUILDING AND LOAN ASSOCIATION.

Incorporated August 1, 1889, and April 24, 1890.

J. C. McMULLEN, Secretary.

L. W. FORSTING, Vice-President.

No. of series, 17. End of fiscal year, July 26, 1893. No. of shares, 5,738½.

Resources.		Liabilities.	
Loans.....	\$263,886 33	Dues and advance payments ..	\$173,869 96
Arrearages.....	8,340 37	Earnings.....	46,686 84
Cash on hand.....	468 54	Overdrafts and bills payable.....	22,000 00
Real estate.....	7,723 00	Profits unapportioned.....	.....
Other assets: furniture and fixtures.....	1,591 75	All other liabilities: deposits, etc.....	39,453 19
Total resources.....	\$282,009 99	Total liabilities.....	\$282,009 99
Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$3,142 37	Paid overdrafts and bills payable.....	\$20,412 56
Received for dues.....	42,008 14	Loans.....	91,658 29
Received for paid-up stock.....	.....	Interest.....	1,000 00
Received for premiums.....	11,234 39	Dues on surrendered shares.....	22,634 00
Received for interest.....	16,851 59	Profits on surrendered shares.....	7,735 93
Received for fees and fines.....	267 76	Salaries.....	2,418 32
Loans repaid.....	71,903 79	Taxes.....	2,579 90
Overdrafts and bills payable.....	16,669 02	Other expenses.....	1,516 59
All other sources.....	57,973 57	All other disbursements.....	69,626 50
Total receipts.....	\$220,050 63	Balance on hand.....	468 54
		Total disbursements.....	\$220,050 63

Authorized capital stock.....	\$1,000,000 00
No. of shares.....	10,000
No. of members.....	401
No. of borrowers.....	229
No. of mortgage loans for year.....	70
Amount of mortgage loans for year.....	\$43,130 00
No. of foreclosures since organization.....	.....
Amount due on foreclosures.....	.....
No. of shares last report.....	5,873½
No. of shares issued since last report.....	761
No. of shares canceled since last report.....	896
Net profits of year.....	\$15,186 69
Plan of distribution.....	Dexter.
No. shares loaned on.....	2,953½
No. shares free.....	2,785
Ratio of salaries to total receipts.....	1.09 per cent.
Ratio of expenses (including salaries) to total receipts.....	2.96 per cent.
Surrender value of all shares.....	\$175,162 63
Total present worth of mortgages.....	200,810 00
Total appraised value of land.....	185,460 00
Total appraised value of improvements.....	284,475 00
Total book value of stock hypothecated.....	80,565 00
Total value of security held.....	550,500 00
Premium.....	Installment, 25 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force -----	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	1,359	-----	821	240	581
Second	386	-----	207	32	175
Third	447	-----	171	142	29
Fourth	609	-----	401½	111½	290
Fifth	475	-----	333	228	105
Sixth	473	-----	306½	143½	163
Seventh	741	-----	510½	243	267½
Eighth	711	-----	441½	210½	231
Ninth	587	-----	399½	215	184½
Tenth	427	-----	338	188½	149½
Eleventh	769	-----	558½	323½	235
Twelfth	540	-----	271	222½	48½
Thirteenth	446	-----	322	267	55
Fourteenth	329	-----	234	138	146
Fifteenth	309	-----	229½	161½	68
Sixteenth	152	-----	136	87	49
Seventeenth	8	-----	8	-----	8
Totals	-----	-----	5,738½	2,953½	2,785

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$18,154 33	\$47 00	\$78 02	\$55 22	\$57 96
Second	5,125 00	44 00	73 04	48 84	50 45
Third	14,000 00	41 00	68 06	44 20	46 33
Fourth	7,297 00	38 00	63 08	41 61	42 81
Fifth	20,150 00	35 00	58 10	38 06	39 03
Sixth	10,520 00	32 00	53 12	34 56	35 41
Seventh	22,500 00	29 00	48 14	31 10	31 80
Eighth	16,025 00	26 00	43 16	27 69	28 25
Ninth	20,880 00	23 00	38 18	24 32	24 76
Tenth	19,450 00	20 00	33 20	21 00	21 33
Eleventh	24,795 00	17 00	28 22	17 72	17 96
Twelfth	21,250 00	14 00	23 24	14 49	14 65
Thirteenth	25,750 00	11 00	18 26	11 30	11 40
Fourteenth	13,090 00	8 00	13 28	8 16	8 21
Fifteenth	16,350 00	5 00	8 30	5 06	5 08
Sixteenth	8,550 00	2 00	3 32	2 01	2 01
Seventeenth	-----	1 00	1 00	1 00	1 00
Totals	\$263,886 33	-----	-----	-----	-----

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
J. C. McMullen	Oakland	80	\$100 00
A. J. Roberts	San Leandro	100	100 00
H. G. Blasdel	Oakland	50	100 00
A. J. McGovern	Oakland	75	100 00
Wm. Rutherford	Oakland	23	100 00
Geo. L. Nusbaumer	Oakland	75	100 00
A. F. Kerr	Oakland	12½	100 00
V. D. Moody	Oakland	100	100 00
L. W. Forsting	Oakland	195	100 00

No. 29.—OAKLAND.

PEOPLE'S BUILDING AND LOAN ASSOCIATION.

Incorporated December, 1889.

A. A. DEWING, Secretary.

FRANK H. BURKS, Vice-President.

No. of series, 10. End of fiscal year, December 11, 1893. No. of shares, 1,084¼.

Resources.		Liabilities.	
Loans.....	\$44,100 00	Dues and advance payments and paid-up stock.....	\$37,091 00
Arrearages.....	1,266 89	Earnings.....	8,569 50
Cash on hand.....	1,308 92	Overdrafts and bills payable.....	1,500 00
Real estate.....	.....	Profits unapportioned.....	6 61
Other assets.....	520 48	All other liabilities: advance payments, interest, and premium.....	29 18
Furniture and fixtures.....	\$445 00		
Personal accounts.....	75 48		
Total resources.....	\$47,196 29	Total liabilities.....	\$47,196 29

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$2,105 11	Paid overdrafts and bills payable.....	\$4,994 82
Received for dues.....	12,206 00	Loans.....	6,177 26
Received for paid-up stock.....	2,100 00	Interest.....	636 55
Received for premiums.....	1,624 17	Dues on surrendered shares and paid-up stock.....	14,807 00
Received for interest.....	3,313 04	Profits on surrendered shares.....	963 67
Received for fees and fines.....	122 93	Salaries.....	950 00
Loans repaid.....	8,650 00	Taxes.....	617 40
Overdrafts and bills payable.....	.....	Other expenses.....	284 32
All other sources.....	749 69	All other disbursements: suspense.....	131 00
Taxes.....	\$19 69	Balance on hand.....	1,308 92
Insurance premium.....	26 00		
Interest.....	14 00		
Suspense.....	130 00		
Withdrawal returned.....	560 00		
Total receipts.....	\$30,870 94	Total disbursements.....	\$30,870 94

Authorized capital stock.....	\$2,000,000 00
No. of shares.....	10,000
No. of members.....	112
No. of borrowers.....	21
No. of mortgage loans for year.....	4
Amount of mortgage loans for year.....	\$6,177 26
No. of foreclosures since organization.....	.....
Amount due on foreclosures.....	.....
No. of shares last report.....	979¼
No. of shares issued since last report.....	395
No. of shares canceled since last report.....	290
Net profits of year.....	\$2,571 87
Plan of distribution.....	Partnership.
No. shares loaned on.....	220½
No. shares free.....	863¾
Ratio of salaries to total receipts.....	3.07 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	6 per cent.
Surrender value of all shares.....	\$40,315 32
Total present worth of mortgages.....	32,635 79
Total appraised value of land.....	24,850 00
Total appraised value of improvements.....	42,105 00
Total book value of stock hypothecated.....	11,464 21
Total value of security held.....	78,419 21
Premium.....	Installment.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force December 15, 1892.	Now in Force.	Shares Loaned Upon.	Shares "Free."
1—January, 1889	1,005	436	361	55	306
2—July, 1889	133	51	45	31	14
3—January, 1890	152	62	37	15	22
4—July, 1890	91	51	41	35	6
5—January, 1891	206 $\frac{1}{4}$	153 $\frac{1}{4}$	75 $\frac{1}{4}$	27 $\frac{1}{2}$	47 $\frac{3}{4}$
6—July, 1891	108	53	32	11	21
7—January, 1892	146	86 $\frac{1}{2}$	66 $\frac{1}{2}$	18 $\frac{1}{2}$	48
8—July, 1892	86 $\frac{1}{2}$	86 $\frac{1}{2}$	31 $\frac{1}{2}$	16 $\frac{1}{2}$	15
9—January, 1893	216	-----	126	9	117
10—July, 1893	79	-----	79	2	77
Totals	2,222 $\frac{3}{4}$	-----	894 $\frac{1}{4}$	220 $\frac{1}{2}$	673 $\frac{3}{4}$

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
1—January, 1889	\$11,000 00	\$60 00	\$77 62	\$69 75	\$69 75
2—July, 1889	6,200 00	54 00	67 93	61 80	61 80
3—January, 1890	3,000 00	48 00	58 76	54 10	54 10
4—July, 1890	7,000 00	42 00	50 05	46 60	46 60
5—January, 1891	5,500 00	36 00	41 75	39 40	39 40
6—July, 1891	2,200 00	30 00	33 90	32 35	32 35
7—January, 1892	3,700 00	24 00	26 44	25 50	25 50
8—July, 1892	3,300 00	18 00	19 41	18 85	18 85
9—January, 1893	1,800 00	12 00	12 61	12 40	12 40
10—July, 1893	400 00	6 00	6 16	6 10	6 10
Totals	\$44,100 00	-----	-----	-----	-----

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
J. W. Phillips	Oakland	30	\$200 00
C. E. Snook	Oakland	25	200 00
Chas. D. Pierce	Oakland	5	200 00
Frank H. Brooks	Oakland	8	200 00
C. E. White	Oakland	10	200 00
J. P. Garlick	Oakland	10	200 00
E. P. Vandercook	Oakland	20	200 00
J. E. Johnston	Oakland	10	200 00
C. W. Wilkins	Oakland	10	200 00

No. 30.—OAKLAND.

STANDARD BUILDING AND LOAN ASSOCIATION OF ALAMEDA COUNTY.

Incorporated October 1, 1890.

HERBERT F. KELLOGG, Secretary.

D. EDWARD COLLINS, President.

No. of series, 6.

End of fiscal year, October 28, 1893.

No. of shares, 917.

Resources.		Liabilities.	
Loans.....	\$40,391 90	Dues and advance payments and paid-up stock	\$30,711 00
Arrearages.....	645 35	Earnings.....	4,008 35
Cash on hand.....	-----	Overdrafts and bills payable.....	6,231 59
Real estate.....	-----	Profits unapportioned	04
Other assets: furniture and fixtures.....	369 88	All other liabilities.....	456 15
		Interest due	\$76 50
		Taxes due.....	379 65
Total resources	\$41,407 13	Total liabilities	\$41,407 13
Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	-----	Paid overdrafts and bills payable.....	\$370 23
Received for dues.....	\$10,857 50	Loans.....	18,838 70
Received for paid-up stock.....	1,885 00	Interest	798 18
Received for premiums.....	1,507 80	Dues on surrendered shares and paid-up stock	5,075 00
Received for interest.....	2,366 65	Profits on surrendered shares.....	162 72
Received for fees and fines	55 30	Salaries	480 00
Loans repaid.....	3,511 00	Taxes.....	259 19
Overdrafts and bills payable.....	6,231 59	Other expenses.....	287 45
All other sources: taxes returned.....	6 63	All other disbursements: office fixtures	150 00
		Balance on hand.....	-----
Total receipts.....	\$26,421 47	Total disbursements.....	\$26,421 47

Authorized capital stock	\$5,000,000 00
No. of shares	25,000
No. of members	75
No. of borrowers.....	17
No. of mortgage loans for year.....	8
Amount of mortgage loans.....	\$16,600 00
No. of foreclosures since organization	-----
Amount due on foreclosures	-----
No. of shares last report	878½
No. of shares issued since last report.....	268
No. of shares canceled since last report	229½
Net profits of year	\$2,425 13
Plan of distribution	Dexter.
No. shares loaned on	201
No. shares free.....	716
Ratio of salaries to total receipts.....	1.82 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	3.88 per cent.
Surrender value of all shares.....	\$25,473 60
Total present worth of mortgages.....	34,938 75
Total appraised value of land	24,010 00
Total appraised value of improvements.....	32,207 00
Total book value of stock hypothecated.....	5,453 15
Total value of security held.....	61,670 15
Premium.....	Installment.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force October 28, 1892.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First—November, 1890.....	821½	521½	447	47	400
Second—May, 1891.....	118	113	78	37	41
Third—November, 1891.....	171	122	63	24	39
Fourth—May, 1892.....	137	122	81	12	69
Fifth—November, 1892.....	162	-----	142	47	95
Sixth—May, 1893.....	106	-----	106	34	72

Series.	Amount of Loans, Each Series.	Dues Paid Per share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First—November, 1890.....	\$9,400 00	\$36 00	\$43 08	\$39 24	\$39 24
Second—May, 1891.....	7,400 00	30 00	34 62	32 25	31 44
Third—November, 1891.....	4,800 00	24 00	26 90	25 44	25 44
Fourth—May, 1892.....	2,400 00	18 00	19 85	18 81	18 36
Fifth—November, 1892.....	9,400 00	12 00	12 77	12 36	12 36
Sixth—May, 1893.....	6,800 00	6 00	6 39	6 09	6 00

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
D. Edward Collins, President.....	1388 Harrison St., Oakland..	25	\$200 00
Albert Brown, Vice-President.....	1387 Alice St., Oakland.....	25	200 00
E. A. Heron.....	Hotel Metropole, Oakland.....	25	200 00
C. W. Kellogg.....	1253 Grove St., Oakland.....	25	200 00
George Burbeck.....	1259 West St., Oakland.....	10	200 00
E. H. Morgan.....	654 14th St., Oakland.....	10	200 00
W. W. Childs.....	1114 10th Ave., Oakland.....	25	200 00
W. I. Reed.....	1271 Harrison St., Oakland..	25	200 00
C. F. Baker.....	Linda Vista Terrace, Oakland	30	200 00

No. 31.—EAST OAKLAND.

BROOKLYN INVESTMENT AND LOAN ASSOCIATION.

Incorporated October 14, 1889.

P. F. MOREHOUSE, Secretary.

H. H. LAWRENCE, Vice-President.

No. of series, 14. End of fiscal year, October 31, 1893. No. of shares, 2,993¼.

Resources.		Liabilities.	
Loans.....	\$70,400 00	Dues and advance payments ..	\$48,871 35
Arrearages.....	1,326 50	Earnings.....	11,575 43
Cash on hand.....	336 73	Overdrafts and bills payable...	10,482 00
Real estate.....	-----	Profits unapportioned.....	-----
Other assets: furniture and fix- tures.....	415 00	All other liabilities.....	1,549 45
		Loans incomplete.....	\$428 45
		Accrued taxes.....	540 00
		Due shares withdrawn.....	581 00
Total resources.....	\$72,478 23	Total liabilities.....	\$72,478 23

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$402 94	Paid overdrafts and bills payable.....	\$10,760 00
Received for dues.....	23,453 10	Loans.....	22,208 70
Received for paid-up stock.....		Interest.....	1,093 35
Received for premiums.....	2,864 80	Dues on surrendered shares.....	11,807 25
Received for interest.....	4,978 75	Profits on surrendered shares.....	979 65
Received for fees and fines.....	61 05	Salaries.....	976 00
Loans repaid.....	10,150 00	Taxes.....	435 86
Overdrafts and bills payable.....	6,942 00	Other expenses.....	246 10
All other sources.....		All other disbursements.....	9 00
		Balance on hand.....	336 73
Total receipts.....	\$48,852 64	Total disbursements.....	\$48,852 64

Authorized capital stock.....	\$2,000,000 00
No. of shares.....	20,000
No. of members.....	171
No. of borrowers.....	45
No. of mortgage loans for year.....	16
Amount of mortgage loans for year.....	\$18,100 00
No. of foreclosures since organization.....	
Amount due on foreclosures.....	
No. of shares last report.....	3,081½
No. of shares issued since last report.....	1,156½
No. of shares canceled since last report.....	1,244½
Net profits of year.....	\$5,190 30
Plan of distribution.....	Dexter.
No. shares loaned on.....	704
No. shares free.....	2,289½
Ratio of salaries to total receipts.....	2 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	3.39 per cent.
Surrender value of all shares.....	\$54,070 91
Total present worth of mortgages.....	55,984 03
Total appraised value of land.....	45,550 00
Total appraised value of improvements.....	61,050 00
Total book value of stock hypothecated.....	14,415 97
Total value of security held.....	121,015 97
Premium.....	Installment, 30 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....	698		430	75	355
Second.....	317		132	24½	107½
Third.....	383		156	27	129
Fourth.....	497		157	58	99
Fifth.....	298½		90½	38½	52
Sixth.....	440		173½	24½	149
Seventh.....	255		167	32	135
Eighth.....	440		291	91	200
Ninth.....	427		251½	74½	177
Tenth.....	419		280	98	182
Eleventh.....	346½		191½	37½	154
Twelfth.....	261		231	44	187
Thirteenth.....	175½		140	40	100
Fourteenth.....	302½		302½	39½	263
Totals.....			2,993½	704	2,289½

MEMORANDA OF SERIES, LOANS, ETC.—Continued.

Series.	Amount of Loans Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$7,500 00	\$48 00	\$63 79	\$53 88	\$57 80
Second	2,450 00	42 00	54 21	46 51	48 77
Third	2,700 00	18 00	22 39	19 66	20 22
Fourth	5,800 00	16 50	20 07	17 90	18 14
Fifth	3,850 00	15 00	17 87	16 16	16 16
Sixth	2,450 00	13 50	15 80	14 44	14 44
Seventh	3,200 00	12 00	13 80	12 75	12 75
Eighth	9,100 00	10 50	11 84	11 08	11 08
Ninth	7,450 00	9 00	9 94	9 43	9 43
Tenth	9,800 00	7 50	8 15	7 80	7 80
Eleventh	3,750 00	6 00	6 42	6 19	6 19
Twelfth	4,400 00	4 50	4 74	4 62	4 62
Thirteenth	4,000 00	3 00	3 11	3 05	3 05
Fourteenth	3,950 00	1 50	1 53	1 53	1 53
Totals	\$70,400 00				

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
C. H. Daly	East Oakland	30	\$100 00
H. H. Lawrence	East Oakland	20	100 00
E. H. Richardson	East Oakland	5	100 00
J. Alex. Campbell	East Oakland	40	100 00
W. R. Evans	East Oakland	10	100 00
E. W. Bradley	East Oakland	20	100 00
T. M. Gardiner	East Oakland	19½	100 00
Albert Schmidt	East Oakland	10	100 00
H. C. Chesebrough	East Oakland	10	100 00

No. 32.—OAKLAND.

COSMOPOLITAN MUTUAL BUILDING AND LOAN ASSOCIATION.

Incorporated August 6, 1879.

P. F. MOREHOUSE, Secretary.

D. SYMMES, President.

No. of series, 20.

End of fiscal year, July 31, 1893.

No. of shares, 2,471.

Resources.		Liabilities.	
Loans	\$171,200 00	Dues and advance payments ..	\$110,654 00
Arrearages	6,875 95	Earnings	39,920 10
Cash on hand	2,242 39	Overdrafts and bills payable ..	19,500 00
Real estate		Profits unapportioned	9,814 40
Other assets	620 16	All other liabilities	1,050 00
Total resources	\$180,938 50	Total liabilities	\$180,938 50

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	\$3,605 24	Paid overdrafts and bills pay- able	\$12,900 00
Received for dues	27,775 29	Loans	22,700 00
Received for paid-up stock		Interest	1,370 84
Received for premiums	2,365 25	Dues on surrendered shares	25,082 00
Received for interest	12,506 85	Profits on surrendered shares	15,680 45
Received for fees and fines	468 35	Salaries	1,503 50
Loans repaid	20,050 00	Taxes	2,266 80
Overdrafts and bills payable	18,800 00	Other expenses	413 85
All other sources	39 40	All other disbursements	1,450 55
		Balance on hand	2,242 39
Total receipts	\$85,610 38	Total disbursements	\$85,610 38

Authorized capital stock	\$600,000 00
No. of shares	3,000
No. of members	224
No. of borrowers	87
No. of mortgage loans for year	24
Amount of mortgage loans for year	\$22,400 00
No. of foreclosures since organization	
Amount due on foreclosures	
No. of shares last report	2,406
No. of shares issued since last report	471½
No. of shares canceled since last report	406½
Net profits of year	\$14,214 63
Plan of distribution	Partnership.
No. shares loaned on	856
No. shares free	1,615
Ratio of salaries to total receipts	1.76 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	4.89 per cent.
Surrender value of all shares	\$140,140 61
Total present worth of mortgages	111,588 67
Total appraised value of land	147,950 00
Total appraised value of improvements	120,470 00
Total book value of stock hypothecated	59,611 33
Total value of security held	328,031 33
Premium	Installment, 30 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force Aug. 1, 1892.	Now in Force, Aug. 1, 1893.	Shares Loaned Upon.	Shares "Free."
8 of August, 1882	333	115			
9 of February, 1883	318	31			
10 of August, 1883	160	17	16	1	15
11 of February, 1884	239	43	41	22	19
12 of August, 1884	156	35	35	24	11
13 of February, 1885	194	37	37	30	7
14 of August, 1885	176	38	38	23	15
15 of February, 1886	303	87	83	15	68
16 of August, 1886	201	55	55	16	39
17 of February, 1887	342	166	141	56	85
18 of August, 1887	157	63	53	17½	35½
19 of February, 1888	234	133	118	85¾	32¼
20 of August, 1888	302	168	168	74	94
21 of February, 1889	311	152	152	49	103
22 of August, 1889	603	337	283	58¼	224¾
23 of February, 1890	297	205	177	31½	145½
24 of August, 1890	182½	104	73	22	51
25 of February, 1891	187	129	129	86½	42½
26 of August, 1891	264	225	189	54	135
27 of February, 1892	266	266	183½	79½	104
28 of August, 1892	136		111	62¾	48¼
29 of February, 1893	388½		388½	48¼	340¼
Totals			2,471	856	1,615

MEMORANDA OF SERIES, LOANS, ETC.—Continued.

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
8 of August, 1882.....					
9 of February, 1883.....					
10 of August, 1883.....	\$200 00	\$120 00	\$209 20	\$156 30	\$209 20
11 of February, 1884.....	4,400 00	114 00	192 53	146 78	188 60
12 of August, 1884.....	4,800 00	108 00	177 93	137 43	170 94
13 of February, 1885.....	6,000 00	102 00	163 48	128 27	154 27
14 of August, 1885.....	4,600 00	96 00	150 10	119 28	139 28
15 of February, 1886.....	3,000 00	90 00	137 19	110 47	125 40
16 of August, 1886.....	3,200 00	84 00	124 71	101 85	104 35
17 of February, 1887.....	11,200 00	78 00	112 77	93 40	95 39
18 of August, 1887.....	3,500 00	72 00	101 47	85 14	86 74
19 of February, 1888.....	17,150 00	66 00	90 57	77 05	78 29
20 of August, 1888.....	14,800 00	60 00	80 14	69 15	70 07
21 of February, 1889.....	9,800 00	54 00	70 31	61 42	62 15
22 of August, 1889.....	11,650 00	48 00	60 83	53 83	54 42
23 of February, 1890.....	6,300 00	42 00	51 82	46 51	46 91
24 of August, 1890.....	4,400 00	36 00	43 15	39 33	39 57
25 of February, 1891.....	17,300 00	30 00	34 89	32 32	32 45
26 of August, 1891.....	10,800 00	24 00	27 05	25 50	25 50
27 of February, 1892.....	15,900 00	18 00	19 63	18 86	18 86
28 of August, 1892.....	12,550 00	12 00	12 69	12 39	12 39
29 of February, 1893.....	9,650 00	6 00	6 18	6 10	6 10
Totals	\$171,200 00				

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
W. K. Vanderslice.....	San Francisco.....	10	\$200 00
D. Symmes.....	East Oakland.....	30	200 00
William Hoffschneider.....	East Oakland.....	25	200 00
P. H. Blake.....	East Oakland.....	6	200 00
E. K. Waterman.....	East Oakland.....	30	200 00
A. J. McGovern.....	East Oakland.....	15	200 00
E. H. Richardson.....	East Oakland.....	10	200 00
W. H. High, Jr.....	Oakland.....	10	200 00
B. S. Wade.....	East Oakland.....	10	200 00

No. 33.—OAKLAND.

WEST OAKLAND MUTUAL LOAN ASSOCIATION.

Incorporated July 21, 1875.

ANDREA SBARBORO, Secretary.

A. MERLE, President.

No. of series, 11.

End of fiscal year, August 31, 1893.

No. of shares, 2,258 $\frac{1}{2}$.

Resources.		Liabilities.	
Loans.....	\$171,856 60	Dues and advance payments ..	\$131,830 50
Arrearages.....	891 57	Earnings.....	41,856 67
Cash on hand.....		Overdrafts and bills payable...	114 50
Real estate.....		Profits unapportioned.....	
Other assets.....	1,072 00	All other liabilities.....	18 50
Total resources.....	\$173,820 17	Total liabilities.....	\$173,820 17

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	-----	Paid overdrafts and bills pay-	-----
Received for dues	\$28,804 50	able	\$310 58
Received for paid-up stock	-----	Loans	28,825 10
Received for premiums	5,342 00	Interest	118 25
Received for interest	10,410 59	Dues on surrendered shares	28,564 00
Received for fees and fines	594 61	Profits on surrendered shares	8,504 37
Loans repaid	26,863 50	Salaries	1,800 00
Overdrafts and bills payable	114 50	Taxes	1,728 72
All other sources	-----	Other expenses	646 38
		All other disbursements	1,632 30
		Balance on hand	-----
Total receipts	\$72,129 70	Total disbursements	\$72,129 70

Authorized capital stock	-----	\$600,000 00
No. of shares	-----	3,000
No. of members	-----	249
No. of borrowers	-----	119
No. of mortgage loans for year	-----	23
Amount of mortgage loans for year	-----	\$27,325 10
No. of foreclosures since organization	-----	-----
Amount due on foreclosures	-----	-----
No. of shares last report	-----	2,417 1/4
No. of shares issued since last report	-----	344
No. of shares canceled since last report	-----	503
Net profits of year	-----	\$10,331 36
Plan of distribution	-----	Wrigley.
No. shares loaned on	-----	858 3/4
No. shares free	-----	1,399 1/2
Ratio of salaries to total receipts	-----	2.50 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	-----	5.79 per cent.
Surrender value of all shares	-----	\$160,642 68
Total present worth of mortgages	-----	102,757 14
Total appraised value of land	-----	78,570 00
Total appraised value of improvements	-----	152,200 00
Total book value of stock hypothecated	-----	72,695 10
Total value of security held	-----	303,465 10
Premium	-----	Gross, 20 per cent; Installment, 50 cents per share.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue, 1st Year.	In Force Aug. 31, 1892.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	1,959	-----	Matured.	-----	-----
Second	802	-----	Matured.	-----	-----
Third	751	-----	Matured.	-----	-----
Fourth	433	-----	Matured.	-----	-----
Fifth	531 1/2	94	Matured.	-----	-----
Sixth	401 1/2	111 1/4	111 1/4	54 3/4	56 1/2
Seventh	386 1/2	88 1/2	86 1/2	34	52 1/2
Eighth	474 1/2	199 1/2	174 1/2	72 1/2	102
Ninth	643	252 1/2	247 1/2	77 1/2	170
Tenth	274	103	83	23	65
Eleventh	305	144	117	30	87
Twelfth	364 1/2	283	238	136	102
Thirteenth	546	276	181	110	71
Fourteenth	526	431	341	151	190
Fifteenth	492	434 1/2	394 1/2	54 1/2	340
Sixteenth	344	None.	279	115 1/2	163 1/2
Totals	9,233 1/2	2,417 1/4	2,258 1/4	858 3/4	1,399 1/2

MEMORANDA OF SERIES, LOANS, ETC.—Continued.

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First					
Second					
Third					
Fourth					
Fifth					
Sixth	\$10,950 00	\$132 00	\$192 97	\$175 56	\$177 73
Seventh	6,800 00	120 00	169 81	156 00	157 36
Eighth	*27 00				
	14,500 00	108 00	148 40	137 16	138 30
Ninth	15,500 00	96 00	128 75	119 04	120 56
Tenth	4,600 00	84 00	110 49	101 64	103 87
Eleventh	6,000 00	72 00	93 63	84 96	88 22
Twelfth	*9 60				
	27,200 00	60 00	76 74	69 00	70 04
Thirteenth	22,000 00	48 00	58 95	53 76	53 47
Fourteenth	*10 00				
	30,200 00	36 00	43 90	39 24	39 95
Fifteenth	10,900 00	24 00	27 96	25 44	25 98
Sixteenth	+60 00				
	23,100 00	12 00	13 85	12 36	12 92
Totals	\$171,856 60				

*Ins. †Temptry.

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
A. Merle	Oakland	35	\$200 00
G. D. Welsh	Oakland	5	200 00
C. S. Martin	Oakland	5	200 00
G. B. Cevalco	San Francisco	35	200 00
Wm. Wagner	West Oakland	5	200 00
C. A. Malm	San Francisco	10	200 00
Joseph Schnelly	Oakland	10	200 00
August Pick	Oakland	5	200 00
C. H. Spaulding	Oakland	25	200 00

No. 34.—ONTARIO.

PEOPLE'S MUTUAL BUILDING AND LOAN ASSOCIATION.

Incorporated June 24, 1891.

C. W. ELDRIDGE, Secretary.

A. P. HARWOOD, President.

No. of series, 8.

End of fiscal year, June 1, 1893.

No. of shares, 1,042.

Resources.		Liabilities.	
Loans	\$33,000 00	Dues and advance payments ..	\$11,035 80
Arrearages	240 85	Earnings	2,191 56
Cash on hand	186 30	Overdrafts and bills payable ..	15,027 00
Real estate		Profits unapportioned	4,645 00
Other assets	135 00	All other liabilities	662 79
Total resources	33,562 15	Total liabilities	\$33,562 15

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	\$1,025 08	Paid overdrafts and bills payable	\$7,300 00
Received for dues	7,277 00	Loans	12,487 03
Received for paid-up stock	-----	Interest	1,143 59
Received for premiums	2,360 00	Dues on surrendered shares	2,701 80
Received for interest	2,350 86	Profits on surrendered shares	45 18
Received for fees and fines	107 18	Salaries	500 00
Loans repaid	1,500 00	Taxes	-----
Overdrafts and bills payable	10,027 00	Other expenses	174 72
All other sources	60 25	All other disbursements	168 75
		Balance on hand	186 30
Total receipts	\$24,707 37	Total disbursements	\$24,707 37

Authorized capital stock	\$2,000,000 00
No. of shares	20,000
No. of members	72
No. of borrowers	25
No. of mortgage loans for year	17
Amount of mortgage loans	\$11,800 00
No. of foreclosures since organization	-----
Amount due on foreclosures	-----
No. of shares last report	941
No. of shares issued since last report	434
No. of shares canceled since last report	333
Net profits of year	\$1,388 56
Plan of distribution	Second Dividend.
No. shares loaned on	330
No. shares free	712
Ratio of salaries to total receipts	2.02 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	2.73 per cent.
Surrender value of all shares	\$11,550 74
Total present worth of mortgages	29,196 95
Total appraised value of land	29,850 00
Total appraised value of improvements	32,450 00
Total book value of stock hypothecated	4,340 71
Total value of security held	66,640 71
Premium	Gross, 20 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force	Now In Force.	Shares Loaned Upon.	Shares "Free."
First—Issued June 24, 1891..	502	462	462	100	362
Second—Issued Sept. 1, 1891..	169	146	146	122	24
Third—Issued Dec. 1, 1891 ..	250	30	30	10	20
Fourth—Issued Mar. 1, 1892 ..	66	50	50	9	41
Fifth—Issued June 1, 1892 ..	70	65	65	26	39
Sixth—Issued Sept. 1, 1892 ..	251	180	180	30	150
Seventh—Issued Dec. 1, 1892..	50	46	46	18	28
Eighth—Issued Mar. 1, 1893 ..	63	63	63	15	48

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First—Issued June 24, 1891..	\$10,000 00	\$14 40	\$17 74	-----	-----
Second—Issued Sept. 1, 1891..	12,200 00	12 60	15 17	-----	-----
Third—Issued Dec. 1, 1891 ..	1,000 00	10 80	12 68	-----	-----
Fourth—Issued Mar. 1, 1892 ..	900 00	9 00	10 31	-----	-----
Fifth—Issued June 1, 1892 ..	2,600 00	7 20	8 03	-----	-----
Sixth—Issued Sept. 1, 1892 ..	3,000 00	5 40	5 87	-----	-----
Seventh—Issued Dec. 1, 1892..	1,800 00	3 60	3 81	-----	-----
Eighth—Issued Mar. 1, 1893 ..	1,500 00	1 80	1 85	-----	-----

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
A. P. Harwood.....	Ontario.....	10	\$100 00
Chas. Frankish.....	Ontario.....	6	100 00
Dr. Grainger Hyer.....	Ontario.....	20	100 00
Dr. W. P. Holyoke.....	Ontario.....	35	100 00
Wm. Friend.....	Ontario.....	10	100 00
C. W. Eldridge.....	Ontario.....	25	100 00

No. 35.—ORANGE.

ORANGE BUILDING AND LOAN ASSOCIATION.

Incorporated September 26, 1887.

FRED'K AHLBORN, Secretary.

J. H. FREDERICK, President.

No. of series, 1. End of fiscal year, September 15, 1893. No. of shares, 79.

Resources.		Liabilities.	
Loans.....	\$9,900 00	Dues and advance payments ..	\$5,688 00
Arrearages.....	54 88	Earnings.....	4,291 28
Cash on hand.....	7 12	Overdrafts and bills payable.....	22
Real estate.....	-----	Profits unapportioned.....	-----
Other assets: furniture and fixtures.....	17 50	All other liabilities.....	-----
Total resources.....	\$9,979 50	Total liabilities.....	\$9,979 50

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$169 04	Paid overdrafts and bills payable.....	-----
Received for dues.....	1,174 10	Loans.....	-----
Received for paid-up stock.....	-----	Interest.....	-----
Received for premiums.....	-----	Dues on surrendered shares.....	\$2,300 00
Received for interest.....	692 10	Profits on surrendered shares.....	1,207 09
Received for fees and fines.....	24 51	Salaries.....	60 00
Loans repaid.....	1,547 57	Taxes.....	4 33
Overdrafts and bills payable.....	-----	Other expenses.....	34 11
All other sources.....	5 33	All other disbursements: return premiums.....	-----
Rent.....	\$1 00	Balance on hand.....	7 12
Insurance and taxes.....	4 33		
Total receipts.....	\$3,612 65	Total disbursements.....	\$3,612 65

Authorized capital stock.....	\$1,000,000 00
No. of shares.....	5,000
No. of members.....	16
No. of borrowers.....	11
No. of mortgage loans for year.....	-----
Amount of mortgage loans for year.....	-----
No. of foreclosures since organization.....	-----
Amount due on foreclosures.....	-----
No. of shares last report.....	122 ⁴ / ₁₀
No. of shares issued since last report.....	-----
No. of shares canceled since last report.....	43 ⁴ / ₁₀
Net profits of year.....	\$622 35

Plan of distribution	Share and share alike.
No. shares loaned on	49½
No. shares free	29½
Ratio of salaries to total receipts	1.44 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	2.37 per cent.
Surrender value of all shares	\$9,043 92
Total present worth of mortgages	3,622 41
Total appraised value of land	1,675 00
Total appraised value of improvements	5,650 00
Total book value of stock hypothecated	6,975 10
Total value of security held	14,500 10
Premium	Gross, average, 30 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force Sept. 30, 1887.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....	735	735	79	49½	29½

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$9,900 00	\$72 00	\$126 32	\$202 11	\$114 48

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Jos. H. Frederick.....	Orange	5	\$200 00
Thos. Hall.....	Orange	7	200 00
F. D. Collins.....	Orange	½	200 00
W. M. Scott.....	Orange	1	200 00
Chas. L. Leslie	Orange	$\frac{1}{20}$	200 00

No. 36.—PALO ALTO.

PALO ALTO MUTUAL BUILDING AND LOAN ASSOCIATION.

Incorporated November, 1892.

C. W. JONES, Secretary.

J. S. BUTLER, President.

No. of series, 2.

End of fiscal year, December 4, 1893.

No. of shares, 289.

Resources.		Liabilities.	
Loans.....	\$8,400 00	Dues and advance payments ..	\$3,412 00
Arrearages.....	238 25	Earnings.....	336 97
Cash on hand.....	800 77	Overdrafts and bills payable....	5,700 00
Real estate		Profits unapportioned	80 61
Other assets: inventory expense account.....	111 68	All other liabilities: unpaid taxes	21 12
Total resources	\$9,550 70	Total liabilities	\$9,550 70

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....		Paid overdrafts and bills payable.....	\$1,000 00
Received for dues.....	\$3,306 00	Loans.....	9,200 00
Received for paid-up stock.....		Interest.....	329 24
Received for premiums.....	227 01	Dues on surrendered shares.....	50 00
Received for interest.....	491 82	Profits on surrendered shares.....	
Received for fees and fines.....	31 00	Salaries.....	
Loans repaid.....	800 00	Taxes.....	32 14
Overdrafts and bills payable.....	6,700 00	Other expenses.....	143 63
All other sources.....		All other disbursements.....	
		Balance on hand.....	800 77
Total receipts.....	\$11,555 83	Total disbursements.....	\$11,555 83

Authorized capital stock.....	\$2,000,000 00
No. of shares.....	10,000
No. of members.....	34
No. of borrowers.....	6
No. of mortgage loans for year.....	7
Amount of mortgage loans for year.....	\$9,200 00
No. of foreclosures since organization.....	
Amount due on foreclosures.....	
No. shares last report.....	
No. shares issued since last report.....	299
No. shares canceled since last report.....	10
Net profits of year.....	\$417 58
Plan of distribution.....	Wrigley.
No. shares loaned on.....	52
No. shares free.....	237
Ratio of salaries to total receipts.....	
Ratio of expenses (including taxes) to total receipts.....	1.42 per cent.
Surrender value of all shares.....	\$3,518 25
Total present worth of mortgages.....	7,877 33
Total appraised value of land.....	6,000 00
Total appraised value of improvements.....	6,400 00
Total book value of stock hypothecated.....	522 67
Total value of security held.....	12,922 67
Premium.....	Gross.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force	Now In Force.	Shares Loaned Upon.	Shares "Free."
First.....	279		269	33	236
Second.....	21		21	9	12

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$6,600 00	\$12 00	\$13 20	\$12 36	\$12 36
Second.....	1,800 00	9 00	9 67½	9 21	9 21

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
J. S. Butler.....		5	\$200 00
Joseph Hutchinson.....		25	200 00
G. W. Mosher.....		5	200 00
D. E. Ashby.....		5	200 00
W. W. Truesdale.....		5	200 00
Frank Couden.....		5	200 00
D. L. Sloan.....		5	200 00
C. W. Jones.....		5	200 00
J. F. Parkinson.....			

No. 37.—PASADENA.

MUTUAL BUILDING AND LOAN ASSOCIATION.

Incorporated July 20, 1892.

J. T. CHURCH, Secretary.

T. P. LUKENS, President.

No. of series, 2.

End of fiscal year, June 30, 1893.

No. of shares, 754.

Resources.		Liabilities.	
Loans.....	\$4,100 00	Dues and advance payments...	\$4,044 50
Arrearages	31 25	Earnings	48 59
Cash on hand.....	14 41	Overdrafts and bills payable...	52 57
Real estate.....		Profits unapportioned	
Other assets.....		All other liabilities	
Total resources	\$4,145 66	Total liabilities	\$4,145 66
Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand		Paid overdrafts and bills pay- able.....	
Received for dues.....	\$4,163 25	Loans.....	\$4,900 00
Received for paid-up stock.....		Interest.....	5 00
Received for premiums.....	115 53	Dues on surrendered shares.....	118 75
Received for interest.....	112 64	Profits on surrendered shares.....	
Received for fees and fines.....	118 05	Salaries.....	240 00
Loans repaid.....	800 00	Taxes.....	62 33
Overdrafts and bills payable.....	52 57	Other expenses	36 75
All other sources: pass books.....	15 25	All other disbursements	
Total receipts.....	\$5,377 29	Balance on hand.....	14 41
		Total disbursements.....	\$5,377 29

Authorized capital stock	\$2,000,000 00
No. of shares	20,000
No. of members	64
No. of borrowers	8
No. of mortgage loans for year	9
Amount of mortgage loans for year	\$4,900 00
No. of foreclosures since organization	
Amount due on foreclosures	
No. of shares last report	
No. of shares issued since last report	789
No. of shares canceled since last report.....	35
Net profits of year.....	\$18 74
Plan of distribution	Dexter.
No. shares loaned on	74
No. shares free	650
Ratio of salaries to total receipts.....	4.46 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	6.30 per cent.
Surrender value of all shares.....	\$3,942 00
Total present worth of mortgages	3,846 76
Total appraised value of land	3,050 00
Total appraised value of improvements.....	4,600 00
Total book value of stock hypothecated.....	253 24
Total value of security held	7,903 24
Premium.....	Installment.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force.	Loaned on.	Free.
First	585	560	30	580
Second	204	194	44	154

Series.	Amount.	Dues Paid.	Book Value.	Withdrawal Value.
First	\$2,200 00	\$6 00	\$6 03	\$6 00
Second	2,700 00	3 00	3 01	3 00

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Directors.	Residence.	Shares.	Par Value.
T. P. Lukens	Pasadena	35	\$100 00
J. D. Lincoln	Pasadena	10	100 00
F. H. Vallette	Pasadena	100	100 00
C. W. Mann	Pasadena	35	100 00
W. R. Staats	Pasadena	70	100 00
B. W. Hahn	Pasadena	10	100 00
A. L. Hamilton	Pasadena	30	100 00

No. 38.—PETALUMA.

PETALUMA MUTUAL LOAN ASSOCIATION.

Incorporated September 27, 1889.

LYMAN GREEN, Secretary.

H. P. BRAINERD, President.

No. of series, 5.

End of fiscal year, September 30, 1893.

No. of shares, 1,207.

Resources.	Liabilities.
Loans	Dues and advance payments ..
Arrearages	Earnings
Cash on hand	Overdrafts and bills payable...
Real estate	Profits unapportioned
Other assets	All other liabilities: loans in-
	complete
Total resources	Total liabilities

Receipts for Fiscal Year.	Disbursements for Fiscal Year.
Balance on hand	Paid overdrafts and bills pay-
Received for dues	able
Received for paid-up stock	Loans
Received for premiums	Interest
Received for interest	Dues on surrendered shares
Received for fees and fines	Profits on surrendered shares ..
Loans repaid	Salaries
Overdrafts and bills payable	Taxes
All other sources	Other expenses
	All other disbursements
	Balance on hand
Total receipts	Total disbursements

Authorized capital stock.....	\$1,000,000 00
No. of shares.....	5,000
No. of members.....	102
No. of borrowers.....	29
No. of mortgage loans for year.....	13
Amount of mortgage loans for year.....	\$16,900 00
No. of foreclosures since organization.....	-----
Amount due on foreclosures.....	-----
No. of shares last report.....	1,100
No. of shares issued since last report.....	157
No. of shares canceled since last report.....	50
Net profits of year.....	\$3,012 48
Plan of distribution.....	Dexter.
No. shares loaned on.....	288
No. shares free.....	919
Ratio of salaries to total receipts.....	1.64 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	3.31 per cent.
Surrender value of all shares.....	\$45,991 68
Total present worth of mortgages.....	43,440 81
Total appraised value of land.....	49,340 00
Total appraised value of improvements.....	34,400 00
Total book value of stock hypothecated.....	9,575 34
Total value of security held.....	93,315 34
Premium.....	Installment.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force -----	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....	381	-----	338	50	288
Second.....	80	-----	75	5	70
Third.....	433	-----	363	59	304
Fourth.....	304	-----	274	77	197
Fifth.....	157	-----	157	97	60

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$9,600 00	\$48 00	\$65 05	-----	\$56 52
Second.....	800 00	42 00	54 46	-----	48 23
Third.....	10,300 00	36 00	43 45	-----	39 72
Fourth.....	14,500 00	24 00	26 60	-----	25 30
Fifth.....	16,900 00	12 00	12 47	-----	12 23

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
H. P. Brainerd.....	Petaluma.....	10	\$200 00
Geo. P. McNear.....	Petaluma.....	30	200 00
S. J. Hopkins.....	Petaluma.....	20	200 00
N. Gould.....	Petaluma.....	20	200 00
H. B. Higbee.....	Petaluma.....	15	200 00
F. A. Cromwell.....	Petaluma.....	10	200 00
Lyman Green.....	Petaluma.....	5	200 00
D. W. Ravenscroft.....	Petaluma.....	20	200 00
Geo. C. Codding.....	Petaluma.....	40	200 00

No. 39.—POMONA.

MUTUAL BUILDING AND LOAN ASSOCIATION.

Incorporated December 24, 1892.

C. I. LORBEER, Secretary.

JOHN D. H. BROWNE, President.

No. of series, 2. End of fiscal year, December 31, 1893. No. of shares, 665.

Resources.		Liabilities.	
Loans.....	\$3,650 00	Dues and advance payments...	\$3,482 00
Arrearages.....		Earnings.....	193 23
Cash on hand.....	198 25	Overdrafts and bills payable.....	
Real estate.....		Profits unapportioned.....	3 52
Other assets: furniture and fixtures, etc.....	130 50	All other liabilities: loans incomplete.....	300 00
Total resources.....	\$3,978 75	Total liabilities.....	\$3,978 75
Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....		Paid overdrafts and bills payable.....	
Received for dues.....	\$3,549 50	Loans.....	\$3,350 00
Received for paid-up stock.....		Interest.....	
Received for premiums.....	160 95	Dues on surrendered shares.....	67 50
Received for interest.....	133 55	Profits on surrendered shares.....	95
Received for fees and fines.....	83 05	Salaries.....	105 00
Loans repaid.....		Taxes.....	
Overdrafts and bills payable.....		Other expenses.....	205 35
All other sources.....		All other disbursements.....	
Total receipts.....	\$3,927 05	Balance on hand.....	198 25
		Total disbursements.....	\$3,927 05

Authorized capital stock.....	\$1,000,000 00
No. of shares.....	10,000
No. of members.....	85
No. of borrowers.....	6
No. of mortgage loans for year.....	6
Amount of mortgage loans.....	\$3,650 00
No. of foreclosures since organization.....	
Amount due on foreclosures.....	
No. of shares last report.....	
No. of shares issued since last report.....	705
No. of shares canceled since last report.....	40
Net profits of year.....	\$196 75
Plan of distribution.....	Dexter.
No. shares loaned on.....	42
No. shares free.....	623
Ratio of salaries to total receipts.....	2.67 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	7.90 per cent.
Surrender value of all shares.....	\$3,574 47
Total present worth of mortgages.....	3,471 17
Total appraised value of land.....	2,550 00
Total appraised value of improvements.....	4,600 00
Total book value of stock hypothecated.....	178 83
Total value of security held.....	7,328 83
Premium.....	Installment.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force -----	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	529	-----	494	15	479
Second	176	-----	171	27	144

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$1,100 00	\$6 00	\$6 36	\$6 18	\$6 18
Second	2,550 00	3 00	3 09	3 05	3 05

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
John D. H. Browne	Pomona	10	\$100 00
J. T. Brady	Pomona	10	100 00
G. W. Hill	Pomona	10	100 00
Stoddard Jess	Pomona	10	100 00
Walter A. Lewis	Pomona	10	100 00
John L. Means	Pomona	10	100 00
Oliver Youngs	Pomona	10	100 00

No. 40.—REDONDO BEACH.

MUTUAL BUILDING AND LOAN ASSOCIATION.

Incorporated January 4, 1892.

J. W. ANDERSON, Secretary.

R. H. THOMPSON, President.

No. of series, 2.

End of fiscal year, January 31, 1894.

No. of shares, 367.

Resources.		Liabilities.	
Loans	\$5,259 00	Dues and advance payments ..	\$4,894 20
Arrearages	5 10	Earnings	256 90
Cash on hand	364 04	Overdrafts and bills payable ..	500 00
Real estate	-----	Profits unapportioned	27 04
Other assets	50 00	All other liabilities	-----
Total resources	\$5,678 14	Total liabilities	\$5,678 14

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	\$87 46	Paid overdrafts and bills pay-	-----
Received for dues	2,904 20	able	\$210 00
Received for paid-up stock	-----	Loans	4,028 40
Received for premiums	7 00	Interest	-----
Received for interest	259 00	Dues on surrendered shares ..	1,288 00
Received for fees and fines	12 85	Profits on surrendered shares ..	-----
Loans repaid	1,924 72	Salaries	-----
Overdrafts and bills payable	710 00	Taxes	-----
All other sources	-----	Other expenses	14 79
Total receipts	\$5,905 23	All other disbursements	-----
		Balance on hand	364 04
		Total disbursements	\$5,905 23

Authorized capital stock.....	\$300,000 00
No. of shares.....	3,000
No. of members.....	31
No. of borrowers.....	8
No. of mortgage loans for year.....	6
Amount of mortgage loans for year.....	\$4,028 40
No. of foreclosures since organization.....	
Amount due on foreclosures.....	
No. of shares last report.....	460
No. of shares issued since last report.....	82
No. of shares canceled since last report.....	175
Net profits of year.....	\$238 94
Plan of distribution.....	Dexter Rule.
No. shares loaned on.....	83
No. shares free.....	284
Ratio of salaries to total receipts.....	
Ratio of expenses (including salaries and taxes) to total receipts.....	.25 per cent.
Surrender value of all shares.....	\$5,151 10
Total present worth of mortgages.....	4,150 20
Total appraised value of land.....	7,900 00
Total appraised value of improvements.....	4,200 00
Total book value of stock hypothecated.....	1,108 80
Total value of security held.....	13,208 80
Premium.....	None.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force January 31, 1893.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....	430	390	240	43	197
Second.....	152	152	127	40	87

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$2,895 00	\$14 90	\$15 60		
Second.....	2,364 00	7 70	8 40		

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
R. H. Thompson.....	Redondo Beach.....	20	\$100 00
Geo. J. Ainsworth.....	Los Angeles.....	2	100 00
G. del Amo.....	Redondo Beach.....	50	100 00
S. P. Rees.....	Redondo Beach.....	25	100 00
J. W. Anderson.....	Redondo Beach.....	20	100 00

No. 41.—REDWOOD CITY.

SAN MATEO COUNTY BUILDING AND LOAN ASSOCIATION.

Incorporated May 8, 1890.

GEORGE W. LOVIE, Secretary.

P. P. CHAMBERLAIN, President.

No. of series, 8.

End of fiscal year, May 31, 1894.

No. of shares, 1,761.

Resources.		Liabilities.	
Loans	\$71,313 00	Dues and advance payments ..	\$57,575 00
Arrearages	125 00	Earnings	12,786 96
Cash on hand	2,113 95	Overdrafts and bills payable ..	-----
Real estate	1,592 61	Profits unapportioned	-----
Other assets	-----	All other liabilities	4,782 60
		Advanced interest	\$10 35
		Loans incomplete	4,750 00
		Advance premium	-----
		and fee	22 25
Total resources	\$75,144 56	Total liabilities	\$75,144 56
Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	-----	Paid overdrafts and bills pay- able	\$6,006 02
Received for dues	\$20,577 30	Loans	19,993 35
Received for paid-up stock	-----	Interest	357 98
Received for premiums	2,213 80	Dues on surrendered shares	2,000 00
Received for interest	5,083 90	Profits on surrendered shares	200 54
Received for fees and fines	102 60	Salaries	300 00
Loans repaid	5,192 00	Taxes	533 77
Overdrafts and bills payable	-----	Other expenses	91 14
All other sources	19 76	All other disbursements	1,592 61
Taxes returned	\$2 96	Real estate	\$1,592 61
Insurance repaid	16 80	Balance on hand	2,113 95
Total receipts	\$33,189 36	Total disbursements	\$33,189 36

Authorized capital stock	\$1,000,000 00
No. of shares	5,000
No. of members	247
No. of borrowers	87
No. of mortgage loans for year	21
Amount of mortgage loans for year	\$19,100 00
No. of foreclosures since organization	-----
Amount due on foreclosures	-----
No. of shares last report	1,577
No. of shares issued since last report	249
No. of shares canceled since last report	65
Net profits of year	\$6,237 92
Plan of distribution	Dexter.
No. shares loaned on	502
No. shares free	1,259
Ratio of salaries to total receipts .....	.90 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	2.79 per cent.
Surrender value of all shares (estimated)	\$65,247 17
Total present worth of mortgages (estimated)	51,313 00
Total appraised value of land (estimated)	50,400 00
Total appraised value of improvements (estimated)	60,000 00
Total book value of stock hypothecated (estimated)	20,000 00
Total value of security held	130,400 00
Premium	Installment.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force May 31, 1893.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	572	539	524	89	435
Second	154	149	139	9	130
Third	392	342	310	83	227
Fourth	205	195	192	91	101
Fifth	183	183	178	63	115
Sixth	169	169	169	95	74
Seventh	129	-----	129	55	74
Eighth	120	-----	120	17	103

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	-----	\$43 00	\$61 45	-----	\$56 75
Second	-----	42 00	52 54	-----	46 50
Third	-----	36 00	43 62	-----	39 33
Fourth	-----	30 00	55 03	-----	31 55
Fifth	-----	24 00	27 01	-----	25 00
Sixth	-----	18 00	19 64	-----	18 28
Seventh	-----	12 00	12 72	-----	12 13
Eighth	-----	6 00	6 20	-----	6 00

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
P. P. Chamberlain, President	Redwood City	10	\$200 00
J. R. Brown, Vice-President	Redwood City	15	200 00
James Crowe	Redwood City	5	200 00
J. L. Ross	Redwood City	5	200 00
C. J. Hynding	Redwood City	10	200 00
Claus Hadler	Redwood City	10	200 00
Henry Beeger	Redwood City	8	200 00

No. 42.—SACRAMENTO.

GERMANIA BUILDING AND LOAN ASSOCIATION.

Incorporated December 31, 1872.

H. J. GOETHE, Secretary.

L. NEUBOURG, President.

No. of series, 5.

End of fiscal year, December 31, 1893.

No. of shares, 7,823.

Resources.		Liabilities.	
Loans	\$567,972 50	Dues and advance payments	\$473,746 00
Arrearages	19,011 61	Earnings	141,695 90
Cash on hand	998 90	Overdrafts and bills payable	8,032 73
Real estate	36,000 00	Profits unapportioned	45 48
Other assets	2,037 10	All other liabilities: taxes accrued	2,500 00
Furniture and fixtures	\$751 50		
Suspense	1,285 60		
Total resources	\$626,020 11	Total liabilities	\$626,020 11

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$19,196 45	Paid overdrafts and bills payable.....	\$171,770 00
Received for dues.....	104,540 00	Interest.....	168 58
Received for paid-up stock.....	1,618 00	Dues on surrendered shares.....	140,092 00
Received for premiums.....	51,669 11	Profits on surrendered shares.....	40,369 00
Received for interest.....	157 68	Salaries.....	3,000 00
Received for fees and fines.....	187,470 00	Taxes.....	15,530 55
Loans repaid.....	8,032 73	Other expenses.....	568 14
Overdrafts and bills payable.....	864 65	All other disbursements.....	1,051 45
All other sources.....		Suspense.....	\$931 25
Tax account.....	\$34 55	Dues refunded.....	103 95
Pass books.....	31 00	Personal account.....	16 25
Suspense account.....	799 10	Balance on hand.....	998 90
Total receipts.....	\$373,548 62	Total disbursements.....	\$373,548 62

Authorized capital stock.....	\$4,000,000 00
No. of shares.....	20,000
No. of members.....	706
No. of borrowers.....	135
No. of mortgage loans for year.....	38
Amount of mortgage loans for year.....	\$114,810 00
No. of foreclosures since organization.....	5
Amount due on foreclosures.....	\$36,000 00
No. of shares last report.....	8,512
No. of shares issued since last report.....	1,144
No. of shares canceled since last report.....	1,044
No. of shares matured since last report.....	789
Net profits of year.....	\$33,890 94
Plan of distribution.....	Dexter.
No. shares loaned on.....	1,623
No. shares free.....	6,200
Ratio of salaries to total receipts.....	.80 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	5.11 per cent.
Surrender value of all shares.....	\$595,884 40
Total present worth of mortgages.....	530,626 59
Total appraised value of land.....	741,900 00
Total appraised value of improvements.....	459,250 00
Total book value of stock hypothecated.....	37,345 91
Total value of security held.....	1,238,495 91
No premium. Series No. 3 matured.	

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force	Now in Force.	Shares Loaned Upon.	Shares "Free."
Fourth.....	2,400	-----	1,082	167	915
Fifth.....	2,700	-----	1,805	489	1,316
Sixth.....	3,000	-----	2,191	492	1,699
Seventh.....	1,797	-----	1,611	333	1,278
Eighth.....	1,144	-----	1,134	142	992
Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
Fourth.....	One	\$120 00	\$175 02	-----	-----
Fifth.....	loan	84 00	108 48	-----	-----
Sixth.....	account	48 00	55 78	-----	-----
Seventh.....	for all	24 00	25 78	-----	-----
Eighth.....	the series.	12 00	12 45	-----	-----

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
L. Neubourg.....	Sacramento.....	20	\$200 00
C. A. Luhrs.....	Sacramento.....	5	200 00
J. Hahn.....	Sacramento.....	40	200 00
J. Weil.....	Sacramento.....	10	200 00
Geo. Schroth.....	Sacramento.....	20	200 00
F. Ruhstaller.....	Sacramento.....	50	200 00
Chas. Schmidt.....	Sacramento.....	5	200 00
Geo. Wisseman.....	Sacramento.....	35	200 00
Peter Fuchs.....	Sacramento.....	5	200 00

No. 43.—SACRAMENTO.

OCCIDENTAL BUILDING AND LOAN ASSOCIATION.

Incorporated February 7, 1891.

EDWIN K. ALSIP, Secretary.

J. L. HUNTOON, President.

No. of series, 11.

End of fiscal year, February 14, 1894.

No. of shares, 1,682.

Resources.		Liabilities.	
Loans.....	\$109,260 65	Dues and advance payments...	\$104,737 00
Arrearages.....	7,433 14	Earnings.....	23,271 80
Cash on hand.....	454 59	Overdrafts and bills payable...	30,000 00
Real estate.....	40,857 62	Profits unapportioned.....	33 06
Other assets.....	1,408 36	All other liabilities: interest accrued.....	1,372 50
Furniture and fixtures.....	\$300 00		
Insurance advanced.....	431 25		
Individual accounts.....	677 11		
Total resources.....	\$159,414 36	Total liabilities.....	\$159,414 36
Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....		Paid overdrafts and bills pay- able.....	\$49,446 68
Received for dues.....	\$21,685 00	Loans.....	32,051 25
Received for paid-up stock.....		Interest.....	2,356 10
Received for premiums.....	10 00	Dues on surrendered shares.....	15,101 00
Received for interest.....	13,826 00	Profits on surrendered shares.....	3,203 40
Received for fees and fines.....	171 10	Salaries.....	1,080 00
Loans repaid.....	59,894 56	Taxes.....	3,110 98
Overdrafts and bills payable.....	29,590 00	Other expenses.....	640 18
All other sources.....	6,425 57	All other disbursements.....	24,158 05
Profit and loss.....	\$272 60	Insurance.....	\$132 95
Taxes refunded.....	159 53	Real estate.....	23,907 61
Insurance refunded.....	11 10	Profit and loss.....	72 49
Real estate.....	5,982 34	Fines refunded.....	45 00
Total receipts.....	\$131,602 23	Balance on hand.....	454 59
		Total disbursements.....	\$131,602 23

Authorized capital stock.....	\$500,000 00
No. of shares.....	2,500
No. of members.....	163
No. of borrowers.....	17
No. of mortgage loans for year.....	22

Amount of mortgage loans for year	\$31,801 25
No. of foreclosures since organization	4
Amount due on foreclosures	\$30,614 87
No. of shares last report	1,732
No. of shares issued since last report	233
No. of shares canceled since last report	283
No. of shares matured since last report	7
Net profits of year	\$4,170 05
Plan of distribution	Dexter.
No. shares loaned on	187
No. shares free	1,495
Ratio of salaries to total receipts .....	.82 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	3.67 per cent.
Surrender value of all shares	\$121,492 45
Total present worth of mortgages	96,423 65
Total appraised value of land	183,850 00
Total appraised value of improvements	83,350 00
Total book value of stock hypothecated	12,837 00
Total value of security held	280,037 00
Premium	None.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force	Now in Force.	Shares Loaned Upon.	Shares "Free."
Fifth			3		3
Sixth			22	6	16
Seventh			27	12	15
Eighth			180	10	170
Ninth			159		159
Tenth			483	30	453
Eleventh			95		95
Twelfth			122	29	93
Thirteenth			346	35	311
Fourteenth			65	25	40
Fifteenth			180	40	140
First			10		

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
Fifth		\$135 00	\$201 65		\$201 65
Sixth	\$2,260 00	123 00	175 27		171 00
Seventh	2,500 00	111 00	151 66		147 00
Eighth	880 00	99 00	129 82		125 00
Ninth		87 00	109 71		106 00
Tenth	650 00	75 00	91 17		88 00
Eleventh		63 00	73 86		70 00
Twelfth	5,680 20	51 00	57 61		55 00
Thirteenth	4,080 00	39 00	42 54		41 00
Fourteenth	2,780 00	24 00	25 13		24 50
Fifteenth	8,500 00	12 00	12 23		12 00
First		120 00			

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
J. L. Huntoon	Sacramento	10	\$200 00
P. E. Platt	Sacramento	10	200 00
Robt. T. Devlin	Sacramento	10	200 00
Edwin K. Alsip	Sacramento	25	200 00
Robt. H. Hawley	Sacramento	25	200 00
Peter Newman	Sacramento	10	200 00
Geo. Taylor	Sacramento	40	200 00
L. Elkus	San Francisco	5	200 00

No. 44.—SACRAMENTO.

SACRAMENTO BUILDING AND LOAN ASSOCIATION.

Incorporated August 26, 1874.

FRANK HICKMAN, Secretary.

DANIEL FLINT, President.

No. of series, 16.

End of fiscal year, August 31, 1893.

No. of shares, 3,342.

Resources.		Liabilities.	
Loans.....	\$223,552 70	Dues and advance payments ..	\$175,284 00
Arrearages.....	2,803 23	Earnings.....	42,945 09
Cash on hand.....		Overdrafts and bills payable...	13,481 46
Real estate.....		Profits unapportioned.....	11 38
Other assets.....	371 00	All other liabilities.....	5 00
Total resources.....	\$231,726 93	Total liabilities.....	\$231,726 93

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....		Paid overdrafts and bills pay- able.....	\$905 81
Received for dues.....	\$42,898 00	Loans.....	69,625 00
Received for paid-up stock.....		Interest.....	964 97
Received for premiums.....		Dues on surrendered shares...)	30,753 60
Received for interest.....	21,760 94	Profits on surrendered shares)	
Received for fees and fines.....	148 70	Salaries.....	1,020 00
Loans repaid.....	30,312 30	Taxes.....	5,023 52
Overdrafts and bills payable.....	13,396 46	Other expenses.....	259 50
All other sources.....	36 00	All other disbursements.....	
Total receipts.....	\$108,552 40	Balance on hand.....	
		Total disbursements.....	\$108,552 40

Authorized capital stock.....	\$600,000 00
No. of shares.....	6,000
No. of members.....	332
No. of borrowers.....	134
No. of mortgage loans for year.....	37
Amount of mortgage loans for year.....	\$62,560 00
No. of foreclosures since organization.....	
Amount due on foreclosures.....	
No. of shares last report.....	3,013
No. of shares issued since last report.....	852
No. of shares canceled since last report.....	523
Net profits of year.....	\$14,641 65
Plan of distribution.....	Second Dividend Rule.
No. shares loaned on.....	1,156
No. shares free.....	2,186
Ratio of salaries to total receipts.....	.94 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	5.80 per cent.
Surrender value of all shares.....	\$205,345 56
Total present worth of mortgages.....	191,619 42
Total appraised value of land.....	178,700 00
Total appraised value of improvements.....	226,047 00
Total book value of stock hypothecated.....	75,543 66
Total value of security held.....	480,290 66
Premium.....	None.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force -----	Now in Force.	Shares Loaned Upon.	Shares "Free."
Sixth	347	-----	54	38	16
Seventh	95	-----	22	22	-----
Eighth	954	-----	239	59	180
Ninth	881	-----	289	41	248
Tenth	808	-----	264	90	174
Eleventh	804	-----	302	172	130
Twelfth	751	-----	288	133	155
Thirteenth	757	-----	362	113	279
Fourteenth	760	-----	437	175	262
Fifteenth	600	-----	386	141	245
Sixteenth	832	-----	699	202	497

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
Sixth	-----	\$132 00	\$195.407	-----	-----
Seventh	-----	120 00	171.444	-----	-----
Eighth	-----	108 00	148.645	-----	-----
Ninth	-----	96 00	127.373	-----	-----
Tenth	-----	84 00	107.366	-----	-----
Eleventh	-----	72 00	88.625	-----	-----
Twelfth	-----	60 00	71.275	-----	-----
Thirteenth	-----	48 00	55.052	-----	-----
Fourteenth	-----	36 00	39.845	-----	-----
Fifteenth	-----	24 00	25.675	-----	-----
Sixteenth	-----	12 00	12.418	-----	-----

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Daniel Flint, President	Sacramento	62	\$200 00
M. Barber, Vice-President	Sacramento	5	200 00
F. Tracy, Treasurer	Sacramento	10	200 00
F. H. L. Weber	Sacramento	10	200 00
G. A. Jost	Sacramento	10	200 00
Alex. Nielson	Sacramento	20	200 00
P. Bohl	Sacramento	10	200 00
Jabez Turner	Sacramento	10	200 00
A. Aitken	Sacramento	5	200 00

No. 45.—SACRAMENTO.

UNION BUILDING AND LOAN ASSOCIATION.

Incorporated February, 1891.

EDWIN K. ALSIP, Secretary.

B. U. STEINMAN, President.

No. of series, 8.

End of fiscal year, December 20, 1893.

No. of shares, 2,429.

Resources.		Liabilities.	
Loans	\$247,363 01	Dues and advance payments ..	\$176,432 00
Arrearages	17,986 49	Earnings	65,848 55
Cash on hand	544 84	Overdrafts and bills payable ..	51,560 00
Real estate	27,480 98	Profits unapportioned	-----
Other assets	669 70	All other liabilities	264 47
Total resources	\$294,045 02	Total liabilities	\$294,045 02

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$548 31	Paid overdrafts and bills payable.....	\$119,663 20
Received for dues.....	32,614 00	Loans.....	114,416 81
Received for paid-up stock.....		Interest.....	4,272 95
Received for premiums.....	1,083 49	Dues on surrendered shares.....	10,241 00
Received for interest.....	20,272 11	Profits on surrendered shares.....	2,257 50
Received for fees and fines.....	45 10	Salaries.....	1,050 00
Loans repaid.....	115,845 71	Taxes.....	5,897 12
Overdrafts and bills payable.....	100,167 00	Other expenses.....	889 83
All other sources.....	1,246 96	All other disbursements.....	12,559 43
		Balance on hand.....	544 84
Total receipts.....	\$271,822 68	Total disbursements.....	\$271,822 68

Authorized capital stock.....	\$1,000,000 00
No. of shares.....	5,000
No. of members.....	222
No. of borrowers.....	32
No. of mortgage loans for year.....	42
Amount of mortgage loans for year.....	\$111,946 81
No. of foreclosures since organization.....	4
Amount due on foreclosures.....	\$19,768 00
No. of shares last report.....	2,138
No. of shares issued since last report.....	406
No. of shares canceled since last report.....	115
Net profits of year.....	\$14,974 61
Plan of distribution.....	Third Dividend Rule.
No. shares loaned on.....	327
No. shares free.....	2,102
Ratio of salaries to total receipts.....	.40 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	2.89 per cent.
Surrender value of all shares.....	\$239,191 09
Total present worth of mortgages.....	227,405 18
Total appraised value of land.....	346,200 00
Total appraised value of improvements.....	190,350 00
Total book value of stock hypothecated.....	19,957 83
Total value of security held.....	556,507 83
Premium.....	None.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force	Now in Force.	Shares Loaned Upon.	Shares "Free."
Fifth.....			283	30	253
Sixth.....			722	30	692
Seventh.....			104	6	98
Eighth.....			121	31	90
Ninth.....			103	28	75
Tenth.....			257	22	235
Eleventh.....			433	68	365
Twelfth.....			406	112	294

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
Fifth.....	\$2,000 00	\$132 00	\$200.266		\$200 51
Sixth.....	3,000 00	112 00	159.125		150 00
Seventh.....	300 00	96 00	129.426		126 00
Eighth.....	4,371 11	84 00	108.910		106 00
Ninth.....	1,600 00	72 00	89.757		87 00
Tenth.....	3,300 00	60 00	71.920		69 00
Eleventh.....	13,300 00	24 00	25.781		24 00
Twelfth.....	12,200 00	12 00	12.460		12 00

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
B. U. Steinman	Sacramento	70	\$200 00
F. A. Shepherd	Sacramento	20	200 00
C. H. Hubbard	Sacramento	25	200 00
Phil. Douglass	Sacramento	40	200 00
S. Wassermann	San Francisco	20	200 00
L. Tozer	Sacramento	20	200 00
Thos. R. Jones	Sacramento	25	200 00
S. W. Butler	Sacramento	20	200 00
C. K. McClatchy	Sacramento	10	200 00

No. 46.—SAN BERNARDINO.

SAN BERNARDINO LAND AND BUILDING ASSOCIATION.

Incorporated January 3, 1887.

A. H. SECCOMBE, Secretary.

F. W. RICHARDSON, President.

No. of series, 3.

End of fiscal year, December 31, 1893.

No. of shares, 190.

Resources.		Liabilities.	
Loans	\$19,000 00	Dues and advance payments ..	\$15,450 00
Arrearages	1,295 95	Earnings	6,608 05
Cash on hand	237 87	Overdrafts and bills payable ..	-----
Real estate	2,625 00	Profits unapportioned	1,822 72
Other assets	721 95	All other liabilities	-----
Total resources	\$23,880 77	Total liabilities	\$23,880 77

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	\$171 08	Paid overdrafts and bills pay- able	-----
Received for dues	2,160 90	Loans	-----
Received for paid-up stock	-----	Interest	-----
Received for premiums	-----	Dues on surrendered shares	\$3,845 00
Received for interest	1,322 37	Profits on surrendered shares ..	952 47
Received for fees and fines	64 81	Salaries	245 00
Loans repaid	1,683 25	Taxes	422 86
Overdrafts and bills payable	-----	Other expenses	197 96
All other sources	498 75	All other disbursements	-----
Total receipts	\$5,901 16	Balance on hand	237 87
		Total disbursements	\$5,901 16

Authorized capital stock	\$500,000 00
No. of shares	2,500
No. of members	32
No. of borrowers	15
No. of mortgage loans for year	-----
Amount of mortgage loans for year	-----
No. of foreclosures since organization	12
Amount due on foreclosures	\$1,300 00
No. of shares last report	300
No. of shares issued since last report	-----
No. of shares canceled since last report	110
Net profits of year	\$2,733 20
Plan of distribution	Each series, share and share alike.

No. shares loaned on	95
No. shares free	95
Ratio of salaries to total receipts	4.15 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	14.67 per cent.
Surrender value of all shares	\$20,193 45
Total present worth of mortgages	8,083 47
Total appraised value of land	5,970 00
Total appraised value of improvements	11,350 00
Total book value of stock hypothecated	10,916 53
Total value of security held	28,236 53
Premium	Gross, 30 to 40 per cent.
Association liquidating	

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force Jan. 1, 1893.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	500	115	75	45	30
Second	500	110	80	30	50
Third	500	75	35	20	15

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$9,000 00	\$84 00	\$135 09	\$101 64	\$122 32
Second	6,000 00	82 00	99 00	98 81	94 75
Third	4,000 00	74 00	114 46	87 69	98 27

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital stock Held by Each.	
		Shares.	Par Value.
F. W. Richardson	San Bernardino	1	\$200 00
W. H. Gilbert	Etiwanda	10	200 00
J. F. Johnson, Jr.	San Bernardino	1	200 00
G. C. Fox	San Bernardino	5	200 00
F. W. Seccombe	San Bernardino	1	200 00
C. E. White	San Bernardino	5	200 00
E. E. Swanton	Rochester	1	200 00
A. H. Seccombe	San Bernardino	5	200 00
Henry Conner	San Bernardino	1	200 00

No. 47.—SAN BERNARDINO.

SANTA FE BUILDING AND LOAN ASSOCIATION.

Incorporated January 8, 1890.

JOHN FLAGG, Secretary.

C. G. WORDEN, President.

No. of series, 1. End of fiscal year, December 30, 1893. No. of shares, 594.

Resources.		Liabilities.	
Loans	\$18,880 00	Dues and advance payments	\$16,020 00
Arrearages	171 50	Earnings	2,763 80
Cash on hand	17 80	Overdrafts and bills payable	-----
Real estate	1,229 53	Profits unapportioned	11 74
Other assets	169 71	All other liabilities	1,673 00
Total resources	\$20,468 54	Total liabilities	\$20,468 54

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$96 84	Paid overdrafts and bills pay- able.....	\$1,082 65
Received for dues.....	6,760 00	Loans.....	8,847 00
Received for paid-up stock.....	500 00	Interest.....	157 00
Received for premiums.....	577 61	Dues on surrendered shares.....	1,955 00
Received for interest.....	1,321 93	Profits on surrendered shares.....	93 63
Received for fees and fines.....	236 52	Salaries.....	150 00
Loans repaid.....	3,515 00	Taxes.....	234 89
Overdrafts and bills payable.....	1,082 65	Other expenses.....	153 39
All other sources.....		All other disbursements.....	1,399 24
		Balance on hand.....	17 80
Total receipts.....	\$14,090 60	Total disbursements.....	\$14,090 60

Authorized capital stock.....	\$1,000,000 00
No. of shares.....	5,000
No. of members.....	68
No. of borrowers.....	28
No. of mortgage loans for year.....	11
Amount of mortgage loans for year.....	\$9,475 00
No. of foreclosures since organization.....	
Amount due on foreclosures.....	
No. of shares last report.....	475
No. of shares issued since last report.....	204
No. of shares canceled since last report.....	85
Net profits of year.....	\$1,559 43
Plan of distribution.....	Dexter.
No. shares loaned on.....	179
No. shares free.....	415
Ratio of salaries to total receipts.....	1.06 per cent.
Ratio of expenses (including salaries) to total receipts.....	3.82 per cent.
Surrender value of all shares.....	\$16,201 90
Total present worth of mortgages.....	13,691 74
Total appraised value of land.....	13,850 00
Total appraised value of improvements.....	23,775 00
Total book value of stock hypothecated.....	5,188 00
Total value of security held.....	42,813 00
Premium.....	Installment.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force Jan. 1, 1893.	Now in Force.	Shares Loaned Upon.	Shares "Free."
No series.....		475	594	179	415

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
No series.....					

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
C. G. Worden.....	Los Angeles.....	10	\$200 00
J. F. Parker.....	San Bernardino.....	10	200 00
J. A. Campbell.....	San Bernardino.....	6	200 00
G. D. Snyder.....	San Bernardino.....	10	200 00
S. S. Draper.....	San Bernardino.....	5	200 00
Walter Hubbard.....	San Bernardino.....	6	200 00
C. A. Mead.....	San Bernardino.....	10	200 00
S. A. Jackson.....	San Bernardino.....	10	200 00
F. E. Howland.....	San Bernardino.....	5	200 00

No. 48.—SAN DIEGO.

SAN DIEGO BUILDING AND LOAN ASSOCIATION.

Incorporated July 14, 1885.

THEO. FINTZELBERG, Secretary.

A. BLOCHMAN, President.

No. of series, 6.

End of fiscal year, July 31, 1893.

No. of shares, 2,565.

Resources.		Liabilities.	
Loans.....	\$194,175 00	Dues and advance payments ..	\$134,227 00
Arrearages.....	5,031 04	Earnings.....	73,460 12
Cash on hand.....	3,004 07	Overdrafts and bills payable.....	-----
Real estate.....	11,450 00	Profits unapportioned.....	4,867 01
Other assets.....	785 56	All other liabilities.....	1,891 54
Total resources.....	\$214,445 67	Total liabilities.....	\$214,445 67

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$3,985 11	Paid overdrafts and bills pay- able.....	-----
Received for dues.....	37,819 39	Loans.....	\$16,602 52
Received for paid-up stock.....	-----	Interest.....	-----
Received for premiums.....	1,666 00	Dues on surrendered shares ..	40,261 00
Received for interest.....	19,369 12	Profits on surrendered shares.....	24,553 70
Received for fees and fines.....	297 07	Salaries.....	960 00
Loans repaid.....	27,830 00	Taxes.....	2,009 21
Overdrafts and bills payable.....	-----	Other expenses.....	582 60
All other sources.....	3,654 76	All other disbursements.....	6,548 35
Total receipts.....	\$94,621 45	Balance on hand.....	3,004 07
		Total disbursements.....	\$94,621 45

Authorized capital stock.....	\$1,000,000 00
No. of shares.....	5,000
No. of members.....	277
No. of borrowers.....	120
No. of mortgage loans for year.....	15
Amount of mortgage loans for year.....	\$12,900 00
No. of foreclosures since organization.....	2
Amount due on foreclosures.....	\$10,250 00
No. of shares last report.....	2,794
No. of shares issued since last report.....	466
No. of shares canceled since last report.....	695
Net profits of year.....	\$18,335 35
Plan of distribution.....	Wrigley.
No. shares loaned on.....	898
No. shares free.....	1,667
Ratio of salaries to total receipts.....	1.01 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	3.76 per cent.
Surrender value of all shares.....	\$156,625 37
Total present worth of mortgages.....	101,599 55
Total appraised value of land.....	132,150 00
Total appraised value of improvements.....	96,350 00
Total book value of stock hypothecated.....	96,292 38
Total value of security held.....	324,792 38
Premium.....	Gross, 10 to 25 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force July, 1892.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	1,121	647	298	131	167
Second	668	411	386	139	247
Third	834	484	437	264	173
Fourth	1,123	756	691	201	490
Fifth	630	496	390	109	281
Sixth	466	-----	363	54	309

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$26,150 00	\$96 00	\$171 00	\$118 80	Same as 6 per cent interest.
Second	27,660 00	85 00	144 94	102 85	
Third	52,700 00	73 00	114 95	86 14	
Fourth	40,040 00	39 00	50 13	42 70	
Fifth	21,650 00	24 00	28 07	25 38	
Sixth	10,750 00	12 00	13 00	12 33	

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
A. Blochman	San Diego	10	\$200 00
J. A. E. Thoustrup	San Diego	21	200 00
Bryant Howard	San Diego	5	200 00
Joseph A. Flint	San Diego	27	200 00
O. C. Dranga	San Diego	28	200 00
W. R. Rogers	San Diego	15	200 00
W. D. Woolwine	San Diego	10	200 00
J. A. Young	San Diego	10	200 00
Theo. Fintzelberg	San Diego	33	200 00

No. 49.—SAN DIEGO.

SAN DIEGO SAVINGS AND LOAN ASSOCIATION.

Incorporated November 11, 1887.

JOHN P. BURT, Secretary.

R. F. PHILLIPS, President.

No. of series, 6.

End of fiscal year, December 31, 1893.

No. of shares, 388½.

Resources.		Liabilities.	
Loans	\$26,685 92	Dues and advance payments ..	\$20,419 85
Arrearages	1,897 54	Earnings	5,893 64
Cash on hand	63 30	Overdrafts and bills payable...	1,234 60
Real estate	1,475 00	Profits unapportioned.....	2,637 12
Other assets	100 00	All other liabilities.....	36 55
Total resources	\$30,221 76	Total liabilities.....	\$30,221 76

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$666 06	Paid overdrafts and bills payable.....	-----
Received for dues.....	4,079 85	Loans.....	\$5,128 21
Received for paid-up stock.....	-----	Interest.....	-----
Received for premiums.....	510 50	Dues on surrendered shares.....	6,094 49
Received for interest.....	1,634 27	Profits on surrendered shares.....	148 53
Received for fees and fines.....	26 89	Salaries.....	285 00
Loans repaid.....	4,595 17	Taxes.....	285 27
Overdrafts and bills payable.....	1,100 00	Other expenses.....	316 91
All other sources.....	265 00	All other disbursements.....	556 03
		Balance on hand.....	63 30
Total receipts.....	\$12,877 74	Total disbursements.....	\$12,877 74

Authorized capital stock.....	\$500,000 00
No. of shares.....	2,500
No. of members.....	55
No. of borrowers.....	28
No. of mortgage loans for year.....	5
Amount of mortgage loans for year.....	\$4,238 21
No. of foreclosures since organization.....	1
Amount due on foreclosures.....	\$1,094 25
No. of shares last report.....	456
No. of shares issued since last report.....	50
No. of shares canceled since last report.....	117 1/2
Net profits of year.....	-----
Plan of distribution.....	Dexter.
No. shares loaned on.....	228 1/2
No. shares free.....	160
Ratio of salaries to total receipts.....	2.21 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	6.90 per cent.
Surrender value of all shares.....	\$20,804 29
Total present worth of mortgages.....	14,355 72
Total appraised value of land.....	13,335 00
Total appraised value of improvements.....	21,150 00
Total book value of stock hypothecated.....	12,350 20
Total value of security held.....	46,835 20
Premium.....	Gross, 15 to 18 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force December 31, 1892.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....		258	229 1/2	156 1/2	73
Second.....		98	46	36	10
Third.....		10	10	10	-----
Fourth.....		55	45	5	40
Fifth.....		13	8	3	5
Sixth.....			50	18	.32
Totals.....		434	388 1/2	228 1/2	160

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$15,479 79	\$1 00	\$96 41	-----	\$76 05
Second.....	5,804 82	1 00	44 58	-----	40 26
Third.....	530 00	1 00	37 11	-----	34 06
Fourth.....	840 10	1 00	28 43	-----	26 50
Fifth.....	600 00	1 00	17 74	-----	16 00
Sixth.....	3,431 21	1 00	5 75	-----	5 00
Totals.....	\$26,685 92	-----	-----	-----	-----

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
R. F. Phillips.....	San Diego.....	10	\$200 00
Wesley Smith.....	San Diego.....	33	200 00
C. C. Valle.....	San Diego.....	15	200 00
J. A. Thomas.....	San Diego.....	5	200 00
J. A. Heath.....	San Diego.....	5	200 00
John Kastle.....	San Diego.....	5	200 00
E. E. Whitney.....	San Diego.....	5	200 00
F. P. Bruner.....	San Diego.....	5	200 00
N. S. Hammack.....	San Diego.....	10	200 00

No. 50.—SAN DIEGO.

SILVER GATE BUILDING AND LOAN ASSOCIATION.

Incorporated May 22, 1890.

R. B. THOMAS, Secretary.

L. F. DOOLITTLE, President.

No. of series, 3.

End of fiscal year, June 18, 1894.

No. of shares, 215.

Resources.		Liabilities.	
Loans.....	\$11,343 18	Dues and advance payments and paid-up stock.....	\$15,084 00
Arrearages.....	755 70	Earnings.....	2,456 25
Cash on hand.....	757 63	Overdrafts and bills payable.....	-----
Real estate.....	6,078 68	Profits unapportioned.....	2,597 21
Other assets.....	1,202 27	All other liabilities.....	-----
Insurance advanced... \$69 20			
Receiver's certificate... 1,133 07			
Total resources.....	\$20,137 46	Total liabilities.....	\$20,137 46
Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$1,523 20	Paid overdrafts and bills pay- able.....	-----
Received for dues.....	1,837 35	Loans.....	\$1,911 96
Received for paid-up stock.....	-----	Interest.....	-----
Received for premiums.....	-----	Dues on surrendered shares... ..	791 00
Received for interest.....	686 54	Profits on surrendered shares and dividends.....	160 20
Received for fees and fines.....	2 80	Salaries.....	300 00
Loans repaid.....	524 78	Taxes.....	222 07
Overdrafts and bills payable.....	-----	Other expenses.....	526 55
All other sources.....	94 74	All other disbursements.....	-----
Dividend-receiver..... \$87 24		Balance on hand.....	757 63
Real estate..... 7 50			
Total receipts.....	\$4,669 41	Total disbursements.....	\$4,669 41

Authorized capital stock.....	\$1,000,000 00
No. of shares.....	5,000
No. of members.....	26
No. of borrowers.....	0
No. of mortgage loans for year.....	2
Amount of mortgage loans for year.....	\$1,911 96
No. of foreclosures since organization.....	3
Amount due on foreclosures.....	\$6,078 68

No. of shares last report.....	272
No. of shares issued since last report.....	-----
No. of shares canceled since last report.....	57
Net profits of year.....	\$319 43
Plan of distribution.....	-----
No. shares loaned on.....	70
No. shares free.....	145
Ratio of salaries to total receipts.....	6.42 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	22.46 per cent.
Surrender value of all shares.....	\$15,621 00
Total present worth of mortgages.....	7,549 73
Total appraised value of land.....	5,600 00
Total appraised value of improvements.....	8,050 00
Total book value of stock hypothecated.....	3,793 45
Total value of security held.....	17,443 45
Premium.....	None.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force -----	Now in Force.	Shares Loaned Upon.	Shares "Free."
No. 1.....			85	55	30
No. 2.....	115		82	10	72
Paid up.....	60		48	5	43

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
No. 1.....	\$8,796 00	\$48 00	\$63 71	\$53 76	\$53 76
No. 2.....	1,760 00	17 00	17 94	17 70	17 70
Paid up.....		200 00			

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
L. F. Doolittle.....	San Diego.....	13	\$200 00
I. B. Dudley.....	San Diego.....	10	200 00
J. H. Gay, Jr.....	San Diego.....	15	200 00
O. J. Flagg.....	San Diego.....	5	200 00
H. E. Doolittle.....	San Diego.....	10	200 00
H. L. Rowell.....	San Diego.....	5	200 00
L. A. Wright.....	San Diego.....	5	200 00
T. B. H. Stenhouse.....	San Diego.....	15	200 00
R. B. Thomas.....	San Diego.....	7	200 00

No. 51.—SAN FRANCISCO.

ACME BUILDING AND LOAN ASSOCIATION.

Incorporated March 14, 1891.

A. CALMANN, Secretary.

D. DAVIS, President.

No. of series, 6.

End of fiscal year, March 15, 1894.

No. of shares, 855.

Resources.		Liabilities.	
Loans.....	\$31,500 00	Dues and advance payments ..	\$24,524 00
Arrearages.....	667 45	Earnings.....	3,073 77
Cash on hand.....		Overdrafts and bills payable...	3,869 27
Real estate.....		Profits unapportioned.....	120 51
Other assets.....		All other liabilities: due with- drawals.....	579 90
Total resources.....	\$32,167 45	Total liabilities.....	\$32,167 45
Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....		Paid overdrafts and bills pay- able.....	\$832 68
Received for dues.....	\$10,128 00	Loans.....	13,100 00
Received for paid-up stock.....		Interest.....	301 87
Received for premiums.....	997 00	Dues on surrendered shares.....	1,604 90
Received for interest.....	1,795 25	Profits on surrendered shares..	68 20
Received for fees and fines.....	24 90	Salaries.....	600 00
Loans repaid.....		Taxes.....	199 70
Overdrafts and bills payable.....	3,869 27	Other expenses.....	107 07
All other sources.....		All other disbursements.....	
Total receipts.....	\$16,814 42	Balance on hand.....	
		Total disbursements.....	\$16,814 42

Authorized capital stock.....	\$3,000,000 00
No. of shares.....	15,000
No. of members.....	72
No. of borrowers.....	9
No. of mortgage loans for year.....	4
Amount of mortgage loans for year.....	\$13,100 00
No. of foreclosures since organization.....	
Amount due on foreclosures.....	
No. of shares last report.....	840
No. of shares issued since last report.....	110
No. of shares canceled since last report.....	95
Net profits of year.....	\$3,234 18
Plan of distribution.....	Wrigley.
No. shares loaned on.....	157½
No. shares free.....	697½
Ratio of salaries to total receipts.....	3.57 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	5.39 per cent.
Surrender value of all shares.....	\$26,620 83
Total present worth of mortgages.....	27,368 73
Total appraised value of land.....	17,100 00
Total appraised value of improvements.....	22,250 00
Total book value of stock hypothecated.....	4,131 27
Total value of security held.....	43,431 27
Premium.....	Gross, 15 per cent, and Installment, 50 cents per share.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force -----	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	560	-----	380	55	325
Second	250	-----	250	12½	237½
Third	182	-----	77	22	55
Fourth	48	-----	38	2½	35½
Fifth	67	-----	67	47	20
Sixth	43	-----	43	18½	24½

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$11,000 00	\$36 00	\$41 09	\$38 16	\$38 54½
Second	2,500 00	29 00	32 34	30 74	30 67
Third	4,400 00	24 00	26 30	25 44	25 15
Fourth	500 00	18 00	19 51	18 81	18 75½
Fifth	9,400 00	12 00	12 86	12 36	12 43
Sixth	3,700 00	6 00	6 29	6 09	6 14½

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
David Davis	San Francisco	20	\$200 00
Leopold Hirsch	San Francisco	15	200 00
A. F. Otto	San Francisco	20	200 00
Herman Nathan	San Francisco	30	200 00
I. C. Joseph	San Francisco	10	200 00
Ellis Bloch	San Francisco	10	200 00
Chas. Schlesinger	San Francisco	10	200 00

No. 52.—SAN FRANCISCO.

ÆTNA MUTUAL BUILDING AND LOAN ASSOCIATION.

Incorporated May 19, 1893.

A. SCHLESINGER, Secretary.

AUGUST DRUCKER, President.

No. of series, 1.

End of fiscal year, May 31, 1894.

No. of shares, 1,026.

Resources.		Liabilities.	
Loans	\$22,100 00	Dues and advance payments ..	\$12,312 00
Arrearages	-----	Earnings	1,845 47
Cash on hand	-----	Overdrafts and bills payable ..	6,906 55
Real estate	-----	Profits unapportioned	1,035 98
Other assets	-----	All other liabilities	-----
Total resources	\$22,100 00	Total liabilities	\$22,100 00

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....		Paid overdrafts and bills payable.....	
Received for dues.....	\$12,462 00	Loans.....	\$22,100 00
Received for paid-up stock.....		Interest.....	396 31
Received for premiums.....	3,315 00	Dues on surrendered shares.....	150 00
Received for interest.....	970 77	Profits on surrendered shares.....	
Received for fees and fines.....	112 10	Salaries.....	900 00
Loans repaid.....		Taxes.....	
Overdrafts and bills payable.....	6,906 55	Other expenses.....	220 11
All other sources.....		All other disbursements.....	
		Balance on hand.....	
Total receipts.....	\$23,766 42	Total disbursements.....	\$23,766 42

Authorized capital stock.....	\$2,000,000 00
No. of shares.....	10,000
No. of members.....	57
No. of borrowers.....	5
No. of mortgage loans for year.....	6
Amount of mortgage loans for year.....	\$22,100 00
No. of foreclosures since organization.....	
Amount due on foreclosures.....	
No. of shares last report.....	
No. of shares issued since last report.....	1,026
No. of shares canceled since last report.....	
Net profits of year.....	\$2,881 45
Plan of distribution.....	Partnership.
No. shares loaned on.....	111
No. shares free.....	915
Ratio of salaries to total receipts.....	3.79 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	4.71 per cent.
Surrender value of all shares (approximation).....	\$13,234 73
Total present worth of mortgages.....	20,569 31
Total appraised value of land.....	10,650 00
Total appraised value of improvements.....	16,700 00
Total book value of stock hypothecated.....	1,530 69
Total value of security held.....	23,850 69
Premium.....	Gross, 15 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....	1,076	1,026	1,026	111	915
Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$22,100 00	\$12 00	\$13 79	\$12 36	Not established.

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
August Drucker.....	San Francisco.....	10	\$200 00
I. W. Wedeles.....	San Francisco.....	15	200 00
W. E. Erzgraber.....	San Francisco.....	25	200 00
Benjamin R. Swan.....	San Francisco.....	10	200 00
Walter Speyer.....	San Francisco.....	25	200 00

No. 53.—SAN FRANCISCO.

ALLIANCE BUILDING AND LOAN ASSOCIATION.

Incorporated October 14, 1890.

A. CALMANN, Secretary.

G. H. UMBSEX, President.

No. of series, 6.

End of fiscal year, October 18, 1893.

No. of shares, 864.

Resources.		Liabilities.	
Loans	\$38,200 00	Dues and advance payments ..	\$26,448 00
Arrearages	270 00	Earnings	5,332 77
Cash on hand	-----	Overdrafts and bills payable...	4,737 19
Real estate	-----	Profits unapportioned	116 14
Other assets	-----	All other liabilities	1,835 90
Total resources	\$38,470 00	Total liabilities	\$38,470 00
Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	-----	Paid overdrafts and bills pay- able	\$14,327 57
Received for dues	\$11,461 00	Loans	7,564 10
Received for paid-up stock	-----	Interest	719 36
Received for premiums	1,262 25	Dues on surrendered shares	9,627 72
Received for interest	2,632 40	Profits on surrendered shares ..	686 03
Received for fees and fines	35 30	Salaries	660 00
Loans repaid	14,100 00	Taxes	275 96
Overdrafts and bills payable	4,437 19	Other expenses	67 65
All other sources	25	All other disbursements	-----
Total receipts	\$33,928 39	Balance on hand	-----
		Total disbursements	\$33,928 39

Authorized capital stock	\$3,000,000 00
No. of shares	15,000
No. of members	59
No. of borrowers	14
No. of mortgage loans for year	5
Amount of mortgage loans for year	\$9,400 00
No. of foreclosures since organization	-----
Amount due on foreclosures	-----
No. of shares last report	1,111
No. of shares issued since last report	172
No. of shares canceled since last report	419
Net profits of year	\$2,926 34
Plan of distribution	Wrigley.
No. shares loaned on	191
No. shares free	673
Ratio of salaries to total receipts	1.94 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	2.96 per cent.
Surrender value of all shares	\$29,114 38
Total present worth of mortgages	32,460 59
Total appraised value of land	28,000 00
Total appraised value of improvements	20,825 00
Total book value of stock hypothecated	5,739 41
Total value of security held	54,564 41
Premium	Gross, 15 per cent; Installment, 50 cents per share.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force -----	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....	1,280	-----	615	88	527
Second.....	105	-----	55	-----	55
Third.....	50	-----	25	-----	25
Fourth.....	52	-----	52	27	25
Fifth.....	125	-----	70	39½	30½
Sixth.....	47	-----	47	36½	10½

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$17,600 00	\$36 00	\$43 42	\$38 16	\$39 71
Second.....	-----	30 00	35 59	31 80	32 79½
Third.....	-----	24 00	28 00	25 44	26 00
Fourth.....	5,400 00	18 00	21 10	18 81	19 55
Fifth.....	7,900 00	12 00	14 09	12 36	13 04½
Sixth.....	7,300 00	6 00	7 16	6 09	6 58

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
G. H. Umben.....	San Francisco.....	15	\$200 00
Joseph Bremer.....	San Francisco.....	25	200 00
A. W. Baldwin.....	San Francisco.....	10	200 00
T. J. Harris.....	San Francisco.....	20	200 00
Henry Hufschmidt.....	San Francisco.....	10	200 00
Theo. Frolich.....	San Francisco.....	5	200 00
R. S. Polastri.....	San Francisco.....	25	200 00
H. H. Hjul.....	San Francisco.....	25	200 00
Albert Clayburgh.....	San Francisco.....	25	200 00

No. 54.—SAN FRANCISCO.

ATLAS BUILDING AND LOAN ASSOCIATION.

Incorporated October 14, 1890.

N. SCHLESINGER, Secretary.

CHAS. HARRIS, President.

No. of series, 3.

End of fiscal year, September 30, 1893.

No. of shares, 2,042.

Resources.		Liabilities.	
Loans.....	\$74,700 00	Dues and advance payments...	\$53,404 00
Arrearages.....	951 13	Earnings.....	15,898 56
Cash on hand.....	-----	Overdrafts and bills payable...	1,172 67
Real estate.....	-----	Profits unapportioned.....	175 90
Other assets.....	-----	All other liabilities.....	-----
Total resources.....	\$75,651 13	Total liabilities.....	\$75,651 13

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....		Paid overdrafts and bills pay- able.....	\$15,425 20
Received for dues.....	\$25,420 00	Loans.....	37,300 00
Received for paid-up stock.....		Interest.....	1,010 37
Received for premiums.....	5,595 00	Dues on surrendered shares.....	5,075 00
Received for interest.....	4,797 78	Profits on surrendered shares.....	1,110 00
Received for fees and fines.....	49 20	Salaries.....	1,440 00
Loans repaid.....	25,900 00	Taxes.....	424 68
Overdrafts and bills payable.....	1,172 67	Other expenses.....	149 40
All other sources.....		All other disbursements.....	1,000 00
		Balance on hand.....	
Total receipts.....	\$62,934 65	Total disbursements.....	\$62,934 65

Authorized capital stock.....	\$2,000,000 00
No. of shares.....	10,000
No. of members.....	99
No. of borrowers.....	22
No. of mortgage loans for year.....	10
Amount of mortgage loans for year.....	\$37,300 00
No. of foreclosures since organization.....	
Amount due on foreclosures.....	
No. of shares last report.....	1,825
No. of shares issued since last report.....	372
No. of shares canceled since last report.....	155
Net profits of year.....	\$7,957 54
Plan of distribution.....	Wrigley.
No. shares loaned on.....	374
No. shares free.....	1,668
Ratio of salaries to total receipts.....	2.29 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	3.20 per cent.
Surrender value of all shares.....	\$61,031 85
Total present worth of mortgages.....	65,137 45
Total appraised value of land.....	39,700 00
Total appraised value of improvements.....	44,450 00
Total book value of stock hypothecated.....	9,562 55
Total value of security held.....	93,712 55
Premium.....	Gross, 15 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force September 30, 1892.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....	1,310	1,310	1,155	72	1,083
Second.....	515	515	515	115	400
Third.....	372	372	372	187	185

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$14,400 00	\$36 00	\$46 14		\$41 07
Second.....	23,000 00	24 00	30 02		26 40
Third.....	37,300 00	12 00	14 91		

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Charles Harris.....	San Francisco.....	50	\$200 00
I. W. Wedeles.....	San Francisco.....	20	200 00
A. H. Batley, Jr.....	San Francisco.....	25	200 00
Emanuel Rias.....	San Francisco.....	25	200 00
William Green.....	San Francisco.....	25	200 00
Jonas Bloom.....	San Francisco.....	25	200 00
H. Heyneman.....	San Francisco.....	125	200 00

No. 55.—SAN FRANCISCO.

ALTA BUILDING AND LOAN ASSOCIATION.

Incorporated February, 1891.

Sol. J. LEVY, Secretary.

JULIUS JACOBS, President.

No. of series, 6.

End of fiscal year, February 28, 1894.

No. of shares, 2,140.

Resources.		Liabilities.	
Loans.....	\$84,451 00	Dues and advance payments ..	\$60,144 00
Arrearages.....	1,571 62	Earnings.....	12,107 79
Cash on hand.....		Overdrafts and bills payable...	9,754 36
Real estate.....		Profits unapportioned.....	4,016 47
Other assets.....		All other liabilities.....	
Total resources.....	\$86,022 62	Total liabilities.....	\$86,022 62
Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....		Paid overdrafts and bills pay- able.....	\$11,682 98
Received for dues.....	\$25,424 00	Loans.....	34,315 00
Received for paid-up stock.....		Interest.....	776 52
Received for premiums.....	4,146 75	Dues on surrendered shares.....	4,704 00
Received for interest.....	4,653 66	Profits on surrendered shares.....	198 65
Received for fees and fines.....	120 68	Salaries.....	1,105 00
Loans repaid.....	10,324 00	Taxes.....	440 67
Overdrafts and bills payable.....	9,754 36	Other expenses.....	200 63
All other sources.....		All other disbursements.....	1,000 00
Total receipts.....	\$54,423 45	Premiums returned.....	\$1,000 00
		Balance on hand.....	
		Total disbursements.....	\$54,423 45

Authorized capital stock.....	\$3,000,000 00
No. of shares.....	15,000
No. of members.....	162
No. of borrowers.....	22
No. of mortgage loans for year.....	8
Amount of mortgage and collateral loans for year.....	\$33,375 00
No. of foreclosures since organization.....	
Amount due on foreclosures.....	
No. of shares last report.....	1,870
No. of shares issued since last report.....	526
No. of shares canceled since last report.....	247
Net profits of year.....	\$4,390 53
Plan of distribution.....	Wrigley.
No. shares loaned on.....	439
No. shares free.....	1,710
Ratio of salaries to total receipts.....	2.03 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	3.21 per cent.
Surrender value of all shares.....	\$46,814 93
Total present worth of mortgages.....	72,725 46
Total appraised value of land.....	40,800 00
Total appraised value of improvements.....	59,100 00
Total book value of stock hypothecated.....	11,725 54
Total value of security held.....	111,625 54
Premium.....	Gross, 15 per cent, and Installment, 50 cents per share.

MEMORANDA OF SERIES OR STOCK, LOANS, AND VALUE OF SHARES OR STOCK.

Series.	Original Issue.	In Force February 28, 1893.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	1,398	1,341	1,231	116	1,115
Second	115	115	103	48	55
Third	299	299	244	84	160
Fourth	115	115	65	25	40
Fifth	466	-----	446	151	295
Sixth	60	-----	60	15	45

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$20,275 00	\$36 00	\$44 14	-----	-----
Second	9,176 00	30 00	35 93	-----	-----
Third	16,800 00	24 00	27 89	-----	-----
Fourth	5,600 00	18 00	21 24	-----	-----
Fifth	30,200 00	12 00	12 65	-----	-----
Sixth	3,000 00	6 00	6 45	-----	-----

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Julius Jacobs	San Francisco	10	\$200 00
J. Baum	San Francisco	35	200 00
L. C. Meyer	San Francisco	10	200 00
J. Dannenbaum	San Francisco	20	200 00
I. Lowenberg	San Francisco	20	200 00
Dr. J. R. McMurdo	San Francisco	10	200 00
J. Isaac	San Francisco	10	200 00

No. 56.—SAN FRANCISCO.

ARGONAUT MUTUAL BUILDING AND LOAN ASSOCIATION.

Incorporated January 31, 1891.

LEON DENNERY, Secretary.

GEO. W. DIXON, President.

No. of series, 3.

End of fiscal year, February 11, 1894.

No. of shares, 1,741.

Resources.		Liabilities.	
Loans	\$75,500 00	Dues and advance payments...	\$51,072 00
Arrearages	936 90	Earnings	7,648 35
Cash on hand	-----	Overdrafts and bills payable...	17,191 63
Real estate	-----	Profits unapportioned	524 92
Other assets	-----	All other liabilities	-----
Total resources	\$76,436 90	Total liabilities	\$76,436 90

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand		Paid overdrafts and bills pay- able	\$8,571 91
Received for dues	\$21,563 00	Loans	27,400 00
Received for paid-up stock		Interest	1,518 63
Received for premiums	2,740 00	Dues on surrendered shares	6,770 00
Received for interest	4,502 60	Profits on surrendered shares	325 70
Received for fees and fines	50 70	Salaries	1,065 00
Loans repaid	400 00	Taxes	479 91
Overdrafts and bills payable	17,191 63	Other expenses	321 73
All other sources		All other disbursements	
		Balance on hand	
Total receipts	\$46,452 93	Total disbursements	\$46,452 93

Authorized capital stock	\$1,000,000 00
No. of shares	5,000
No. of members	124
No. of borrowers	24
No. of mortgage loans for year	10
Amount of mortgage loans for year	\$27,400 00
No. of foreclosures since organization	
Amount due on foreclosures	
No. of shares last report	1,684
No. of shares issued since last report	392
No. of shares canceled since last report	335
Net profits of year	\$4,378 12
Plan of distribution	Partnership.
No. shares loaned on	377½
No. shares free	1,363½
Ratio of salaries to total receipts	2.29 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	4.02 per cent.
Surrender value of all shares	\$54,877 94
Total present worth of mortgages	64,915 07
Total appraised value of land	53,200 00
Total appraised value of improvements	69,900 00
Total book value of stock hypothecated	10,584 93
Total value of security held	133,684 93
Premium	Installment, 3 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force Feb., 1893.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	1,663	1,316	1,091	157½	933½
Second	408	363	333	85	245
Third	392		317	132	185

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$31,500 00	\$36 00	\$41 98	\$39 24	\$38 99
Second	17,600 00	24 00	26 70	25 44	25 30
Third	26,400 00	12 00	12 71	12 36	12 35

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Geo. W. Dixon	San Francisco	10	\$200 00
A. L. Lengfeld	San Francisco	25	200 00
A. Wenzelburger	San Francisco	10	200 00
M. Wiener	San Francisco	25	200 00
L. L. Denney	San Francisco	15	200 00
Sig. Baumann	San Francisco	15	200 00
H. G. Meyer	San Francisco	10	200 00

No. 57.—SAN FRANCISCO.

BAY CITY BUILDING AND LOAN ASSOCIATION.

Incorporated May 9, 1889.

LEON DENNERY, Secretary.

W. H. BREMER, President.

No. of series, 5.

End of fiscal year, May 27, 1894.

No. of shares, 2,084.

Resources.		Liabilities.	
Loans.....	\$132,500 00	Dues and advance payments ..	\$107,232 00
Arrearages.....	5,807 70	Earnings.....	27,154 52
Cash on hand.....	331 87	Overdrafts and bills payable...	3,250 00
Real estate.....		Profits unapportioned.....	1,113 55
Other assets: insurance ad- vanced.....	120 50	All other liabilities: mortgage account.....	10 00
Total resources.....	\$138,760 07	Total liabilities.....	\$138,760 07

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$20 01	Paid overdrafts and bills pay- able.....	\$25,697 43
Received for dues.....	24,627 00	Loans.....	12,100 00
Received for paid-up stock.....		Interest.....	1,601 45
Received for premiums.....	3,774 00	Dues on surrendered shares ..	8,697 00
Received for interest.....	7,318 80	Profits on surrendered shares..	1,204 04
Received for fees and fines ..	108 70	Salaries.....	1,600 00
Loans repaid.....	14,000 00	Taxes.....	1,275 44
Overdrafts and bills payable.....	3,250 00	Other expenses.....	526 78
All other sources.....		All other disbursements: in- surance advanced.....	64 50
		Balance on hand.....	331 87
Total receipts.....	\$53,098 51	Total disbursements.....	\$53,098 51

Authorized capital stock.....	\$2,000,000 00
No. of shares.....	10,000
No. of members.....	148
No. of borrowers.....	50
No. of mortgage loans for year.....	3
Amount of mortgage loans for year.....	\$12,100 00
No. of foreclosures since organization.....	
Amount due on foreclosures.....	
No. of shares last report.....	2,209
No. of shares issued since last report.....	127
No. of shares canceled since last report.....	252
Net profits of year.....	\$6,197 83
Plan of distribution.....	Partnership.
No. shares loaned on.....	662½
No. shares free.....	1,421½
Ratio of salaries to total receipts.....	3.01 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	6.40 per cent.
Surrender value of all shares.....	\$122,067 60
Total present worth of mortgages.....	96,153 04
Total appraised value of land.....	87,600 00
Total appraised value of improvements.....	124,000 00
Total book value of stock hypothecated.....	36,346 96
Total value of security held.....	247,946 96
Premium.....	Installment.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force May, 1893.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	2,202	1,504	1,407	262	1,145
Second	380	249	204	123	81
Third	480	271	231	130½	100½
Fourth	185	185	150	95	55
Fifth	127	-----	92	52	40

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$52,400 00	\$60 00	\$76 45	\$69 00	-----
Second	24,600 00	48 00	58 57	53 76	-----
Third	26,100 00	36 00	41 99	39 24	-----
Fourth	19,000 00	24 00	26 70	25 44	-----
Fifth	10,400 00	12 00	12 70	12 36	-----

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
W. H. Bremer	San Francisco	50	\$200 00
W. Frank	San Francisco	20	200 00
E. Gunzburger	San Francisco	10	200 00
S. G. Worden	Alameda	10	200 00
Hy. Wadsworth	Oakland	10	200 00
A. G. Lyle	San Francisco	30	200 00
Geo. Easton	Los Angeles	10	200 00

No. 58.—SAN FRANCISCO.

CALIFORNIA MUTUAL SAVINGS FUND, LOAN, AND BUILDING ASSOCIATION.

Incorporated March 26, 1887.

RALPH R. SELBY, Secretary.

E. L. HEAD, President.

No. of series, 14.	End of fiscal year, April 2, 1894.	No. of shares, 899.	
Resources.		Liabilities.	
Loans	\$69,390 00	Dues and advance payments... \$44,464 00	
Arrearages	2,258 04	Earnings	16,264 14
Cash on hand	578 13	Overdrafts and bills payable... 6,000 00	
Real estate	-----	Profits unapportioned	5,522 53
Other assets: legal expenses advanced	40 50	All other liabilities: advance interest	16 00
Total resources	\$72,266 67	Total liabilities	\$72,266 67

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	\$3,602 27	Paid overdrafts and bills payable	\$4,000 00
Received for dues	10,406 00	Loans	7,960 00
Received for paid-up stock	-----	Interest	634 04
Received for premiums	915 00	Dues on surrendered shares	4,937 00
Received for interest	4,464 35	Profits on surrendered shares	642 21
Received for fees and fines	152 54	Salaries	500 00
Loans repaid	300 00	Taxes	396 21
Overdrafts and bills payable	-----	Other expenses	192 57
All other sources	-----	All other disbursements	-----
		Balance on hand	578 13
Total receipts	\$19,840 16	Total disbursements	\$19,840 16

Authorized capital stock	\$1,000,000 00
No. of shares	5,000
No. of members	103
No. of borrowers	38
No. of mortgage loans for year	-----
Amount of mortgage loans for year	\$7,960 00
No. of foreclosures since organization	-----
Amount due on foreclosures	-----
No. of shares last report	969
No. of shares issued since last report	62
No. of shares canceled since last report	132
Net profits of year	\$4,317 77
Plan of distribution	Second Dividend Rule.
No. shares loaned on	367
No. shares free	532
Ratio of salaries to total receipts	2.52 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	5.49 per cent.
Surrender value of all shares	\$49,844 89
Total present worth of mortgages	49,445 97
Total appraised value of land	38,900 00
Total appraised value of improvements	62,075 00
Total book value of stock hypothecated	19,944 03
Total value of security held	120,919 03
Premium	Gross, 15 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force	Now in Force.	Shares Loaned Upon.	Shares "Free."
1—April, 1887			130	15	115
2—October, 1887			25	-----	25
3—April, 1888		138	80	33	47
4—October, 1888		78	33	18	15
5—April, 1889		227	109	49	60
6—October, 1889		160	106	31	75
7—April, 1890		92	46	36	10
8—October, 1890		67	57	30	27
9—April, 1891		75	20	17	3
10—October, 1891		93	56	19	37
11—April, 1892		158	106	56	50
12—October, 1892		76	71	40	31
13—April, 1893		28	26	15	11
14—October, 1893		34	34	8	26

MEMORANDA OF SERIES, LOANS, ETC.—Continued.

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
1—April, 1887	\$3,000 00	\$84 00	\$126 30	\$101 85	\$98 55
2—October, 1887		78 00	114 50	93 40	90 50
3—April, 1888	6,600 00	72 00	103 14	85 14	82 62
4—October, 1888	3,600 00	66 00	92 20	77 05	74 88
5—April, 1889	9,250 00	60 00	81 68	69 15	67 30
6—October, 1889	5,880 00	54 00	71 59	61 42	59 86
7—April, 1890	7,000 00	48 00	61 93	53 88	52 57
8—October, 1890	3,860 00	42 00	52 70	46 51	45 43
9—April, 1891	2,900 00	36 00	43 89	39 33	38 45
10—October, 1891	3,700 00	30 00	35 51	32 32	31 61
11—April, 1892	11,200 00	24 00	27 55	25 50	24 92
12—October, 1892	7,900 00	18 00	20 02	18 85	18 38
13—April, 1893	3,000 00	12 00	12 92	12 39	12 00
14—October, 1893	1,500 00	6 00	6 25	6 10	6 00

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
E. L. Head	San Francisco	25	\$200 00
F. H. Eckenroth	San Francisco	20	200 00
Adolph Meyer	San Francisco	5	200 00
W. S. Upham	San Francisco	25	200 00
Joseph Roylance	San Francisco	5	200 00
G. G. Gillespie	San Francisco	1	200 00
Walter Dickins	San Francisco	1	200 00
E. A. Leigh	San Francisco	5	200 00
Wm. Donald	San Francisco	20	200 00

No. 59.—SAN FRANCISCO.

CAPITAL BUILDING AND LOAN ASSOCIATION.

Incorporated June, 1890.

W. H. DAVIS, Secretary.

L. R. ELLERT, President.

No. of series, 14.

End of fiscal year, May 9, 1894.

No. of shares, 1,576.

Resources.		Liabilities.	
Loans	\$77,850 00	Dues and advance payments ..	\$58,239 00
Arrearages	700 61	Earnings	14,190 18
Cash on hand		Overdrafts and bills payable...	6,074 15
Real estate		Profits unapportioned	5 45
Other assets		All other liabilities (accrued interest)	41 83
Total resources	\$78,550 61	Total liabilities	\$78,550 61

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	\$280 78	Paid overdrafts and bills payable	\$18,075 03
Received for dues	19,719 00	Loans	10,100 00
Received for paid-up stock .....	.....	Interest	921 55
Received for premiums	2,535 12	Dues on surrendered shares	14,429 00
Received for interest	5,434 89	Profits on surrendered shares	1,113 97
Received for fees and fines	86 42	Salaries	900 00
Loans repaid	12,300 00	Taxes	667 45
Overdrafts and bills payable	6,074 15	Other expenses	223 36
All other sources .....	.....	All other disbursements .....	.....
		Balance on hand .....	.....
Total receipts	\$46,430 36	Total disbursements	\$46,430 36

Authorized capital stock	\$3,000,000 00
No. of shares	15,000
No. of members	85
No. of borrowers	27
No. of mortgage loans for year	10
Amount of mortgage loans for year	\$10,100 00
No. of foreclosures since organization .....	.....
Amount due on foreclosures .....	.....
No. of shares last report	1,852
No. of shares issued since last report	274
No. of shares canceled since last report	550
Net profits of year	\$7,188 41
Plan of distribution	Dexter.
No. shares loaned on	436
No. shares free	1,140
Ratio of salaries to total receipts	1.94 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	3.85 per cent.
Surrender value of all shares	\$65,190 67
Total present worth of mortgages	61,375 27
Total appraised value of land	56,350 00
Total appraised value of improvements	59,450 00
Total book value of stock hypothecated	16,474 73
Total value of security held	132,274 73
Premium	Installment.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force May, 1893.	Now in Force.	Shares Loaned Upon.	Shares "Free."
1—June, 1890	1,306	971	800	105	695
2—September, 1890	348	163	65	15	50
3—March, 1891	165	125	115	25	90
4—June, 1891	107	75	55	25	30
5—September, 1891	181	142	93	78	15
6—February, 1892	189	107	79	24	55
7—June, 1892	151	131	88	73	15
8—September, 1892	85	55	40	30	10
9—December, 1892	20	20	5	.....	5
10—February, 1893	63	63	33	18	15
11—June, 1893	104	.....	73	28	45
12—September, 1893	60	.....	20	.....	20
13—December, 1893	45	.....	45	.....	45
14—March, 1894	65	.....	65	15	50
Totals	2,889	1,852	1,576	436	1,140

MEMORANDA OF SERIES, LOANS, ETC.—Continued.

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
1—June, 1890.....	\$17,900 00	\$48 00	\$61 44	\$53 88	Same as Value, 6 per cent.
2—September, 1890.....	3,000 00	45 00	56 80	50 17	
3—March, 1891.....	3,850 00	39 00	47 47	42 90	
4—June, 1891.....	5,000 00	36 00	42 94	39 33	
5—September, 1891.....	15,500 00	33 00	38 76	35 80	
6—February, 1892.....	4,800 00	28 00	32 03	30 03	
7—June, 1892.....	14,000 00	24 00	26 92	25 50	
8—September, 1892.....	5,600 00	21 00	23 22	22 15	
9—December, 1892.....	.....	18 00	19 64	18 85
10—February, 1893.....	3,500 00	15 00	16 14	15 60	
11—June, 1893.....	1,700 00	12 00	12 70	12 39	
12—September, 1893.....	.....	9 00	9 39	9 21
13—December, 1893.....	.....	6 00	6 17	6 10
14—March, 1894.....	3,000 00	3 00	3 05	3 03	
Totals.....	\$77,850 00	

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Hon. L. R. Ellert, President.....	San Francisco.....	25	\$200 00
S. C. Buckbee.....	San Francisco.....	10	200 00
M. J. Newmark.....	San Francisco.....	50	200 00
William Proll.....	San Francisco.....	10	200 00
Herman Shainwald.....	San Francisco.....	32	200 00
Harrison A. Jones.....	San Francisco.....	5	200 00
Leon Greenberg.....	San Francisco.....	50	200 00
R. B. Hochstadter.....	San Francisco.....	50	200 00
J. D. Maxwell.....	Belvedere, Marin Co.....	18	200 00

No. 60.—SAN FRANCISCO.

CITY BUILDING AND LOAN ASSOCIATION.

Incorporated March 26, 1891.

J. M. ELLIS, Secretary.

J. B. LEVISON, President.

No. of series, 4.

End of fiscal year, March 31, 1894.

No. of shares, 1,624.

Resources.		Liabilities.	
Loans.....	\$72,650 00	Dues and advance payments ..	\$49,692 00
Arrearages.....	1,240 10	Earnings.....	11,264 95
Cash on hand.....	65 00	Overdrafts and bills payable.....	13,712 98
Real estate.....	3,205 62	Profits unapportioned.....	1,943 79
Other assets: furniture and fixtures.....	48 00	All other liabilities: loans incomplete.....	595 00
Total resources.....	\$77,208 72	Total liabilities.....	\$77,208 72

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	\$10 00	Paid overdrafts and bills payable.....	\$7,738 68
Received for dues.....	19,694 00	Loans.....	28,855 00
Received for paid-up stock.....		Interest.....	1,100 23
Received for premiums.....	3,545 00	Dues on surrendered shares.....	4,012 48
Received for interest.....	4,178 33	Profits on surrendered shares.....	233 22
Received for fees and fines.....	46 58	Salaries.....	1,309 00
Loans repaid.....	5,800 00	Taxes.....	257 07
Overdrafts and bills payable.....	13,712 98	Other expenses.....	106 59
All other sources.....		All other disbursements.....	3,309 62
		Returned premiums \$104 00	
		Real estate..... 3,205 62	
		Balance on hand.....	65 00
Total receipts.....	\$46,986 89	Total disbursements.....	\$46,986 89

Authorized capital stock	\$3,000,000 00
No. of shares.....	15,000
No. of members.....	104
No. of borrowers.....	18
No. of mortgage loans for year.....	6
Amount of mortgage loans for year.....	\$20,450 00
No. of foreclosures since organization.....	1
Amount due on foreclosures.....	\$3,200 00
No. of shares last report.....	1,540
No. of shares issued since last report.....	233
No. of shares canceled since last report.....	149
Net profits of year.....	\$4,892 36
Plan of distribution.....	Wrigley.
No. shares loaned on.....	364
No. shares free.....	1,260
Ratio of salaries to total receipts.....	2.79 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	3.56 per cent.
Surrender value of all shares.....	\$53,783 22
Total present worth of mortgages.....	63,061 80
Total appraised value of land.....	32,250 00
Total appraised value of improvements.....	51,000 00
Total book value of stock hypothecated.....	9,588 20
Total value of security held.....	92,838 20
Premium.....	Gross, 15 per cent, and Installment, 50 cents per share.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force Last Report.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....	1,142	1,082	1,001	76	925
Second.....	376	313	250	35	215
Third.....	160	150	140	105	35
Fourth.....	233		233	148	85
Totals.....	1,911	1,545	1,624	364	1,260

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$15,200 00	\$36 00	\$44 76	\$39 24	\$39 24
Second.....	6,850 00	30 00	36 58	32 25	32 25
Third.....	21,000 00	24 00	27 70	25 44	25 44
Fourth.....	29,600 00	12 00	13 43	12 36	12 36
Totals.....	\$72,650 00				

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Gustavus L. Spear	San Francisco	15	\$200 00
Mendel Esberg	San Francisco	15	200 00
I. Strassburger	San Francisco	20	200 00
S. Nickelsburg	San Francisco	10	200 00
J. B. Levison	San Francisco	25	200 00
Julius Hart	San Francisco	20	200 00
Henry Stern	San Francisco	10	200 00
L. W. Wedeles	San Francisco	15	200 00
Julius Jacobs	San Francisco	10	200 00

No. 61.—SAN FRANCISCO.

CITIZENS' BUILDING AND LOAN ASSOCIATION.

Incorporated January 14, 1885.

CHARLES K. CLARK, Secretary.

FRANK OTIS, President.

No. of series, 35.

End of fiscal year, February 28, 1894.

No. of shares, 7,996.

Resources.		Liabilities.	
Loans	\$432,700 00	Dues and advance payments ..	\$336,958 00
Arrearages	6,424 05	Earnings	114,071 68
Cash on hand	556 26	Overdrafts and bills payable ..	29,000 00
Real estate	9,864 50	Profits unapportioned	5,307 43
Other assets: furniture and fix- tures	157 60	All other liabilities	14,365 30
		Loans incomplete	\$5,420 76
		Suspense account	30 08
		Taxes reserved	2,238 01
		Interest due	107 65
		Special deposits	6,497 30
		Certificate State tax	71 50
Total resources	\$499,702 41	Total liabilities	\$499,702 41
Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	\$11,760 83	Paid overdrafts and bills pay- able	\$49,900 00
Received for dues	96,044 00	Loans	136,738 54
Received for paid-up stock		Interest	1,077 02
Received for premiums	17,839 25	Dues on surrendered shares	81,515 00
Received for interest	29,355 15	Profits on surrendered shares ..	20,957 31
Received for fees and fines	1,046 95	Salaries	2,160 00
Loans repaid	66,226 00	Taxes	3,842 35
Overdrafts and bills payable	78,900 00	Other expenses	971 90
All other sources	33,111 45	All other disbursements	36,565 25
Taxes refunded	\$14 75	Insurance premiums	\$120 70
Insurance refunded	99 40	Special deposits	26,500 00
Special deposits	32,997 30	Office fixtures	49 10
		Real estate	9,864 50
		Sundries	30 95
		Balance on hand	556 26
Total receipts	\$334,283 63	Total disbursements	\$334,283 63

Authorized capital stock.....	\$3,000,000 00
No. of shares.....	15,000
No. of members.....	606
No. of borrowers.....	202
No. of mortgage loans for year.....	101
Amount of mortgage loans for year.....	\$139,250 00
No. of foreclosures since organization.....	2
Amount due on foreclosures.....	\$9,864 50
No. of shares last report.....	8,274
No. of shares issued since last report.....	1,845
No. of shares canceled since last report.....	2,123
Net profits of year.....	\$40,190 08
Plan of distribution.....	Partnership.
No. shares loaned on.....	2,413½
No. shares free.....	5,582½
Ratio of salaries to total receipts.....	.65 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	2.09 per cent.
Surrender value of all shares.....	\$419,976 75
Total present worth of mortgages.....	331,434 95
Total appraised value of land.....	287,920 00
Total appraised value of improvements.....	447,980 00
Total book value of stock hypothecated.....	151,265 05
Total value of security held.....	887,165 05
Premium: Installment.....	
-----3 to 3½ per cent, or 50 to 55 cents per share per month; interest, 7 per cent.	

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Foree Nov., 1893.	Now in Foree.	Shares Loaned Upon.	Shares "Free."
1—March, 1885.....	1,850	202	202	135	67
2—September, 1885.....	506	80	60	5	55
3—December, 1885.....	345	69	69	27	42
4—March, 1886.....	317	24	24	13½	10½
5—June, 1886.....	251	28	28	7	21
6—September, 1886.....	299	96	93	13½	79½
7—December, 1886.....	299	75	75	20	55
8—March, 1887.....	381	133	133	63	70
9—June, 1887.....	461	163	163	33	130
10—September, 1887.....	382	116	105	64½	40½
11—December, 1887.....	372	151	151	48	103
12—March, 1888.....	504	206	206	48	158
13—June, 1888.....	630	326	322	108¼	213¾
14—September, 1888.....	514	149	144	87	57
15—December, 1888.....	517	176	175	36¼	138¾
16—March, 1889.....	1,095	316	315	77	238
17—June, 1889.....	572	200	190	65	125
18—September, 1889.....	622	283	283	92½	190½
19—December, 1889.....	549	296	291	10	281
20—March, 1890.....	809	363	353	84½	268½
21—June, 1890.....	655	305	305	84½	220½
22—September, 1890.....	532	191	186	76½	109½
23—December, 1890.....	531	301	296	135	161
24—March, 1891.....	1,051	474	399	165½	233½
25—June, 1891.....	622	337	312	112	200
26—September, 1891.....	388	183	178	20	158
27—December, 1891.....	522	244	244	27½	216½
28—March, 1892.....	627	367	334	64½	269½
29—June, 1892.....	370	191	181	31½	149½
30—September, 1892.....	419	266	258	61	197
31—December, 1892.....	315	232	217	9	208
32—March, 1893.....	636	611	579	106½	472½
33—June, 1893.....	407	402	355	179	176
34—September, 1893.....	408	408	386	164½	221½
35—December, 1893.....	384		384	138½	245½
Totals.....			7,906	2,413½	5,582½

MEMORANDA OF SERIES, LOANS, ETC.—Continued.

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
1—March, 1885	\$27,000 00	\$108 00	\$177 97	\$137 45	\$177 97
2—September, 1885	1,000 00	102 00	164 71	128 25	164 71
3—December, 1885	5,400 00	99 00	155 97	123 75	155 97
4—March, 1886	2,700 00	96 00	150 00	119 28	150 00
5—June, 1886	1,400 00	93 00	143 22	114 85	143 22
6—September, 1886	2,700 00	90 00	136 53	110 47	136 53
7—December, 1886	4,000 00	87 00	130 25	106 15	130 25
8—March, 1887	12,600 00	84 00	124 09	101 85	110 85
9—June, 1887	6,600 00	81 00	118 26	97 60	105 85
10—September, 1887	12,900 00	78 00	112 28	93 40	101 15
11—December, 1887	9,600 00	75 00	106 53	89 25	96 50
12—March, 1888	9,600 00	72 00	100 94	85 15	91 65
13—June, 1888	21,650 00	69 00	95 30	81 05	87 05
14—September, 1888	17,400 00	66 00	90 04	77 05	82 55
15—December, 1888	7,250 00	63 00	84 84	73 08	78 08
16—March, 1889	15,400 00	60 00	79 76	69 15	73 15
17—June, 1889	13,000 00	57 00	74 78	65 25	68 00
18—September, 1889	18,500 00	54 00	69 99	61 20	63 70
19—December, 1889	2,000 00	51 00	65 12	57 63	59 88
20—March, 1890	16,900 00	48 00	60 37	53 80	55 80
21—June, 1890	16,900 00	45 00	55 89	50 15	51 90
22—September, 1890	15,300 00	42 00	51 44	46 50	48 00
23—December, 1890	27,000 00	39 00	47 15	42 90	44 15
24—March, 1891	33,100 00	36 00	43 03	39 33	40 33
25—June, 1891	22,400 00	33 00	39 06	35 80	35 80
26—September, 1891	4,000 00	30 00	35 21	32 32	32 32
27—December, 1891	5,500 00	27 00	31 20	28 90	28 90
28—March, 1892	12,900 00	24 00	27 42	25 50	25 50
29—June, 1892	6,300 00	21 00	23 73	22 15	22 15
30—September, 1892	12,200 00	18 00	20 09	18 85	18 85
31—December, 1892	1,800 00	15 00	16 57	15 60	15 60
32—March, 1893	21,300 00	12 00	13 16	12 40	12 40
33—June, 1893	35,900 00	9 00	9 75	9 22	9 22
34—September, 1893	32,900 00	6 00	6 43	6 10	6 10
35—December, 1893	27,700 00	3 00	3 16	3 03	3 03
Totals	\$482,700 00				

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
John F. Byxbee	Oakland		
E. B. Cutter	San Francisco		
E. B. Rambo	San Francisco		
Frank Otis	Alameda		
Geo. T. Marsh	San Francisco		
Thos. M. Gardiner	Oakland		
R. D. Cranstone	San Francisco		
M. S. Eisner	San Francisco		
S. R. Thorne	San Francisco		

No. 62.—SAN FRANCISCO.

COLUMBIA BUILDING AND LOAN ASSOCIATION.

Incorporated May 2, 1890.

LEON DENNERY, Secretary.

S. ZEMANSKY, President.

No. of series, 5.

End of fiscal year, May 9, 1894.

No. of shares, 1,796.

Resources.		Liabilities.	
Loans.....	\$84,928 40	Dues and advance payments ..	\$47,466 00
Arrearages	5,353 70	Earnings	6,754 13
Cash on hand.....		Overdrafts and bills payable...	35,115 40
Real estate.....	4,355 40	Profits unapportioned.....	5,292 47
Other assets: assessments and insurance advanced	92 50	All other liabilities: due retired shares.....	102 00
Total resources	\$94,730 00	Total liabilities.....	\$94,730 00

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....		Paid overdrafts and bills payable.....	\$49,628 59
Received for dues.....	\$20,401 00	Loans.....	36,078 95
Received for paid-up stock.....		Interest.....	2,536 60
Received for premiums.....	6,679 30	Dues on surrendered shares	5,535 00
Received for interest.....	4,294 15	Profits on surrendered shares..	215 39
Received for fees and fines	89 70	Salaries.....	1,340 00
Loans repaid.....	2,350 00	Taxes.....	543 93
Overdrafts and bills payable.....	62,521 39	Other expenses.....	439 58
All other sources		All other disbursements: insurance advanced.....	17 50
Total receipts.....	\$96,335 54	Balance on hand.....	-----
		Total disbursements.....	\$96,335 54

Authorized capital stock.....	\$2,000,000 00
No. of shares	10,000
No. of members	93
No. of borrowers	25
No. of mortgages for year	9
Amount of mortgage loans for year.....	\$35,300 00
No. of foreclosures since organization.....	-----
Amount due on foreclosures	-----
No. of shares last report.....	1,399
No. of shares issued since last report.....	782
No. of shares canceled since last report	385
Net profits of year	\$6,203 04
Plan of distribution	Partnership.
No. shares loaned on	424 1/4
No. shares free	1,371 3/4
Ratio of salaries to total receipts.....	1.39 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	2.41 per cent.
Surrender value of all shares.....	\$51,605 92
Total present worth of mortgages.....	69,514 72
Total appraised value of land.....	49,700 00
Total appraised value of improvements.....	58,550 00
Total book value of stock hypothecated.....	15,413 68
Total value of security held.....	123,663 68
Premium	(Gross, 15 per cent, and Installment.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force May, 1893.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	1,224	575	530	171¾	358¾
Second	196	110	65	-----	65
Third	430	375	270	2	268
Fourth	339	339	339	74	265
Fifth	782	-----	592	176½	415½

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$34,350 00	\$48 00	\$57 32	\$53 76	-----
Second	-----	36 00	41 29	39 24	-----
Third	400 00	24 00	26 38	25 44	-----
Fourth	14,800 00	18 00	19 36	18 81	-----
Fifth	35,300 00	12 00	12 62	12 36	-----

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
S. Zemansky	San Francisco	10	\$200 00
P. J. Tomalty	San Francisco	40	200 00
Emil Gunzburger	San Francisco	30	200 00
John Dougherty	San Francisco	65	200 00
Albert Cerf	San Francisco	25	200 00
J. R. Morton	San Francisco	10	200 00
W. H. Bremer	San Francisco	50	200 00

No. 63.—SAN FRANCISCO.

COÖPERATIVE MUTUAL BUILDING AND LOAN ASSOCIATION.

Incorporated September 16, 1892.

LOUIS BLANK, Secretary.

H. P. SONNTAG, President.

No. of series, 2.

End of fiscal year, September 30, 1893.

No. of shares, 2,320.

Resources.		Liabilities.	
Loans	\$62,400 00	Dues and advance payments ..	\$25,442 00
Arrearages	2,478 00	Earnings	4,659 12
Cash on hand	300 00	Overdrafts and bills payable ..	30,190 00
Real estate	-----	Profits unapportioned	3,186 88
Other assets	-----	All other liabilities	1,700 00
Total resources	\$65,178 00	Total liabilities	\$65,178 00

Receipts for Fiscal Year.	Disbursements for Fiscal Year.
Balance on hand.....	Paid overdrafts and bills payable.....
Received for dues..... \$24,111 00	Loans..... \$61,100 00
Received for paid-up stock.....	Interest..... 2,083 07
Received for premiums..... 7,740 00	Dues on surrendered shares.....
Received for interest..... 2,487 90	Profits on surrendered shares.....
Received for fees and fines..... 235 90	Salaries..... 900 00
Loans repaid.....	Taxes..... 24 09
Overdrafts and bills payable..... 30,190 00	Other expenses..... 357 64
All other sources.....	All other disbursements.....
	Balance on hand..... 300 00
Total receipts..... \$64,764 80	Total disbursements..... \$64,764 80

Authorized capital stock.....	\$2,000,000 00
No. of shares.....	10,000
No. of members.....	101
No. of borrowers.....	11
No. of mortgage loans for year.....	11
Amount of mortgage loans for year.....	\$62,400 00
No. of foreclosures since organization.....	
Amount due on foreclosures.....	
No. of shares last report.....	
No. of shares issued since last report.....	2,320
No. of shares canceled since last report.....	
Net profits of year.....	\$7,099 00
Plan of distribution.....	Dexter.
No. shares loaned on.....	312
No. shares free.....	2,008
Ratio of salaries to total receipts.....	1.39 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	1.98 per cent.
Surrender value of all shares.....	\$25,334 89
Total present worth of mortgages.....	58,205 43
Total appraised value of land.....	28,675 00
Total appraised value of improvements.....	47,200 00
Total book value of stock hypothecated.....	4,194 57
Total value of security held.....	80,069 57
Premium.....	Gross, 15 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force	Now in Force.	Shares Loaned Upon.	Shares "Free."
No. 1.....	1,867		1,867	272	1,595
No. 2.....	453		453	40	413

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
No. 1.....	\$54,400 00	\$12 00	\$14 43	\$12 36	
No. 2.....	8,000 00	6 00	6 27	6 09	

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors, 1892-93.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
H. P. Sonntag, President.....	San Francisco.....	25	\$200 00
Daniel Roth.....	San Francisco.....	100	200 00
F. L. Turpin.....	San Francisco.....	50	200 00
Louis Landler.....	San Francisco.....	75	200 00
John Partridge.....	San Francisco.....	25	200 00

No. 64.—SAN FRANCISCO.

COMMERCIAL BUILDING AND LOAN ASSOCIATION.

Incorporated December 21, 1886.

CHAS. K. CLARK, Secretary.

H. R. MORTON, SR., President.

No. of series, 14.

End of fiscal year, December 31, 1893.

No. of shares, 1,842.

Resources.		Liabilities.	
Loans.....	\$116,850 00	Dues and advance payments...	\$85,152 00
Arrearages.....	1,874 55	Earnings.....	30,544 16
Cash on hand.....	-----	Overdrafts and bills payable.....	710 39
Real estate.....	-----	Profits unapportioned.....	857 25
Other assets.....	143 65	All other liabilities.....	1,604 40
Total resources.....	\$118,868 20	Total liabilities.....	\$118,868 20

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	-----	Paid overdrafts and bills payable.....	\$8,707 80
Received for dues.....	\$22,794 70	Loans.....	15,797 65
Received for paid-up stock.....	-----	Interest.....	238 46
Received for premiums.....	3,688 70	Dues on surrendered shares.....	12,095 00
Received for interest.....	7,025 00	Profits on surrendered shares.....	2,428 50
Received for fees and fines.....	195 95	Salaries.....	600 00
Loans repaid.....	2,400 00	Taxes.....	926 08
Overdrafts and bills payable.....	5,210 39	Other expenses.....	333 30
All other sources.....	212 05	All other disbursements.....	350 00
Total receipts.....	\$41,526 79	Balance on hand.....	-----
		Total disbursements.....	\$41,526 79

Authorized capital stock.....	\$1,000,000 00
No. of shares.....	5,000
No. of members.....	165
No. of borrowers.....	43
No. of mortgagers.....	11
Amount of mortgage loans for year.....	\$16,850 00
No. of foreclosures since organization.....	-----
Amount due on foreclosures.....	-----
No. of shares last report.....	1,869
No. of shares issued since last report.....	318
No. of shares canceled since last report.....	345
Net profits of year.....	\$9,788 59
Plan of distribution.....	Partnership.
No. shares loaned on.....	584 1/4
No. shares free.....	1,257 3/4
Ratio of salaries to total receipts.....	1.44 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	4.60 per cent.
Surrender value of all shares.....	\$108,561 75
Total present worth of mortgages.....	78,559 45
Total appraised value of land.....	77,000 00
Total appraised value of improvements.....	105,080 00
Total book value of stock hypothecated.....	37,290 55
Total value of security held.....	219,370 55
Premium.....	Installment and Gross.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force July, 1893.	Now in Force.	Shares Loaned Upon.	Shares "Free."
1 of January, 1887.....	848	381	351	112	239
2 of July, 1887.....	190	55	50	-----	50
3 of January, 1888.....	192	87	87	12	75
4 of July, 1888.....	256	66	56	23½	32½
5 of January, 1889.....	307	97	97	20	77
6 of July, 1889.....	203	133	130	52½	77½
7 of January, 1890.....	258	159	141	56	85
8 of July, 1890.....	161	116	116	30	86
9 of January, 1891.....	209	165	140	86	54
10 of July, 1891.....	209	147	147	65	82
11 of January, 1892.....	201	169	154	38½	115½
12 of July, 1892.....	155	130	70	25	45
13 of January, 1893.....	191	191	184	34¾	149¼
14 of July, 1893.....	119	-----	119	29	90
Totals.....	3,499	-----	1,842	584¼	1,257¾

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
1 of January, 1887.....	\$22,400 00	\$84 00	\$125 00	\$101 85	\$122 00
2 of July, 1887.....	-----	78 00	113 65	93 40	109 65
3 of January, 1888.....	2,400 00	72 00	102 40	85 15	98 40
4 of July, 1888.....	4,700 00	66 00	91 50	77 05	86 50
5 of January, 1889.....	4,000 00	60 00	81 15	69 15	76 15
6 of July, 1889.....	10,500 00	54 00	71 45	61 40	61 40
7 of January, 1890.....	11,200 00	48 00	61 75	53 80	53 80
8 of July, 1890.....	6,000 00	42 00	52 55	46 50	46 50
9 of January, 1891.....	17,200 00	36 00	43 80	39 30	39 30
10 of July, 1891.....	13,000 00	30 00	35 45	32 30	32 30
11 of January, 1892.....	7,700 00	24 00	27 50	25 50	25 50
12 of July, 1892.....	5,000 00	18 00	20 00	18 85	18 85
13 of January, 1893.....	6,950 00	12 00	13 00	12 40	12 40
14 of July, 1893.....	5,800 00	6 00	6 45	6 10	6 10
Totals.....	\$116,850 00	-----	-----	-----	-----

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
H. R. Morton, Sr.....	San Francisco.....	-----	\$200 00
T. G. Cockrill.....	San Francisco.....	-----	200 00
P. F. McNulty.....	San Francisco.....	-----	200 00
John D. Tobin.....	San Francisco.....	-----	200 00
E. L. Wagner.....	San Francisco.....	-----	200 00
P. Rohrbacher.....	San Francisco.....	-----	200 00
Wm. Trebell.....	San Francisco.....	-----	200 00
F. C. Kleebauer.....	San Francisco.....	-----	200 00
L. C. Babin.....	San Francisco.....	-----	200 00

No. 65.—SAN FRANCISCO.

COMMONWEALTH MUTUAL BUILDING AND LOAN ASSOCIATION.

Incorporated July 26, 1889.

W. MATTHEWS, Secretary.

WILLIAM SINON, President.

No. of series, 12.	End of fiscal year, August 31, 1893.	No. of shares, 792.	
Resources.		Liabilities.	
Loans.....	\$47,765 00	Dues and advance payments ..	\$21,092 00
Arrearages.....	524 50	Earnings.....	4,059 85
Cash on hand.....	.....	Overdrafts and bills payable....	17,705 73
Real estate.....	.....	Profits unapportioned	1,335 87
Other assets.....	370 90	All other liabilities.....	4,466 95
Total resources.....	\$48,660 40	Total liabilities.....	\$48,660 40
Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$199 87	Paid overdrafts and bills pay- able.....	\$1,962 48
Received for dues.....	9,811 00	Loans.....	20,124 55
Received for paid-up stock.....	1,100 00	Interest.....	900 89
Received for premiums.....	1,235 90	Dues on surrendered shares.....	3,455 00
Received for interest.....	2,782 06	Profits on surrendered shares.....	275 35
Received for fees and fines.....	94 60	Salaries.....	750 00
Loans repaid.....	1,222 50	Taxes.....	239 18
Overdrafts and bills payable....	12,026 67	Other expenses.....	530 15
All other sources.....	.....	All other disbursements.....	185 00
Total receipts.....	\$28,472 60	Balance on hand.....	.....
		Total disbursements.....	\$28,472 60
Authorized capital stock.....			\$1,000,000 00
No. of shares.....			5,000
No. of members.....			69
No. of borrowers.....			20
No. of mortgage loans for year.....			11
Amount of mortgage loans for year.....			\$19,400 00
No. of foreclosures since organization ..			.....
Amount due on foreclosures.....			.....
No. of shares last report.....			662
No. of shares issued since last report.....			335
No. of shares canceled since last report ..			205
Net profits of year.....			\$2,772 20
Plan of distribution.....			Partnership.
No. shares loaned on.....			238
No. shares free.....			554
Ratio of salaries to total receipts.....			2.63 per cent.
Ratio of expenses (including salaries and taxes) to total receipts			5.51 per cent.
Surrender value of all shares.....			\$23,115 44
Total present worth of mortgages.....			40,056 63
Total appraised value of land.....			23,340 00
Total appraised value of improvements.....			40,150 00
Total book value of stock hypothecated.....			6,843 37
Total value of security held.....			70,333 37
Premium.....			Formerly Gross, 15 per cent; now Installment, 65 cents per share.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force -----	Now In Force.	Shares Loaned Upon.	Shares "Frec."
First.....	237	-----	184	49	135
Second.....	216	-----	56	-----	56
Third.....	265	-----	85	50	35
Fourth.....	68	-----	30	-----	30
Fifth.....	40	-----	10	-----	10
Sixth.....	25	-----	10	-----	10
Seventh.....	77	-----	57	22	35
Eighth.....	110	-----	45	-----	45
Ninth.....	60	-----	35	20	15
Tenth.....	173	-----	118	18	100
Eleventh.....	103	-----	103	40	63
Twelfth.....	59	-----	59	39	20

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$9,800 00	\$48 00	\$61 40	\$53 76	\$53 76
Second.....	-----	42 00	51 38	46 41	46 41
Third.....	10,000 00	36 00	42 10	39 24	39 24
Fourth.....	-----	33 00	38 03	35 72¼	35 72¼
Fifth.....	-----	30 00	33 96	32 25	32 25
Sixth.....	-----	27 00	30 21	28 82¼	28 82¼
Seventh.....	4,400 00	24 00	26 46	25 44	25 44
Eighth.....	-----	18 00	19 32	18 81	18 81
Ninth.....	4,000 00	15 00	15 96	15 56¼	15 56¼
Tenth.....	3,600 00	12 00	12 60	12 36	12 36
Eleventh.....	8,000 00	9 00	9 45	9 20¼	9 20¼
Twelfth.....	7,800 00	6 00	6 30	6 09	6 09

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Directors.	Amount of Capital stock Held by Each.	
		Shares.	Par Value.
William Sinon.....	San Francisco.....	80	\$200 00
Irving F. Moulton.....	San Francisco.....	10	200 00
Landry C. Babin.....	San Francisco.....	15	200 00
Louis R. Dempster.....	San Francisco.....	15	200 00
Wickliffe Matthews.....	Oakland.....	25	200 00
Mate E. Stevens.....	Oakland.....	5	200 00
One vacancy.....	-----	-----	-----

No. 66.—SAN FRANCISCO.

COSMOS LOAN ASSOCIATION.

Incorporated April 30, 1890.

J. S. HOPKINS, Secretary.

R. F. OSBORN, President.

No. of series, 8.

End of fiscal year, May 17, 1894.

No. of shares, 808.

Resources.		Liabilities.	
Loans.....	\$32,445 35	Dues and advance payments....	\$26,646 00
Arrearages.....	841 98	Earnings.....	3,886 89
Cash on hand.....	899 64	Overdrafts and bills payable....	8,000 00
Real estate.....	4,565 00	Profits unapportioned.....	219 08
Other assets.....	-----	All other liabilities.....	-----
Total resources.....	\$38,751 97	Total liabilities.....	\$38,751 97

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....		Paid overdrafts and bills payable.....	\$10,174 53
Received for dues.....	\$10,329 00	Loans.....	2,895 35
Received for paid-up stock.....		Interest.....	329 00
Received for premiums.....	1,005 78	Dues on surrendered shares.....	12,290 00
Received for interest.....	1,978 46	Profits on surrendered shares.....	802 19
Received for fees and fines.....	64 95	Salaries.....	840 00
Loans repaid.....	7,350 00	Taxes.....	446 31
Overdrafts and bills payable.....	8,000 00	Other expenses.....	254 67
All other sources: rent.....	203 50	All other disbursements.....	
		Balance on hand.....	899 64
Total receipts.....	\$28,931 69	Total disbursements.....	\$28,931 69

Authorized capital stock.....	\$1,000,000 00
No. of shares.....	5,000
No. of members.....	43
No. of borrowers.....	12
No. of mortgage loans for year.....	2
Amount of mortgage loans for year.....	\$2,895 35
No. of foreclosures since organization.....	1
Amount due on foreclosures.....	\$4,565 00
No. of shares last report.....	1,033
No. of shares issued since last report.....	190
No. of shares canceled since last report.....	415
Net profits of year.....	\$660 85
Plan of distribution.....	Dexter.
No. shares loaned on.....	180
No. shares free.....	628
Ratio of salaries to total receipts.....	2.90 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	5.32 per cent.
Surrender value of all shares.....	\$26,123 69
Total present worth of mortgages.....	25,860 38
Total appraised value of land.....	24,900 00
Total appraised value of improvements.....	25,500 00
Total book value of stock hypothecated.....	6,584 97
Total value of security held.....	56,984 97
Premium.....	Installment.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....	793		285	25	260
Second.....	72		47	17	30
Third.....	255		153	70	83
Fourth.....	173		43	18	25
Fifth.....	148		83	33	50
Sixth.....	75		25		25
Seventh.....	115		115		115
Eighth.....	57		57	17	40

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$4,250 00	\$48 00	\$56 52	\$53 76	\$52 26
Second.....	3,400 00	42 00	48 53	46 41	44 61
Third.....	11,800 00	36 00	40 79	39 24	37 92
Fourth.....	2,100 00	30 00	33 33	32 25	31 17
Fifth.....	7,500 00	24 00	26 13	25 44	24 75
Sixth.....		18 00	19 20	18 81	18 36
Seventh.....		12 00	12 53	12 36	12 16
Eighth.....	2,895 00	6 00	6 14	6 09	

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
R. F. Osborn	San Francisco	15	\$200 00
E. H. Rixford	San Francisco	18	200 00
Isaac Upham	San Francisco	50	200 00
J. Curtis	San Francisco	10	200 00
Homer A. Craig	Oakland	35	200 00
J. T. Dunn	San Francisco	28	200 00
Geo. F. Neal	San Francisco	5	200 00

No. 67.—SAN FRANCISCO.

ECONOMY BUILDING AND LOAN ASSOCIATION.

Incorporated December 31, 1889.

S. R. CHURCH, Secretary.

M. BLUM, President.

No. of series, 12.

End of fiscal year, February 28, 1894.

No. of shares, 925.

Resources.		Liabilities.	
Loans	\$69,000 00	Dues and advance payments ..	\$38,566 00
Arrearages	2,123 80	Earnings	9,885 99
Cash on hand	137 96	Overdrafts and bills payable ..	13,050 00
Real estate	—	Profits unapportioned	7,544 77
Other assets: insurance ad- vanced	11 00	All other liabilities: suspense account	2,226 00
Total resources	\$71,272 76	Total liabilities	\$71,272 76

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	—	Paid overdrafts and bills pay- able	\$19,986 31
Received for dues	\$11,960 00	Loans	1,171 29
Received for paid-up stock	—	Interest	8,144 00
Received for premiums	—	Dues on surrendered shares ..	667 43
Received for interest	5,186 59	Profits on surrendered shares ..	708 50
Received for fees and fines	99 09	Salaries	364 19
Loans repaid	600 00	Taxes	93 55
Overdrafts and bills payable	13,050 00	Other expenses	—
All other sources: suspense account	377 55	All other disbursements	137 96
Total receipts	\$31,273 23	Total disbursements	\$31,273 23

Authorized capital stock	\$1,000,000 00
No. of shares	5,000
No. of members	53
No. of borrowers	20
No. of mortgage loans for year	—
Amount of mortgage loans for year	—
No. of foreclosures since organization	—
Amount due on foreclosures	—
No. of shares last report	1,106
No. of shares issued since last report	60
No. of shares canceled since last report	241
Net profits of year	\$2,976 06

Plan of distribution	Second Dividend Rule.
No. shares loaned on	345
No. shares free	580
Ratio of salaries to total receipts	2.27 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	3.73 per cent.
Surrender value of all shares	\$42,200 84
Total present worth of mortgages	53,432 19
Total appraised value of land	37,250 00
Total appraised value of improvements	45,900 00
Total book value of stock hypothecated	15,567 81
Total value of security held	98,717 81
Premium	Gross, 15 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force	Now in Force.	Shares Loaned Upon.	Shares "Free."
First, March, 1890		1,175	612	90	522
Second, June, 1890		32	27	27	
Third, September, 1890		50	32	30	2
Fourth, December, 1890		44	19	18	1
Fifth, March, 1891		50	15	15	
Sixth, June, 1891		40	35	30	5
Seventh, September, 1891		60	60	50	10
Eighth, December, 1891		70	35	35	
Ninth, March, 1892		55	55	50	5
Tenth, December, 1892		5			
Eleventh, March, 1893		25			
Twelfth, December, 1893		35	35		35

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First, March, 1890	\$18,000 00	\$48 00	\$61 23	\$53 88	\$52 90
Second, June, 1890	5,400 00	45 00	56 64	50 17	49 31
Third, September, 1890	6,000 00	42 00	52 16	54 51	45 76
Fourth, December, 1890	3,600 00	39 00	47 77	42 70	42 25
Fifth, March, 1891	3,000 00	36 00	43 49	39 33	38 77
Sixth, June, 1891	6,000 00	33 00	39 31	35 80	35 33
Seventh, September, 1891	10,000 00	30 00	35 23	32 32	31 93
Eighth, December, 1891	7,000 00	27 00	31 25	28 89	28 57
Ninth, March, 1892	10,000 00	24 00	27 36	25 50	
Tenth, December, 1892					
Eleventh, March, 1893					
Twelfth, December, 1893		3 00	3 06	3 03	3 02

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Moses Blum	San Francisco	25	\$200 00
Geo. D. Toy	San Francisco	5	200 00
Bernard Faymonville	San Francisco	25	200 00
Joseph Rosenberg	San Francisco	30	200 00
Thos. M. Gardiner	San Francisco	2	200 00
Isaac Anderson	San Francisco	10	200 00
H. C. Bunker	San Francisco	25	200 00
Edward Hale	San Francisco	10	200 00
Arthur Page	San Francisco	20	200 00

No. 68.—SAN FRANCISCO.

EINTRACHT SPAR UND BAU VEREIN.

Incorporated July 12, 1884.

HENRY GILLE, Secretary.

FREDERICK EHRENFORT, Vice-President.

No. of series, 9.

End of fiscal year, June 30, 1893.

No. of shares, 4,138.

Resources.		Liabilities.	
Loans.....	\$204,425 00	Dues and advance payments ..	\$176,509 00
Arrearages.....	764 55	Earnings	34,803 67
Cash on hand.....	7,643 62	Overdrafts and bills payable.....	-----
Real estate.....	-----	Profits unapportioned	6 55
Other assets.....	100 00	All other liabilities	1,613 95
Total resources	\$212,933 17	Total liabilities	\$212,933 17

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$16,946 00	Paid overdrafts and bills payable.....	-----
Received for dues.....	51,942 00	Loans.....	\$62,700 00
Received for paid-up stock.....	-----	Interest.....	2 65
Received for premiums.....	-----	Dues on surrendered shares	27,123 00
Received for interest	16,029 42	Profits on surrendered shares	5,444 99
Received for fees and fines	134 30	Salaries.....	600 00
Loans repaid	20,330 00	Taxes.....	1,705 06
Overdrafts and bills payable.....	-----	Other expenses	162 40
All other sources	-----	All other disbursements (matured series).....	-----
Total receipts.....	\$105,381 72	Balance on hand	7,643 62
		Total disbursements.....	\$105,381 72

Authorized capital stock.....	\$1,000,000 00
No. of shares	10,000
No. of members.....	264
No. of borrowers.....	112
No. of mortgage loans for year.....	21
Amount of mortgage loans for year.....	\$39,600 00
No. of foreclosures since organization.....	-----
Amount due on foreclosures.....	-----
No. of shares last report.....	4,001
No. of shares issued since last report.....	613
No. of shares canceled since last report.....	476
Net profits of year.....	\$14,286 47
Plan of distribution.....	Partnership.
No. shares loaned on	2,044 1
No. shares free	2,093 1
Ratio of salaries to total receipts.....	.57 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	2.34 per cent.
Surrender value of all shares.....	\$192,560 63
Total present worth of mortgages.....	94,118 94
Total appraised value of land.....	170,350 00
Total appraised value of improvements.....	172,850 00
Total book value of stock hypothecated.....	135,654 12
Total value of security held.....	478,854 12
Total withdrawal value of shares.....	-----
Premium.....	-----

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force July 1, 1892.	Now in Force.	Shares Loaned Upon.	Shares "Free."
Third	373	204	None.	Matured Dec. 31, 1892.	
Fourth	701	564	464	304.85	159.15
Fifth	1,662	996	976	440.50	535.50
Sixth	1,220	857	822	312.50	509.50
Seventh	1,023	638	598	282.60	315.40
Eighth	767	742	667	363.80	303.20
Ninth	613	None.	611	340	271

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
Third		\$78 00	\$100 61	\$93 21	\$100 11
Fourth	\$30,485 00	72 00	91 81	85 00	85 20
Fifth	44,050 00	60 00	73 79	69 00	66 89
Sixth	31,250 00	48 00	56 86	53 76	50 95
Seventh	28,260 00	36 00	41 02	39 24	37 25
Eighth	36,380 00	24 00	26 26	25 44	24 37
Ninth	34,000 00	12 00	12 59	12 36	12 00

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Bernhard Dreyer	Gonzales	5	\$100 00
Frederick Ehrenpfort	San Francisco	25	100 00
Henry Guembel	San Francisco	83	100 00
Henry Gille	San Francisco	30	100 00
F. M. Freund	San Francisco	85	100 00
Fred. A. Kuhls	San Francisco	10	100 00
Jos. Scheerer	San Francisco	20	100 00
Wm. G. Loewe	San Francisco	80	100 00
Ernest Wusterhausen	San Francisco	20	100 00
F. Hufschmidt	San Francisco	15	100 00
R. Jentzsch	San Francisco	7	100 00

No. 69.—SAN FRANCISCO.

EL DORADO LOAN ASSOCIATION.

Incorporated March 14, 1890.

LEON DENNERY, Secretary.

GEO. W. DIXON, President.

No. of series, 4.

End of fiscal year, March 14, 1894.

No. of shares, 2,123.

Resources.		Liabilities.	
Loans	\$117,700 00	Dues and advance payments...	\$72,336 00
Arrearages	7,038 95	Earnings	13,039 38
Cash on hand		Overdrafts and bills payable...	32,790 34
Real estate	2,722 22	Profits unapportioned	9,483 70
Other assets: insurance ad- vanced	188 25	All other liabilities	
Total resources	\$127,649 42	Total liabilities	\$127,649 42

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	\$1,360 41	Paid overdrafts and bills payable	
Received for dues	22,170 00	Loans	\$76,500 00
Received for paid-up stock		Interest	2,713 07
Received for premiums	12,147 00	Dues on surrendered shares	7,631 00
Received for interest	5,490 75	Profits on surrendered shares	792 83
Received for fees and fines	83 30	Salaries	1,555 00
Loans repaid	16,600 00	Taxes	511 66
Overdrafts and bills payable	32,790 34	Other expenses	427 77
All other sources: mortgage acquired	2,400 00	All other disbursements: real estate	2,722 22
		Insurance advanced	188 25
Total receipts	\$93,041 80	Total disbursements	\$93,041 80

Authorized capital stock	\$2,000,000 00
No. of shares	10,000
No. of members	137
No. of borrowers	28
No. of mortgage loans for year	15
Amount of mortgage loans for year	\$76,500 00
No. of foreclosures since organization	
Amount due on foreclosures	
No. of shares last report	1,765
No. of shares issued since last report	598
No. of shares canceled since last report	235
Net profits of year	\$12,513 55
Plan of distribution	Partnership.
No. shares loaned on	588
No. shares free	1,540
Ratio of salaries to total receipts	1.67 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	2.68 per cent.
Surrender value of all shares	\$79,830 48
Total present worth of mortgages	103,624 74
Total appraised value of land	55,550 00
Total appraised value of improvements	98,150 00
Total book value of stock hypothecated	14,075 26
Total value of security held	167,775 26
Premium	(Gross, 15 per cent, and Installment.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force March, 1893.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	2,062	1,283	1,125	125½	999½
Second	225	175	120		120
Third	317	307	285	92	193
Fourth			598	370½	227½

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$25,100 00	\$48 00	\$57 99	\$53 76	
Second		36 00	41 66	39 24	
Third	18,400 00	24 00	26 55	25 41	
Fourth	74,100 00	12 00	12 66	12 36	

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Geo. W. Dixon.....	San Francisco	10	\$200 00
Louis Landler.....	San Francisco	50	200 00
E. Gunzburger.....	San Francisco	15	200 00
S. G. Worden.....	Alameda	10	200 00
Geo. H. Umsen.....	San Francisco	10	200 00
I. Lièvre.....	San Francisco	25	200 00
Sam Valteau.....	San Francisco	10	200 00

No. 70.—SAN FRANCISCO.

EMPIRE BUILDING AND LOAN ASSOCIATION.

Incorporated August 24, 1889.

WM. E. LUTZ, Secretary.

MARION LEVENTRITT, President.

No. of series, 4.

End of fiscal year, August 31, 1893.

No. of shares, 2,003.

Resources.		Liabilities.	
Loans.....	\$123,425 00.	Dues and advance payments...	\$87,213 00
Arrearages.....	492 27	Earnings.....	25,683 15
Cash on hand.....	1,621 08	Overdrafts and bills payable.....	1,500 00
Real estate.....	.....	Profits unapportioned.....	11,142 20
Other assets.....	.....	All other liabilities.....	.....
Total resources.....	\$125,538 35	Total liabilities.....	\$125,538 35

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$88 46	Paid overdrafts and bills payable.....	\$28,504 09
Received for dues.....	25,268 00	Loans.....	12,426 00
Received for paid-up stock.....	.....	Interest.....	1,013 29
Received for premiums.....	1,875 00	Dues on surrendered shares.....	3,330 00
Received for interest.....	7,800 29	Profits on surrendered shares.....	215 47
Received for fees and fines.....	68 97	Salaries.....	1,625 00
Loans repaid.....	5,000 00	Taxes.....	874 30
Overdrafts and bills payable.....	.....	Other expenses.....	254 99
All other sources.....	10,026 00	All other disbursements.....	262 50
Total receipts.....	\$50,126 72	Balance on hand.....	1,621 08
		Total disbursements.....	\$50,126 72

Authorized capital stock.....	\$2,000,000 00
No. of shares.....	10,000
No. of members.....	117
No. of borrowers.....	29
No. of mortgage loans for year.....	3
Amount of mortgage loans for year.....	\$12,500 00
No. of foreclosures since organization.....	.....
Amount due on foreclosures.....	.....
No. of shares last report.....	2,088
No. of shares issued since last report.....	95
No. of shares canceled since last report.....	100

Net profits of year	\$5,733 68
Plan of distribution	Partnership.
No. shares loaned on	620
No. shares free	1,463
Ratio of salaries to total receipts	3.24 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	5.49 per cent.
Surrender value of all shares	\$50,038 30
Total present worth of mortgages	92,966 84
Total appraised value of land	67,775 00
Total appraised value of improvements	75,375 00
Total book value of stock hypothecated	30,560 76
Total value of security held	173,710 76
Total withdrawal value of shares	
Premium	Gross, 15 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force Last Report.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	1,812	1,492	1,437	290	1,147
Second	358	338	318	198	122
Third	278	258	233	69	164
Fourth	95		95	63	32

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$57,925 00	\$48 00	\$63 26	\$53 88	\$56 39
Second	39,200 00	36 00	44 64	39 33	37 50
Third	13,800 00	24 00	27 89	25 50	24 39
Fourth	12,500 00	12 00	13 01	12 39	12 00

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Marion Leventritt	San Francisco	60	\$200 00
Moses Greenebaum	San Francisco	50	200 00
Robert Ewing	San Francisco	10	200 00
Maurice Getz	San Francisco	10	200 00
Louis Muller	San Francisco	5	200 00
Adolph A. Son	San Francisco	35	200 00
Jonas Elsasser	San Francisco	10	200 00
John G. Wetmore	San Francisco	55	200 00
Michael Weidenreich	San Francisco	12	200 00

No. 71.—SAN FRANCISCO.

ENTERPRISE MUTUAL BUILDING AND LOAN ASSOCIATION.

Incorporated March 2, 1891.

LOUIS BLANK, Secretary.

M. WALTER, President.

No. of series, 3.

End of fiscal year, February 28, 1894.

No. of shares, 2,915½.

Resources.		Liabilities.	
Loans.....	\$97,800 00	Dues and advance payments ..	\$55,763 00
Arrearages.....	4,910 50	Earnings	10,781 51
Cash on hand.....	-----	Overdrafts and bills payable....	32,299 23
Real estate.....	2,724 48	Profits unapportioned	5,091 24
Other assets.....	-----	All other liabilities: loans in- complete	1,500 00
Total resources	\$105,434 98	Total liabilities	\$105,434 98
Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	-----	Paid overdrafts and bills pay- able.....	\$14,039 26
Received for dues.....	\$32,575 00	Loans.....	65,300 00
Received for paid-up stock.....	-----	Interest.....	3,235 92
Received for premiums.....	9,075 00	Dues on surrendered shares	2,475 00
Received for interest.....	5,360 45	Profits on surrendered shares..	162 17
Received for fees and fines.....	215 40	Salaries.....	1,200 00
Loans repaid.....	4,400 00	Taxes.....	228 70
Overdrafts and bills payable.....	37,299 23	Other expenses	171 55
All other sources.....	1,122 00	All other disbursements.....	3,234 48
Personal accounts ..	\$1,093 00	Real estate.....	\$2,724 48
Rent.....	24 00	Returned premiums ..	510 00
Total receipts.....	\$90,047 08	Balance on hand.....	-----
		Total disbursements.....	\$90,047 08

Authorized capital stock	\$2,000,000 00
No. of shares	10,000
No. of members	138
No. of borrowers	20
No. of mortgage loans for year	10
Amount of mortgage loans for year	\$66,800 00
No. of foreclosures since organization	-----
Amount due on foreclosures	-----
No. of shares last report	1,088½
No. of shares issued since last report	1,979
No. of shares canceled since last report	152
Net profits of year.....	\$7,182 51
Plan of distribution	Dexter.
No. shares loaned on	489
No. shares free	2,426½
Ratio of salaries to total receipts	1.33 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	1.78 per cent.
Surrender value of all shares.....	\$60,852 94
Total present worth of mortgages.....	87,035 72
Total appraised value of land.....	36,600 00
Total appraised value of improvements	74,400 00
Total book value of stock hypothecated	10,764 28
Total value of security held	121,764 28
Premium.....	Gross, 15 per cent, and Installment.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force Feb. 28, 1893.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	991½	756½	709½	96	613½
Second	332	332	312	59	253
Third	1,979	-----	1,894	334	1,566

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$19,200 00	\$36 00	\$46 22	\$39 24	-----
Second	11,800 00	24 00	28 82	25 44	-----
Third	66,800 00	12 00	13 07	12 36	-----

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Max Walter	San Francisco	25	\$200 00
Gabriel Cohn	San Francisco	10	200 00
Louis Landler	San Francisco	160	200 00
L. P. Wiel	San Francisco	50	200 00
Wm. Newman	San Francisco	50	200 00

No. 72.—SAN FRANCISCO.

EQUITABLE BUILDING AND LOAN ASSOCIATION.

Incorporated October 27, 1885.

EUGENE W. LEVY, Secretary.

FREDERICK HESS, President.

End of fiscal year, December 13, 1893.

No. of series, 1; terminating plan.

No. of shares, 2,548.

Resources.		Liabilities.	
Loans	\$329,305 00	Dues and advance payments ..	\$244,608 00
Arrearages	3,642 80	Earnings	91,539 68
Cash on hand	3,049 88	Overdrafts and bills payable ..	-----
Real estate	-----	Profits unapportioned	-----
Other assets (furniture and fixtures)	150 00	All other liabilities	-----
Total resources	\$336,147 68	Total liabilities	\$336,147 68

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	\$2,182 85	Paid overdrafts and bills payable	
Received for dues	32,547 00	Loans	\$17,385 00
Received for paid-up stock		Interest	13 75
Received for premiums	800 00	Dues on surrendered shares	44,004 00
Received for interest	19,582 90	Profits on surrendered shares	11,136 74
Received for fees and fines	230 40	Salaries	900 00
Loans repaid	21,525 00	Taxes	202 00
Overdrafts and bills payable		Other expenses	226 78
All other sources		All other disbursements	
		Balance on hand	3,049 88
Total receipts	\$76,918 15	Total disbursements	\$76,918 15

Authorized capital stock	\$1,000,000 00
No. of shares	5,000
No. of members	78
No. of borrowers	43
No. of mortgage loans for year	4
Amount of mortgage loans for year	\$14,000 00
No. of foreclosures since organization	
Amount due on foreclosures	
No. of shares last report	3,045
No. of shares issued since last report	
No. of shares canceled since last report	497
Net profits of year	\$9,849 98
Plan of distribution	Share and share alike.
No. shares loaned on	1,647
No. shares free	901
Ratio of salaries to total receipts	1.17 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	1.73 per cent.
Surrender value of all shares	\$315,952 00
Total present worth of mortgages	107,396 20
Total appraised value of land	246,000 00
Total appraised value of improvements	187,000 00
Total book value of stock hypothecated	229,870 60
Total value of security held	662,870 60
Premium	Gross, 10 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force Last Report.	Now in Force.	Shares Loaned Upon.	Shares "Free."
One	5,000	3,045	2,548	1,647	901
Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
One	\$329,305 00	\$96 00	\$131 92	\$119 28	\$124 00

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Frederick Hess	San Francisco	38	\$200 00
Benjamin Goldfish	San Francisco	50	200 00
F. H. Merzbach	San Francisco	30	200 00
Sol. J. Levy	San Francisco	10	200 00
G. Brenner	San Francisco	50	200 00
W. Geist	San Francisco	40	200 00
G. Cohn	San Francisco	50	200 00
D. N. Friesleben	San Francisco	145	200 00
H. J. Foley	San Francisco	30	200 00

No. 73.—SAN FRANCISCO.

EUREKA LOAN ASSOCIATION.

Incorporated May 16, 1889.

D. HIRSCHFELD, Secretary.

WM. NICOL, President.

No. of series, 4.

End of fiscal year, June 20, 1893.

No. of shares, 1,524.

Resources.		Liabilities.	
Loans.....	\$71,102 00	Dues and advance payments ..	\$59,488 00
Arrearages.....	859 75	Earnings.....	12,402 03
Cash on hand.....	198 04	Overdrafts and bills payable.....	1,034 16
Real estate.....		Profits unapportioned.....	
Other assets.....	764 40	All other liabilities.....	
Total resources.....	\$72,924 19	Total liabilities.....	\$72,924 19

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....		Paid overdrafts and bills pay- able.....	\$2,559 16
Received for dues.....	\$19,267 00	Loans.....	19,000 00
Received for paid-up stock.....		Interest.....	613 50
Received for premiums.....	2,444 90	Dues on surrendered shares.....	7,352 00
Received for interest.....	5,483 45	Profits on surrendered shares.....	809 00
Received for fees and fines.....	214 07	Salaries.....	1,340 00
Loans repaid.....	4,448 00	Taxes.....	554 78
Overdrafts and bills payable.....	1,034 16	Other expenses.....	482 10
All other sources.....	235 65	All other disbursements.....	218 65
		Balance on hand.....	198 04
Total receipts.....	\$33,127 23	Total disbursements.....	\$33,127 23

Authorized capital stock.....	\$1,000,000 00
No. of shares.....	5,000
No. of members.....	88
No. of borrowers.....	29
No. of mortgage loans for year.....	7
Amount of mortgage loans.....	\$19,000 00
No. of foreclosures since organization.....	
Amount due on foreclosures.....	
No. of shares last report.....	1,593
No. of shares issued since last report.....	145
No. of shares canceled since last report.....	214
Net profits of year.....	\$4,218 11
Plan of distribution.....	Partnership.
No. shares loaned on.....	355 51
No. shares free.....	1,168 49
Ratio of salaries to total receipts.....	4.04 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	7.17 per cent.
Surrender value of all shares.....	\$66,095 25
Total present worth of mortgages.....	57,845 90
Total appraised value of land.....	50,350 00
Total appraised value of improvements.....	52,400 00
Total book value of stock hypothecated.....	13,256 10
Total value of security held.....	116,006 10
Premium.....	Installment.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force June 16, 1892.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	1,870	1,154	1,003	135 $\frac{1}{100}$	867 $\frac{32}{100}$
Second	76	63	45	45	None.
Third	376	376	331	80 $\frac{1}{2}$	250 $\frac{1}{2}$
Fourth	145	-----	145	95	50

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$27,002 00	\$48 00	\$59 04 $\frac{822}{1003}$	\$53 88	\$54 00
Second	9,000 00	36 00	42 25 $\frac{7}{1003}$	39 33	39 50
Third	16,100 00	24 00	26 81 $\frac{378}{331}$	25 50	25 25
Fourth	19,000 00	12 00	12 73 $\frac{8}{25}$	12 39	12 40

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
D. Hirschfeld	Alameda	20	\$200 00
G. Gump	San Francisco	10	200 00
Geo. W. Brooks	San Francisco	40	200 00
J. A. Remmel	Alameda	24	200 00
J. A. Stephens	San Francisco	20	200 00
Wm. Nichol	San Francisco	10	200 00
B. Held	San Francisco	25	200 00
Jas. A. White	San Francisco	20	200 00
Wm. M. Lawlor	San Francisco	45	200 00

No. 74.—SAN FRANCISCO.

EUREKA BUILDING AND LOAN ASSOCIATION.

Incorporated November, 1890.

SOL. J. LEVY, Secretary.

A. ANDREWS, President.

No. of series, 5.

End of fiscal year, October 18, 1893.

No. of shares, 1,461.

Resources.		Liabilities.	
Loans	\$52,550 00	Dues and advance payments ..	\$40,801 00
Arrearages	-----	Earnings	5,669 01
Cash on hand	-----	Overdrafts and bills payable...	5,475 38
Real estate	-----	Profits unapportioned	4 61
Other assets	-----	All other liabilities	600 00
Total resources	\$52,550 00	Total liabilities	\$52,550 00

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	-----	Paid overdrafts and bills payable	-----
Received for dues	\$17,722 00	Loans	15,920 53
Received for paid-up stock	-----	Interest	484 87
Received for premiums	1,809 50	Dues on surrendered shares	3,075 00
Received for interest	3,132 60	Profits on surrendered shares	-----
Received for fees and fines	70 20	Salaries	720 00
Loans repaid	2,250 00	Taxes	326 90
Overdrafts and bills payable	3,475 38	Other expenses	35 85
All other sources	-----	All other disbursements	-----
		Balance on hand	-----
Total receipts	\$28,459 68	Total disbursements	\$28,459 68

Authorized capital stock	-----	\$3,000,000 00
No. of shares	-----	15,000
No. of members	-----	108
No. of borrowers	-----	14
No. of mortgage loans for year	-----	6
Amount of mortgage loans for year	-----	\$15,920 53
No. of foreclosures since organization	-----	-----
Amount due on foreclosures	-----	-----
No. of shares last report	-----	1,391
No. of shares issued since last report	-----	192
No. of shares canceled since last report	-----	122
Net profits of year	-----	\$3,653 62
Plan of distribution	-----	Wrigley.
No. shares loaned on	-----	276
No. shares free	-----	1,185
Ratio of salaries to total receipts	-----	2.53 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	-----	3.80 per cent.
Surrender value of all shares	-----	\$40,801 00
Total present worth of mortgages	-----	45,538 04
Total appraised value of land	-----	29,800 00
Total appraised value of improvements	-----	47,800 00
Total book value of stock hypothecated	-----	7,011 96
Total value of security held	-----	84,611 96
Total withdrawal value of shares	-----	-----
Premium	-----	Installment, 50 cents per share.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force Nov., 1892.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	-----	455	390	30	360
Second	-----	696	664	89	575
Third	-----	240	215	80	135
Fourth	-----	-----	85	30	55
Fifth	-----	-----	107	47	60

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$6,000 00	\$36 00	\$40 98	-----	-----
Second	17,800 00	31 00	35 35	-----	-----
Third	13,350 00	21 00	24 08	-----	-----
Fourth	6,000 00	12 00	13 28	-----	-----
Fifth	9,400 00	6 00	6 63	-----	-----

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
A. Andrews	San Francisco	50	\$200 00
J. E. Millar	San Francisco	20	200 00
M. E. Rountree	San Francisco	10	200 00
Geo. Fredricks	San Francisco	5	200 00
J. P. Neppert	San Francisco	10	200 00
R. D. Cranston	San Francisco	25	200 00
B. Goldfish	San Francisco	25	200 00

No. 75.—SAN FRANCISCO.

EXCELSIOR LOAN ASSOCIATION.

Incorporated January 3, 1889.

N. SCHLESINGER, Secretary.

HENRY PAYOT, President.

No. of series, 5.

End of fiscal year, December 31, 1893.

No. of shares, 3,799.

Resources.		Liabilities.	
Loans	\$264,200 00	Dues and advance payments	\$195,540 00
Arrearages	11,674 11	Earnings	75,356 25
Cash on hand		Overdrafts and bills payable	7,814 11
Real estate	4,008 36	Profits unapportioned	1,172 11
Other assets		All other liabilities	
Total resources	\$279,882 47	Total liabilities	\$279,882 47
Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand		Paid overdrafts and bills payable	\$29,854 00
Received for dues	\$43,824 00	Loans	34,000 00
Received for paid-up stock		Interest	1,282 47
Received for premiums	5,100 00	Dues on surrendered shares	8,200 00
Received for interest	14,390 66	Profits on surrendered shares	1,659 81
Received for fees and fines	254 17	Salaries	1,500 00
Loans repaid	11,250 00	Taxes	1,946 48
Overdrafts and bills payable	7,814 11	Other expenses	181 82
All other sources		All other disbursements	4,008 36
Total receipts	\$82,632 94	Total disbursements	\$82,632 94

Authorized capital stock	\$1,000,000 00
No. of shares	5,000
No. of members	140
No. of borrowers	51
No. of mortgage loans for year	7
Amount of mortgage loans for year	\$34,000 00
No. of foreclosures since organization	
Amount due on foreclosures	
No. of shares last report	3,741
No. shares issued since last report	220
No. of shares canceled since last report	162
Net profits of year	\$22,336 17
Plan of distribution	Wrigley.

No. shares loaned on	1,327
No. shares free	2,472
Ratio of salaries to total receipts	1.81 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	4.39 per cent.
Surrender value of all shares	\$220,934 80
Total present worth of mortgages	196,199 68
Total appraised value of land	142,800 00
Total appraised value of improvements	174,800 00
Total book value of stock hypothecated	68,000 00
Total value of security held	385,600 00
Premium	Gross, 15 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force Jan. 1, 1893.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First		2,735	2,625	283	2,342
Second		498	446	376	76
Third		150	150	150	
Fourth		358	358	358	
Fifth	220		220	160	60

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First		\$60 00	\$84 34		\$74 60
Second		48 00	64 59		56 30
Third		36 00	45 93	} No surrender value established.	
Fourth		24 00	30 02		
Fifth		12 00	13 81		

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Henry Payot	San Francisco	10	\$200 00
Jonathan Curtis	San Francisco	52	200 00
L. L. Harris	San Francisco	20	200 00
Chas. Harris	San Francisco	25	200 00
I. M. Wedeles	San Francisco	25	200 00
Henry Stern	San Francisco	25	200 00
L. Kauffmann	San Francisco	55	200 00
E. N. Girvin	San Francisco	50	200 00
A. K. Coney	San Francisco	58	200 00

No. 76.—SAN FRANCISCO.

FAIRMOUNT LOAN ASSOCIATION.

Incorporated March 2, 1891.

T. F. CREIGHTON, Secretary.

JOHN H. GRADY, President.

No. of series, 6.

End of fiscal year, April 30, 1894.

No. of shares, 1,775 $\frac{3}{4}$.

Resources.		Liabilities.	
Loans.....	\$47,720 00	Dues and advance payments..	\$35,438 88
Arrearages.....	974 65	Earnings.....	5,822 87
Cash on hand.....	.....	Overdrafts and bills payable..	7,235 55
Real estate.....	.....	Profits unapportioned.....	260 40
Other assets: furniture and fix- tures.....	79 05	All other liabilities: suspense account.....	16 00
Total resources.....	\$48,773 70	Total liabilities.....	\$48,773 70
Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	.....	Paid overdrafts and bills pay- able.....	\$32,723 30
Received for dues.....	\$21,426 14	Loans.....	16,890 10
Received for paid-up stock.....	.....	Interest.....	603 23
Received for premiums.....	2,013 70	Dues on surrendered shares.....	9,852 00
Received for interest.....	2,812 00	Profits on surrendered shares..	524 10
Received for fees and fines.....	134 75	Salaries.....	600 00
Loans repaid.....	2,141 85	Taxes.....	281 95
Overdrafts and bills payable.....	32,870 69	Other expenses.....	216 60
All other sources.....	4,194 86	All other disbursements.....	3,902 71
Suspense account.....	\$717 50	Deposit account.....	\$3,476 11
Deposit account.....	3,476 11	Fixtures.....	25 35
Rebate fixtures.....	1 25	Suspense.....	401 25
Total receipts.....	\$65,593 99	Balance on hand.....	.....
		Total disbursements.....	\$65,593 99

Authorized capital stock.....	\$2,000,000 00
No. of shares.....	10,000
No. of members.....	169
No. of borrowers.....	48
No. of mortgage loans for year.....	15
Amount of mortgage loans for year.....	\$15,370 10
No. of foreclosures since organization.....	.....
Amount due on foreclosures.....	.....
No. of shares last report.....	1,540 $\frac{3}{4}$
No. of shares issued since last report.....	980 $\frac{3}{4}$
No. of shares canceled since last report.....	745 $\frac{1}{2}$
Net profits of year.....	\$2,928 27
Plan of distribution.....	Second Dividend Rule.
No. shares loaned on.....	238 $\frac{3}{4}$
No. shares free.....	1,536 $\frac{1}{4}$
Ratio of salaries to total receipts.....	.91 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	1.67 per cent.
Surrender value of all shares.....	\$37,789 75
Total present worth of mortgages.....	36,311 85
Total appraised value of land.....	40,900 00
Total appraised value of improvements.....	32,790 00
Total book value of stock hypothecated.....	11,408 45
Total value of security held.....	85,098 15
Premium.....	Installment.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force April 30, 1894.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	1,205 ³ / ₄	477	-----	76 ³ / ₀	400 ⁷ / ₀
Second	350 ¹ / ₂	85 ¹ / ₂	-----	26 ³ / ₄	59 ¹ / ₄
Third	554 ¹ / ₂	295 ¹ / ₄	-----	25 ¹ / ₄	269 ³ / ₆
Fourth	453 ¹ / ₂	255	-----	63 ¹ / ₄	191 ³ / ₄
Fifth	377 ¹ / ₄	222 ¹ / ₄	-----	37 ¹ / ₄	185
Sixth	480 ³ / ₈	440 ³ / ₈	-----	9 ³ / ₈	430 ³ / ₄

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$15,260 00	\$36 00	\$43 81	\$39 33	\$39 24
Second	5,275 00	24 00	34 10	31 10	31 11
Third	5,160 00	23 00	26 23	24 32	24 32
Fourth	12,650 00	17 00	18 79	17 76	17 72
Fifth	7,450 00	11 00	11 77	11 33	11 30
Sixth	1,925 00	5 00	5 17	5 08	5 00
Total	\$47,720 00	-----	-----	-----	-----

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
John H. Grady	San Francisco	-----	\$200 00
J. H. Dawson	San Francisco	-----	200 00
C. L. Langley	Alameda	-----	200 00
C. Diel	San Francisco	-----	200 00
H. G. Trull	San Francisco	-----	200 00
A. J. Martin	San Francisco	-----	200 00
J. W. Hanna	San Francisco	-----	200 00
John Edwards	San Francisco	-----	200 00
T. F. Creighton	San Francisco	-----	200 00

No 77.—SAN FRANCISCO.

FIDELITY BUILDING AND LOAN ASSOCIATION.

Incorporated March 19, 1887.

WILLIAM E. LUTZ, Secretary.

S. J. HENDY, President.

No. of series, 7.

End of fiscal year, March 31, 1894.

No. of shares, 3,429.

Resources.		Liabilities.	
Loans	\$351,420 00	Dues and advance payments ..	\$206,302 00
Arrearages	2,980 74	Earnings	74,220 54
Cash on hand	28 52	Overdrafts and bills payable ..	58,475 00
Real estate	-----	Profits unapportioned and reserve fund	13,771 25
Other assets	-----	All other liabilities	1,660 47
		Advance interest	\$17 50
		Taxes due	1,642 97
Total resources	\$354,429 26	Total liabilities	\$354,429 26

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	\$157 92	Paid overdrafts and bills payable.....	\$68,363 13
Received for dues	41,369 00	Loans	1,600 00
Received for paid-up stock		Interest	5,528 20
Received for premiums	240 00	Dues on surrendered shares	27,348 00
Received for interest	23,477 13	Profits on surrendered shares	10,684 10
Received for fees and fines	113 51	Salaries	2,012 50
Loans repaid	11,200 00	Taxes	3,148 19
Overdrafts and bills payable	43,301 66	Other expenses	482 38
All other sources: insurance premium repaid	35 80	All other disbursements: deposit on loans returned	700 00
		Balance on hand	28 52
Total receipts.....	\$119,895 02	Total disbursements.....	\$119,895 02

Authorized capital stock	\$1,000,000 00
No. of shares	5,000
No. of members	252
No. of borrowers	105
No. of mortgage loans for year	1
Amount of mortgage loans for year	\$1,600 00
No. of foreclosures since organization	
Amount due on foreclosures	
No. of shares last report	3,551
No. of shares issued since last report	343
No. of shares canceled since last report	465
Net profits of year	\$12,326 37
Plan of distribution	Partnership.
No. shares loaned on	1,758
No. shares free	1,671
Ratio of salaries to total receipts	1.68 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	4.71 per cent.
Surrender value of all shares	\$272,878 98
Total present worth of mortgages	210,745 11
Total appraised value of land	166,080 00
Total appraised value of improvements	284,400 00
Total book value of stock hypothecated	140,674 89
Total value of security held	591,154 89
Premium	Gross, 15 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force. Last Report.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	2,190	1,463	1,249	528	721
Second	753	654	478	255	223
Third	578	475	475	305	170
Fourth	451	331	331	140	191
Fifth	397	362	357	297	60
Sixth	266	266	266	225	41
Seventh	343		273	8	265

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$105,600 00	\$84 00	\$120 23	\$101 85	\$117 83
Second	51,000 00	72 00	98 67	85 14	96 70
Third	60,970 00	60 00	78 57	69 15	77 00
Fourth	27,850 00	48 00	59 93	53 90	56 82
Fifth	59,400 00	36 00	42 76	39 33	39 33
Sixth	45,000 00	24 00	27 04	25 50	25 25
Seventh	1,600 00	12 00	12 79	12 39	12 26

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Samuel J. Hendy	San Francisco	10	\$200 00
Wm. Barlage	San Francisco	45	200 00
J. W. Harris	San Francisco	20	200 00
R. I. Whelan	San Francisco	43	200 00
C. V. Manner	San Francisco	25	200 00
J. J. Loggie	San Francisco	15	200 00
A. Steiner	San Francisco	10	200 00
J. W. Anderson	San Francisco	90	200 00
C. W. Taber	San Francisco	5	200 00

No. 78.—SAN FRANCISCO.

FRANKLIN SAVINGS AND BUILDING ASSOCIATION.

Incorporated November 18, 1875.

WILLIAM HATJE, Secretary.

F. LUDEMANN, President.

No. of series, 2.

End of fiscal year, November 30, 1893.

No. of shares, 2,114.

Resources.		Liabilities.	
Loans	\$276,200 00	Dues and advance payments ..	\$224,714 00
Arrearages	4,537 50	Earnings	54,877 65
Cash on hand	356 65	Overdrafts and bills payable ..	15 00
Real estate		Profits unapportioned	1,756 50
Other assets (furniture and fixtures)	269 00	All other liabilities (advance interest)	
Total resources	\$281,363 15	Total liabilities	\$281,363 15

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	\$2,585 30	Paid overdrafts and bills payable	\$75,200 00
Received for dues	54,933 00	Loans	6,016 00
Received for paid-up stock		Interest	270 00
Received for premiums		Dues on surrendered shares	480 00
Received for interest	21,330 00	Profits on surrendered shares ..	1,331 19
Received for fees and fines	125 05	Salaries	121 51
Loans repaid	4,800 00	Taxes	53 25
Overdrafts and bills payable		Other expenses	
All other sources (insurance repaid)	100 25	All other disbursements	
Total receipts	\$83,878 60	Returned interest	\$13 50
		Insurance	39 75
		Balance on hand	356 65
		Total disbursements	\$83,878 60

Authorized capital stock	\$1,200,000 00
No. of shares	6,000
No. of members	230
No. of borrowers	177
No. of mortgage loans for year	15
Amount of mortgage loans for year	\$30,600 00
No. of foreclosures since organization	

Amount due on foreclosures	-----
No. of shares last report	2,075
No. of shares issued since last report	122
No. of shares canceled since last report	83
Net profits of year	\$19,249 35
Plan of distribution	Partnership.
No. shares loaned on	1,351
No. shares free	733
Ratio of salaries to total receipts .....	.57 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	2.36 per cent.
Surrender value of all shares	\$236,012 00
Total present worth of mortgages	-----
Total appraised value of land	151,400 00
Total appraised value of improvements	135,900 00
Total book value of stock hypothecated	266,432 93
Total value of security held	553,732 93
Premium	None.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force -----	Now in Force.	Shares Loaned Upon.	Shares "Free."
Third	1,793	-----	1,400	924	476
Fourth	841	-----	714	457	257

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
Third	\$184,800 00	\$130 00	\$165 52 $\frac{3}{10}$	-----	\$139 00
Fourth	91,400 00	58 00	65 20 $\frac{4}{10}$	-----	58 00

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
F. Ludemann, President	San Francisco	25	\$200 00
H. F. Maass, Vice-President	San Francisco	18	200 00
Otto Fauss, Treasurer	San Francisco	75	200 00
Wm. Hatje, Secretary	Alameda	21	200 00
F. Wickenhauser	San Francisco	12	200 00
J. A. Schwarz	San Francisco	25	200 00
Dr. F. P. Muffe	San Francisco	25	200 00
H. F. Wagner	San Francisco	20	200 00
R. Wieneke	San Francisco	5	200 00
G. Kleinclaus	San Francisco	25	200 00
August Lang	San Francisco	30	200 00

No. 79.—SAN FRANCISCO.

GERMANIA BUILDING AND LOAN ASSOCIATION.

Incorporated June 6, 1889.

R. MOHR, Secretary.

HENRY F. FORTMAN, President.

No. of series, 2. End of fiscal year, June 24, 1893. No. of shares, 4,822.

Resources.		Liabilities.	
Loans	\$318,014 00	Dues and advance payments ..	\$207,768 00
Arrearages	1,239 91	Earnings	60,189 94
Cash on hand	-----	Overdrafts and bills payable...	40,324 82
Real estate	-----	Profits unapportioned	20 45
Other assets: furniture and fix- tures	525 00	All other liabilities: advance payments, \$175 56; loans in- complete, \$11,291 14	11,466 70
Total resources	\$319,778 91	Total liabilities	\$319,778 91

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	-----	Paid overdrafts and bills pay- able	-----
Received for dues	\$57,951 00	Loans	\$121,601 06
Received for paid-up stock	-----	Interest	1,457 60
Received for premiums	14,168 09	Dues on surrendered shares	7,129 00
Received for interest	14,947 79	Profits on surrendered shares ..	1,352 02
Received for fees and fines	525 49	Salaries	1,200 00
Loans repaid	46,780 18	Taxes	1,492 92
Overdrafts and bills payable	-----	Other expenses	139 95
All other sources	-----	All other disbursements	-----
Total receipts	\$134,372 55	Balance on hand	-----
		Total disbursements	\$134,372 55

Authorized capital stock	\$3,000,000 00
No. of shares	15,000
No. of members	274
No. of borrowers	92
No. of mortgage loans for year	38
Amount of mortgage loans for year	\$118,200 00
No. of foreclosures since organization	-----
Amount due on foreclosures	-----
No. of shares last report	4,351
No. of shares issued since last report	658
No. of shares canceled since last report	187
Net profits of year	\$26,116 23
Plan of distribution	Dexter.
No. shares loaned on	1,613
No. shares free	3,209
Ratio of salaries to total receipts .....	.90 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	2.10 per cent.
Surrender value of all shares	\$214,779 12
Total present worth of mortgages	236,058 30
Total appraised value of land	254,465 00
Total appraised value of improvements	291,495 00
Total book value of stock hypothecated	81,955 70
Total value of security held	627,915 70
Premium	-----
	Installment, 64 cents per share.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force -----	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....	5,000	-----	4,164	1,214	2,950
Second.....	658	-----	658	399	259

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$228,214 00	\$48 00	\$62 33	\$53 88	\$51 58
Second.....	79,800 00	12 00	12 79	12 39	12 19

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Henry F. Fortmann.....	San Francisco.....	50	\$200 00
Fred. C. Siebe.....	San Francisco.....	125	200 00
Behrend Joost.....	San Francisco.....	6	200 00
Geo. F. Volz.....	San Francisco.....	25	200 00
Henry Plagemann.....	San Francisco.....	80	200 00
Charles Bach.....	San Francisco.....	50	200 00
F. A. Lux.....	San Francisco.....	6	200 00
W. A. Frederick.....	San Francisco.....	50	200 00
R. Mohr.....	San Francisco.....	45	200 00

No. 80.—SAN FRANCISCO.

GOLDEN GATE MUTUAL BUILDING AND LOAN ASSOCIATION.

Incorporated August 31, 1892.

J. M. ELLIS, Secretary.

I. STRASSBURGER, President.

No. of series, 2.

End of fiscal year, August 28, 1893.

No. of shares, 1,247.

Resources.		Liabilities.	
Loans.....	\$35,400 00	Dues and advance payments...	\$14,028 00
Arrearages.....	247 55	Earnings.....	2,808 68
Cash on hand.....	211 50	Overdrafts and bills payable...	16,540 00
Real estate.....	-----	Profits unapportioned.....	2,482 37
Other assets.....	-----	All other liabilities.....	-----
Total resources.....	\$35,859 05	Total liabilities.....	\$35,859 05

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand		Paid overdrafts and bills payable	
Received for dues	\$13,988 00	Loans	\$35,400 00
Received for paid-up stock		Interest	947 40
Received for premiums	5,310 00	Dues on surrendered shares	95 00
Received for interest	1,710 55	Profits on surrendered shares	
Received for fees and fines	129 70	Salaries	900 00
Loans repaid		Taxes	3 09
Overdrafts and bills payable	16,540 00	Other expenses	121 26
All other sources		All other disbursements	
		Balance on hand	211 50
Total receipts	\$37,678 25	Total disbursements	\$37,678 25

Authorized capital stock	\$2,000,000 00
No. of shares	10,000
No. of members	71
No. of borrowers	5
No. of mortgage loans for year	5
Amount of mortgage loans for year	\$35,400 00
No. of foreclosures since organization	
Amount due on foreclosures	
No. of shares last report	
No. of shares issued since last report	1,287
No. of shares canceled since last report	40
Net profits of year	\$5,291 05
Plan of distribution	Wrigley.
No. shares loaned on	177
No. shares free	1,070
Ratio of salaries to total receipts	2.39 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	2.72 per cent.
Surrender value of all shares	\$14,434 80
Total present worth of mortgages	33,226 62
Total appraised value of land	18,150 00
Total appraised value of improvements	23,500 00
Total book value of stock hypothecated	2,173 38
Total value of security held	43,823 38
Premium	Gross, 15 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	1,131		1,091	126	965
Second	156		156	51	105

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$25,200 00	\$12 00	\$14 44	\$12 36	\$12 36
Second	10,200 00	6 00	6 94	6 09	

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Mendel Esberg	San Francisco	20	\$200 00
I. Strassburger	San Francisco	25	200 00
A. L. Lengfeld	San Francisco	25	200 00
I. Isaacson	San Francisco	40	200 00
Maurice Block	San Francisco	20	200 00
Louis Landler	San Francisco	50	200 00
Sanford Sachs	San Francisco	25	200 00
T. L. Turpin	San Francisco	25	200 00
(Vacancy, death) .....	.....	

No. 81.—SAN FRANCISCO.

GOLDEN RULE MUTUAL BUILDING AND LOAN ASSOCIATION.

Incorporated May 17, 1892.

JOHN BRUCKMAN, Secretary.

L. PH. BOLANDER, Vice-President.

No. of series, 4.

End of fiscal year, May 31, 1894.

No. of shares, 1,441.

Resources.		Liabilities.	
Loans	\$60,150 00	Dues and advance payments ..	\$27,252 00
Arrearages		Earnings	2,516 19
Cash on hand	2,381 29	Overdrafts and bills payable...	29,611 60
Real estate		Profits unapportioned	1,751 50
Other assets		All other liabilities: incom- plete loans	1,400 00
Total resources	\$62,531 29	Total liabilities	\$62,531 29
Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	\$1,502 32	Paid overdrafts and bills pay- able	\$6,709 72
Received for dues	16,677 00	Loans	40,769 75
Received for paid-up stock		Interest	1,351 78
Received for premiums	2,321 15	Dues on surrendered shares ..	2,351 00
Received for interest	3,263 00	Profits on surrendered shares..	51 65
Received for fees and fines	154 50	Salaries	722 50
Loans repaid	8,600 00	Taxes	224 95
Overdrafts and bills payable	23,171 32	Other expenses	134 65
All other sources	2,452 90	All other disbursements: real estate	\$3,444 90
Refunded	\$2 50	Balance on hand	2,381 29
Real estate	2,450 40	Total disbursements	\$58,142 19
Total receipts	\$58,142 19		

Authorized capital stock	\$2,000,000 00
No. of shares	10,000
No. of members	88
No. of borrowers	17
No. of mortgage loans for year	8
Amount of mortgage loans for year	\$33,300 00
No. of foreclosures since organization	
Amount due on foreclosures	

No. of shares last report	1,172
No. of shares issued since last report	462
No. of shares canceled since last report	193
Net profits of year	\$2,934 29
Plan of distribution	Partnership.
No. shares loaned on	321
No. shares free	1,120
Ratio of salaries to total receipts	1.24 per cent.
Ratio of expenses (including salaries) to total receipts	1.86 per cent.
Surrender value of all shares	\$28,638 86
Total present worth of mortgages	55,402 41
Total appraised value of land	38,550 00
Total appraised value of improvements	41,200 00
Total book value of stock hypothecated	4,747 59
Total value of security held	\$4,497 59
Premiums	Gross, 15 per cent, and Installment.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	988	-----	860	80	780
Second	184	-----	169	74	95
Third	193	-----	178	23	155
Fourth	269	-----	234	144	90
Totals	1,634	-----	1,441	321	1,120

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$12,050 00	\$24 00	\$26 47	\$25 50	\$25 44
Second	14,800 00	18 00	19 41	18 80	18 74
Third	4,600 00	12 00	12 64	12 35	12 30
Fourth	28,700 00	6 00	6 17	-----	6 00
Totals	\$60,150 00	-----	-----	-----	-----

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
R. W. Osborn	San Francisco	25	\$200 00
Henry Epstein	San Francisco	25	200 00
Daniel Einstein	San Francisco	25	200 00
Vernon Upton	San Francisco	10	200 00
S. L. Leszynsky	San Francisco	10	200 00
L. Ph. Bolander	San Francisco	10	200 00
Frank Loftis	San Francisco	10	200 00

No. 82.—SAN FRANCISCO.

GOLDEN WEST BUILDING AND LOAN ASSOCIATION.

Incorporated May 23, 1890.

MAX. LEVY, Secretary.

G. BRENNER, President.

No. of series, 10.

-End of fiscal year, June 30, 1893.

No. of shares, 1,742.

Resources.		Liabilities.	
Loans.....	\$69,400 00	Dues and advance payments...	\$53,587 00
Arrearages.....	125 00	Earnings.....	9,875 98
Cash on hand.....	43 39	Overdrafts and bills payable...	5,622 39
Real estate.....	-----	Profits unapportioned.....	15 79
Other assets.....	165 00	All other liabilities.....	632 23
Total resources.....	\$69,733 39	Total liabilities.....	\$69,733 39
Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$76 88	Paid overdrafts and bills payable.....	\$20,466 14
Received for dues.....	20,440 00	Loans.....	9,567 77
Received for paid-up stock.....	-----	Interest.....	1,028 59
Received for premiums.....	2,335 25	Dues on surrendered shares.....	3,744 00
Received for interest.....	4,757 75	Profits on surrendered shares.....	271 95
Received for fees and fines.....	28 80	Salaries.....	750 00
Loans repaid.....	3,350 00	Taxes.....	591 25
Overdrafts and bills payable.....	5,622 39	Other expenses.....	157 63
All other sources.....	9 65	All other disbursements.....	-----
Total receipts.....	\$36,620 72	Balance on hand.....	43 39
		Total disbursements.....	\$36,620 72

Authorized capital stock.....	\$3,000,000 00
No. of shares.....	15,000
No. of members.....	94
No. of borrowers.....	15
No. of mortgage loans for year.....	4
Amount of mortgage loans for year.....	\$10,200 00
No. of foreclosures since organization.....	-----
Amount due on foreclosures.....	-----
No. of shares last report.....	1,721
No. of shares issued since last report.....	163
No. of shares canceled since last report.....	142
Net profits of year.....	\$4,336 28
Plan of distribution.....	Dexter.
No. shares loaned on.....	347
No. shares free.....	1,395
Ratio of salaries to total receipts.....	2.05 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	4.09 per cent.
Surrender value of all shares.....	\$62,253 33
Total present worth of mortgages.....	61,362 42
Total appraised value of land.....	37,500 00
Total appraised value of improvements.....	55,940 00
Total book value of stock hypothecated.....	8,037 58
Total value of security held.....	101,477 58
Premium.....	Gross, 15 per cent, and Installment, 3 per cent a year.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force July 1, 1892.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	1,650	1,435	1,305	70	1,235
Second	73	38	38	38	0
Third	35	35	35	10	25
Fourth	66	66	61	56	5
Fifth	62	62	62	62	0
Sixth	85	85	85	70	15
Seventh	10	-----	10	0	10
Eighth	51	-----	51	26	25
Ninth	30	-----	30	0	30
Tenth	72	-----	65	15	50

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$14,000 00	\$36 00	\$43 16	\$39 25	\$39 25
Second	7,600 00	27 00	30 59	28 82	28 82
Third	2,000 00	24 00	26 77	25 44	25 44
Fourth	11,200 00	21 00	22 92	22 10	22 10
Fifth	12,400 00	18 00	19 38	18 81	18 81
Sixth	14,000 00	15 00	15 90	15 52	15 52
Seventh	-----	12 00	12 57	12 36	12 36
Eighth	5,200 00	9 00	9 33	9 20	9 20
Ninth	-----	6 00	6 15	6 09	6 09
Tenth	3,000 00	3 00	3 04	3 00	3 00

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Gustave Brenner, President	San Francisco	30	\$200 00
Jacob Bacon, Vice-President	San Francisco	5	200 00
S. W. Levy	San Francisco	25	200 00
I. W. Goldman	San Francisco	25	200 00
Sol. Getz	San Francisco	10	200 00
Julius Newman	San Francisco	30	200 00
Joseph Weil	San Francisco	10	200 00
Leopold Weil	San Francisco	10	200 00
L. L. Greenfield	San Francisco	50	200 00

No. 83.—SAN FRANCISCO.

GUARDIAN LOAN ASSOCIATION.

Incorporated April 18, 1890.

LOUIS BLANK, Secretary.

MORRIS FALK, President.

No. of series, 4.

End of fiscal year, April 30, 1894.

No. of shares, 1,449.

Resources.		Liabilities.	
Loans	\$84,200 00	Dues and advance payments ..	\$61,426 00
Arrearages	1,321 05	Earnings	16,589 26
Cash on hand	3,228 84	Overdrafts and bills payable ..	9,750 00
Real estate	-----	Profits unapportioned	984 63
Other assets	-----	All other liabilities	-----
Total resources	\$88,749 89	Total liabilities	\$88,749 89

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....		Paid overdrafts and bills payable.....	\$12,918 89
Received for dues.....	\$17,433 05	Loans.....	11,200 00
Received for paid-up stock.....		Interest.....	976 75
Received for premiums.....	1,831 00	Dues on surrendered shares.....	5,977 50
Received for interest.....	4,960 75	Profits on surrendered shares.....	1,116 67
Received for fees and fines.....	91 10	Salaries.....	960 00
Loans repaid.....		Taxes.....	758 03
Overdrafts and bills payable.....	12,980 00	Other expenses.....	159 22
All other sources.....		All other disbursements.....	
		Balance on hand.....	3,228 84
Total receipts.....	\$37,295 90	Total disbursements.....	\$37,295 90

Authorized capital stock.....	\$2,000,000 00
No. of shares.....	10,000
No. of members.....	68
No. of borrowers.....	19
No. of mortgage loans for year.....	4
Amount of mortgage loans for year.....	\$11,200 00
No. of foreclosures since organization.....	
Amount due on foreclosures.....	
No. of shares last report.....	1,490½
No. of shares issued since last report.....	126
No. of shares canceled since last report.....	167½
Net profits for year.....	\$4,557 65
Plan of distribution.....	Dexter.
No. shares loaned on.....	421
No. shares free.....	1,028
Ratio of salaries to total receipts.....	2.57 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	5.03 per cent.
Surrender value of all shares.....	\$69,819 81
Total present value of mortgages.....	65,208 04
Total appraised value of land.....	45,000 00
Total appraised value of improvements.....	59,400 00
Total book value of stock hypothecated.....	18,991 96
Total value of security held.....	123,391 96
Premium.....	Gross, 15 per cent; Installment, 30 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force May 1, 1893.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....	1,371½	1,261½	1,104	181	923
Second.....	128	128	128	128	
Third.....	101	101	101	56	45
Fourth.....	126		116	56	60

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$36,200 00	\$48 00	\$61 80	\$53 88	\$55 00
Second.....	25,600 00	36 00	43 63	39 33	39 81
Third.....	11,200 00	24 00	27 22	25 50	25 61
Fourth.....	11,200 00	12 00	12 45	12 39	12 22

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Morris Falk	San Francisco	33	\$200 00
A. J. Barnett	San Francisco	12	200 00
Louis Landler	San Francisco	120	200 00
E. N. Fritz	San Francisco	25	200 00
Henry Ickelheimer	San Francisco	10	200 00
William Little	San Francisco	37	200 00
J. W. Stern	San Francisco	42	200 00

No. 84.—SAN FRANCISCO.

HOME INVESTMENT ASSOCIATION.

Incorporated March 22, 1890.

W. H. GAGAN, Secretary.

J. F. SULLIVAN, President.

No. of series, 6.

End of fiscal year, March 30, 1894.

No. of shares, 1,405½.

Resources.		Liabilities.	
Loans	\$96,295 00	Dues and advance payments ..	\$61,145 70
Arrearages	3,159 90	Earnings	12,071 58
Cash on hand	84 91	Overdrafts and bills payable...	22,576 73
Real estate		Profits unapportioned	4,000 00
Other assets: furniture and fix- tures	354 20	All other liabilities: special de- posits	100 00
Total resources	\$99,894 01	Total liabilities	\$99,894 01

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	\$821 53	Paid overdrafts and bills pay- able	\$22,856 12
Received for dues	17,192 50	Loans	15,045 00
Received for paid-up stock		Interest	1,400 00
Received for premiums	1,001 15	Dues on surrendered shares ..	9,864 85
Received for interest	5,471 85	Profits on surrendered shares..	1,104 50
Received for fees and fines	270 45	Salaries	1,200 00
Loans repaid	5,800 00	Taxes	704 49
Overdrafts and bills payable	22,266 89	Other expenses	204 50
All other sources: special de- posits	100 00	All other disbursements	460 00
		Returned premiums. \$420 00	
		Special deposits re- turned	40 00
		Balance on hand	84 91
Total receipts	\$52,924 37	Total disbursements	\$52,924 37

Authorized capital stock	\$1,000,000 00
No. of shares	5,000
No. of members	125
No. of borrowers	30
No. of mortgage loans for year	5
Amount of mortgage loans for year	\$13,800 00
No. of foreclosures since organization	
Amount due on foreclosures	
No. of shares last report	1,616½

No. of shares issued since last report	105
No. of shares canceled since last report	316
Net profits of year	\$3,234 46
Plan of distribution	Partnership.
No. shares loaned on	550 1/2
No. shares free	855
Ratio of salaries to total receipts	2.27 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	3.98 per cent.
Surrender value of all shares (estimated)	\$68,388 65
Total present worth of mortgages	62,438 04
Total appraised value of land	112,500 00
Total appraised value of improvements	74,000 00
Total book value of stock hypothecated	33,856 96
Total value of security held	220,356 96
Premium	Installment.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	1,864	.....	922 1/2	472 1/2	450
Second	350	.....	165	10	165
Third	365	.....	150	25	125
Fourth	145	.....	45	.....	45
Fifth	30	.....	20	.....	20
Sixth	133	.....	103	43	60

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$82,095 00	\$48 00	\$58 31	\$53 76	\$54 72
Second	2,000 00	42 00	49 98	46 41	47 10
Third .....	.....	36 00	41 88	39 24	39 78
Fourth .....	.....	30 00	34 10	32 25	32 62
Fifth	4,200 00	24 00	26 65	25 44	25 68
Sixth	8,000 00	12 00	12 70	12 36	12 44

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Hon. J. F. Sullivan, President	San Francisco	10	\$200 00
John C. Bateman, Vice-President	San Francisco	30	200 00
James H. Barry	San Francisco	10	200 00
John Gallwey, M.D.	San Francisco	10	200 00
Chas. T. Stanley	San Francisco	10	200 00
I. R. Curtis	San Francisco	44	200 00
Frank T. Shea	San Francisco	25	200 00
James O'Connor	San Francisco	50	200 00
W. H. Gagan	San Francisco	5	200 00

No. 85.—SAN FRANCISCO.

HOME MUTUAL BUILDING AND LOAN ASSOCIATION.

Incorporated December 2, 1885.

CHAS. K. CLARK, Secretary.

EDW. C. HUGHES, Vice-President.

No. of series, 16.

End of fiscal year, December 31, 1893.

No. of shares, 2,845.

Resources.		Liabilities.	
Loans.....	\$226,700 00	Dues and advance payments and paid-up stock.....	\$152,795 00
Arrearages.....	560 39	Earnings.....	59,361 82
Cash on hand.....	-----	Overdrafts and bills payable.....	10,657 99
Real estate.....	-----	Profits unapportioned.....	4,548 38
Other assets: furniture and fixtures.....	178 80	All other liabilities.....	76 00
		Dividends due.....	\$71 00
		Suspense account.....	5 00
Total resources.....	\$227,439 19	Total liabilities.....	\$227,439 19

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$4,544 96	Paid overdrafts and bills payable.....	\$18,400 00
Received for dues.....	35,400 00	Loans.....	49,101 60
Received for paid-up stock.....	8,600 00	Interest.....	694 73
Received for premiums.....	6,490 80	Dues on surrendered shares and paid-up stock.....	18,028 00
Received for interest.....	14,227 31	Profits on surrendered shares and paid-up stock.....	5,808 09
Received for fees and fines.....	149 50	Salaries.....	858 00
Loans repaid.....	8,750 00	Taxes.....	1,427 39
Overdrafts and bills payable.....	16,857 99	Other expenses.....	558 05
All other sources: taxes refunded.....	4 00	All other disbursements.....	148 70
		Return premium.....	\$147 60
		Fee returned.....	1 10
		Balance on hand.....	-----
Total receipts.....	\$95,024 56	Total disbursements.....	\$95,024 56

Authorized capital stock.....	\$2,000,000 00
No. of shares.....	10,000
No. of members.....	200
No. of borrowers.....	70
No. of mortgage loans for year.....	18
Amount of mortgage loans for year.....	\$48,600 00
No. of foreclosures since organization.....	-----
Amount due on foreclosures.....	-----
No. of shares last report.....	2,687 00
No. of shares issued since last report.....	537
No. of shares canceled since last report.....	379
Net profits of year.....	\$18,571 69
Plan of distribution.....	Partnership.
No. shares loaned on.....	1,133½
No. shares free.....	1,711½
Ratio of salaries to total receipts.....	.90 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	2.90 per cent.
Surrender value of all shares.....	\$192,671 21
Total present worth of mortgages.....	132,095 00
Total appraised value of land.....	136,975 00
Total appraised value of improvements.....	178,950 00
Total book value of stock hypothecated.....	94,725 50
Total value of security held.....	410,650 50
Premium.....	Gross, 20 per cent to 23 per cent; Installment, 50 cents to 55 cents per share a month; 7½ per cent interest.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force June, 1893.	Now in Force.	Shares Loaned Upon.	Shares "Free."
1 of January, 1886.....	792	450	445	224½	220½
2 of July, 1886.....	170	85	85	37½	47½
3 of January, 1887.....	300	166	166	73½	92½
4 of July, 1887.....	227	140	140	50	90
5 of January, 1888.....	374	129	102	50	52
6 of July, 1888.....	342	142	102	38	64
7 of January, 1889.....	317	202	202	106	96
8 of July, 1889.....	254	108	108	83	25
9 of January, 1890.....	316	186	176	11	165
10 of July, 1890.....	241	113	103	63	40
11 of January, 1891.....	457	237	215	37	178
12 of July, 1891.....	165	109	104	27	77
13 of January, 1892.....	407	324	284	113½	170½
14 of July, 1892.....	151	151	131	34	97
15 of January, 1893.....	413	413	358	141	217
16 of July, 1893.....	124	-----	124	44½	79½
Totals	5,050	2,955	2,845	1,133½	1,711½

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
1 of January, 1886.....	\$44,900 00	\$96 00	\$149 40	\$119 25	\$147 40
2 of July, 1886.....	14,500 00	90 00	137 25	110 50	134 25
3 of January, 1887.....	7,700 00	84 00	125 50	101 85	122 50
4 of July, 1887.....	10,000 00	78 00	114 05	93 40	110 05
5 of January, 1888.....	10,000 00	72 00	102 65	85 15	98 65
6 of July, 1888.....	7,600 00	66 00	91 80	77 05	86 80
7 of January, 1889.....	21,200 00	60 00	81 50	69 15	76 50
8 of July, 1889.....	16,600 00	54 00	71 45	61 40	61 40
9 of January, 1890.....	2,200 00	48 00	61 80	53 80	53 80
10 of July, 1890.....	12,600 00	42 00	52 65	46 50	46 50
11 of January, 1891.....	7,400 00	36 00	43 85	39 33	39 35
12 of July, 1891.....	5,400 00	30 00	35 55	32 32	32 32
13 of January, 1892.....	22,700 00	24 00	27 55	25 50	25 50
14 of July, 1892.....	6,800 00	18 00	20 30	18 85	18 85
15 of January, 1893.....	28,200 00	12 00	13 30	12 40	12 40
16 of July, 1893.....	8,900 00	6 00	6 50	6 10	6 10
Totals	\$226,700 00	-----	-----	-----	-----

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
George Mearns	San Francisco	-----	\$200 00
E. C. Hughes	San Francisco	-----	200 00
William Cluff	San Francisco	-----	200 00
W. M. Greenwood	San Francisco	-----	200 00
George M. Mitchell.....	San Francisco	-----	200 00
William De Wolf.....	Oakland	-----	200 00
A. L. Taylor	Oakland	-----	200 00
W. R. Smedberg.....	San Francisco	-----	200 00
E. M. Harmon.....	San Francisco	-----	200 00

No. 86.—SAN FRANCISCO.

HOMESEEKERS LOAN ASSOCIATION.

Incorporated September 30, 1890.

LOUIS BLANK, Secretary.

BENJAMIN HARRIS, President.

No. of series, 4.

End of fiscal year, November 30, 1893.

No. of shares, 2,189.

Resources.		Liabilities.	
Loans.....	\$139,400 00	Dues and advance payments...	\$67,258 00
Arrearages.....	7,028 70	Earnings.....	17,226 54
Cash on hand.....		Overdrafts and bills payable...	51,981 18
Real estate.....	4,504 71	Profits unapportioned.....	8,906 99
Other assets.....	49 30	All other liabilities.....	5,610 00
Total resources.....	\$150,982 71	Total liabilities.....	\$150,982 71
Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....		Paid overdrafts and bills payable.....	\$31,082 21
Received for dues.....	\$25,754 00	Loans.....	51,990 00
Received for paid-up stock.....		Interest.....	4,588 98
Received for premiums.....	8,640 00	Dues on surrendered shares.....	3,825 00
Received for interest.....	7,941 50	Profits on surrendered shares.....	492 56
Received for fees and fines.....	64 00	Salaries.....	1,257 50
Loans repaid.....	5,514 47	Taxes.....	912 17
Overdrafts and bills payable.....	51,981 18	Other expenses.....	490 72
All other sources.....		All other disbursements.....	5,226 01
Total receipts.....	\$99,895 15	Balance on hand.....	
		Total disbursements.....	\$99,895 15

Authorized capital stock.....	\$2,000,000 00
No. of shares.....	10,000
No. of members.....	110
No. of borrowers.....	31
No. of mortgage loans for year.....	11
Amount of mortgage loans for year.....	\$57,600 00
No. of foreclosures since organization.....	1
Amount due on foreclosures.....	\$5,514 47
No. of shares last report.....	1,840
No. of shares issued since last report.....	470
No. of shares canceled since last report.....	121
Net profits of year.....	\$8,349 99
Plan of distribution.....	Dexter.
No. shares loaned on.....	697
No. shares free.....	1,492
Ratio of salaries to total receipts.....	1.29 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	2.69 per cent.
Surrender value of all shares.....	\$75,869 88
Total present worth of mortgages.....	118,751 31
Total appraised value of land.....	52,000 00
Total appraised value of improvements.....	129,100 00
Total book value of stock hypothecated.....	20,648 69
Total value of security held.....	201,748 69
Premium.....	Gross, 15 per cent; Installment, 3 per cent, and 50 cents per share.

REPORT OF BUILDING AND LOAN ASSOCIATIONS.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force Sept. 30, 1892.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	1,918	1,562	1,441	246	1,195
Second	278	278	278	163	115
Third	361	-----	361	236	125
Fourth	109	-----	109	52	57

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$49,200 00	\$38 00	\$48 80	\$41 69	\$43 40
Second	32,600 00	26 00	30 79	27 74	28 39
Third	47,200 00	14 00	14 92	14 51	14 46
Fourth	10,400 00	2 00	2 00	2 01	2 00

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital stock Held by Each.	
		Shares.	Par Value.
Behrend Joost	San Francisco	37	\$200 00
M. J. Mertens	San Francisco	25	200 00
E. Gunzburger	San Francisco	85	200 00
L. Landler	San Francisco	145	200 00
F. L. Turpin	San Francisco	15	200 00
Benjamin Harris	San Francisco	75	202 00

No. 87.—SAN FRANCISCO.

HOUSEHOLDERS BUILDING AND LOAN ASSOCIATION.

Incorporated October 5, 1889.

S. R. CHURCH, Secretary.

ROBT. HUSBAND, President.

No. of series, 16.

End of fiscal year, October 30, 1893.

No. of shares, 556.

Resources.		Liabilities.	
Loans	\$38,125 00	Dues and advance payments...	\$20,974 00
Arrearages	1,092 15	Earnings	5,607 04
Cash on hand	640 24	Overdrafts and bills payable...	9,192 89
Real estate	-----	Profits unappropriated	3,939 52
Other assets	-----	All other liabilities	143 94
		Advance interest	\$13 33
		Interest payable	130 61
Total resources	\$39,857 39	Total liabilities	\$39,857 39

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$793 47	Paid overdrafts and bills payable.....	
Received for dues.....	6,647 00	Loans.....	\$7,100 00
Received for paid-up stock.....		Interest.....	371 58
Received for premiums.....	1,065 00	Dues on surrendered shares.....	6,610 00
Received for interest.....	2,547 55	Profits on surrendered shares.....	582 95
Received for fees and fines.....	40 83	Salaries.....	480 00
Loans repaid.....	350 00	Taxes.....	296 51
Overdrafts and bills payable.....	4,692 89	Other expenses.....	55 46
All other sources.....		All other disbursements.....	
		Balance on hand.....	640 24
Total receipts.....	\$16,136 74	Total disbursements.....	\$16,136 74

Authorized capital stock.....	\$1,000,000 00
No. of shares.....	5,000
No. of members.....	48
No. of borrowers.....	14
No. of mortgage loans for year.....	3
Amount of mortgage loans for year.....	\$7,100 00
No. of foreclosures since organization.....	
Amount due on foreclosures.....	
No. of shares last report.....	678
No. of shares issued since last report.....	78
No. of shares canceled since last report.....	200
Net profits of year.....	\$2,772 52
Plan of distribution.....	Second Dividend Rule.
No. shares loaned on.....	200
No. shares free.....	356
Ratio of salaries to total receipts.....	2.97 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	5.15 per cent.
Surrender value of all shares.....	\$23,044 11
Total present worth of mortgages.....	28,980 25
Total appraised value of land.....	28,850 00
Total appraised value of improvements.....	25,550 00
Total book value of stock hypothecated.....	9,144 75
Total value of security held.....	63,544 75
Premium.....	Gross, 15 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force	Now in Force.	Shares Loaned Upon.	Shares "Free."
1—November, 1889.....		612	199	40	159
2—February, 1890.....		125	45	15	30
3—May, 1890.....		119	84	74	10
4—August, 1890.....		54	44	24	20
5—November, 1890.....		115	60	None.	60
6—February, 1891.....		53	28	5	23
7—May, 1891.....		38	6	6	
8—August, 1891.....		20	10		10
9—February, 1892.....		2	2		2
13—November, 1892.....		14	14	4	10
14—February, 1893.....		11	11	10	1
15—May, 1893.....		47	47	22	25
16—August, 1893.....		6	6		6

MEMORANDA OF SERIES, LOANS, ETC.—Continued.

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
1—November, 1889	\$4,575 00	\$48 00	\$62 46	\$53 88	\$53 49
2—February, 1890	3,000 00	45 00	57 72	50 17	49 78
3—May, 1890	14,550 00	42 00	53 10	46 51	46 12
4—August, 1890	6,700 00	39 00	48 59	42 90	42 51
5—November, 1890	-----	36 00	44 18	39 33	38 94
6—February, 1891	1,000 00	33 00	39 89	35 80	35 41
7—May, 1891	1,200 00	30 00	35 71	32 32	31 93
8—August, 1891	-----	27 00	31 64	28 89	28 50
9—February, 1892	-----	21 00	23 84	22 15	21 76
13—November, 1892	700 00	12 00	12 96	12 39	12 00
14—February, 1893	2,000 00	9 00	9 55	9 22	9 00
15—May, 1893	4,400 00	6 00	6 26	6 10	6 00
16—August, 1893	-----	3 00	3 07	3 03	3 00

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Robert Husband	San Francisco	5	\$200 00
H. C. Biggs	San Francisco	12	200 00
W. E. Maher	San Francisco	30	200 00
E. W. Wainwright	San Francisco	1	200 00
C. E. Knapp	San Francisco	41	200 00
F. D. Bepler	San Francisco	3	200 00
J. H. Blewett	San Francisco	20	200 00
Terry T. Eyre	San Francisco	10	200 00
S. R. Church	San Francisco	1	200 00

No. 88.—SAN FRANCISCO.

HUMBOLDT BUILDING AND LOAN ASSOCIATION.

Incorporated September 26, 1890.

R. MOHR, Secretary.

H. GEILFUSS, President.

No. of series, 2.

End of fiscal year, October 7, 1893.

No. of shares, 2,727.

Resources.		Liabilities.	
Loans	\$134,400 00	Dues and advance payments ..	\$80,436 00
Arrearages	178 72	Earnings	17,304 66
Cash on hand	-----	Overdrafts and bills payable ..	30,234 48
Real estate	-----	Profits unapportioned	17 57
Other assets: furniture and fixtures	35 00	All other liabilities	6,621 01
		Advance payments ..	\$159 60
		Loans incomplete	6,461 41
Total resources	\$134,613 72	Total liabilities	\$134,613 72

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$3 33	Paid overdrafts and bills payable.....	\$2,528 72
Received for dues.....	33,985 00	Loans.....	63,107 27
Received for paid-up stock.....		Interest.....	1,179 57
Received for premiums.....	5,930 10	Dues on surrendered shares.....	7,713 00
Received for interest.....	5,938 73	Profits on surrendered shares.....	247 52
Received for fees and fines.....	250 50	Salaries.....	900 00
Loans repaid.....		Taxes.....	551 81
Overdrafts and bills payable.....	30,234 48	Other expenses.....	114 25
All other sources.....		All other disbursements.....	
		Balance on hand.....	
Total receipts.....	\$76,342 14	Total disbursements.....	\$76,342 14

Authorized capital stock.....	\$3,000,000 00
No. of shares.....	15,000
No. of members.....	142
No. of borrowers.....	26
No. of mortgage loans for year.....	12
Amount of mortgage loans for year.....	\$66,400 00
No. of foreclosures since organization.....	
Amount due on foreclosures.....	
No. of shares last report.....	2,260
No. of shares issued since last report.....	754
No. of shares canceled since last report.....	287
Net profits of year.....	\$10,085 91
Plan of distribution.....	Dexter.
No. shares loaned on.....	672
No. shares free.....	2,055
Ratio of salaries to total receipts.....	1.18 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	2.05 per cent.
Surrender value of all shares.....	\$84,752 50
Total present worth of mortgages.....	115,245 15
Total appraised value of land.....	96,800 00
Total appraised value of improvements.....	114,350 00
Total book value of stock hypothecated.....	19,154 85
Total value of security held.....	230,304 85
Premium.....	Installment, 60 cents per share.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....	2,500		1,988	423	1,565
Second.....	754		739	249	490

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$84,600 00	\$36 00	\$44 37	\$39 33	\$38 09
Second.....	49,500 00	12 00	12 90	12 39	12 22

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Henry Geilfuss	San Francisco	23	\$200 00
Anton Krieg	San Francisco	50	200 00
Geo. M. Ahrens	San Francisco	33	200 00
Henry Ebbinghausen	San Francisco	50	200 00
Philip Seibel	San Francisco	50	200 00
J. H. Mangels	San Francisco	50	200 00
Hermann Joost	San Francisco	12	200 00
Adolph Lorsbach	San Francisco	100	200 00
F. Habenicht	San Francisco	20	200 00

No. 89.—SAN FRANCISCO.

INTER NOS BUILDING AND LOAN ASSOCIATION.

Incorporated May 27, 1889.

M. L. CULVER, Secretary.

M. C. NUNAN, President.

No. of series, 10.

End of fiscal year, May 31, 1894.

No. of shares, 2,361½.

Resources.		Liabilities.	
Loans	\$144,000 00	Dues and advance payments ..	\$95,854 60
Arrearages	2,962 05	Earnings	26,363 41
Cash on hand .....	.....	Overdrafts and bills payable ..	23,432 00
Real estate .....	.....	Profits unapportioned	709 39
Other assets	1,006 00	All other liabilities: loans in-	
Furniture and fixtures	\$582 55	complete	1,608 65
Foreclosure account	120 00		
Insurance and taxes			
advanced	303 45		
Total resources	\$147,968 05	Total liabilities	\$147,968 05
Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand .....	.....	Paid overdrafts and bills pay-	
Received for dues	\$29,933 00	able	\$38,264 21
Received for paid-up stock .....	.....	Loans	15,789 60
Received for premiums	5,255 20	Interest	2,350 16
Received for interest	9,583 70	Dues on surrendered shares	17,938 27
Received for fees and fines	183 90	Profits on surrendered shares ..	1,945 95
Loans repaid	10,610 65	Salaries	1,500 00
Overdrafts and bills payable	23,432 00	Taxes	1,466 33
All other sources	1,929 80	Other expenses	1,134 28
Advances	\$1,863 60	All other disbursements	539 45
From Secretary	20 00	Advances refunded	\$435 00
Street assessment re-		Taxes advanced	153 45
turned	46 00	Profit and loss	1 00
Profits	20	Balance on hand .....	.....
Total receipts	\$80,928 25	Total disbursements	\$80,928 25

Authorized capital stock	\$3,000,000 00
No. of shares	15,000
No. of members	250
No. of borrowers	72
No. of mortgage loans for year	12

Amount of mortgage loans for year.....	\$13,100 00
No. of foreclosures since organization.....	-----
Amount due on foreclosures.....	-----
No. of shares last report.....	2,730 1/2
No. of shares issued since last report.....	243
No. of shares canceled since last report.....	612
Net profits of year.....	\$8,571 31
Plan of distribution.....	Partnership.
No. shares loaned on.....	787 1/2
No. shares free.....	1,574
Ratio of salaries to total receipts.....	1.85 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	5.07 per cent.
Surrender value of all shares.....	\$101,296 69
Total present worth of mortgages.....	105,465 54
Total appraised value of land.....	98,775 00
Total appraised value of improvements.....	106,060 00
Total book value of stock hypothecated.....	38,534 46
Total value of security held.....	243,369 46
Premium.....	Installment.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force -----	Now in Force.	Shares Loaned Upon.	Shares "Free."
First—June, 1889.....	-----	1,247	646 1/2	198 1/2	448
Second—January, 1890.....	-----	747	254	47	207
Third—June, 1890.....	-----	444	165	70	95
Fourth—December, 1890.....	-----	420	236	81	155
Fifth—June, 1891.....	-----	562	153	92	61
Sixth—December, 1891.....	-----	369	253	58	195
Seventh—June, 1892.....	-----	402	241	88	153
Eighth—December, 1892.....	-----	260	200	80	120
Ninth—June, 1893.....	-----	62	52	27	25
Tenth—December, 1893.....	-----	181	161	46	115

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First—June, 1889.....	\$37,050 00	\$60 00	\$81 09	\$9 00	\$69 00
Second—January, 1890.....	14,600 00	53 00	69 53	7 29	60 29
Third—June, 1890.....	9,500 00	48 00	61 55	5 51	53 51
Fourth—December, 1890.....	10,200 00	42 00	52 40	4 41	46 41
Fifth—June, 1891.....	20,850 00	36 00	43 67	3 24	39 24
Sixth—December, 1891.....	6,700 00	30 00	35 36	2 25	32 25
Seventh—June, 1892.....	17,600 00	24 00	27 45	1 44	25 44
Eighth—December, 1892.....	14,500 00	18 00	19 97	81	18 81
Ninth—June, 1893.....	4,900 00	12 00	12 89	36	12 36
Tenth—December, 1893.....	8,100 00	6 00	6 24	09	6 09

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
M. C. Nunan.....	San Francisco.....	17	\$200 00
C. W. Duffie.....	San Francisco.....	20	200 00
D. D. Hunt.....	San Francisco.....	*	200 00
M. G. Loeffler.....	San Francisco.....	5	200 00
W. H. Snyder.....	San Francisco.....	10	200 00
M. L. Culver.....	Alameda.....	27	200 00
J. B. Foy.....	Alameda.....	14	200 00
J. F. Harris.....	San Francisco.....	20	200 00
Wm. Patterson.....	San Francisco.....	20	200 00

*Surrendered this last six months.

No. 90.—SAN FRANCISCO.

ITALIAN—SWISS MUTUAL LOAN ASSOCIATION.

Incorporated April 1, 1887.

A. SBARBORO, Secretary.

G. B. CEVASCO, President.

No. of series, 7.

End of fiscal year, March 31, 1894. , No. of shares, 4,561.

Resources.		Liabilities.	
Loans.....	\$297,083 00	Dues and advance payments ..	\$221,916 00
Arrearages.....	2,338 10	Earnings ..	83,588 59
Cash on hand.....	4,052 46	Overdrafts and bills payable.....	.....
Real estate	1,615 86	Profits unapportioned*.....	.....
Other assets	735 17	All other liabilities	320 00
Taxes advanced.....	\$696 37	Advance interest ..	\$20 00
Insurance advanced	38 80	Loans incomplete..	300 00
Total resources	\$305,824 59	Total liabilities.....	\$305,824 59

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand .....	.....	Paid overdrafts and bills pay- able.....	\$952 50
Received for dues.....	\$60,536 00	Loans.....	45,200 00
Received for paid-up stock .....	.....	Interest.....	355 65
Received for premiums.....	6,960 00	Dues on surrendered shares	43,073 00
Received for interest.....	16,940 02	Profits on surrendered shares..	11,109 71
Received for fees and fines.....	751 90	Salaries.....	2,400 00
Loans repaid	27,866 00	Taxes.....	2,357 13
Overdrafts and bills payable.....	.....	Other expenses	812 67
All other sources: real estate....	30 00	All other disbursements.....	2,770 80
		Returned premiums \$2,732 00	
		Insurance and tax	
		account	38 80
Total receipts.....	\$113,083 92	Balance on hand	4,052 46
		Total disbursements.....	\$113,083 92

* Unearned premium accounted for in the difference between book and surrender value of the shares.

Authorized capital stock.....	\$2,000,000 00
No. of shares	10,000
No. of members	326
No. of borrowers	116
No. of mortgage loans for year	25
Amount of mortgage loans for year	\$41,400 00
No. of foreclosures since organization .....	.....
Amount due on foreclosures .....	.....
No. of shares last report	4,452
No. of shares issued since last report	909
No. of shares canceled since last report	800
Net profits of year	\$17,510 95
Plan of distribution	Wrigley,
No. shares loaned on	1,483 $\frac{1}{4}$
No. shares free	3,077 $\frac{3}{4}$
Ratio of salaries to total receipts.....	2.12 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	4.92 per cent.
Surrender value of all shares.....	\$269,767 90
Total present worth of mortgages.....	193,673 04
Total appraised value of land	179,465 00
Total appraised value of improvements	206,050 00
Total book value of stock hypothecated	103,409 96
Total value of security held	488,924 96
Premium	Gross.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force March 31, 1893.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	1,790	1,232½	947½	217¼	730¼
Second	791½	506	451	140½	310½
Third	984	716	555½	159½	396
Fourth	645½	547	465	234	231
Fifth	894½	749½	652	193½	458½
Sixth	810	701	593½	373½	220
Seventh	906½	-----	896½	165	731½
Totals	6,822	4,452	4,561	1,483¼	3,077¾

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$43,650 00	\$84 00	\$122 43	\$91 64	\$112 82
Second	28,133 00	72 00	103 08	84 96	90 65
Third	31,900 00	60 00	83 42	69 00	74 05
Fourth	46,800 00	48 00	64 45	53 76	56 22
Fifth	38,700 00	36 00	46 84	39 24	41 42
Sixth	74,700 00	24 00	30 49	25 44	27 24
Seventh	33,200 00	12 00	13 74	12 36	12 87
Totals	\$297,083 00	-----	-----	-----	-----

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
G. B. Cevasco	San Francisco	100	\$200 00
P. Barbier	San Francisco	20	200 00
A. Merle	Oakland	20	200 00
P. C. Rossi	San Francisco	50	200 00
G. De Luca	San Francisco	60	200 00
P. Canepa	San Francisco	25	200 00
A. Granucci	San Francisco	30	200 00
C. A. Malm	San Francisco	25	200 00
A. Sbarboro	San Francisco	40	200 00

No. 91.—SAN FRANCISCO.

MECHANICS BUILDING AND LOAN ASSOCIATION.

Incorporated January 6, 1891.

WM. E. LUTZ, Secretary.

GUSTAVUS L. SPEAR, President.

No. of series, 3.

End of fiscal year, December 31, 1893.

No. of shares, 1,277.

Resources.		Liabilities.	
Loans	\$51,200 00	Dues and advance payments ..	\$33,518 00
Arrearages	-----	Earnings	6,314 20
Cash on hand	9 65	Overdrafts and bills payable ..	9,726 03
Real estate	-----	Profits unapportioned	1,458 90
Other assets	-----	All other liabilities	192 52
Total resources	\$51,209 65	Total liabilities	\$51,209 65

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$59 63	Paid overdrafts and bills payable.....	\$13,353 64
Received for dues.....	16,349 00	Loans.....	11,679 40
Received for paid-up stock.....		Interest.....	632 93
Received for premiums.....	1,695 00	Dues on surrendered shares.....	3,120 00
Received for interest.....	3,208 63	Profits on surrendered shares.....	337 10
Received for fees and fines.....	50 70	Salaries.....	1,492 50
Loans repaid.....		Taxes.....	399 52
Overdrafts and bills payable.....	9,726 03	Other expenses.....	64 30
All other sources.....		All other disbursements.....	
		Balance on hand.....	9 65
Total receipts.....	\$31,089 04	Total disbursements.....	\$31,089 04

Authorized capital stock.....	\$2,000,000 00
No. of shares.....	10,000
No. of members.....	116
No. of borrowers.....	18
No. of mortgage loans for year.....	3
Amount of mortgage loans for year.....	\$11,300 00
No. of foreclosures since organization.....	
Amount due on foreclosures.....	
No. of shares last report.....	1,120
No. of shares issued since last report.....	322
No. of shares canceled since last report.....	165
Net profits of year.....	\$1,835 46
Plan of distribution.....	Partnership.
No. shares loaned on.....	257
No. shares free.....	1,020
Ratio of salaries to total receipts.....	4.80 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	6.29 per cent.
Surrender value of all shares.....	\$36,229 70
Total present worth of mortgages.....	41,979 48
Total appraised value of land.....	29,550 00
Total appraised value of improvements.....	39,600 00
Total book value of stock hypothecated.....	9,220 52
Total value of security held.....	78,370 52
Premium.....	Installment.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force Last Report.	Now In Force.	Shares Loaned Upon.	Shares "Free."
First.....	730	570	515	145	370
Second.....	582	550	485	75	410
Third.....	322		277	37	240

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$23,900 00	\$36 00	\$44 24	\$39 33	\$39 88
Second.....	15,000 00	24 00	27 71	25 50	25 50
Third.....	7,300 00	12 00	12 96	12 39	12 00

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Gustavus L. Spear	San Francisco	20	\$200 00
Frederick Fillmore	San Francisco	10	200 00
L. Ph. Bolander	San Francisco	20	200 00
T. K. Stateler	San Francisco	20	200 00
James Campbell	San Francisco	15	200 00
E. Schwerin, Jr.	San Francisco	26	200 00
E. Martinoni	San Francisco	15	200 00
A. S. J. De Guerre	San Francisco	15	200 00
R. V. Lucy	San Francisco	15	200 00

No. 92.—SAN FRANCISCO.

MERCHANTS LOAN ASSOCIATION.

Incorporated June 21, 1889.

LOUIS BLANK, Secretary.

P. N. ARONSON, President.

No. of series, 4.

End of fiscal year, June 30, 1893.

No. of shares, 1,609½.

Resources.		Liabilities.	
Loans	\$122,700 00	Dues and advance payments	\$68,754 00
Arrearages	1,003 30	Earnings	22,101 64
Cash on hand		Overdrafts and bills payable	28,809 41
Real estate		Profits unapportioned	4,038 25
Other assets		All other liabilities	
Total resources	\$123,703 30	Total liabilities	\$123,703 30

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand		Paid overdrafts and bills payable	\$44,980 03
Received for dues	\$19,016 00	Loans	6,100 00
Received for paid-up stock		Interest	2,785 90
Received for premiums	1,005 00	Dues on surrendered shares	3,765 00
Received for interest	8,005 50	Profits on surrendered shares	665 00
Received for fees and fines	5 55	Salaries	960 00
Loans repaid	3,750 00	Taxes	1,001 11
Overdrafts and bills payable	28,809 41	Other expenses	190 42
All other sources	91 00	All other disbursements	235 00
		Balance on hand	
Total receipts	\$60,682 46	Total disbursements	\$60,682 46

Authorized capital stock	\$2,000,000 00
No. of shares	10,000
No. of members	77
No. of borrowers	30
No. of mortgage loans for year	3
Amount of mortgage loans for year	\$6,100 00
No. of foreclosures since organization	
Amount due on foreclosures	
No. of shares last report	1,679
No. of shares issued since last report	30½
No. of shares canceled since last report	100

Net profits of year.....	\$4,529 50
Plan of distribution.....	Dexter.
No. shares loaned on.....	613½
No. shares free.....	996
Ratio of salaries to total receipts.....	1.58 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	3.54 per cent.
Surrender value of all shares.....	\$86,030 38
Total present worth of mortgages.....	95,727 81
Total appraised value of land.....	86,550 00
Total appraised value of improvements.....	61,200 00
Total book value of stock hypothecated.....	26,972 19
Total value of security held.....	174,722 19
Premium.....	Gross, 15 per cent, and Installments.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force June, 1892.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....	1,352	1,307	1,207	211	996
Second.....	127	127	127	127	-----
Third.....	245	245	245	245	-----
Fourth.....	30½	-----	30½	30½	-----

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$42,200 00	\$48 00	\$64 14	\$53 76	\$60 91
Second.....	25,400 00	36 00	46 00	39 24	43 00
Third.....	49,000 00	24 00	29 30	25 44	27 18
Fourth.....	6,100 00	12 00	13 71	12 36	12 85

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Oscar S. Levy.....	San Francisco.....	45	\$200 00
Max Ordenstein.....	San Francisco.....	80	200 00
Philip N. Aronson.....	San Francisco.....	25	200 00
Hyman Jacobs*.....	San Francisco.....	25	200 00
Solomon Zekind.....	San Francisco.....	30	200 00
S. Feder.....	San Francisco.....	20	200 00
Herman Nathan.....	San Francisco.....	10	200 00
Albert Meyer.....	San Francisco.....	105	200 00
M. J. Brandenstein.....	San Francisco.....	25	200 00

* Resigned.

No. 93.—SAN FRANCISCO.

MISSION HOME AND LOAN ASSOCIATION.

Incorporated March 12, 1889.

T. F. CREIGHTON, Secretary.

JOHN H. GRADY, President.

No. of series, 7.

End of fiscal year, March 31, 1894.

No. of shares, 2,247 $\frac{1}{2}$.

Resources.		Liabilities.	
Loans	\$146,915 00	Dues and advance payments...	\$102,213 25
Arrearages	3,344 55	Earnings	31,757 86
Cash on hand	1,348 90	Overdrafts and bills payable...	18,000 00
Real estate	2,584 70	Profits unapportioned	1,405 54
Other assets: furniture and fix- tures	330 00	All other liabilities	1,176 50
		Loans incomplete....	\$340 90
		Suspense account.....	220 60
		Deposit account	615 00
Total resources	\$154,553 15	Total liabilities	\$154,553 15

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand		Paid overdrafts and bills pay- able	\$32,214 52
Received for dues	\$28,295 25	Loans	21,123 80
Received for paid-up stock		Interest	1,737 10
Received for premiums	4,834 33	Dues on surrendered shares....	13,428 00
Received for interest	9,370 22	Profits on surrendered shares..	1,617 00
Received for fees and fines	181 95	Salaries	1,372 50
Loans repaid	7,799 80	Taxes	1,335 84
Overdrafts and bills payable....	26,700 00	Other expenses	385 14
All other sources	3,322 10	All other disbursements.....	5,940 85
Rebate expense acc't. \$1 50		Fixtures	\$217 20
Suspense account.....	35 65	Suspense	119 00
Deposit account	3,284 95	Deposit	3,019 95
		Real estate	2,584 70
		Balance on hand	1,348 90
Total receipts	\$80,503 65	Total disbursements	\$80,503 65

Authorized capital stock	\$1,000,000 00
No. of shares	5,000
No. of members	226
No. of borrowers	83
No. of mortgage loans	10
Amount of mortgage loans	\$15,400 00
No. of foreclosures since organization	
Amount due on foreclosures	
No. of shares last report	2,445 $\frac{1}{2}$
No. of shares issued since last report	432 $\frac{1}{2}$
No. of shares canceled since last report	630 $\frac{1}{4}$
Net profits of year	\$9,515 95
Plan of distribution	Second Dividend Rule.
No. shares loaned on	734 $\frac{3}{10}$
No. shares free	1,513 $\frac{1}{10}$
Ratio of salaries to total receipts	1.7 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	3.84 per cent.
Surrender value of all shares	\$119,024 28
Total present worth of mortgages	95,338 93
Total appraised value of land	113,675 00
Total appraised value of improvements	143,050 00
Total book value of stock hypothecated	51,606 07
Total value of security held	308,331 07
Premium	Installment

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force March 31, 1894.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....	1,826	959 $\frac{3}{4}$	-----	270 $\frac{3}{4}$	688 $\frac{3}{4}$
Second.....	500	305	-----	84 $\frac{1}{10}$	220 $\frac{3}{16}$
Third.....	500	238 $\frac{1}{4}$	-----	103 $\frac{1}{4}$	135
Fourth.....	600	267 $\frac{1}{2}$	-----	88 $\frac{1}{2}$	179
Fifth.....	400	222 $\frac{1}{4}$	-----	98	124 $\frac{1}{4}$
Sixth.....	45 $\frac{1}{2}$	45 $\frac{1}{2}$	-----	45 $\frac{1}{2}$	-----
Seventh.....	289	209 $\frac{1}{2}$	-----	44 $\frac{1}{2}$	165

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$54,175 00	\$60 00	\$81 72	-----	\$72 00
Second.....	16,820 00	51 00	66 74	-----	59 67
Third.....	20,650 00	45 00	57 28	-----	50 90
Fourth.....	17,700 00	36 00	43 85	-----	39 24
Fifth.....	19,600 00	24 00	27 55	-----	25 44
Sixth.....	9,100 00	18 00	20 02	-----	18 81
Seventh.....	8,900 00	12 00	12 92	-----	12 36

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
John H. Grady.....	San Francisco.....	-----	\$200 00
John H. Dawson.....	San Francisco.....	-----	200 00
Jas. E. Keller.....	San Francisco.....	-----	200 00
A. B. Maguire.....	San Francisco.....	-----	200 00
S. H. Brown.....	San Francisco.....	-----	200 00
G. E. McPherson, M.D.....	San Francisco.....	-----	200 00
J. W. Finn.....	San Francisco.....	-----	200 00
J. J. Carroll.....	San Francisco.....	-----	200 00
T. F. Creighton.....	San Francisco.....	-----	200 00

No. 94.—SAN FRANCISCO.

MONARCH MUTUAL BUILDING AND LOAN ASSOCIATION.

Incorporated May 19, 1891.

R. MOHR, Secretary.

D. BECKER, President.

No. of series, 3.

End of fiscal year, May 10, 1894.

No. of shares, 1,013.

Resources.		Liabilities.	
Loans.....	\$54,000 00	Dues and advance payments ..	\$31,123 00
Arrearages.....	589 16	Earnings.....	5,732 27
Cash on hand.....	-----	Overdrafts and bills payable.....	19,867 39
Real estate.....	2,224 25	Profits unapportioned.....	10 75
Other assets.....	-----	All other liabilities: taxes retained.....	80 00
Total resources.....	\$56,813 41	Total liabilities.....	\$56,813 41

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....		Paid overdrafts and bills payable.....	\$789 15
Received for dues.....	\$14,646 00	Loans.....	13,029 05
Received for paid-up stock.....		Interest.....	1,451 62
Received for premiums.....	2,304 00	Dues on surrendered shares.....	10,279 00
Received for interest.....	3,083 12	Profits on surrendered shares.....	481 67
Received for fees and fines.....	92 04	Salaries.....	825 00
Loans repaid.....	8,000 00	Taxes.....	420 18
Overdrafts and bills payable.....		Other expenses.....	139 79
All other sources: taxes retained.....	80 00	All other disbursements: account real estate.....	189 70
		Balance on hand.....	
Total receipts.....	\$28,205 16	Total disbursements.....	\$28,205 16

Authorized capital stock.....	\$2,000,000 00
No. of shares.....	10,000
No. of members.....	68
No. of borrowers.....	21
No. of mortgage loans for year.....	5
Amount of mortgage loans.....	\$11,800 00
No. of foreclosures since organization.....	1
Amount due on foreclosure.....	\$2,224 25
No. of shares last report.....	1,208
No. of shares issued since last report.....	172
No. of shares canceled since last report.....	367
Net profits of year.....	\$3,490 25
Plan of distribution.....	Dexter.
No. shares loaned on.....	270
No. share free.....	743
Ratio of salaries to total receipts.....	2.92 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	4.91 per cent.
Surrender value of all shares.....	\$33,930 07
Total present worth of mortgages.....	44,854 72
Total appraised value of land.....	43,100 00
Total appraised value of improvements.....	55,800 00
Total book value of stock hypothecated.....	9,145 28
Total value of security held.....	108,045 28
Premium.....	Installment, 64 cents per share.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....	1,100		723	166	557
Second.....	195		130	45	85
Third.....	172		160	59	101

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$33,200 00	\$36 00	\$43 19	\$39 33	\$39 59
Second.....	9,000 00	24 00	27 11	25 50	25 55
Third.....	11,500 00	12 00	12 81	12 39	12 40

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
D. Becker	San Francisco	50	\$200 00
H. Truebenbach	San Francisco	50	200 00
H. Fraunholz	San Francisco	25	200 00
Robert Bergfeld	San Francisco	10	200 00
M. J. Madden	San Francisco	10	200 00
J. O. Jephson	San Francisco	10	200 00
H. R. Schmuckert	San Francisco	27	200 00

No. 95.—SAN FRANCISCO.

MUTUAL SAVINGS FUND, LOAN, AND BUILDING ASSOCIATION.

Incorporated June 4, 1893.

JOHN W. BUTLER, Secretary.

JAMES HUTCHINSON, President.

No. of series, 20.

End of fiscal year, June 30, 1893.

No. of shares, 2,732.

Resources.		Liabilities.	
Loans	\$249,747 00	Dues and advance payments	\$169,554 00
Arrearages	1,483 05	Earnings	69,141 22
Cash on hand	11,072 80	Overdrafts and bills payable .....	.....
Real estate	2,490 40	Profits unapportioned	24,543 99
Other assets .....	.....	All other liabilities	1,554 04
Total resources	\$264,793 25	Total liabilities	\$264,793 25

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	\$7,110 23	Paid overdrafts and bills payable .....	.....
Received for dues	34,019 00	Loans	\$11,297 00
Received for paid-up stock .....	.....	Interest	49 60
Received for premiums	928 00	Dues on surrendered shares	35,014 00
Received for interest	19,410 22	Profits on surrendered shares	13,948 48
Received for fees and fines	119 33	Salaries	1,342 00
Loans repaid	18,600 00	Taxes	2,185 73
Overdrafts and bills payable .....	.....	Other expenses	596 40
All other sources	460 75	All other disbursements	5,141 52
Total receipts	\$80,647 53	Balance on hand	11,072 80
		Total disbursements	\$80,647 53

Authorized capital stock	\$1,000,000 00
No. of shares	5,000
No. of members	281
No. of borrowers	119
No. of mortgage loans for year	8
Amount of mortgage loans for year	\$10,300 00
No. of foreclosures since organization	1
Amount due on foreclosures	\$2,490 40
No. of shares last report	3,025
No. of shares issued since last report	200
No. of shares canceled since last report	493
Net profits of year	\$16,283 82
Plan of distribution	Partnership.

No. shares loaned on	1,213 ³ / ₄
No. shares free	1,188 ¹ / ₄
Ratio of salaries to total receipts	1.66 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	5.11 per cent.
Surrender value of all shares	\$205,220 81
Total present worth of mortgages	142,983 46
Total appraised value of land	125,500 00
Total appraised value of improvements	177,500 00
Total book value of stock hypothecated	95,515 19
Total value of security held	398,515 19
Premium	Installment, 50 cents per share.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	431	.....	188	83	105
Second	193	.....	88	40	48
Third	170	.....	67	12	55
Fourth	311	.....	146	51	95
Fifth	264	.....	126	36 ¹ / ₄	89 ³ / ₄
Sixth	216	.....	88	17	71
Seventh	326	.....	88	18	70
Eighth	441	.....	146	43	103
Ninth	493	.....	208	107 ¹ / ₄	100 ³ / ₄
Tenth	275	.....	127	28	99
Eleventh	420	.....	212	108 ³ / ₄	103 ¹ / ₄
Twelfth	271	.....	57	16 ¹ / ₂	40 ¹ / ₂
Thirteenth	607	.....	224	122 ¹ / ₂	101 ¹ / ₂
Fourteenth	490	.....	235	105	130
Fifteenth	241	.....	106	67	39
Sixteenth	141	.....	115	76	39
Seventeenth	215	.....	210	166	44
Eighteenth	112	.....	101	101	0
Nineteenth	156	.....	156	19	137
Twentieth	44	.....	44	26 ¹ / ₂	17 ¹ / ₂

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$16,600 00	\$120 00	\$194 37	\$155 64	\$194 37
Second	8,000 00	114 00	181 09	146 13	146 13
Third	2,400 00	108 00	168 18	136 80	136 80
Fourth	10,200 00	102 00	155 65	127 65	127 65
Fifth	7,250 00	96 00	143 50	118 68	118 68
Sixth	3,400 00	90 00	131 71	109 89	109 89
Seventh	3,600 00	84 00	120 31	101 28	101 28
Eighth	8,600 00	78 00	109 28	92 85	92 85
Ninth	21,450 00	72 00	98 62	84 60	84 60
Tenth	5,600 00	66 00	88 34	76 53	76 53
Eleventh	21,750 00	60 00	78 43	68 64	68 64
Twelfth	3,300 00	54 00	68 90	60 93	60 93
Thirteenth	24,500 00	48 00	59 75	53 40	53 40
Fourteenth	21,000 00	42 00	50 96	46 05	46 05
Fifteenth	13,400 00	36 00	42 56	38 88	38 88
Sixteenth	15,200 00	30 00	34 53	31 89	31 89
Seventeenth	33,200 00	24 00	26 87	25 08	25 08
Eighteenth	20,200 00	18 00	19 59	18 45	18 45
Nineteenth	3,800 00	12 00	12 68	12 00	12 00
Twentieth	5,300 00	6 00	6 15	6 00	6 00

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
James S. Hutchinson	San Francisco	30	\$200 00
John Dempster McKee	San Francisco	30	200 00
John A. Whelan	San Francisco	25	200 00
Robert Husband	Alameda	7	200 00
Fred. Maurer	Alameda	11	200 00
Fred. W. Zeile	San Francisco	16	200 00
Geo. W. Scott	Oakland	5	200 00
Geo. D. Toy	San Mateo	5	200 00
Geo. T. Shaw	San Francisco	5	200 00

No. 96.—SAN FRANCISCO.

NATIONAL HOME AND LOAN ASSOCIATION.

Incorporated November 5, 1885.

N. SCHLESINGER, Secretary.

AUGUST DRUCKER, President.

No. of series, 3.

End of fiscal year, January 31, 1894.

No. of shares, 4,381.

Resources.		Liabilities.	
Loans	\$516,300 00	Dues and advance payments ..	\$369,669 00
Arrearages	6,155 44	Earnings	150,807 63
Cash on hand		Overdrafts and bills payable...	1,814 09
Real estate		Profits unapportioned	164 72
Other assets		All other liabilities	
Total resources	\$522,455 44	Total liabilities	\$522,455 44

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand		Paid overdrafts and bills payable	\$13,319 66
Received for dues	\$55,118 00	Loans	6,500 00
Received for paid-up stock		Interest	1,587 23
Received for premiums	375 00	Dues on surrendered shares ..	68,453 00
Received for interest	36,236 62	Profits on surrendered shares..	24,207 00
Received for fees and fines	46 12	Salaries	1,512 50
Loans repaid	26,800 00	Taxes	4,554 64
Overdrafts and bills payable	1,814 09	Other expenses	255 80
All other sources		All other disbursements	
Total receipts	\$120,389 83	Balance on hand	
		Total disbursements	\$120,389 83

Authorized capital stock	\$2,000,000 00
No. of shares	10,000
No. of members	100
No. of borrowers	29
No. of mortgage loans this year	1
Amount of mortgage loans this year	\$5,000 00
No. of foreclosures since organization	
Amount due on foreclosures	
No. of shares last report	5,112
No. of shares issued since last report	25

No. of shares canceled since last report.....	756
Net profits of year.....	\$32,612 47
Plan of distribution.....	Wrigley Rule.
No. shares loaned on.....	2,692
No. shares free.....	1,689
Ratio of salaries to total receipts.....	1.26 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	1.47 per cent.
Surrender value of all shares.....	\$455,157 75
Total present worth of mortgages.....	250,408 81
Total appraised value of land.....	262,600 00
Total appraised value of improvements.....	348,900 00
Total book value of stock hypothecated.....	276,685 39
Total value of security held.....	888,185 39
Premium.....	15 per cent ($\frac{1}{2}$ at time of loan, $\frac{1}{4}$ in 6 months, $\frac{1}{4}$ in 12 months).

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force * February, 1933.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....		3,987	3,231	1,542	1,689
Second.....		1,125	1,125	1,125	None.
Third.....	25		25	25	None.

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$277,800 00	\$99 00	\$142 92	\$123 75	
Second.....	225,000 00	44 00	51 90	48 90	*
Third.....	5,000 00	12 00	12 61	12 36	

* Not yet established for year.

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
August Drucker.....	San Francisco.....	18	\$200 00
Leopold Michels.....	San Francisco.....	85	200 00
M. Israel.....	San Francisco.....	45	200 00
David Sachs.....	San Francisco.....	25	200 00
N. Fuchs.....	San Francisco.....	50	200 00
L. Levinsky.....	San Francisco.....	19	200 00
Leon Blum.....	San Francisco.....	50	200 00
E. D. Block.....	San Francisco.....	25	200 00
Jules Levy.....	San Francisco.....	75	200 00

No. 97.—SAN FRANCISCO.

OCCIDENTAL LOAN ASSOCIATION.

Incorporated August 25, 1885.

LEON DENNERY, Secretary.

GEO. W. DIXON, President.

No. of series, 8.

End of fiscal year, September 3, 1893.

No. of shares, 4,388.

Resources.		Liabilities.	
Loans.....	\$436,400 00	Dues and advance payments ..	\$276,852 00
Arrearages	5,095 20	Earnings	118,403 88
Cash on hand.....		Overdrafts and bills payable...	51,652 69
Real estate.....	14,500 00	Profits unapportioned	7,919 63
Other assets: insurance ad- vanced.....	33 00	All other liabilities: special deposit	1,200 00
Total resources	\$456,028 20	Total liabilities	\$456,028 20
Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand		Paid overdrafts and bills pay- able.....	\$95,987 36
Received for dues.....	\$54,332 00	Loans.....	18,400 00
Received for paid-up stock		Interest.....	6,319 63
Received for premiums	2,010 00	Dues on surrendered shares	50,586 00
Received for interest.....	30,984 80	Profits on surrendered shares..	21,519 59
Received for fees and fines.....	514 65	Salaries.....	2,267 50
Loans repaid.....	62,500 00	Taxes.....	3,933 68
Overdrafts and bills payable	51,652 69	Other expenses	880 03
All other sources	1,375 60	All other disbursements	3,475 95
Rents.....	\$120 00	Real estate.....	\$3,423 95
Insurance refunded.....	19 00	Insurance advanced	52 00
Taxes refunded	36 60	Balance on hand	
Special deposit	1,200 00	Total disbursements	\$203,369 74
Total receipts	\$203,369 74		

Authorized capital stock	\$1,000,000 00
No. of shares	5,000
No. of members	239
No. of borrowers	109
No. of mortgage loans for year	6
Amount of mortgage loans for year	\$18,400 00
No. of foreclosures since organization	3
Amount due on foreclosures	\$14,500 00
No. of shares last report	4,666
No. of shares issued since last report	417
No. of shares canceled since last report	695
Net profits of year	\$26,470 49
Plan of distribution	Wrigley Rule.
No. shares loaned on	2,128
No. shares free	2,206
Ratio of salaries to total receipts	1.11 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	3.48 per cent.
Surrender value of all shares.....	\$386,244 93
Total present worth of mortgages.....	247,040 99
Total appraised value of land	297,600 00
Total appraised value of improvements.....	366,900 00
Total book value of stock hypothecated.....	189,359 01
Total value of security held	853,859 01
Premium	Gross, 15 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force September, 1892.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	2,530	1,735	1,341	529½	811½
Second	439	381	334	207½	126½
Third	711	625	482	258	224
Fourth	712	637	609	313	296
Fifth	646	516	516	278	238
Sixth	229	215	201	191	10
Seventh	577	557	496	341	155
Eighth	417	-----	409	64	345

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$105,900 00	\$96 00	\$147 39	\$119 04	\$147 39
Second	41,500 00	84 00	123 59	101 64	109 73
Third	51,600 00	72 00	100 66	84 96	89 20
Fourth	62,600 00	60 00	80 23	69 00	71 15
Fifth	55,600 00	48 00	61 01	53 76	54 50
Sixth	38,200 00	36 00	43 32	39 24	39 66
Seventh	68,200 00	24 00	27 05	25 44	25 52
Eighth	12,800 00	12 00	12 99	12 36	12 50

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Geo. W. Dixon	San Francisco	36	\$200 00
Albert Steiner	San Francisco	10	200 00
L. Breslauer	San Francisco	70	200 00
Albert Meyer	San Francisco	20	200 00
A. L. Lengfeld	San Francisco	5	200 00
C. M. Gorham	San Francisco	10	200 00
J. Bergez	San Francisco	37	200 00
S. Zemansky	San Francisco	10	200 00
L. L. Dennery	San Francisco	35	200 00

No. 98.—SAN FRANCISCO.

PACIFIC COAST LOAN ASSOCIATION.

Incorporated October 3, 1893.

CHAS. E. NAYLOR, Secretary.

MARK SHIELDON, President.

No. of series, 3. End of fiscal year, September 30, 1893. No. of shares, 1,255.

Resources.		Liabilities.	
Loans	\$54,700 00	Dues and advance payments	\$35,580 00
Arrearages	693 25	Earnings	6,531 76
Cash on hand	-----	Overdrafts and bills payable	12,539 74
Real estate	-----	Profits unapportioned	788 41
Other assets	74 50	All other liabilities	7 84
Total resources	\$55,467 75	Total liabilities	\$55,467 75

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....		Paid overdrafts and bills payable.....	\$10,173 77
Received for dues.....	\$15,104 00	Loans.....	20,005 83
Received for paid-up stock.....		Interest.....	991 16
Received for premiums.....	1,831 50	Dues on surrendered shares.....	621 00
Received for interest.....	3,302 20	Profits on surrendered shares.....	
Received for fees and fines.....	98 75	Salaries.....	645 00
Loans repaid.....	12,539 74	Taxes.....	320 77
Overdrafts and bills payable.....		Other expenses.....	128 66
All other sources.....	10 00	All other disbursements.....	
		Balance on hand.....	
Total receipts.....	\$32,886 19	Total disbursements.....	\$32,886 19

Authorized capital stock.....	\$1,000,000 00
No. of shares.....	5,000
No. of members.....	77
No. of borrowers.....	20
No. of mortgage loans for year.....	6
Amount of mortgage loans for year.....	\$19,200 00
No. of foreclosures since organization.....	
Amount due on foreclosures.....	
No. of shares last report.....	989
No. of shares issued since last report.....	299
No. of shares canceled since last report.....	33
Net profits of year.....	\$3,532 13
Plan of distribution.....	Wrigley.
No. shares loaned on.....	275
No. shares free.....	980
Ratio of salaries to total receipts.....	1.96 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	3.33 per cent.
Surrender value of all shares.....	\$38,415 72
Total present worth of mortgages.....	46,841 89
Total appraised value of land.....	31,400 00
Total appraised value of improvements.....	43,400 00
Total book value of stock hypothecated.....	7,858 11
Total value of security held.....	82,658 11
Premium.....	Gross.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force October, 1892.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....	800	746	746	106	640
Second.....	288	243	218	73	145
Third.....	299		291	96	195

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$21,000 00	\$36 00	\$43 16		\$39 24
Second.....	14,500 00	24 00	27 55		25 44
Third.....	19,200 00	12 00	13 50		12 36

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Mark Sheldon	San Francisco	145	\$200 00
Albert Meyer	San Francisco	65	200 00
Wm. H. Little	San Francisco	15	200 00
Frank P. Latson	San Francisco	35	200 00
George H. Murdock	Alameda	5	200 00
Total		265	

No. 99.—SAN FRANCISCO.

PACIFIC LOAN ASSOCIATION.

Incorporated December 3, 1884.

L. L. DENNERY, Secretary.

JULES CERF, President.

No. of series, 9.

End of fiscal year, December 5, 1893.

No. of shares, 6,407.

Resources.		Liabilities.	
Loans	\$623,400 00	Dues and advance payments ..	\$415,440 00
Arrearages	10,973 15	Earnings	195,949 06
Cash on hand		Overdrafts and bills payable ..	23,755 89
Real estate	7,534 36	Profits unapportioned	4,340 04
Other assets	2,707 48	All other liabilities: deposits	
Street assessments advanced ..		to secure mortgages	5,130 00
.....	\$130 50		
Insurance advanced ..	119 25		
Taxes advanced	2,457 73		
Total resources	\$644,614 99	Total liabilities	\$644,614 99
Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	\$2 98	Paid overdrafts and bills pay-	
Received for dues	76,439 00	able	\$64,723 69
Received for paid-up stock		Loans	31,600 00
Received for premiums	4,530 00	Interest	3,871 53
Received for interest	40,540 30	Dues on surrendered shares	58,154 00
Received for fees and fines	189 75	Profits on surrendered shares ..	29,341 21
Loans repaid	55,900 00	Salaries	2,177 50
Overdrafts and bills payable	23,755 89	Taxes	4,791 84
All other sources: money de-		Other expenses	556 18
posited to secure mortgages ..	5,130 00	All other disbursements	11,271 97
		Real estate	\$8,814 24
		Taxes advanced	2,457 73
		Balance on hand	
Total receipts	\$206,487 92	Total disbursements	\$206,487 92

Authorized capital stock	\$2,000,000 00
No. of shares	10,000
No. of members	298
No. of borrowers	109
No. of mortgage loans for year ..	5
Amount of mortgage loans for year ..	\$31,600 00
No. of foreclosures since organization ..	

Amount due on foreclosres	
No. of shares last report	6,468
No. of shares issued since last report	663
No. of shares canceled since last report	724
Net profits of year	\$40,919 23
Plan of distribution	Wrigley.
No. shares loaned on	3,118
No. shares free	3,289
Ratio of salaries to total receipts	1.05 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	3.64 per cent.
Surrender value of all shares	\$602,355 84
Total present worth of mortgages	340,988 33
Total appraised value of land	375,400 00
Total appraised value of improvements	486,100 00
Total book value of stock hypothecated	282,411 67
Total value of security held	1,143,911 67
Premium	Gross, 15 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issuc.	In Force December, 1892.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	3,604	2,469	1,975	600½	1,374½
Second	371	262	242	241½	½
Third	324	304	285	281	4
Fourth	352	312	300	40	260
Fifth	975	821	803	474	329
Sixth	758	700	685	364½	320½
Seventh	896	878	788	787½	½
Eighth	725	722	666	171	495
Ninth	663		663	158	505

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$119,900 00	\$108 00	\$171 89	\$137 16	\$171 89
Second	48,300 00	96 00	147 49	119 04	147 49
Third	56,200 00	84 00	124 55	101 64	124 55
Fourth	8,000 00	72 00	102 07	84 96	102 07
Fifth	94,800 00	60 00	82 03	69 00	82 03
Sixth	72,900 00	48 00	62 16	53 76	55 79
Seventh	157,500 00	36 00	44 33	39 24	40 16
Eighth	34,200 00	24 00	27 18	25 44	25 59
Ninth	31,600 00	12 00	12 99	12 36	12 50

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Jules Cerf	San Francisco	50	\$200 00
D. J. Murphy	San Francisco	50	200 00
Emil Gunzburger	San Francisco	149	200 00
Herman Levy	San Francisco	135	200 00
Hy. Sinsheimer	San Francisco	30	200 00
Benj. Harris	San Francisco	40	200 00
Mat. Meyer	San Francisco	10	200 00
Max Posner	San Francisco	40	200 00
Simon Newmann	San Francisco	50	200 00

No. 100.—SAN FRANCISCO.

PACIFIC MUTUAL BUILDING AND LOAN ASSOCIATION.

Incorporated August 21, 1891.

JOHN R. HILLMAN, Secretary.

ROLLA V. WATT, President.

No. of series, 4.

End of fiscal year, September 12, 1893.

No. of shares, 1,160.

Resources.		Liabilities.	
Loans.....	\$34,100 00	Dues and advance payments ..	\$22,280 00
Arrearages.....	5 00	Earnings	4,808 43
Cash on hand.....	40 00	Overdrafts and bills payable...	3,472 69
Real estate.....	-----	Profits unapportioned	1,244 64
Other assets: furniture and fix- tures.....	154 60	All other liabilities.....	2,493 84
		Loans incomplete..	\$2,474 34
		Incidentals	19 50
Total resources	\$34,299 60	Total liabilities	\$34,299 60
Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$2,563 75	Paid overdrafts and bills pay- able.....	-----
Received for dues.....	14,175 00	Loans.....	\$23,945 66
Received for paid-up stock.....	-----	Interest.....	221 08
Received for premiums.....	3,555 00	Dues on surrendered shares	2,049 00
Received for interest.....	1,553 62	Profits on surrendered shares...	-----
Received for fees and fines.....	77 05	Salaries.....	587 50
Loans repaid.....	1,600 00	Taxes.....	47 22
Overdrafts and bills payable.....	3,472 69	Other expenses	659 04
All other sources: incidentals ..	552 39	All other disbursements	-----
		Balance on hand.....	40 00
Total receipts.....	\$27,549 50	Total disbursements.....	\$27,549 50

Authorized capital stock.....	\$2,000,000 00
No. of shares.....	10,000
No. of members.....	97
No. of borrowers.....	14
No. of mortgage loans for year	8
Amount of mortgage loans for year	\$23,700 00
No. of foreclosures since organization	-----
Amount due on foreclosures	-----
No. of shares last report.....	897
No. of shares issued since last report	399
No. of shares canceled since last report	136
Net profits of year.....	\$4,033 81
Plan of distribution	Wrigley.
No. shares loaned on	198
No. shares free	962
Ratio of salaries to total receipts	2.13 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	4.69 per cent.
Surrender value of all shares.....	\$23,888 56
Total present worth of mortgages	30,369 04
Total appraised value of land	35,200 00
Total appraised value of improvements	21,300 00
Total book value of stock hypothecated.....	3,730 96
Total value of security held.....	60,230 96
Premium	Gross, 15 per cent.

REPORT OF BUILDING AND LOAN ASSOCIATIONS.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force -----	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....	967	-----	698	74	624
Second.....	200	-----	100	8	92
Third.....	248	-----	211	70	141
Fourth.....	151	-----	151	46	105

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$10,800 00	\$24 00	\$29 45	-----	\$26 72
Second.....	1,600 00	18 00	21 83	-----	18 00
Third.....	12,700 00	12 00	14 26	-----	12 00
Fourth.....	9,000 00	6 00	6 91	-----	6 00

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Rolla V. Watt.....	San Francisco.....	25	\$200 00
Will E. Fisher.....	San Francisco.....	40	200 00
Samuel Martin.....	San Francisco.....	10	200 00
W. S. Mackay.....	San Francisco.....	18	200 00
Charles F. Runyon.....	San Francisco.....	10	200 00
P. S. Teller.....	San Francisco.....	10	200 00
G. W. Hansbrough.....	San Francisco.....	5	200 00
Thomas Hodge.....	San Francisco.....	15	200 00
John R. Hillman.....	San Francisco.....	35	200 00

No. 101.—SAN FRANCISCO.

PROVIDENT MUTUAL LOAN ASSOCIATION.

Incorporated September 20, 1887.

D. HIRSCHFELD, Secretary.

SAM WEIL, President.

No. of series, 6.

End of fiscal year, September 30, 1893.

No. of shares, 2,505.

Resources.		Liabilities.	
Loans.....	\$191,600 00	Dues and advance payments ..	\$118,356 00
Arrearages.....	793 20	Earnings.....	38,072 95
Cash on hand.....	1,143 02	Overdrafts and bills payable...	36,000 00
Real estate.....	-----	Profits unapportioned.....	1,080 00
Other assets.....	733 58	All other liabilities.....	760 85
Total resources.....	\$194,269 80	Total liabilities.....	\$194,269 80

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$650 12	Paid overdrafts and bills payable.....	.....
Received for dues.....	33,435 00	Loans.....	\$43,765 45
Received for paid-up stock.....	.....	Interest.....	2,103 48
Received for premiums.....	6,656 50	Dues on surrendered shares.....	46,600 00
Received for interest.....	13,869 67	Profits on surrendered shares.....	15,010 62
Received for fees and fines.....	84 23	Salaries.....	2,867 50
Loans repaid.....	26,250 00	Taxes.....	1,564 65
Overdrafts and bills payable.....	33,000 00	Other expenses.....	890 80
All other sources.....	.....	All other disbursements.....	.....
		Balance on hand.....	1,143 02
Total receipts.....	\$113,945 52	Total disbursements.....	\$113,945 52

Authorized capital stock.....	\$1,000,000 00
No. of shares.....	5,000
No. of members.....	133
No. of borrowers.....	57
No. of mortgage loans for year.....	9
Amount of mortgage loans for year.....	\$41,500 00
No. of foreclosures since organization.....	.....
Amount due on foreclosures.....	.....
No. of shares last report.....	2,908
No. of shares issued since last report.....	443
No. of shares canceled since last report.....	846
Net profits of year.....	\$11,829 86
Plan of distribution.....	Partnership.
No. shares loaned on.....	961
No. shares free.....	1,544
Ratio of salaries to total receipts.....	2.52 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	4.67 per cent.
Surrender value of all shares.....	\$199,248 00
Total present worth of mortgages.....	142,207 36
Total appraised value of land.....	169,712 00
Total appraised value of improvements.....	121,650 00
Total book value of stock hypothecated.....	49,392 64
Total value of security held.....	340,754 64
Premium.....	Installment, 3 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force Last Report.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....	1,350	1,125	578	111	467
Second.....	1,056	976	797	221	576
Third.....	328	223	195	105	90
Fourth.....	243	173	173	170	3
Fifth.....	456	411	319	151	168
Sixth.....	443	None.	443	203	240

Series.	Amount of Loans, Each Series	Dues Paid Per share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$22,000 00	\$72 00	\$100 98	\$85 14	\$98 00
Second.....	44,200 00	60 00	80 18	69 15	74 00
Third.....	20,900 00	48 00	60 96	53 88	56 00
Fourth.....	31,000 00	36 00	43 31	39 33	40 00
Fifth.....	30,000 00	24 00	27 30	25 50	26 00
Sixth.....	40,500 00	12 00	12 86	12 39	12 50

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Ad. Steinberger	San Francisco	50	\$200 00
Wm. Goldstein	San Francisco	50	200 00
James Ralph	San Francisco	26	200 00
E. Wasserman	San Francisco	10	200 00
F. H. Eichbaum	San Francisco	10	200 00
S. Weil	San Francisco	40	200 00
M. Essberg	San Francisco	30	200 00
D. Hirschfeld	Alameda	44	200 00
N. Steinberger	San Francisco	15	200 00

No. 102.—SAN FRANCISCO.

PRUDENCE BUILDING AND LOAN ASSOCIATION.

Incorporated March 19, 1891.

J. M. ELLIS, Secretary.

E. EMANUEL, Vice-President.

No. of series, 4.

End of fiscal year, March 31, 1894.

No. of shares, 1,562.

Resources.		Liabilities.	
Loans	\$89,950 00	Dues and advance payments	\$51,534 00
Arrearages	365 25	Earnings	13,030 92
Cash on hand	139 50	Overdrafts and bills payable	24,980 27
Real estate	3,006 58	Profits unapportioned	3,326 64
Other assets: furniture and fixtures	48 00	All other liabilities: loans incomplete	637 50
Total resources	\$93,509 33	Total liabilities	\$93,509 33
Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand		Paid overdrafts and bills payable	\$21,169 71
Received for dues	\$18,956 00	Loans	28,362 50
Received for paid-up stock		Interest	1,957 44
Received for premiums	4,836 00	Dues on surrendered shares	1,947 07
Received for interest	5,628 58	Profits on surrendered shares	
Received for fees and fines	97 73	Salaries	1,200 00
Loans repaid	3,800 00	Taxes	411 70
Overdrafts and bills payable	24,980 27	Other expenses	104 08
All other sources		All other disbursements: real estate	3,006 58
Total receipts	\$58,298 58	Balance on hand	139 50
		Total disbursements	\$58,298 58

Authorized capital stock	\$3,000,000 00
No. of shares	15,000
No. of members	96
No. of borrowers	22
No. of mortgage loans for year	6
Amount of mortgage loans for year	\$29,000 00
No. of foreclosures since organization	
Amount due on foreclosures	
No. of shares last report	1,582
No. of shares issued since last report	51

No. of shares canceled since last report.....	71
Net profits of year.....	\$6,479 42
Plan of distribution.....	Wrigley.
No. shares loaned on.....	449¾
No. shares free.....	1,112¼
Ratio of salaries to total receipts.....	2.06 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	2.94 per cent.
Surrender value of all shares.....	\$56,002 86
Total present worth of mortgages.....	73,152 11
Total appraised value of land.....	41,250 00
Total appraised value of improvements.....	69,550 00
Total book value of stock hypothecated.....	16,798 09
Total value of security held.....	127,598 09
Premium.....	Gross, 15 per cent; Installment, 50 cents per share.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force Last Report.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....	1,182	1,171	1,116	211¾	904¼
Second.....	227	227	211	51	160
Third.....	184	184	184	141	43
Fourth.....	51	-----	51	46	5
Totals.....	1,644	1,582	1,562	449¾	1,112¼

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$42,350 00	\$36 00	\$45 32	\$39 24	-----
Second.....	10,200 00	30 00	37 28	32 70	-----
Third.....	28,200 00	24 00	29 29	25 44	-----
Fourth.....	9,200 00	12 00	14 36	12 36	-----
Totals.....	\$89,950 00	-----	-----	-----	-----

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
D. Samuels.....	San Francisco.....	40	\$200 00
E. Emanuel.....	San Francisco.....	25	200 00
B. Hausmann.....	San Francisco.....	20	200 00
P. N. Aronson.....	San Francisco.....	15	200 00
M. Hart.....	San Francisco.....	10	200 00
D. M. Krotoszyner.....	San Francisco.....	50	200 00
Henry Ash.....	San Francisco.....	25	200 00
A. H. Lissak.....	Alameda.....	20	200 00
Samuel Dinkelspiel.....	San Francisco.....	25	200 00

No. 103.—SAN FRANCISCO.

SAN FRANCISCO MUTUAL LOAN ASSOCIATION.

Incorporated October 23, 1882.

A. SBARBORO, Secretary.

T. J. WELSH, President.

No. of series, 10.

End of fiscal year, October 31, 1893.

No. of shares, 4,572.

Resources.		Liabilities.	
Loans.....	\$472,684 18	Dues and advance payments..	\$324,563 00
Arrearages.....	2,878 05	Earnings.....	146,367 87
Cash on hand.....	103 66	Overdrafts and bills payable..	10,000 00
Real estate.....	5,413 98	Profits unapportioned.....	-----
Other assets: furniture and fix- tures.....	200 00	All other liabilities: advance interest.....	349 00
Total resources.....	\$481,279 87	Total liabilities.....	\$481,279 87

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$13,361 07	Paid overdrafts and bills pay- able.....	-----
Received for dues.....	58,808 50	Loans.....	\$64,116 14
Received for paid-up stock.....	-----	Interest.....	849 35
Received for premiums.....	10,453 00	Dues on surrendered shares...	77,693 50
Received for interest.....	29,180 19	Profits on surrendered shares..	41,633 78
Received for fees and fines.....	2,355 73	Salaries.....	3,600 00
Loans repaid.....	74,945 72	Taxes.....	3,957 40
Overdrafts and bills payable.....	10,000 00	Other expenses.....	1,283 89
All other sources: real estate...	2,287 30	All other disbursements.....	8,153 79
		Returned premiums \$2,739 81	
		Real estate.....	5,413 98
		Balance on hand.....	103 66
Total receipts.....	\$201,391 51	Total disbursements.....	\$201,391 51

Authorized capital stock.....	\$1,000,000 00
No. of shares.....	5,000
No. of members.....	430
No. of borrowers.....	255
No. of mortgage loans for year.....	38
Amount of mortgage loans for year.....	\$53,816 14
Number of foreclosures since organization.....	1
Amount due on foreclosures.....	\$5,413 98
Number of shares last report.....	4,861½
Number of shares issued since last report.....	492
Number of shares canceled since last report.....	781½
Net profits of year.....	\$32,298 28
Plan of distribution.....	Wrigley.
No. shares loaned on.....	2,362½
No. shares free.....	2,209½
Ratio of salaries to total receipts.....	1.79 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	4.39 per cent.
Surrender value of all shares.....	\$427,107 34
Total present worth of mortgages.....	265,503 31
Total appraised value of land.....	222,030 00
Total appraised value of improvements.....	391,153 00
Total book value of stock hypothecated.....	207,180 87
Total value of security held.....	820,363 87
Premium.....	Gross, 20 per cent.
Matured series.....	1

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force October 31, 1892.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....	1,320	543	30	-----	30
Second.....	1,065	527	517	171	346
Third.....	1,078½	453	442	97½	344¼
Fourth.....	1,204	668	668	167¼	500¾
Fifth.....	1,132	570½	527	227½	299½
Sixth.....	726	478½	421½	216	205½
Seventh.....	492½	336½	317	250	67
Eighth.....	722	616	552	373¼	178¼
Ninth.....	411½	359½	336	307	29
Tenth.....	312	309½	314½	305½	9
Eleventh.....	482	None.	447	247	200
Totals.....	8,945½	4,861½	4,572	2,362½	2,209½

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	-----	\$125 00	Matured	to \$200 00	each.
Second.....	\$34,200 00	120 00	\$189 85	156 00	\$172 39
Third.....	19,500 00	108 00	166 50	137 16	151 87
Fourth.....	33,450 00	96 00	142 30	119 04	130 72
Fifth.....	45,500 00	84 00	121 22	101 64	111 91
Sixth.....	43,216 29	72 00	100 72	84 96	89 23
Seventh.....	50,000 00	60 00	81 29	69 00	72 77
Elghth.....	74,750 00	48 00	62 56	53 76	55 28
Ninth.....	61,485 89	36 00	44 66	39 24	40 33
Tenth.....	61,182 00	24 00	28 00	25 44	26 00
Eleventh.....	49,400 00	12 00	13 23	12 36	12 61
Totals.....	\$472,684 18	-----	-----	-----	-----

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Thos. J. Welsh.....	San Francisco.....	20	\$200 00
C. A. Malm.....	San Francisco.....	20	200 00
Wm. Wagner.....	Oakland.....	10	200 00
A. Sbarboro.....	San Francisco.....	56½	200 00
Richard Doyle.....	San Francisco.....	10	200 00
G. B. Cevasco.....	San Francisco.....	30	200 00
James Spanton.....	San Francisco.....	5	200 00
A. Merle.....	Oakland.....	10	200 00
J. H. Barry.....	San Francisco.....	10	200 00

No. 104.—SAN FRANCISCO.

SAN FRANCISCO AND OAKLAND MUTUAL LOAN ASSOCIATION.

Incorporated January 3, 1889.

A. SHARBORO, Secretary.

THOMAS J. WELSH, President.

No. of series, 5. End of fiscal year, December 31, 1893. No. of shares, 3,700½.

Resources.		Liabilities.	
Loans.....	\$180,065 82	Dues and advance payments...	\$144,178 00
Arrearages.....	1,620 20	Earnings.....	45,086 81
Cash on hand.....	6,358 51	Overdrafts and bills payable...	.....
Real estate.....	.....	Profits unapportioned*	.....
Other assets.....	1,220 28	All other liabilities.....	.....
Total resources.....	\$189,264 81	Total liabilities.....	\$189,264 81
Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	.....	Paid overdrafts and bills payable.....	\$922 41
Received for dues.....	\$46,524 00	Loans.....	47,346 40
Received for paid-up stock.....	.....	Interest.....	185 10
Received for premiums.....	9,060 00	Dues on surrendered shares.....	13,482 50
Received for interest.....	9,571 90	Profits on surrendered shares..	1,936 17
Received for fees and fines.....	409 65	Salaries.....	2,400 00
Loans repaid.....	10,850 00	Taxes.....	1,375 81
Overdrafts and bills payable.....	.....	Other expenses.....	809 38
All other sources.....	51 00	All other disbursements.....	1,650 27
Total receipts.....	\$76,466 55	Balance on hand.....	6,358 51
		Total disbursements.....	\$76,466 55

* Unearned premium accounted for in the difference between the book and surrender values of shares.

Authorized capital stock.....	\$1,000,000 00
No. of shares.....	5,000
No. of members.....	328
No. of borrowers.....	99
No. of mortgage loans for year.....	29
Amount of mortgage loans for year.....	\$47,346 40
No. of foreclosures since organization.....	.....
Amount due on foreclosures.....	.....
No. of shares last report.....	3,305½
No. of shares issued since last report.....	880
No. of shares canceled since last report.....	485
Net profits of year.....	\$12,033 85
Plan of distribution.....	Wrigley.
No. shares loaned on.....	900
No. shares free.....	2,800½
Ratio of salaries to total receipts.....	3.14 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	6 per cent.
Surrender value of all shares.....	\$168,274 77
Total present worth of mortgages.....	139,312 88
Total appraised value of land.....	93,500 00
Total appraised value of improvements.....	149,500 00
Total book value of stock hypothecated.....	41,929 29
Total value of security held.....	284,929 29
Premium.....	Gross.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force December 31, 1892.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....	2,274½	1,287½	1,192½	140½	1,052
Second.....	1,165	719½	615½	167	448½
Third.....	638	515	480	174	306
Fourth.....	854½	783½	654½	211	443½
Fifth.....	863	None.	758	207½	550½
Totals.....	5,795	3,305½	3,700½	900	2,800½

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$28,115 80	\$60 00	\$81 43	\$69 00	\$72 86
Second.....	33,438 62	48 00	63 46	53 76	55 73
Third.....	34,800 00	36 00	45 65	39 24	40 82
Fourth.....	42,211 40	24 00	29 88	25 44	26 94
Fifth.....	41,500 00	12 00	14 02	12 36	13 01
Totals.....	\$180,065 82				

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
T. J. Welsh.....	San Francisco.....	10	\$200 00
C. A. Malm.....	San Francisco.....	60	200 00
A. Sbarboro.....	San Francisco.....	50	200 00
J. H. Barry.....	San Francisco.....	10	200 00
J. Spanton.....	San Francisco.....	5	200 00
G. B. Cevasco.....	San Francisco.....	10	200 00
R. Doyle.....	San Francisco.....	10	200 00
A. Merle.....	Oakland.....	10	200 00
W. Wagner.....	Oakland.....	10	200 00

No. 105.—SAN FRANCISCO.

SAN FRANCISCO HOME MUTUAL LOAN ASSOCIATION.

Incorporated November 8, 1890.

A. SBARBORO, Secretary.

T. J. WELSH, President.

No. of series, 3.

End of fiscal year, October 31, 1893.

No. of shares, 1,831½.

Resources.		Liabilities.	
Loans.....	\$55,950 00	Dues and advance payments ..	\$48,962 00
Arrearages.....	396 50	Earnings.....	10,816 51
Cash on hand.....		Overdrafts and bills payable...	294 27
Real estate.....	3,726 28	Profits unapportioned.....	
Other assets.....		All other liabilities.....	
Total resources.....	\$60,072 78	Total liabilities.....	\$60,072 78

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....		Paid overdrafts and bills pay- able.....	\$1,346 67
Received for dues.....	\$24,291 00	Loans.....	26,550 00
Received for paid-up stock.....		Interest.....	34 22
Received for premium.....	5,308 00	Dues on surrendered shares.....	5,182 50
Received for interest.....	2,841 60	Profits on surrendered shares.....	482 37
Received for fees and fines.....	249 45	Salaries.....	1,200 00
Loans repaid.....	7,650 00	Taxes.....	194 71
Overdrafts and bills payable.....	294 27	Other expenses.....	618 57
All other sources.....	22 10	All other disbursements.....	5,047 38
		Balance on hand.....	
Total receipts.....	\$40,656 42	Total disbursements.....	\$40,656 42

Authorized capital stock.....	\$1,000,000 00
No. of shares.....	5,000
No. of members.....	146
No. of borrowers.....	32
No. of mortgage loans for year.....	17
Amount of mortgage loans for year.....	\$26,500 00
No. of foreclosures since organization.....	
Amount due on foreclosures.....	
No. of shares last report.....	1,497
No. of shares issued since last report.....	574½
No. of shares canceled since last report.....	240
Net profits of year.....	\$5,216 55
Plan of distribution.....	Wrigley Rule.
No. shares loaned on.....	279¾
No. shares free.....	1,551¾
Ratio of salaries to total receipts.....	2.95 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	5 per cent.
Surrender value of all shares.....	\$81,751 82
Total present worth of mortgages.....	47,669 68
Total appraised value of land.....	25,350 00
Total appraised value of improvements.....	47,650 00
Total book value of stock hypothecated.....	8,751 82
Total value of security held.....	81,751 82
Premium.....	Gross, 20 per cent; Installment, 50 cents per share.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force October 31, 1892.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....	1,308	972½	892½	93½	799
Second.....	678½	524½	409½	53¾	355¾
Third.....	569½	None.	529½	132½	397
Totals.....	2,556	1,497	* 1,831½	279¾	1,551¾

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$18,700 00	\$36 00	\$44 76	\$39 24	\$40 38
Second.....	10,750 00	24 00	28 86	25 44	26 43
Third.....	26,500 00	12 00	13 90	12 36	12 95
Totals.....	\$55,950 00				

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Thos. J. Welsh	San Francisco	10	\$200 00
C. A. Malm	San Francisco	55	200 00
A. Sbarboro	San Francisco	100	200 00
Richard Doyle	San Francisco	10	200 00
G. B. Cevalco	San Francisco	10	200 00
J. Spanton	San Francisco	5	200 00
J. H. Barry	San Francisco	10	200 00
W. Wagner	Oakland	10	200 00
A. Merle	Oakland	10	200 00

No. 106.—SAN FRANCISCO.

SECURITY LOAN ASSOCIATION.

Incorporated April 19, 1888.

LOUIS BLANK, Secretary.

GABRIEL COHN, President.

No. of series, 6.

End of fiscal year, April 30, 1894.

No. of shares, 3,050.

Resources.		Liabilities.	
Loans	\$272,112 10	Dues and advance payments ..	\$168,530 00
Arrearages	9,702 30	Earnings	59,951 31
Cash on hand		Overdrafts and bills payable...	45,663 94
Real estate		Profits unapportioned and re-	
Other assets	1,844 30	serve fund	9,513 45
Furniture and fixtures \$70 00		All other liabilities	
Bills receivable	1,774 30		
Total resources	\$283,658 70	Total liabilities	\$283,658 70

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand		Paid overdrafts and bills pay-	
Received for dues	\$34,258 00	able	\$48,362 26
Received for paid-up stock		Loans	5,227 10
Received for premiums	1,164 00	Interest	4,394 89
Received for interest	14,842 15	Dues on surrendered shares ..	26,723 00
Received for fees and fines	152 35	Profits on surrendered shares..	10,149 74
Loans repaid	5,100 00	Salaries	2,060 00
Overdrafts and bills payable ..	45,663 94	Taxes	1,997 08
All other sources: repayment of		Other expenses	322 60
advances	140 50	All other disbursements	2,084 30
		Returned premiums ..	\$240 00
		Advances to members ..	1,774 30
		Office fixtures	70 00
		Balance on hand	
Total receipts	\$101,320 97	Total disbursements	\$101,320 97

Authorized capital stock	\$2,000,000 00
No. of shares	10,000
No. of members	139
No. of borrowers	56
No. of mortgage loans for year ..	4
Amount of mortgage loans for year ..	\$5,227 10

No. of foreclosures since organization	1
Amount due on foreclosures	\$13,655 00
No. of shares last report	3,182½
No. of shares issued since last report	347
No. of shares canceled since last report	479½
Net profits of year	\$9,915 49
Plan of distribution	Dexter.
No. shares loaned on	1,366
No. shares free	1,690
Ratio of salaries to total receipts	2.03 per cent
Ratio of expenses (including salaries and taxes) to total receipts	4.32 per cent.
Surrender value of all shares	\$225,494 49
Total present worth of mortgages	186,626 61
Total appraised value of land	138,500 00
Total appraised value of improvements	185,500 00
Total book value of stock hypothecated	84,658 39
Total value of security held	408,658 39
Premium	Gross

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force April 30, 1893.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	2,500	2,147	1,741½	432	1,309½
Second	297½	232½	208½	104	104½
Third	295	228	228	227	1
Fourth	216	187	187	187	-----
Fifth	391	388	388	388	-----
Sixth	347	-----	297	22	275

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$85,950 00	\$72 00	\$100 63	\$85 14	\$100 63
Second	20,700 00	60 00	80 55	69 15	80 55
Third	45,285 00	48 00	61 79	53 88	54 89
Fourth	37,400 00	36 00	43 24	39 33	39 62
Fifth	77,600 00	24 00	27 13	25 50	25 56
Sixth	5,177 10	12 00	12 32	12 39	12 16

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Gabriel Cohn	San Francisco	65	\$200 00
Joseph Weil	San Francisco	25	200 00
Gustave Brenner	San Francisco	35	200 00
Louis Landler*	San Francisco	30	200 00
Manheim Marks*	San Francisco	65	200 00
Aaron Lipman	San Francisco	20	200 00
Nathan Crocker	San Francisco	18	200 00
Max Walter	San Francisco	40	200 00
S. O. Alexander	San Francisco	25	200 00

*Certificates canceled.

No. 107.—SAN FRANCISCO.

TRIUMPH LOAN ASSOCIATION.

Incorporated January 30, 1891.

JOHN BRUCKMAN, Secretary.

E. T. B. MILLS, President.

No. of series, 6.

End of fiscal year, January 31, 1894.

No. of shares, 2,036.

Resources.		Liabilities.	
Loans.....	\$73,000 00	Dues and advance payments....	\$53,947 00
Arrearages.....	567 80	Earnings.....	5,947 40
Cash on hand.....	-----	Overdrafts and bills payable....	13,484 54
Real estate.....	466 80	Profits unapportioned.....	927 66
Other assets.....	272 00	All other liabilities.....	-----
Furniture and fixtures.....	\$250 00		
Taxes advanced.....	22 00		
Total resources.....	\$74,306 60	Total liabilities.....	\$74,306 60
Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	-----	Paid overdrafts and bills pay- able.....	\$8,178 91
Received for dues.....	\$25,855 00	Loans.....	34,137 60
Received for paid-up stock.....	-----	Interest.....	856 33
Received for premiums.....	2,893 65	Dues on surrendered shares.....	6,790 00
Received for interest.....	4,438 40	Profits on surrendered shares....	280 70
Received for fees and fines.....	301 85	Salaries.....	1,405 00
Loans repaid.....	7,800 00	Taxes.....	251 35
Overdrafts and bills payable....	13,484 54	Other expenses.....	150 60
All other sources.....	7,010 05	All other disbursements.....	9,732 95
Security committee.....	\$20 00	Real estate.....	\$9,701 95
Real estate.....	6,990 05	Insurance and taxes advanced.....	31 00
		Balance on hand.....	-----
Total receipts.....	\$61,783 49	Total disbursements.....	\$61,783 49

Authorized capital stock.....	\$3,000,000 00
No. of shares.....	15,000
No. of members.....	138
No. of borrowers.....	23
No. of mortgage loans for year.....	21
Amount of mortgage loans for year.....	\$32,637 60
Amount of stock loans for year.....	1,500 00
No. of foreclosures since organization.....	-----
Amount due on foreclosures.....	-----
No. of shares last report.....	1,812
No. of shares issued since last report.....	543
No. of shares canceled since last report.....	319
Net profits of year.....	\$6,875 06
Plan of distribution.....	Partnership.
No. shares loaned on.....	416
No. shares free.....	1,620
Ratio of salaries to total receipts.....	2.27 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	2.92 per cent.
Surrender value of all shares.....	\$57,896 40
Total present worth of mortgages.....	59,530 40
Total appraised value of land.....	52,544 00
Total appraised value of improvements.....	50,910 00
Total book value of stock hypothecated.....	9,609 35
Total value of security held.....	113,063 35
Premiums.....	Gross, 15 per cent; Installment, 3 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force -----	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	1,055	-----	860	75	785
Second	275	-----	220	40	180
Third	397	-----	377	97	280
Fourth	115	-----	110	70	40
Fifth	425	-----	376	81	225
Sixth	93	-----	93	53	40
Totals	2,360	-----	2,036	416	1,620

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$14,800 00	\$36 00	\$40 72	\$39 30	-----
Second	3,500 00	30 00	33 29	32 30	-----
Third	10,400 00	24 00	26 15	25 50	-----
Fourth	14,000 00	18 00	19 21	18 80	-----
Fifth	20,300 00	12 00	12 55	12 35	-----
Sixth	10,000 00	6 00	6 15	6 10	-----
Totals	\$73,000 00	-----	-----	-----	-----

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
E. T. B. Mills	San Francisco	10	\$200 00
A. Steinberger	San Francisco	25	200 00
S. L. Liszynsky	San Francisco	10	200 00
J. Hausmeister	San Francisco	25	200 00
H. Epstein	San Francisco	20	200 00
C. Liderer	San Francisco	10	200 00
N. Steinberger	San Francisco	25	200 00
H. Waldick	San Francisco	20	200 00
L. Newman	San Francisco	20	200 00

No. 108.—SAN FRANCISCO.

UNION LOAN ASSOCIATION.

Incorporated May 6, 1881.

L. L. DENNERY, Secretary.

ISAAC UPHAM, President.

No. of series, 10.

End of fiscal year, May 7, 1894.

No. of shares, 2,399.

Resources.	Liabilities.
Loans	Dues and advance payments...
Arrearages	Earnings
Cash on hand	Overdrafts and bills payable...
Real estate	Profits unapportioned
Other assets: insurance advanced	All other liabilities
Total resources	Total liabilities

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....		Paid overdrafts and bills payable.....	\$38,008 76
Received for dues.....	\$28,652 00	Loans.....	7,351 27
Received for paid-up stock.....		Interest.....	3,124 18
Received for premiums.....	1,020 00	Dues on surrendered shares.....	60,210 00
Received for interest.....	18,028 90	Profits on surrendered shares.....	29,797 70
Received for fees and fines.....	244 65	Salaries.....	2,365 00
Loans repaid.....	47,550 00	Taxes.....	2,722 46
Overdrafts and bills payable.....	48,370 66	Other expenses.....	581 84
All other sources: rent.....	330 00	All other disbursements: insurance advanced.....	35 00
		Balance on hand.....	
Total receipts.....	\$144,196 21	Total disbursements.....	\$144,196 21

Authorized capital stock.....	\$1,000,000 00
No. of shares.....	5,000
No. of members.....	167
No. of borrowers.....	95
No. of mortgage loans for year.....	2
Amount of mortgage loans for year.....	\$6,800 00
No. of foreclosures since organization.....	1
Amount due on foreclosures.....	\$7,450 15
No. of shares last report.....	2,726
No. of shares issued since last report.....	64
No. of shares canceled since last report.....	391
Net profits of year.....	\$10,500 08
Plan of distribution.....	Wrigley.
No. shares loaned on.....	1,354 ¹ / ₄
No. shares free.....	1,044 ³ / ₄
Ratio of salaries to total receipts.....	1.64 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	3.93 per cent.
Surrender value of all shares.....	\$217,544 08
Total present worth of mortgages.....	136,243 65
Total appraised value of land.....	265,100 00
Total appraised value of improvements.....	362,700 00
Total book value of stock hypothecated.....	136,957 62
Total value of security held.....	764,757 62
Premium.....	Gross, 15 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force May, 1893.	Now in Force.	Shares Loaned Upon.	Shares "Free."
Fourth.....	333	156	136	120 ¹ / ₂	15 ¹ / ₂
Fifth.....	597	287	227	112	115
Sixth.....	1,031	511	441	262 ³ / ₄	178 ¹ / ₄
Seventh.....	554	395	337	169 ¹ / ₂	167 ¹ / ₂
Eighth.....	584	456	373	162	211
Ninth.....	381	341	341	279 ¹ / ₂	61 ¹ / ₂
Tenth.....	396	303	263	128	135
Eleventh.....	354	261	201	100	101
Twelfth.....	36	16	16	6	10
Thirteenth.....	64		64	14	50

MEMORANDA OF SERIES, LOANS, ETC.—Continued.

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
Fourth	\$24,100 00	\$120 00	\$187 99	\$156 00	-----
Fifth	22,400 00	108 00	161 29	137 16	-----
Sixth	52,550 00	96 00	136 54	119 04	-----
Seventh	33,900 00	84 00	111 89	101 64	-----
Eighth	32,400 00	72 00	89 76	84 96	-----
Ninth	55,900 00	60 00	70 27	69 00	-----
Tenth	25,600 00	48 00	53 52	53 76	-----
Eleventh	20,000 00	36 00	38 55	39 24	-----
Twelfth	1,200 00	24 00	25 04	25 44	-----
Thirteenth	2,800 00	12 00	12 30	12 36	-----

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Isaac Upham	Oakland	25	\$200 00
R. F. Osborn	San Francisco	10	200 00
R. Chartrey	San Francisco	22	200 00
J. T. Dunn	San Francisco	20	200 00
George Easton	Los Angeles	5	200 00
J. W. Anderson	Sacramento	50	200 00
M. Meyer	San Francisco	35	200 00
Hy. Wadsworth	Oakland	5	200 00
E. H. Rixford	San Francisco	10	200 00

No. 109.—SAN FRANCISCO.

WEST SHORE MUTUAL LOAN ASSOCIATION.

Incorporated August 4, 1890.

D. HIRSCHFELD, Secretary.

HERMAN ZADIG, President.

No. of series, 5.

End of fiscal year, August 25, 1893.

No. of shares, 1,138.

Resources.		Liabilities.	
Loans	\$34,520 00	Dues and advance payments ..	\$31,415 00
Arrearages	168 05	Earnings	4,313 24
Cash on hand	134 69	Overdrafts and bills payable ..	6,500 00
Real estate	7,227 30	Profits unapportioned	196 80
Other assets	400 00	All other liabilities	25 00
Total resources	\$42,450 04	Total liabilities	\$42,450 04

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$670 12	Paid overdrafts and bills payable.....	\$9,500 00
Received for dues.....	14,667 00	Loans.....	14,213 55
Received for paid-up stock.....	-----	Interest.....	635 50
Received for premiums.....	1,212 10	Dues on surrendered shares.....	4,252 00
Received for interest.....	2,147 75	Profits on surrendered shares.....	193 20
Received for fees and fines.....	48 80	Salaries.....	600 00
Loans repaid.....	6,800 00	Taxes.....	317 33
Overdrafts and bills payable.....	11,000 00	Other expenses.....	149 60
All other sources.....	1,299 60	All other disbursements.....	7,849 50
		Balance on hand.....	134 69
Total receipts.....	\$37,845 37	Total disbursements.....	\$37,845 37

Authorized capital stock.....	\$3,000,000 00
No. of shares.....	15,000
No. of members.....	63
No. of borrowers.....	13
No. of mortgage loans for year.....	6
Amount of mortgage loans for year.....	\$13,600 00
No. of foreclosures since organization.....	-----
Amount due on foreclosures.....	-----
No. of shares last report.....	1,081
No. of shares issued since last report.....	307
No. of shares canceled since last report.....	250
Net profits of year.....	\$1,809 27
Plan of distribution.....	Partnership.
No. shares loaned on.....	173
No. shares free.....	965
Ratio of salaries to total receipts.....	1.59 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	2.82 per cent.
Surrender value of all shares.....	\$33,875 80
Total present worth of mortgages.....	29,239 77
Total appraised value of land.....	22,450 00
Total appraised value of improvements.....	26,950 00
Total book value of stock hypothecated.....	5,180 23
Total value of security held.....	54,580 23
Premium.....	Installment, 3 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force Last Report.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....	850	650	565	47	518
Second.....	106	81	60	60	None.
Third.....	265	225	166	16	150
Fourth.....	125	125	100	3	97
Fifth.....	307	-----	247	47	200

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$9,320	\$36 00	\$41 71	\$39 33	\$39 30
Second.....	12,000	31 00	35 25	33 48	33 45
Third.....	3,200	26 00	29 01	27 76	27 75
Fourth.....	600	19 00	20 63	19 95	19 95
Fifth.....	9,400	12 00	12 66	12 39	12 40

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
H. Zadig	San Francisco	50	\$200 00
R. S. Wheeler	San Francisco	20	200 00
B. Hallgarten	San Francisco	25	200 00
L. Ulfelder	San Francisco	50	200 00
W. G. Doane	San Francisco	10	200 00
Henry Kohn	San Francisco	10	200 00
F. J. Eppstein	San Francisco	25	200 00
L. S. Haas	San Francisco	10	200 00
E. K. Chapman	San Francisco	50	200 00

No. 110.—SAN FRANCISCO.

WESTERN LOAN ASSOCIATION.

Incorporated November 12, 1886.

L. L. DENNERY, Secretary.

D. SAMUELS, President.

No. of series, 7.

End of fiscal year, November 19, 1893.

No. of shares, 3,443.

Resources.		Liabilities.	
Loans	\$255,335 00	Dues and advance payments ..	\$189,696 00
Arrearages	5,663 50	Earnings	67,363 35
Cash on hand		Overdrafts and bills payable ..	13,860 21
Real estate	11,200 00	Profits unapportioned	461 99
Other assets	136 40	All other liabilities	953 35
Insurance advanced ..	\$72 00	Due Secretary	\$153 35
Street assessment ad- vanced	64 40	Deposit	800 00
Total resources	\$272,334 90	Total liabilities	\$272,334 90

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand		Paid overdrafts and bills pay- able	\$38,377 22
Received for dues	\$43,117 00	Loans	9,100 00
Received for paid-up stock		Interest	2,079 76
Received for premiums	7,820 90	Dues on surrendered shares	42,260 00
Received for interest	17,961 70	Profits on surrendered shares ..	14,742 65
Received for fees and fines	600 95	Salaries	2,462 50
Loans repaid	29,400 00	Taxes	2,434 22
Overdrafts and bills payable	13,860 21	Other expenses	578 65
All other sources	10,311 45	All other disbursements	11,037 21
Loans foreclosed	\$5,800 00	Real estate	\$10,972 81
Mortgage acquired ..	2,400 00	Street assessment advanced	64 40
Deposits	1,500 00	Balance on hand	
Rents	458 10		
From Secretary	153 35		
Total receipts	\$123,072 21	Total disbursements	\$123,072 21

Authorized capital stock	\$1,000,000 00
No. of shares	5,000
No. of members	249
No. of borrowers	99
No. of mortgage loans for year	4
Amount of mortgage loans for year	\$9,100 00

No. of foreclosures since organization.....	2
Amount due on foreclosures.....	\$5,700 00
No. of shares last report.....	3,418
No. of shares issued since last report.....	335
No. of shares canceled since last report.....	310
Net profits of year.....	\$17,786 02
Plan of distribution.....	Partnership.
No. shares loaned on.....	1,275
No. shares free.....	2,168
Ratio of salaries to total receipts.....	2 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	4.45 per cent.
Surrender value of all shares.....	\$255,408 04
Total present worth of mortgages.....	165,081 47
Total appraised value of land.....	174,160 60
Total appraised value of improvements.....	273,300 00
Total book value of stock hypothecated.....	90,253 53
Total value of security held.....	537,653 53
Premium.....	Installment, 3 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force November, 1892.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....	2,280	1,697	1,256	374	882
Second.....	399	249	214	69 $\frac{3}{4}$	144 $\frac{1}{4}$
Third.....	437	364	306	100	206
Fourth.....	542	451	408	182 $\frac{1}{4}$	225 $\frac{3}{4}$
Fifth.....	487	397	337	217	170
Sixth.....	681	656	537	287	250
Seventh.....	335		335	45	290

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$74,800 00	\$84 00	\$120 81	\$101 64	\$120 81
Second.....	13,950 00	72 00	99 10	84 96	99 10
Third.....	20,000 00	60 00	78 87	69 00	78 87
Fourth.....	36,450 00	48 00	60 13	53 76	57 10
Fifth.....	43,400 00	36 00	42 88	39 24	40 13
Sixth.....	57,400 00	24 00	27 11	25 44	25 55
Seventh.....	9,000 00	12 00	12 82	12 36	12 41

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
D. Samuels.....	San Francisco.....	85	\$200 00
J. H. Jellett.....	San Francisco.....	50	200 00
W. B. Allen.....	San Francisco.....	10	200 00
M. J. Blackman.....	San Francisco.....	25	200 00
C. C. Terrill.....	San Francisco.....	55	200 00
Chas. W. Decker.....	San Francisco.....	40	200 00
Isidor Aseh.....	San Francisco.....	33	200 00
S. Hausman.....	San Francisco.....	75	200 00
M. Meyer.....	San Francisco.....	75	200 00

No. 111.—SAN FRANCISCO.

YERBA BUENA MUTUAL BUILDING AND LOAN ASSOCIATION.

Incorporated May 2, 1891.

LOUIS BLANK, Secretary.

LOUIS LANDLER, President.

No. of series, 4.

End of fiscal year, June 30, 1893.

No. of shares, 1,825½.

Resources.		Liabilities.	
Loans.....	\$92,900 00	Dues and advance payments ..	\$33,000 00
Arrearages.....	1,459 50	Earnings	8,420 90
Cash on hand.....		Overdrafts and bills payable....	46,279 45
Real estate.....		Profits unapportioned	6,659 15
Other assets		All other liabilities	
Total resources	\$94,359 50	Total liabilities	\$94,359 50
Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand		Paid overdrafts and bills payable	\$15,703 98
Received for dues.....	\$20,081 00	Loans	64,600 00
Received for paid-up stock.....		Interest	2,587 35
Received for premiums	9,768 00	Dues on surrendered shares	2,764 00
Received for interest.....	4,412 80	Profits on surrendered shares....	213 09
Received for fees and fines	92 80	Salaries	900 00
Loans repaid	7,200 00	Taxes	131 08
Overdrafts and bills payable....	46,279 45	Other expenses	130 55
All other sources	60 00	All other disbursements	864 00
		Balance on hand	
Total receipts.....	\$87,894 05	Total disbursements.....	\$87,894 05

Authorized capital stock	\$2,000,000 00
No. of shares	10,000
No. of members	109
No. of borrowers	23
No. of mortgage loans for year	14
Amount of mortgage loans for year	\$64,600 00
No. of foreclosures since organization	
Amount due on foreclosures	
No. of shares last report	1,393½
No. of shares issued since last report	633
No. of shares canceled since last report	206
Net profits of year	\$5,498 08
Plan of distribution	Partnership.
No. shares loaned on	434½
No. shares free	1,391
Ratio of salaries to total receipts	1.02 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	1.32 per cent.
Surrender value of all shares	\$36,985 33
Total present worth of mortgages	86,018 18
Total appraised value of land	52,700 00
Total appraised value of improvements	53,600 00
Total book value of stock hypothecated	6,881 82
Total value of security held	113,181 82
Premium	Gross, 15 per cent, and Installment.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force June, 1892.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....	1,096 ¹ / ₂	1,086 ¹ / ₂	923 ¹ / ₂	72 ¹ / ₂	851
Second.....	317	307	264	69	195
Third.....	376	-----	376	131	245
Fourth.....	292	-----	262	162	100

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$14,500 00	\$24 00	\$30 13	\$25 44	\$27 06
Second.....	13,800 00	18 00	23 26	18 81	20 36
Third.....	26,200 00	12 00	14 95	12 36	13 18
Fourth.....	38,400 00	6 00	7 00	6 09	6 35

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Louis Landler.....	San Francisco.....	165	\$200 00
John A. Hammersmith.....	San Francisco.....	10	200 00
Behrend Joost.....	San Francisco.....	25	200 00
Gabriel Cohn.....	San Francisco.....	10	200 00
John Richards.....	San Francisco.....	38	200 00

No. 112.—SAN JOSÉ.

MUTUAL BUILDING AND LOAN ASSOCIATION OF SAN JOSÉ AND COLLEGE PARK.

Incorporated March 12, 1889.

E. F. JORDAN, Secretary.

JAMES BEAN, President.

No. of series, 7.

End of fiscal year, September 30, 1893.

No. of shares, 1,641.

Resources.		Liabilities.	
Loans.....	\$89,000 00	Dues and advance payments ..	\$48,629 00
Arrearages.....	1,457 80	Earnings.....	14,941 45
Cash on hand.....	-----	Overdrafts and bills payable.....	8,998 57
Real estate.....	2,300 95	Profits unapportioned.....	13,325 08
Other assets: sundry debtors.....	27 90	All other liabilities.....	6,892 55
		Loans incomplete.....	\$6,385 90
		Taxes due.....	427 60
		Salary due.....	35 00
		Interest on over-draft.....	44 05
Total resources.....	\$92,786 65	Total liabilities.....	\$92,786 65

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand		Paid overdrafts and bills payable	\$11,003 66
Received for dues	\$20,258 00	Loans	19,024 70
Received for paid-up stock		Interest	564 92
Received for premiums	6,522 00	Dues on surrendered shares	7,877 00
Received for interest	4,119 00	Profits on surrendered shares	502 20
Received for fees and fines	182 40	Salaries	420 00
Loans repaid		Taxes	512 85
Overdrafts and bills payable	8,908 57	Other expenses	101 84
All other sources		All other disbursements: returned premiums	72 80
		Balance on hand	
Total receipts	\$40,079 97	Total disbursements	\$40,079 97

Authorized capital stock	\$1,000,000 00
No. of shares	5,000
No. of members	160
No. of borrowers	38
No. of mortgage loans for year	9
Amount of mortgage loans for year	\$25,400 00
No. of foreclosures since organization	
Amount due on foreclosures	
No. of shares last report	1,566
No. of shares issued since last report	485
No. of shares canceled since last report	410
Net profits of year	\$5,183 66
Plan of distribution	Dexter.
No. shares loaned on	444
No. shares free	1,197
Ratio of salaries to total receipts	1.05 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	3.58 per cent.
Surrender value of all shares	\$53,545 63
Total present worth of mortgages	72,811 16
Total appraised value of land	40,000 00
Total appraised value of improvements	63,239 00
Total book value of stock hypothecated	15,988 84
Total value of security held	119,227 84
Premium	Gross, average, 26 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	981		472	99	373
Second	276		74	19	55
Third	450		137	76	61
Fourth	333		401	71	330
Fifth	241		125	75	50
Sixth	213		161	15	143
Seventh	272		271	89	182

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$19,800 00	\$54 00	\$77 12	\$61 29	\$62 50
Second	3,800 00	42 00	55 32	46 41	46 41
Third	15,200 00	30 00	36 55	32 25	32 25
Fourth	14,200 00	24 00	28 08	25 44	25 44
Fifth	15,000 00	18 00	20 23	18 81	18 81
Sixth	3,000 00	12 00	12 98	12 36	12 36
Seventh	17,800 00	6 00	6 27	6 09	6 09

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
James Bean	San José	10	\$200 00
Geo. N. Jones	College Park	16	200 00
H. W. Stephens	San José	10	200 00
A. L. Kellogg	Santa Clara	20	200 00
W. F. Hyde	San José	20	200 00
J. M. Nelson	College Park	2	200 00
Chas. B. Wing	Palo Alto	25	200 00
J. P. Hall	San José	21	200 00
Chas. E. Cox	College Park	25	200 00

No. 113.—SAN JOSÉ.

NUCLEUS BUILDING AND LOAN ASSOCIATION.

Incorporated March 28, 1889.

W. G. HAWLEY, Secretary.

R. E. PIERCE, President.

No. of series, 9.

End of fiscal year, April 1, 1894.

No. of shares, 1,494.

Resources.		Liabilities.	
Loans	\$92,800 00	Dues and advance payments ..	\$61,530 00
Arrearages	2,379 50	Earnings	20,946 03
Cash on hand		Overdrafts and bills payable...	1,649 37
Real estate		Profits unapportioned	11,322 95
Other assets	546 60	All other liabilities: advance interest	277 75
Furniture and fixtures \$500 00			
Insurance advanced, etc.	46 60		
Total resources	\$95,726 10	Total liabilities	\$95,726 10

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand		Paid overdrafts and bills payable	\$213 74
Received for dues	\$19,184 00	Loans	15,704 05
Received for paid-up stock	3,487 50	Interest	28 46
Received for premiums	6,097 25	Dues on surrendered shares	17,615 00
Received for fees and fines	562 10	Profits on surrendered shares ..	1,869 84
Loans repaid	9,000 00	Salaries	1,780 00
Overdrafts and bills payable	1,649 37	Taxes	869 58
All other sources: members' accounts	333 85	Other expenses	211 70
		All other disbursements	2,021 70
		Returned premiums	\$927 50
		Members' accounts	1,064 20
		Balance on hand	
Total receipts	\$40,314 07	Total disbursements	\$40,314 07

Authorized capital stock	\$2,000,000 00
No. of shares	10,000
No. of members	140
No. of borrowers	45
No. of mortgage loans for year	6
Amount of mortgage loans for year	\$14,000 00

No. 114.—SAN JOSÉ.

SAN JOSÉ BUILDING AND LOAN ASSOCIATION.

Incorporated January 30, 1885.

FRANK V. WRIGHT, Secretary.

K. H. PLATE, President.

No. of series, 9. End of fiscal year, January 31, 1894. No. of shares, 6,192.

Resources.		Liabilities.	
Loans.....	\$602,203 50	Dues and advance payments...	\$370,211 00
Arrearages.....	2,465 37	Earnings.....	125,854 29
Cash on hand.....	4,002 00	Overdrafts and bills payable.....	23,893 93
Real estate.....	.....	Profits unapportioned.....	89,373 12
Other assets: furniture and fixtures.....	340 00	All other liabilities.....	678 53
		Advance payments, interest.....	\$35 00
		Loans incomplete.....	434 35
		Sundry accounts.....	209 18
Total resources.....	\$609,010 87	Total liabilities.....	\$609,010 87

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$1,113 66	Paid overdrafts and bills payable.....	.....
Received for dues.....	78,156 00	Loans.....	\$76,316 84
Received for paid-up stock.....	.....	Interest.....	1,851 83
Received for premiums.....	13,922 40	Dues on surrendered shares.....	67,476 00
Received for interest.....	35,639 40	Profits on surrendered shares.....	23,480 56
Received for fees and fines.....	838 79	Salaries.....	2,500 00
Loans repaid.....	32,034 35	Taxes.....	8,726 19
Overdrafts and bills payable.....	22,893 93	Other expenses.....	1,513 00
Other sources.....	8,896 40	All other disbursements.....	7,628 51
Real estate.....	\$8,435 00	Returned premiums.....	\$5,024 64
Rents.....	130 90	Real estate.....	2,035 00
Furniture and fixtures.....	60 00	Sundry accounts.....	568 87
Premium on shares.....	270 50	Balance on hand.....	4,002 00
Total receipts.....	\$193,494 93	Total disbursements.....	\$193,494 93

Authorized capital stock.....	\$1,500,000 00
No. of shares.....	7,500
No. of members.....	530
No. of borrowers.....	259
No. of mortgage loans for year.....	33
Amount of mortgage loans for year.....	\$70,600 00
No. of foreclosures since organization.....	3
Amount due on foreclosures.....	.....
No. of shares last report.....	6,083
No. of shares issued since last report.....	938
No. of shares canceled since last report.....	829
Net profits of year.....	\$34,266 06
Plan of distribution.....	Dexter.
No. shares loaned on.....	3,004 ½
No. shares free.....	3,187 ½
Ratio of salaries to total receipts.....	1.29 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	6.55 per cent.
Surrender value of all shares.....	\$482,756 15
Total present worth of mortgages.....	362,935 50
Total appraised value of land.....	371,160 00
Total appraised value of improvements.....	436,735 00
Total book value of stock hypothecated.....	230,288 00
Total value of security held.....	1,047,463 00
Premium.....	Gross, 23 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Date of Issue.	In Force Feb. 2, 1893.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....	1885	1,599	1,185	471¼	713¾
Second.....	1886	653	535	239	296
Third.....	1887	574	496	242	254
Fourth.....	1888	712	661	387	274
Fifth.....	1889	300	284	283	1
Sixth.....	1890	627	554	251	303
Seventh.....	1891	887	808	460¾	347¼
Eighth.....	1892	731	731	427½	303½
Ninth.....	1893	-----	938	243	695
Totals.....	-----	6,083	6,192	3,004½	3,187½

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$94,250 00	\$108 00	\$160 17	\$137 16	\$156 00
Second.....	47,800 00	96 00	135 19	119 04	132 00
Third.....	48,400 00	84 00	112 87	101 64	110 00
Fourth.....	77,400 00	72 00	92 69	84 96	90 00
Fifth.....	56,600 00	60 00	74 41	69 00	72 00
Sixth.....	50,200 00	48 00	56 91	53 76	55 50
Seventh.....	92,150 00	36 00	40 84	39 24	39 50
Eighth.....	85,500 00	24 00	26 12	25 44	25 35
Ninth.....	48,600 00	12 00	12 62	12 36	12 35
Totals.....	\$600,900 00	-----	-----	-----	-----

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Thos. E. Johnson.....	San José.....	10	\$200 00
K. H. Plate.....	San José.....	17	200 00
John T. McGeoghegan.....	San José.....	10	200 00
S. N. Johnston.....	San José.....	20	200 00
A. Friant.....	San José.....	15	200 00
A. S. Mangrum.....	San José.....	10	200 00
J. M. Pitman.....	San José.....	24	200 00

No. 115.—SAN LUIS OBISPO.

SAN LUIS BUILDING AND LOAN ASSOCIATION.

Incorporated March 1, 1888.

M. LEWIN, Secretary.

BENJ. BROOKS, President.

No. of series, 4.

End of fiscal year, March 1, 1894.

No. of shares, 1,334.

Resources.		Liabilities.	
Loans.....	\$67,025 00	Dues and advance payments.....	\$51,146 00
Arrearages.....	33 60	Earnings.....	16,123 86
Cash on hand.....	329 86	Overdrafts and bills payable.....	-----
Real estate.....	-----	Profits unapportioned.....	38 60
Other assets.....	-----	All other liabilities: loans in- complete.....	85 00
Total resources.....	\$67,393 46	Total liabilities.....	\$67,393 46

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$3,214 18	Paid overdrafts and bills pay- able.....	-----
Received for dues.....	16,681 00	Loans.....	\$24,089 98
Received for paid-up stock.....	-----	Interest.....	-----
Received for premiums.....	4,156 64	Dues on surrendered shares.....	2,037 00
Received for interest.....	4,125 34	Profits on surrendered shares..	377 76
Received for fees and fines.....	217 37	Salaries.....	740 20
Loans repaid.....	254 34	Taxes.....	705 09
Overdrafts and bills payable.....	-----	Other expenses.....	371 98
All other sources.....	3 00	All other disbursements.....	-----
Total receipts.....	\$28,651 87	Balance on hand.....	329 86
		Total disbursements.....	\$28,651 87

Authorized capital stock.....	\$1,000,000 00
No. of shares.....	5,000
No. of members.....	200
No. of borrowers.....	53
No. of mortgage loans for year.....	21
Amount of mortgage loans for year.....	\$24,175 00
No. of foreclosures since organization.....	-----
Amount due on foreclosures.....	-----
No. of shares last report.....	1,383
No. of shares issued since last report.....	11
No. of shares canceled since last report.....	60
Net profits of year.....	\$8,499 35
Plan of distribution.....	Each series a separate association.
No. shares loaned on.....	375
No. shares free.....	959
Ratio of salaries to total receipts.....	2.58 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	6.34 per cent.
Surrender value of all shares.....	\$60,189 74
Total present worth of mortgages.....	41,117 76
Total appraised value of land.....	49,700 00
Total appraised value of improvements.....	56,665 00
Total book value of stock hypothecated.....	25,907 24
Total value of security held.....	132,272 24
Premium.....	Gross and Installment.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force -----	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....	440	440	268	112	156
Second.....	206	206	169	71	98
Third.....	519	519	520	120	400
Fourth.....	349	349	377	72	305

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$22,100 00	\$72 00	\$104 01	\$84 96	\$91 26
First*.....	5,700 00				
Second.....	12,350 00	56 00	77 47	63 83	66 81
Second*.....	685 00				
Third.....	20,600 00	30 00	36 31	32 25	33 22
Fourth.....	11,975 00	18 00	19 63	18 81	19 01

* Loaned to other series.

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Benj. Brooks, President.....	San Luis Obispo.....	26	\$200 00
Charles O. King, Vice-President...	San Luis Obispo.....	10	200 00
M. Lewin, Secretary.....	San Luis Obispo.....	19	200 00
E. P. Unaugst, Attorney.....	San Luis Obispo.....	15	200 00
A. W. Steinhart.....	San Luis Obispo.....	15	200 00
Ed. Vollmer.....	San Luis Obispo.....	8	200 00
F. W. Vetterline.....	San Luis Obispo.....	10	200 00
Wm. Sandercock.....	San Luis Obispo.....	16	200 00
J. W. Smith.....	San Luis Obispo.....	5	200 00

No. 116.—SAN RAFAEL.

MARIN COUNTY MUTUAL BUILDING AND LOAN ASSOCIATION.

Incorporated July 19, 1886.

L. A. LANCEL, Secretary.

H. P. Wood, President.

No. of series, 7.

End of Fiscal year, July 31, 1893.

No. of shares, 2,001.

Resources.		Liabilities.	
Loans.....	\$122,400 00	Dues and advance payments ..	\$84,312 00
Arrearages.....	143 55	Earnings.....	26,600 00
Cash on hand.....		Overdrafts and bills payable ..	9,989 79
Real estate.....		Profits unapportioned.....	
Other assets: books, etc.....	27 03	All other liabilities.....	1,663 84
		Loans incomplete.....	\$835 00
		Accrued taxes.....	833 84
Total resources.....	\$122,570 63	Total liabilities.....	\$122,570 63

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....		Paid overdrafts and bills pay- able.....	\$746 33
Received for dues.....	\$25,488 00	Loans.....	26,166 50
Received for paid-up stock.....		Interest.....	538 68
Received for premiums.....	3,615 75	Dues on surrendered shares.....	15,871 00
Received for interest.....	7,959 50	Profits on surrendered shares.....	3,039 04
Received for fees and lines.....	249 00	Salaries.....	600 00
Loans repaid.....	1,200 00	Taxes.....	1,468 97
Overdrafts and bills payable.....	9,989 79	Other expenses.....	93 12
All other sources.....	21 60	All other disbursements.....	
		Balance on hand.....	
Total receipts.....	\$48,523 64	Total disbursements.....	\$48,523 64

Authorized capital stock.....	\$1,000,000 00
No. of shares.....	5,000
No. of members.....	171
No. of borrowers.....	58
No. of mortgage loans for year.....	15
Amount of mortgage loans.....	\$26,166 50
No. of foreclosures since organization.....	
Amount due on foreclosures.....	
No. of shares last report.....	1,895
No. of shares issued since last report.....	498
No. of shares canceled since last report.....	392
Net profits of year.....	\$10,627 52
Plan of distribution.....	Dexter.
No. shares loaned on.....	613
No. shares free.....	1,388
Ratio of salaries to total receipts.....	1.24 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	4.46 per cent.
Surrender value of all shares.....	\$101,329 62
Total present worth of mortgages.....	81,377 40
Total appraised value of land.....	55,050 00
Total appraised value of improvements.....	30,150 00
Total book value of stock hypothecated.....	41,022 60
Total value of security held.....	126,222 60
Premium.....	Installation, 3 per cent per annum.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force Aug. 1, 1893.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....	730	383	283	90	193
Second.....	315	162	120	105	15
Third.....	380	254	239	107	132
Fourth.....	482	331	296	79	217
Fifth.....	459	330	295	58	237
Sixth.....	435	435	300	99	201
Seventh.....	493		468	75	393

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$18,000 00	\$83 00	\$121 68		\$112 01
Second.....	21,000 00	72 00	101 12		92 38
Third.....	21,400 00	60 00	80 22		72 13
Fourth.....	15,700 00	48 00	60 91		51 47
Fifth.....	11,600 00	36 00	43 28		39 61
Sixth.....	19,800 00	24 00	27 21		25 62
Seventh.....	14,900 00	12 00	12 80		12 40

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
H. P. Wood.....	San Rafael.....	10	\$200 00
Geo. H. Powers.....	San Rafael.....	35	200 00
Carter P. Pomeroy.....	San Rafael.....	65	200 00
Geo. M. Dodge.....	San Rafael.....	15	200 00
Wm. N. Anderson.....	San Rafael.....	5	200 00
Francis Avery.....	Sausalito.....	5	200 00
S. F. Barstow.....	San Rafael.....	15	200 00
R. W. Johnson.....	San Rafael.....	5	200 00
E. B. Mahon.....	San Rafael.....	15	200 00

No. 117.—SANTA ANA.

HOME MUTUAL BUILDING AND LOAN ASSOCIATION.

Incorporated April 1, 1893.

W. W. MANSUR, Secretary.

JOHN McFADDEN, President.

No. of series, 1.

End of fiscal year, December 31, 1893.

No. of shares, 644½.

Resources.		Liabilities.	
Loans.....	\$6,900 00	Dues and advance payments ..	\$5,162 30
Arrearages.....		Earnings.....	412 48
Cash on hand.....	26 10	Overdrafts and bills payable...	1,275 00
Real estate.....		Profits unapportioned.....	73 32
Other assets.....		All other liabilities.....	3 00
Total resources.....	\$6,926 10	Total liabilities.....	\$6,926 10

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....		Paid overdrafts and bills payable.....	\$530 00
Received for dues.....	\$5,207 00	Loans.....	6,900 00
Received for paid-up stock.....		Interest.....	57 05
Received for premiums.....	346 30	Dues on surrendered shares ..	51 00
Received for interest.....	232 55	Profits on surrendered shares..	45
Received for fees and fines.....	20 85	Salaries.....	105 00
Loans repaid.....		Taxes.....	
Overdrafts and bills payable.....	1,805 00	Other expenses.....	145 15
All other sources.....	204 10	All other disbursements.....	1 05
Total receipts.....	\$7,815 80	Balance on hand.....	26 10
		Total disbursements.....	\$7,815 80

Authorized capital stock.....	\$2,000,000 00
No. of shares.....	10,000
No. of members.....	97
No. of borrowers.....	11
No. of mortgage loans for year.....	11
Amount of mortgage loans for year.....	\$6,900 00
No. of foreclosures since organization.....	
Amount due on foreclosures.....	
No. of shares last report.....	
No. of shares issued since last report.....	674
No. of shares canceled since last report.....	29½

Net profits of year.....	\$486 25
Plan of distribution.....	Dexter Rule.
No. shares loaned on.....	41
No. shares free.....	603½
Ratio of salaries to total receipts.....	1.34 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	3.20 per cent.
Surrender value of all shares.....	\$5,362 24
Total present worth of mortgages.....	6,545 76
Total appraised value of land.....	4,650 00
Total appraised value of improvements.....	9,725 00
Total book value of stock hypothecated.....	354 24
Total value of security held.....	14,729 24
Premium.....	Gross, 5 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force -----	Now in Force.	Shares Loaned Upon.	Shares "Free"
First.....	674		644½	41	603½
Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$6,900 00	\$8 00	\$8 64		\$8 32

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
John McFadden.....	Santa Ana.....	10	\$200 00
Thomas McKeever.....	Santa Ana.....	10	200 00
W. R. Collis.....	Santa Ana.....	25	200 00
C. E. Parker.....	Santa Ana.....	10	200 00
G. A. Edgar.....	Santa Ana.....	10	200 00
W. B. Tedford.....	Santa Ana.....	10	200 00
S. H. Finley.....	Santa Ana.....	5	200 00

No. 118.—SANTA BARBARA.

LOAN AND BUILDING ASSOCIATION OF SANTA BARBARA.

Incorporated May 23, 1887.

J. T. JOHNSON, Secretary.

H. L. STAMBACH, President.

No. of series, 5.

End of fiscal year, July 11, 1893.

No. of shares, 1,619.

Resources.		Liabilities.	
Loans.....	\$83,350 00	Dues and advance payments ..	\$65,839 00
Arrearages.....	1,042 30	Earnings.....	21,009 81
Cash on hand.....	4,111 51	Overdrafts and bills payable.....	
Real estate.....		Profits unapportioned.....	
Other assets.....	80 00	All other liabilities.....	1,735 00
Total resources.....	\$88,583 81	Total liabilities.....	\$88,583 81

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$6,052 11	Paid overdrafts and bills payable.....	
Received for dues.....	17,619 00	Loans.....	\$21,615 00
Received for paid-up stock.....		Interest.....	
Received for premiums.....	2,214 00	Dues on surrendered shares.....	5,281 00
Received for interest.....	5,914 40	Profits on surrendered shares.....	1,639 50
Received for fees and fines.....	116 05	Salaries.....	240 00
Loans repaid.....	2,200 00	Taxes.....	1,259 05
Overdrafts and bills payable.....		Other expenses.....	43 35
All other sources.....	100 00	All other disbursements.....	26 15
		Balance on hand.....	4,111 51
Total receipts.....	\$34,215 56	Total disbursements.....	\$34,215 56

Authorized capital stock.....	\$1,000,000 00
No. of shares.....	5,000
No. of members.....	216
No. of borrowers.....	66
No. of mortgage loans for year.....	22
Amount of mortgage loans for year.....	\$21,615 00
No. of foreclosures since organization.....	
Amount due on foreclosures.....	
No. of shares last report.....	1,295
No. of shares issued since last report.....	401
No. of shares canceled since last report.....	77
Net profits of year.....	\$5,455 50
Plan of distribution.....	Partnership.
No. shares loaned on.....	416 3/4
No. shares free.....	1,202 1/4
Ratio of salaries to total receipts.....	.70 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	4.50 per cent.
Surrender value of all shares.....	\$83,464 17
Total present worth of mortgages.....	55,277 40
Total appraised value of land.....	75,250 00
Total appraised value of improvements.....	72,735 00
Total book value of stock hypothecated.....	28,072 60
Total value of security held.....	176,057 60
Premium.....	Gross, 12 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force Last Report.	Now In Force.	Shares Loaned Upon.	Shares "Free."
First.....	682	652	575	198 1/2	376 1/2
Second.....	225	215	205	52 3/4	152 1/4
Third.....	176	171	171	50 1/2	120 1/2
Fourth.....	331	267	331	64 3/4	266 1/4
Fifth.....	337		337	50 1/4	286 3/4

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$39,700 00	\$72 00	\$100 27		\$97 44
Second.....	10,550 00	54 00	69 90		65 13
Third.....	10,100 00	30 00	34 90		33 43
Fourth.....	12,950 00	18 00	19 76		19 05
Fifth.....	10,050 00	6 00	6 19		6 12

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
H. L. Stambach	Santa Barbara	25	\$200 00
George F. Trenwith	Santa Barbara	10	200 00
F. H. Knight	Santa Barbara	15	200 00
O. P. Squeir	Santa Barbara	7	200 00
F. L. Kellogg	Santa Barbara	17	200 00
J. M. Forbes	Santa Barbara	9	200 00
W. H. Myers	Santa Barbara	10	200 00
J. T. Johnson	Santa Barbara	20	200 00
Edward Harper	Santa Barbara	10	200 00

No. 119.—SANTA CLARA.

SANTA CLARA BUILDING AND LOAN ASSOCIATION.

Incorporated March 15, 1889.

W. O. WATSON, Secretary.

J. B. O'BRIEN, President.

No. of series, 5.

End of fiscal year, March 31, 1894.

No. of shares, 1,255½.

Resources.		Liabilities.	
Loans	\$85,500 00	Dues and advance payments	\$61,842 00
Arrearages	880 70	Earnings	15,966 71
Cash on hand	4,813 02	Overdrafts and bills payable	-----
Real estate	1,962 64	Profits unapportioned	14,167 76
Other assets: furniture and fixtures	45 00	All other liabilities	1,224 89
		Loans incomplete	\$871 00
		Taxes due	282 89
		Due individuals	71 00
Total resources	\$93,201 36	Total liabilities	\$93,201 36

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	\$2,154 94	Paid overdrafts and bills payable	-----
Received for dues	15,597 00	Loans	\$13,921 00
Received for paid-up stock	-----	Interest	-----
Received for premiums	3,065 20	Dues on surrendered shares	4,791 00
Received for interest	4,575 13	Profits on surrendered shares	769 28
Received for fees and fines	83 15	Salaries	295 85
Loans repaid	-----	Taxes	773 18
Overdrafts and bills payable	-----	Other expenses	112 09
All other sources	-----	All other disbursements	-----
		Balance on hand	4,813 02
Total receipts	\$25,475 42	Total disbursements	\$25,475 42

Authorized capital stock	\$1,000,000 00
No. of shares	5,000
No. of members	146
No. of borrowers	46
No. of mortgage loans for year	10
Amount of mortgage loans for year	\$14,200 00
No. of foreclosures since organization	1
Amount due on foreclosures	\$1,962 64

No. of shares last report.....	1,232½
No. of shares issued since last report.....	104
No. of shares canceled since last report.....	131
Net profits of year.....	\$5,973 26
Plan of distribution.....	Dexter.
No. shares loaned on.....	427½
No. shares free.....	823
Ratio of salaries to total receipts.....	1.16 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	4.64 per cent.
Surrender value of all shares.....	\$74,092 05
Total present worth of mortgages.....	61,309 22
Total appraised value of land.....	23,791 00
Total appraised value of improvements.....	76,475 00
Total book value of stock hypothecated.....	24,190 78
Total value of security held.....	129,456 78
Premium.....	Gross, average, 25¼ per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force 1893.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....	1,000	849½	783½	215½	568
Second.....	200	159	134	50	84
Third.....	121	113	108	63	45
Fourth.....	170	161	146	55	91
Fifth.....	104	-----	84	44	40

Series.	Amount of Loans Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....	\$43,100 00	\$60 00	\$77 30	\$69 15	\$73 50
Second.....	10,000 00	48 00	58 48	54 23	55 68
Third.....	12,600 00	36 00	41 63	39 33	39 78
Fourth.....	11,000 00	24 00	26 40	25 50	25 44
Fifth.....	8,800 00	12 00	12 60	12 39	12 30

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
J. B. O'Brien.....	Santa Clara.....	10	\$200 00
F. C. Franck.....	Santa Clara.....	5	200 00
F. B. Kington.....	Santa Clara.....	10	200 00
R. B. Rolf.....	Santa Clara.....	10	200 00
R. Menzel.....	Santa Clara.....	10	200 00
H. J. Alderman.....	Santa Clara.....	25	200 00
D. Henderson.....	Santa Clara.....	10	200 00

No. 120.—SANTA PAULA.

SANTA PAULA BUILDING AND LOAN ASSOCIATION.

Incorporated April 21, 1890.

H. H. YOUNGKEN, Secretary.

J. R. HAUGH, President.

No. of series, 4.

End of fiscal year, April 30, 1894.

No. of shares, 1,082.

Resources.		Liabilities.	
Loans.....	\$45,000 00	Dues and advance payments ..	\$31,152 00
Arrearages.....	194 66	Earnings.....	7,845 92
Cash on hand.....	189 23	Overdrafts and bills payable....	2,000 00
Real estate.....		Profits unapportioned.....	4,280 57
Other assets.....	103 60	All other liabilities: loans in-	
Furniture and fixtures.....	\$66 85	complete.....	200 00
Stationery.....	15 15		
Insurance premium ad-			
vanced.....	21 60		
Total resources.....	\$45,487 49	Total liabilities.....	\$45,487 49

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$30 12	Paid overdrafts and bills pay-	
Received for dues.....	13,690 00	able.....	\$7,470 00
Received for paid-up stock.....		Loans.....	14,291 00
Received for premiums.....	2,505 00	Interest.....	234 15
Received for interest.....	3,124 69	Dues on surrendered shares.....	5,597 00
Received for fees and fines.....	115 42	Profits on surrendered shares....	556 52
Loans repaid.....	1,200 00	Salaries.....	257 37
Overdrafts and bills payable....	3,570 00	Taxes.....	360 12
All other sources.....		Other expenses.....	107 39
		All other disbursements.....	172 45
		Returned premiums ..	\$84 00
		Safe.....	66 85
		Insurance premium	
		advanced.....	21 60
		Balance on hand.....	189 23
Total receipts.....	\$29,235 23	Total disbursements.....	\$29,235 23

Authorized capital stock.....	\$500,000 00
No. of shares.....	5,000
No. of members.....	100
No. of borrowers.....	48
No. of mortgage loans for year.....	18
Amount of mortgage loans for year.....	\$14,500 00
No. of foreclosures since organization.....	
Amount due on foreclosures.....	
No. of shares last report.....	929
No. of shares issued since last report.....	395
No. of shares canceled since last report.....	242
Net profits of year.....	\$4,346 24
Plan of distribution.....	Dexter.
No. shares loaned on.....	450
No. shares free.....	632
Ratio of salaries to total receipts.....	.88 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	2.48 per cent.
Surrender value of all shares.....	\$35,683 04
Total present worth of mortgages.....	29,136 46
Total appraised value of land.....	23,870 00
Total appraised value of improvements.....	44,255 00
Total book value of stock hypothecated.....	15,863 54
Total value of security held.....	\$3,988 54
Premium.....	Gross, 18 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force April 30, 1893.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	370	345	288	96	192
Second	304	294	206	108	98
Third	300	290	238	114	124
Fourth	395	-----	350	132	218

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$9,600 00	\$48 00	\$64 42	\$53 76	\$58 67
Second	10,800 00	36 00	44 96	39 24	40 93
Third	11,400 00	24 00	27 90	25 44	25 75
Fourth	13,200 00	12 00	12 98	12 36	12 36

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Jos. R. Haugh	Santa Paula	15	\$100 00
C. N. Baker	Santa Paula	1	100 00
John Irwin	Santa Paula	5	100 00
Casper Taylor	Santa Paula	20	100 00
L. A. Hardison	Santa Paula	20	100 00
D. W. Mott	Santa Paula	10	100 00
J. B. Titus	Santa Paula	10	100 00
Edwin Virden	Santa Paula	15	100 00
J. A. Davis	Santa Paula	10	100 00

No. 121.—SANTA ROSA.

SANTA ROSA BUILDING AND LOAN ASSOCIATION.

Incorporated October 3, 1888.

J. W. FARNHAM, Secretary.

J. D. BARNETT, President.

No. of series, 6.

End of fiscal year, October 31, 1893.

No. of shares, 1,097½.

Resources.		Liabilities.	
Loans	\$63,700 00	Dues and advance payments ..	\$45,618 00
Arrearages	340 10	Earnings	14,876 96
Cash on hand	638 43	Overdrafts and bills payable ..	3,250 00
Real estate	-----	Profits unapportioned	-----
Other assets	-----	All other liabilities	933 57
		Taxes due	\$875 23
		Interest due	58 34
Total resources	\$64,678 53	Total liabilities	\$64,678 53

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	\$5,930 69	Paid overdrafts and bills pay- able	-----
Received for dues	13,599 50	Loans	\$26,875 00
Received for paid-up stock	-----	Interest	-----
Received for premiums	1,385 30	Dues on surrendered shares	7,896 00
Received for interest	4,383 70	Profits on surrendered shares	873 30
Received for fees and fines	73 10	Salaries	420 00
Loans repaid	9,775 00	Taxes	645 99
Overdrafts and bills payable	3,250 00	Other expenses	95 32
All other sources	-----	All other disbursements: re- turned premiums	953 25
		Balance on hand	638 43
Total receipts.....	\$38,397 29	Total disbursements.....	\$38,397 29

Authorized capital stock	\$500,000 00
No. of shares	2,500
No. of members	104
No. of borrowers	39
No. of mortgage loans for year	14
Amount of mortgage loans for year	\$24,800 00
No. of foreclosures since organization	-----
Amount due on foreclosures	-----
No. of shares last report	1,044½
No. of shares issued since last report	118
No. of shares canceled since last report	65
Net profits of year	\$4,636 27
Plan of distribution	Dexter.
No. shares loaned on	318½
No. shares free	779
Ratio of salaries to total receipts	1.09 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	3.02 per cent.
Surrender value of all shares (estimated)	\$54,544 77
Total present worth of mortgages (estimated)	48,200 00
Total appraised value of land (estimated)	45,000 00
Total appraised value of improvements (estimated)	50,500 00
Total book value of stock hypothecated (estimated)	15,500 00
Total value of security held	111,000 00
Premium	Gross.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	1,130	-----	577	156	401
Second	130	-----	69	36	33
Third	109	-----	54	9	25
Fourth	219	-----	134	58½	65½
Fifth	240½	-----	210½	59	136½
Sixth	-----	-----	-----	-----	118

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$31,200 00	\$60 00	\$81 98	\$69 00	\$72 00
Second	7,200 00	48 00	61 89	53 76	55 20
Third	1,800 00	36 00	44 70	39 24	39 78
Fourth	11,700 00	24 00	28 15	25 44	25 56
Fifth	11,800 00	12 00	12 99	12 36	12 36
Sixth	-----	-----	-----	-----	-----

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
J. D. Barnett	Santa Rosa	5	\$200 00
Allen B. Lemmon	Santa Rosa	15	200 00
J. W. Warboys	Santa Rosa	25	200 00
H. L. Tripp	Santa Rosa	10	200 00
C. W. Savage	Santa Rosa	25	200 00
J. C. Mailer	Santa Rosa	15	200 00
Guy E. Grosse	Santa Rosa	5	200 00

No. 122.—SAUSALITO.

SAUSALITO MUTUAL LOAN ASSOCIATION.

Incorporated December 20, 1887.

JULIAN B. HARRIS, Secretary.

O. C. MILLER, President.

No. of series, 5.

End of fiscal year, October 31, 1893.

No. of shares, 1,064.

Resources.		Liabilities.	
Loans	\$59,112 00	Dues and advanced payments ..	\$36,402 00
Arrearages	1,998 77	Earnings	7,939 91
Cash on hand	419 25	Overdrafts and bills payable ..	13,500 00
Real estate	-----	Profits unapportioned	51 21
Other assets	63 10	All other liabilities: due	-----
Furniture and fixtures ..\$20 00	-----	matured shares	3,700 00
Insurance advanced 43 10	-----		
Total resources	\$61,593 12	Total liabilities	\$61,593 12
Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	-----	Paid overdrafts and bills pay-	-----
Received for dues	\$20,032 00	able	\$5,467 44
Received for paid-up stock	-----	Loans	29,475 00
Received for premiums	2,526 66	Interest	410 20
Received for interest	6,390 29	Dues on surrendered shares	32,926 90
Received for fees and fines	485 80	Profits on surrendered shares ..	12,226 78
Loans repaid	37,200 00	Salaries	600 00
Overdrafts and bills payable	15,500 00	Taxes	520 13
All other sources: insurance re-	-----	Other expenses	159 05
funded	197 90	All other disbursements	127 90
		Insurance advanced ..\$127 90	-----
		Balance on hand	419 25
Total receipts	\$82,332 65	Total disbursements	\$82,332 65

Authorized capital stock	\$1,000,000 00
No. of shares	10,000
No. of members	86
No. of borrowers	53
No. of mortgage loans for year	39
Amount of mortgage loans	\$29,475 00
No. of foreclosures since organization	-----
Amount due on foreclosures	-----
No. of shares last report	1,313

No. of shares issued since last report.....	641
No. of shares canceled since last report.....	890
Net profits of year.....	\$7,090 51
Plan of distribution.....	Partnership.
No. shares loaned on.....	664
No. shares free.....	400
Ratio of salaries to total receipts.....	.73 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	1.55 per cent.
Surrender value of all shares.....	\$42,405 65
Total present worth of mortgages.....	29,710 94
Total appraised value of land.....	36,700 00
Total appraised value of improvements.....	43,200 00
Total book value of stock hypothecated.....	29,401 94
Total value of security held.....	109,301 94
Premium.....	Installment.
Matured series.....	1

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force Oct. 31, 1892.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First*.....	1,035	440			
Second.....	435	205	175	150	25
Third.....	335	210	190	105	85
Fourth.....	423	230	205	125	80
Fifth.....	369	322	257	157	100
Sixth.....	237		237	127	110

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....		\$71 00	Paid up.		
Second.....	\$10,025 00	60 00	\$80 10	\$69 00	\$78 09
Third.....	7,500 00	48 00	60 07	53 76	57 66
Fourth.....	9,587 00	36 00	42 34	39 24	40 44
Fifth.....	14,650 00	24 00	26 66	25 44	25 60
Sixth.....	11,650 00	12 00	12 61	12 36	12 30

* Matured and paid up in October.

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares	Par Value.
George H. Winterburn.....	Sausalito.....	5	\$100 00
O. C. Miller.....	Sausalito.....	35	100 00
Charles Forrest.....	Sausalito.....	30	100 00
John Schnell.....	Sausalito.....	10	100 00
Robert George.....	Sausalito.....	15	100 00
Thomas W. Jackson.....	Sausalito.....	30	100 00
S. S. Fiedler.....	Sausalito.....	20	100 00
Philip Grethel.....	Sausalito.....	40	100 00
Christopher Becker.....	Sausalito.....	15	100 00

No. 123.—STOCKTON.

SAN JOAQUIN VALLEY BUILDING AND LOAN ASSOCIATION.

Incorporated June 17, 1889.

ARTHUR M. NOBLE, Secretary.

H. O. SOUTHWORTH, President.

No. of series, 3.

End of fiscal year, August 9, 1893.

No. of shares, 3,050.

Resources.		Liabilities.	
Loans.....	\$166,866 34	Dues and advance payments...	\$101,714 50
Arrearages.....	1,801 80	Earnings.....	41,761 84
Cash on hand.....		Overdrafts and bills payable...	11,721 77
Real estate.....		Profits unapportioned.....	9,856 45
Other assets: taxes and insur- ance advanced.....	71 85	All other liabilities.....	3,685 43
		Loans incomplete..	\$3,650 43
		Suspense account..	30 00
		Dues overpaid.....	5 00
Total resources.....	\$168,739 99	Total liabilities.....	\$168,739 99

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$3,384 79	Paid overdrafts and bills pay- able.....	
Received for dues.....	31,051 00	Loans.....	\$60,096 14
Received for paid-up stock.....		Interest.....	
Received for premiums.....	11,430 80	Dues on surrendered shares.....	11,231 00
Received for interest.....	7,543 20	Profits on surrendered shares..	1,205 05
Received for fees and fines.....	152 15	Salaries.....	675 00
Loans repaid.....	4,716 67	Taxes.....	1,541 65
Overdrafts and bills payable.....	11,721 77	Other expenses.....	219 44
All other sources: premium on stock sold.....	31 05	All other disbursements: taxes and insurance advanced.....	63 15
Total receipts.....	\$75,031 43	Balance on hand.....	
		Total disbursements.....	\$75,031 43

Authorized capital stock.....	\$1,800,000 00
No. of shares.....	9,000
No. of members.....	300
No. of borrowers.....	101
No. of mortgage loans for year.....	53
Amount of mortgage loans for year.....	\$60,096 14
No. of foreclosures since organization.....	
Amount due on foreclosures.....	
No. of shares last report.....	2,505
No. of shares issued since last report.....	823
No. of shares canceled since last report.....	278
Net profits of year.....	\$15,516 06
Plan of distribution.....	Partnership.
No. shares loaned on.....	995
No. shares free.....	2,055
Ratio of salaries to total receipts.....	.90 per cent.
Ratio of expenses (including salaries) to total receipts.....	3.24 per cent.
Surrender value of all shares.....	\$114,489 52
Total present worth of mortgages.....	134,447 41
Total appraised value of land.....	62,950 00
Total appraised value of improvements.....	138,450 00
Total book value of stock hypothecated.....	37,176 80
Total value of security held.....	238,576 80
Premium.....	Gross, 25 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force -----	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	1,836½	-----	1,638½	546½	1,092
Second	662½	-----	588½	260½	328
Third	823	-----	823	188	635

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$85,698 43	\$48 00	\$69 28	\$53 97	\$54 72
Second	46,164 39	35 00	46 24	39 32	37 97
Third	35,003 52	3 00	3 34	3 03	3 02

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
H. O. Southworth	Stockton	40	\$200 00
D. S. Rosenbaum	Stockton	22	200 00
Dr. S. N. Cross	Stockton	20	200 00
Frank E. Lane	Stockton	44	200 00
J. M. Bigger	Stockton	20	200 00
R. R. Reibenstein	Stockton	20	200 00
George Inglis	Stockton	20	200 00

No. 124.—STOCKTON.

STOCKTON LAND, LOAN, AND BUILDING ASSOCIATION.

Incorporated January 3, 1887.

R. E. WILHOTT, Secretary.

J. M. WELSH, President.

No. of series, 7.

End of fiscal year, January 31, 1894.

No. of shares, 8,241½.

Resources.		Liabilities.	
Loans	\$668,153 44	Dues and advance payments...	\$448,290 00
Arrearages	6,781 44	Earnings	225,982 88
Cash on hand	167 21	Overdrafts and bills payable	-----
Real estate	-----	Profits unapportioned	1,358 19
Other assets: insurance premium and street assessments advanced	747 30	All other liabilities: loans incomplete	218 32
Total resources	\$675,849 39	Total liabilities	\$675,849 39

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$7,157 73	Paid overdrafts and bills payable.....	
Received for dues.....	106,242 00	Loans.....	\$112,450 22
Received for paid-up stock.....		Interest.....	29 01
Received for premiums.....	17,545 21	Dues on surrendered shares.....	48,436 00
Received for interest.....	36,167 46	Profits on surrendered shares.....	8,940 88
Received for fees and fines.....	715 80	Salaries.....	1,800 00
Loans repaid.....	12,318 60	Taxes.....	7,156 97
Overdrafts and bills payable.....		Other expenses.....	350 91
All other sources.....	1,663 45	All other disbursements.....	2,979 05
Insurance.....	\$1,605 40	Returned premiums.....	\$672 20
Insurance premium repaid.....	58 05	Street assessment advanced.....	701 45
		Rebuilding burned house.....	1,605 40
		Balance on hand.....	167 21
Total receipts.....	\$182,310 25	Total disbursements.....	\$182,310 25

Authorized capital stock.....	Not specified.
No. of shares.....	
No. of members.....	750
No. of borrowers.....	262
No. of mortgage loans for year.....	50
Amount of mortgage loans for year.....	\$88,809 99
No. of foreclosures since organization.....	
Amount due on foreclosures.....	
No. of shares last report.....	8,942
No. of shares issued since last report.....	311
No. of shares canceled since last report.....	1,011½
Net profits of year.....	\$56,793 73
Plan of distribution.....	Wrigley
No. shares loaned on.....	3,348½
No. shares free.....	4,893
Ratio of salaries to total receipts.....	.99 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	5.10 per cent.
Surrender value of all shares.....	\$549,622 43
Total present worth of mortgages.....	431,203 72
Total appraised value of land.....	303,625 00
Total appraised value of improvements.....	308,050 00
Total book value of stock hypothecated.....	236,949 72
Total value of security held.....	848,624 72
Premium.....	Gross, 25 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force	Now in Force.	Shares Loaned Upon.	Shares "Free."
First.....	2,500	2,242	2,071	744½	1,326½
Second.....	2,000	1,671	1,500½	572	928½
Third.....	2,000	1,752½	1,502½	524½	978
Fourth.....	2,000	1,608½	1,373½	537½	836
Fifth.....	2,000	1,383	1,209	385	824
Sixth.....	750	285	274	274	
Seventh.....	750		311	311	

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First.....		\$84 00	\$135 38	\$101 85	\$113 75
Second.....		60 00	90 49	69 15	72 20
Third.....		48 00	70 09	53 88	54 86
Fourth.....		42 00	58 89	46 51	47 26
Fifth.....		36 00	48 85	39 33	39 33
Sixth.....		24 00	30 40	25 50	25 50
Seventh.....		12 00	14 70	12 33	12 33

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
J. M. Welsh	Stockton	25	\$200 00
H. H. Moore	Stockton	14	200 00
Joseph Fyfe	Stockton	10	200 00
J. D. Young	Stockton	35	200 00
P. A. Buell	Stockton	15	200 00
A. Leitch	Stockton	1	200 00
W. B. Harrison	Stockton	15	200 00

125.—TULARE.

TULARE BUILDING AND LOAN ASSOCIATION.

Incorporated January, 1889.

H. H. FRANCISCO, Secretary.

CHAS. M. HATCH, President.

No. of series, 5.

End of fiscal year, December 31, 1893.

No. of shares, 2,635.

Resources.		Liabilities.	
Loans	\$150,410 00	Dues and advance payments ..	\$101,207 00
Arrearages	2,091 05	Earnings	49,837 91
Cash on hand	1,526 63	Overdrafts and bills payable ..	.....
Real estate	1,846 82	Profits unapportioned	2,243 09
Other assets: furniture and fix- tures	75 00	All other liabilities	2,661 50
		Loans incomplete ..	\$2,612 50
		Advance interest ..	49 00
Total resources	\$155,949 50	Total liabilities	\$155,949 50

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	\$855 93	Paid overdrafts and bills pay- able .....	.....
Received for dues	30,218 00	Loans	\$30,153 50
Received for paid-up stock .....	.....	Interest	111 45
Received for premiums	7,008 00	Dues on surrendered shares ..	12,402 00
Received for interest	10,839 93	Profits on surrendered shares ..	3,034 51
Received for fees and fines	531 60	Salaries	720 00
Loans repaid	500 00	Taxes	2,094 11
Overdrafts and bills payable .....	.....	Other expenses	257 56
All other sources: premiums on stock sold	256 30	All other disbursements .....	.....
		Balance on hand	1,526 63
Total receipts	\$50,209 76	Total disbursements	\$50,209 76

Authorized capital stock	\$1,000,000 00
No. of shares	5,000
No. of members	279
No. of borrowers	122
No. of mortgage loans for year	23
Amount of mortgage loans for year	\$27,550 00
No. of foreclosures since organization .....	.....
Amount due on foreclosures .....	.....
No. of shares last report	2,637
No. of shares issued since last report	250
No. of shares canceled since last report	252
Net profits of year	\$10,345 96

Plan of distribution	Hewel-Meyberg.
No. shares loaned on	743 $\frac{3}{4}$
No. shares free	1,891 $\frac{1}{4}$
Ratio of salaries to total receipts	1.43 per cent.
Ratio of expenses (including salaries) to total receipts	5.94 per cent.
Surrender value of all shares	\$122,890 25
Total present worth of mortgages	105,720 50
Total appraised value of land	80,650 00
Total appraised value of improvements	141,100 00
Total book value of stock hypothecated	44,689 50
Total value of security held	266,439 50
Premium	Gross, average, 23 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Now in Force.	Shares Loaned Upon.	Shares "Free."	Dues Paid Per Share.	Book Value Per Share.	Withdrawal Value.
A	1,074	277	797	\$58 00	\$89 92	\$73 96
B	299	79 $\frac{1}{4}$	219 $\frac{3}{4}$	42 00	62 53	52 26
C	401	161	240	30 00	43 35	36 67
D	611	183 $\frac{3}{4}$	427 $\frac{1}{4}$	18 00	24 61	21 30
E	250	42 $\frac{3}{4}$	207 $\frac{1}{4}$	6 00	6 10	6 00

Series.	Amount of Loans, Each Series.
A	\$33,050 00
A B	28,460 00
A B C	33,350 00
A B C D	46,050 00
A B C D E	9,500 00

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Chas. M. Hatch	Tulare	25	\$200 00
L. E. Schoenemann	Tulare	10	200 00
J. A. Allen	Tulare	25	200 00
L. H. Congdon	Tulare	10	200 00
J. Wolfrom	Tulare	10	200 00
G. Q. Gill	Tulare	5	200 00
W. C. Ambrose	Tulare	15	200 00
A. J. Pillsbury	Tulare	10	200 00
G. X. Wendling	Hanford	5	200 00

No. 126.—VISALIA.

VISALIA BUILDING AND LOAN ASSOCIATION.

Incorporated January 5, 1887.

C. L. JOHNSON, Secretary.

C. J. GIDDINGS, President.

No. of series, 2.

End of fiscal year, February 10, 1894.

No. of shares, 1,295.

Resources.		Liabilities.	
Loans.....	\$66,025 00	Dues and advance payments...	\$44,125 00
Arrearages.....	955 97	Earnings.....	13,459 70
Cash on hand.....	225 36	Overdrafts and bills payable.....	-----
Real estate.....	-----	Profits unapportioned.....	9,641 73
Other assets: accounts against members.....	20 10	All other liabilities.....	-----
Total resources.....	\$67,226 43	Total liabilities.....	\$67,226 43

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	-----	Paid overdrafts and bills payable.....	\$3,353 77
Received for dues.....	\$16,710 59	Loans.....	20,825 00
Received for paid-up stock.....	-----	Interest.....	160 71
Received for premiums.....	4,660 93	Dues on surrendered shares.....	8,502 00
Received for interest.....	4,952 31	Profits on surrendered shares.....	2,068 70
Received for fees and fines.....	505 79	Salaries.....	480 00
Loans repaid.....	10,800 00	Taxes.....	734 42
Overdrafts and bills payable.....	-----	Other expenses.....	53 08
All other sources.....	408 14	All other disbursements.....	1,634 72
Forfeitures.....	\$377 07	Returned premiums.....	\$1,595 55
Taxes returned.....	19 17	Insurance and taxes advanced.....	39 17
Insurance returned.....	11 90	Balance on hand.....	225 36
Total receipts.....	\$38,037 76	Total disbursements.....	\$38,037 76

Authorized capital stock.....	\$500,000 00
No. of shares.....	5,000
No. of members.....	82
No. of borrowers.....	51
No. of mortgage loans for year.....	15
Amount of mortgage loans for year.....	\$20,600 00
No. of foreclosures since organization.....	1
Amount due on foreclosures.....	-----
No. of shares last report.....	1,527
No. of shares issued since last report.....	-----
No. of shares canceled since last report.....	232
Net profits of year.....	\$6,876 37
Plan of distribution.....	Dexter.
No. shares loaned on.....	660 1/4
No. shares free.....	634 3/4
Ratio of salaries to total receipts.....	1.26 per cent.
Ratio of expenses (including salaries) to total receipts.....	3.33 per cent.
Surrender value of all shares.....	\$53,590 39
Total present worth of mortgages.....	38,775 30
Total appraised value of land.....	31,050 00
Total appraised value of improvements.....	65,900 00
Total book value of stock hypothecated.....	27,830 90
Total value of security held.....	124,780 90
Premium.....	Gross, 25 per cent.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force Feb. 8, 1893.	Now in Force.	Shares Loaned Upon.	Shares "Free."
First		Matured	with 68th	payment.	
Second	1,000	947	755	328 $\frac{1}{4}$	426 $\frac{3}{4}$
Third	580	580	540	332	208

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First					
Second	\$32,825 00	\$47 00	\$63 54	\$52 52	\$58 57
Third	33,200 00	16 00	17 80	16 64	16 90

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
C. J. Giddings	Visalia	57	\$100 00
A. Lewis	Visalia	35	100 00
H. Jerusalem	Visalia	40	100 00
John F. Jordan	Visalia	20	100 00
Wm. H. Hammond	Visalia	12	100 00
J. M. Fox	Visalia	50	100 00
M. J. Byrnes	Visalia	5	100 00
W. F. Thofnas	Visalia	45	100 00
J. E. Combs	Visalia	25	100 00

No. 127.—WOODLAND.

WOODLAND BUILDING AND LOAN ASSOCIATION.

Incorporated June 8, 1886.

E. T. Clowe, Secretary.

J. I. McConnell, President.

No. of series, 1.

End of fiscal year, December 31, 1893.

No. of shares, 1,354.

Resources.		Liabilities.	
Loans	\$23,296 91	Dues and advance payments	\$16,248 00
Arrearages	4,161 44	Earnings	785 32
Cash on hand	7 01	Overdrafts and bills payable	10,463 16
Real estate		Profits unapportioned	6 38
Other assets: insurance advanced	37 50	All other liabilities	
Total resources	\$27,502 86	Total liabilities	\$27,502 86

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....		Paid overdrafts and bills payable.....	
Received for dues.....	\$15,728 00	Loans.....	\$24,723 49
Received for paid-up stock.....		Interest.....	1,066 68
Received for premiums.....	9 30	Dues on surrendered shares.....	
Received for interest.....	693 90	Profits on surrendered shares.....	
Received for fees and fines.....	36 00	Salaries.....	600 00
Loans repaid.....	1,426 58	Taxes.....	260 53
Overdrafts and bills payable.....	10,463 16	Other expenses.....	178 25
All other sources: advances repaid, etc.....	51 03	All other disbursements.....	1,572 01
		For accrued interest on securities purchased.....	\$1,534 51
		Insurance advanced.....	37 50
		Balance on hand.....	7 01
Total receipts.....	\$28,407 97	Total disbursements.....	\$28,407 97

Authorized capital stock.....	\$300,000 00
No. of shares.....	3,000
No. of members.....	136
No. of borrowers.....	10
No. of mortgage loans for year.....	21
Amount of mortgage loans for year.....	\$24,723 49
No. of foreclosures since organization.....	
Amount due on foreclosures.....	
No. of shares last report.....	
No. of shares issued since last report.....	1,354
No. of shares canceled since last report.....	
Net profits of year.....	\$791 70
Plan of distribution.....	Share and share.
No. shares loaned on.....	89
No. shares free.....	1,265
Ratio of salaries to total receipts.....	2.11 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	3.65 per cent.
Surrender value of all shares.....	\$16,248 00
Total present worth of mortgages.....	22,228 91
Total appraised value of land (estimated).....	17,000 00
Total appraised value of improvements (estimated).....	17,945 36
Total book value of stock hypothecated.....	1,068 00
Total value of security held.....	36,013 36
Premium.....	No premium.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issuc.	In Force Last Report.	Now in Force.	Shares Loaned Upon.	Shares "Free."	Amount of Loans, Each Series.
-----	1,354	-----	1,354	89	1,265	\$23,296 91
Series.	Dues Paid per Share.	Total Dues Paid.	Book Value per Share.	Total of Book Values.	Withdrawal Value.	Total of Withdrawal Values.
-----	\$12 00	\$16,248 00	\$12 58	\$17,033 32	\$12 00	-----

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
J. I. McConnell	Woodland	10	\$100 00
J. D. Stephens	Woodland	10	100 00
N. A. Hawkins	Woodland	10	100 00
L. Wohlfrom	Woodland	50	100 00
J. W. Bandy	Woodland	25	100 00
J. Michael	Woodland	10	100 00
W. H. Carson	Woodland	10	100 00
L. Charmak	Woodland	10	100 00
O. Schlam	Woodland	10	100 00
E. T. Clowe	Woodland	15	100 00

No. 128.—LOS ANGELES.

FIDELITY SAVINGS AND LOAN ASSOCIATION.

Incorporated January 23, 1891.

DEAN MASON, Secretary.

GEO. MASON, President.

No series.

End of fiscal year, March 3, 1894.

No. of shares, 1,247.

Resources.		Liabilities.	
Loans	\$47,320 00	Dues and advance payments...	\$38,973 18
Arrearages	312 80	Earnings	11,792 55
Cash on hand	3,132 93	Overdrafts and bills payable...	-----
Real estate	-----	Profits unapportioned	-----
Other assets	-----	All other liabilities	-----
Total resources	\$50,765 73	Total liabilities	\$50,765 73

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	\$2,640 92	Paid overdrafts and bills payable	-----
Received for dues	4,832 80	Loans	\$9,695 00
Received for paid-up stock	250 00	Interest	-----
Received for premiums	2,625 25	Dues on surrendered shares	11,406 96
Received for interest	2,867 00	Profits on surrendered shares	404 80
Received for fees and fines	971 09	Salaries	1,524 60
Loans repaid	12,917 30	Taxes	535 75
Overdrafts and bills payable	-----	Other expenses	404 32
All other sources	-----	All other disbursements	-----
Total receipts	\$27,104 36	Balance on hand	3,132 93
		Total disbursements	\$27,104 36

Authorized capital stock	\$25,000,000 00
No. of shares	250,000
No. of members	51
No. of borrowers	37
No. of mortgage loans for year	3
Amount of mortgage loans for year	\$2,150 00
No. of foreclosures since organization	-----
Amount due on foreclosures	-----
No. of shares last report	1,813
No. of shares issued since last report	57
No. of shares canceled since last report	623

Net profits of year	\$4,124 34
Plan of distribution	Dexter.
No. shares loaned on	757
No. shares free	490
Ratio of salaries to total receipts	5.62 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	9.09 per cent.
Surrender value of all shares	\$43,199 90
Total present worth of mortgages	32,621 62
Total appraised value of land	67,502 00
Total appraised value of improvements	42,650 00
Total book value of stock hypothecated	26,284 91
Total value of security held	136,436 91

No. 129.—LOS ANGELES.

IMPERIAL SAVINGS AND LOAN COMPANY.

Incorporated February 18, 1890.

GEO. W. LAWRENCE, Secretary.

EDW. C. MANNING, President.

No series. End of fiscal year, June 30, 1893. No. of shares, 2,567.

Resources.		Liabilities.	
Loans	\$44,556 25	Dues and advance payments ..	\$23,337 52
Arrearages	6,176 18	Earnings	4,422 82
Cash on hand		Overdrafts and bills payable...	36,522 97
Real estate	12,170 20	Profits unapportioned	
Other assets	3,100 92	All other liabilities	1,720 24
Total resources	\$66,003 55	Total liabilities	\$66,003 55

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	\$167 84	Paid overdrafts and bills pay- able	\$40,740 44
Received for dues	5,911 45	Loans	7,302 86
Received for paid-up stock	200 00	Interest	2,937 41
Received for premiums	4,128 81	Dues on surrendered shares ..	7,309 84
Received for interest	1,690 81	Profits on surrendered shares ..	828 93
Received for fees and fines	2,640 01	Salaries	900 00
Loans repaid	18,083 80	Taxes	778 62
Overdrafts and bills payable	37,547 10	Other expenses	3,294 68
All other sources	7,431 11	All other disbursements	13,708 15
		Balance on hand	
Total receipts	\$77,800 93	Total disbursements	\$77,800 93

Authorized capital stock	\$100,000,000 00
No. of shares	1,000,000
No. of members	2,567
No. of borrowers	36
No. of mortgage loans for year	4
Amount of mortgage loans for year	\$2,400 00
No. of foreclosures since organization	1
Amount due on foreclosures	\$906 67
No. of shares last report	3,310
No. of shares issued since last report	303
No. of shares canceled since last report	1,046
Net profits of year	
Plan of distribution	Dexter.
No. shares loaned on	970
No. shares free	1,597

Ratio of salaries to total receipts.....	1.15 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	6.39 per cent.
Surrender value of all shares.....	\$18,934 59
Total present worth of mortgages.....	40,831 72
Total appraised value of land	82,150 00
Total appraised value of improvements.....	36,202 00
Total book value of stock hypothecated.....	3,724 53
Total value of security held	122,076 53
Premium.....	Installment.

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Edward C. Manning.....	Los Angeles	100	\$100 00
George L. Mills.....	Los Angeles	100	100 00
Henry E. Carter.....	Los Angeles	100	100 00
Theo. A. Smith.....	Los Angeles	15	100 00
Chas. H. Long.....	Los Angeles	30	100 00

No. 130.—LOS ANGELES.

NATIONAL BUILDING AND LOAN ASSOCIATION.

Incorporated June 20, 1889.

C. J. WADE, Secretary.

W. G. COCHRAN, President.

No series. End of fiscal year, December 31, 1893. No. of shares, 12,693.

Resources.		Liabilities.	
Loans.....	\$204,780 85	Dues and advance payments	\$182,903 55
Arrearages.....	1,988 25	Earnings.....	28,228 05
Cash on hand.....	447 49	Overdrafts and bills payable.....	1,455 88
Real estate.....	3,980 55	Profits unapportioned.....	503 86
Other assets.....	2,013 10	All other liabilities.....	118 90
Total resources.....	\$213,210 24	Total liabilities.....	\$213,210 24

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$2,129 29	Paid overdrafts and bills payable.....	\$80,663 00
Received for dues.....	46,478 91	Interest.....	71 71
Received for paid-up stock.....	20,221 00	Dues on surrendered shares.....	29,150 26
Received for premiums.....	10,683 60	Profits on surrendered shares and paid-up stock.....	9,814 00
Received for interest.....	11,145 27	Salaries.....	6,361 94
Received for fees and fines.....	2,110 88	Taxes.....	3,285 24
Loans repaid.....	28,089 17	Other expenses.....	2,940 65
Overdrafts and bills payable.....	1,455 88	All other disbursements.....	3,288 70
All other sources.....	13,708 99	Balance on hand.....	447 49
Total receipts.....	\$136,022 99	Total disbursements.....	\$136,022 99

Authorized capital stock.....	\$60,000,000 00
No. of shares.....	600,000
No. of members.....	1,304
No. of borrowers.....	302
No. of mortgage loans for year.....	96

Amount of mortgage loans for year.....	\$63,750 00
No. of foreclosures since organization.....	1
Amount due on foreclosures.....	\$894 05
No. of shares last report.....	12,568½
No. of shares issued since last report.....	5,040½
No. of shares canceled since last report.....	4,916
Net profits of year.....	\$23,571 10
Plan of distribution.....	Dexter.
No. shares loaned on.....	2,965½
No. shares free.....	9,727½
Ratio of salaries to total receipts.....	4.68 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	9.25 per cent.
Surrender value of all shares (estimated).....	\$152,014 75
Total present worth of mortgages.....	159,015 90
Total appraised value of land.....	320,625 00
Total appraised value of improvements.....	309,505 00
Total book value of stock hypothecated.....	33,634 10
Total value of security held.....	663,764 10
Total withdrawal value of shares.....	
Premium.....	.60 cents per month on each \$100; Installment.

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
W. G. Cochran.....	Los Angeles.....	30	\$100 00
Warren Gillelen.....	Los Angeles.....	10	100 00
J. M. Witmer.....	Los Angeles.....	15	100 00
Jas. R. Boal.....	Los Angeles.....	10	100 00
C. J. Wade.....	Los Angeles.....	25	100 00

No. 131.—LOS ANGELES.

UNION MUTUAL BUILDING AND LOAN ASSOCIATION.

Incorporated October 8, 1891.

HARVEY STURDEVANT, Secretary.

D. W. FIELD, President.

No. of series, 8.

End of fiscal year, October 31, 1893.

No. of shares, 7,415.

Resources.		Liabilities.	
Loans.....	\$63,097 02	Dues and advance payments ..	\$66,130 77
Arrearages.....	12,409 14	Earnings.....	9,335 47
Cash on hand.....	288 78	Overdrafts and bills payable.....	4,500 00
Real estate.....		Profits unapportioned.....	9,586 97
Other assets.....	15,109 87	All other liabilities.....	1,351 60
Total resources.....	\$90,904 81	Total liabilities.....	\$90,904 81

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	\$1,105 97	Paid overdrafts and bills payable	\$500 00
Received for dues	33,982 89	Loans	33,558 20
Received for paid-up stock	4,450 00	Interest	767 98
Received for premiums	6,007 52	Dues on surrendered shares	5,386 70
Received for interest	1,898 83	Profits on surrendered shares	-----
Received for fees and fines	474 95	Salaries	2,700 00
Loans repaid	2,226 25	Taxes	-----
Overdrafts and bills payable	-----	Other expenses	5,884 66
All other sources	-----	All other disbursements	1,060 09
		Balance on hand	288 78
Total receipts	\$50,146 41	Total disbursements	\$50,146 41

Authorized capital stock	\$2,000,000 00
No. of shares	20,000
No. of members	771
No. of borrowers	107
No. of mortgage loans for year	27
Amount of mortgage loans for year	\$29,562 00
No. of foreclosures since organization	-----
Amount due on foreclosures	-----
No. of shares last report	5,194
No. of shares issued since last report	4,665
No. of shares canceled since last report	2,444
Net profits of year	\$5,043 30
Plan of distribution	Dexter.
No. shares loaned on	1,203
No. shares free	6,212
Ratio of salaries to total receipts	5.38 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	17.11 per cent.
Surrender value of all shares	\$48,124 28
Total present worth of mortgages	42,500 02
Total appraised value of land	81,850 00
Total appraised value of improvements	67,800 00
Total book value of stock hypothecated	9,176 70
Total value of security held	158,826 70
Total withdrawal value of shares	-----
Premium	Installment.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force	Now in Force.	Shares Loaned Upon.	Shares "Free."
First	2,549	-----	1,218	363	855
Second	2,103	-----	795	202	593
Third	1,721	-----	653	192	461
Fourth	1,588	-----	826	145	681
Fifth	1,082	-----	906	130	776
Sixth	1,213	-----	1,018	128	890
Seventh	1,204	-----	894	43	851
Eighth	1,166	-----	1,105	-----	1,105
Totals	-----	-----	7,415	1,203	6,212

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
First	\$17,733 00	\$12 00	\$16 21	-----	\$14 61
Second	10,620 00	10 50	12 90	-----	10 40
Third	9,952 50	9 00	11 18	-----	8 90
Fourth	7,767 50	7 50	9 38	-----	7 40
Fifth	6,517 70	6 00	7 58	-----	5 90
Sixth	4,452 50	4 50	4 50	-----	-----
Seventh	4,585 00	3 00	3 00	-----	-----
Eighth	-----	1 50	1 50	-----	-----
Totals	\$61,628 20	-----	-----	-----	-----

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
H. H. Markham	Pasadena	50	\$100 00
E. P. Johnson	Los Angeles	50	100 00
D. R. Hatch	Los Angeles	50	100 00
D. W. Field	Los Angeles	50	100 00
W. H. Mather	Los Angeles	50	100 00

No. 132.—SAN FRANCISCO.

CONTINENTAL BUILDING AND LOAN ASSOCIATION.

Incorporated July 17, 1889.

WILLIAM CORBIN, Secretary.

ED. E. HILL, President.

No. of series, 5.

End of fiscal year, June 30, 1893.

No. of shares, 6,565½.

Resources.		Liabilities.	
Loans	\$89,460 11	Dues and advance payments...	\$68,949 79
Arrearages	2,127 15	Earnings	12,918 84
Cash on hand	813 37	Overdrafts and bills payable...	11,150 00
Real estate	853 45	Profits unapportioned	139 04
Other assets	938 25	All other liabilities	1,034 66
Total resources	\$94,192 33	Total liabilities	\$94,192 33

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	\$1,541 41	Paid overdrafts and bills payable	\$13,000 00
Received for dues	36,252 61	Loans	57,484 35
Received for paid-up stock	3,575 00	Interest	1,509 78
Received for premiums	3,048 67	Dues on surrendered shares	30,311 04
Received for interest	7,442 20	Profits on surrendered shares	2,248 31
Received for fees and fines	520 05	Salaries	3,796 92
Loans repaid	54,176 84	Taxes	610 43
Overdrafts and bills payable	4,500 00	Other expenses	2,249 02
All other sources	6,022 88	All other disbursements	5,056 44
Total receipts	\$117,079 66	Balance on hand	813 37
		Total disbursements	\$117,079 66

Authorized capital stock	\$20,000,000 00
No. of shares	200,000
No. of members	718
No. of borrowers	81
No. of mortgage loans for year	39
Amount of mortgage loans for year	\$52,900 00
No. of foreclosures since organization	1
Amount due on foreclosures	\$853 45
No. of shares last report	6,537
No. of shares issued since last report	3,034½
No. of shares canceled since last report	3,006
Net profits of year	\$8,844 95
Plan of distribution	Dexter.
No. shares loaned on	551
No. shares free	6,014½
Ratio of salaries to total receipts	3.24 per cent.

Ratio of expenses (including salaries and taxes) to total receipts.....	5.68 per cent.
Surrender value of all shares.....	\$78,342 36
Total present worth of mortgages.....	88,692 95
Total appraised value of land.....	105,023 00
Total appraised value of improvements.....	80,454 60
Total book value of stock hypothecated.....	7,949 77
Total value of security held.....	193,427 37
Premium.....	Installment.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	In Force Last Report.	Now in Force.	Shares Loaned Upon.	Shares Free.
Class A and B.....	4,992½	5,570½	679	4,891½
Class C.....	151	137	-----	137
Class D.....	62½	123	-----	123
Class E.....	366	377	-----	377
Class F.....	993½	657½	32½	625

Series.	Total Dues Paid.	Total of Book Values.	Withdrawal Value.
Class A and B.....	\$52,641 78	\$68,006 60	\$64,165 40
Class C.....	5,973 00	7,815 34	7,354 76
Class D.....	12,023 75	12,023 75	12,023 75
Class E.....	3,936 57	3,936 57	3,936 57
Class F.....	4,301 15	4,833 05	4,931 21
Totals.....	\$78,876 25	\$96,615 31	\$92,411 69

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Ed. E. Hill.....	San Francisco.....	25	\$100 00
William Corbin.....	San Rafael.....	65	100 00
J. P. Samuelson.....	Tiburon.....	55	100 00
W. A. Sutherland.....	San Francisco.....	10	100 00
George W. Ade.....	San Francisco.....	10	100 00

No. 133.—SAN FRANCISCO.

PACIFIC STATES SAVINGS, LOAN, AND BUILDING COMPANY.

Incorporated July, 1889.

WM. PARDY, Secretary.

JOHN H. WISE, President.

No. of series, 72.

End of fiscal year, July 31, 1893.

No. of shares, 47,485.

Resources.		Liabilities.	
Loans.....	\$728,462 64	Dues and advance payments..	\$556,625 48
Arrearages.....	9,327 11	Earnings.....	154,862 83
Cash on hand.....	11,416 39	Overdrafts and bills payable..	-----
Real estate.....	-----	Profits unapportioned.....	17,377 69
Other assets.....	945 62	All other liabilities.....	21,285 76
Total resources.....	\$750,151 76	Total liabilities.....	\$750,151 76

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$3,227 01	Paid overdrafts and bills payable.....	.....
Received for dues.....	239,194 33	Loans.....	\$269,413 75
Received for paid-up stock.....	1,700 00	Interest.....	473 69
Received for premiums.....	37,721 30	Dues on surrendered shares.....	124,391 78
Received for interest.....	38,003 89	Profits on surrendered shares.....	24,759 50
Received for fees and fines.....	4,974 04	Salaries.....	17,440 00
Loans repaid.....	97,635 00	Taxes.....	3,997 59
Overdrafts and bills payable.....	.....	Other expenses.....	11,676 47
All other sources: expense fund, attorney fees, and depositions..	43,829 06	All other disbursements.....	2,805 46
		Balance on hand.....	11,416 39
		Loan fund.....	\$8,372 36
		Expense fund.....	3,044 03
Total receipts.....	\$466,284 63	Total disbursements.....	\$466,284 63

Authorized capital stock.....	\$25,000,000 00
No. of shares.....	250,000
No. of members.....	3,568
No. of borrowers.....	554
No. of mortgage loans for year.....	225
Amount of mortgage loans for year.....	\$243,700 00
No. of foreclosures since organization.....	.....
Amount due on foreclosures.....	.....
No. of shares last report.....	48,000
No. of shares issued since last report.....	14,080
No. of shares canceled since last report.....	14,595
Net profits of year.....	\$88,755 38
Plan of distribution.....	Dexter.
No. shares loaned on.....	6,662
No. shares free and premium.....	40,823
Ratio of salaries to total receipts.....	3.74 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	7.10 per cent.
Surrender value of all shares.....	\$625,367 60
Total present worth of mortgages.....	608,755 24
Total appraised value of land.....	870,091 00
Total appraised value of improvements.....	843,563 00
Total book value of stock hypothecated.....	98,054 76
Total value of security held.....	1,811,708 76
Premium.....	Stock plan

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force June 30, 1892.	Now in Force.	Shares Loaned Upon.	Shares "Free."
<i>Class A.</i>					
1.....	2,148	1,413	1,048	4	1,040
2.....	1,660	819	694	91	509
3.....	2,870	1,334	1,073	105	833
4.....	3,806	1,632	1,225	273	668
5.....	3,752	1,392	1,094	141	852
6.....	4,540	1,452	877	60	746
7.....	2,902	1,078	812	74	666
8.....	2,522	1,322	944	123	608
9.....	2,662	1,324	929	71	787
10.....	2,193	1,205	719	53	611
11.....	2,318	1,422	797	89	623
12.....	2,419	1,361	786	70	649
13.....	1,477	918	620	62	489
14.....	1,636	1,045	842	128	579
15.....	1,454	838	608	90	443
16.....	2,232	1,104	783	89	556
17.....	3,221	1,627	1,287	230	831
18.....	3,415	1,652	1,246	273	719
19.....	2,221	1,137	907	106	678
20.....	2,327	1,033	883	172	531
21.....	2,471	1,147	1,032	155	736
22.....	2,422	1,459	980	101	762

MEMORANDA OF SERIES, LOANS, ETC.—Continued.

Series.	Original Issue.	In Force June 30, 1892.	Now in Force.	Shares Loaned Upon.	Shares "Free."
23	3,078	1,817	1,433	172	1,094
24	2,390	1,608	1,266	258	761
25	2,045	1,353	926	139	664
26	2,398	1,708	1,300	143	1,013
27	2,059	1,661	1,355	261	799
28	2,255	1,653	1,343	169	984
29	2,017	1,336	994	209	573
30	1,849	1,410	1,050	127	794
31	1,056	846	712	103	501
32	2,223	1,105	893	90	732
33	643	443	392	89	204
34	1,103	843	731	105	509
35	994	718	511	85	350
36	984	720	453	89	273
37	523	-----	318	54	204
38	747	-----	651	142	352
39	1,141	-----	834	215	399
40	1,174	-----	741	156	426
41	1,074	-----	799	247	305
42	1,047	-----	950	356	228
43	814	-----	694	200	285
44	896	-----	793	142	492
45	608	-----	417	98	220
46	739	-----	626	191	240
47	509	-----	363	109	143
48	572	-----	562	153	246

Class C.

1	20	20	20	-----	-----
2	45	15	5	-----	-----
3	85	20	-----	-----	-----
4	295	190	90	-----	-----
5	237	110	70	-----	-----
6	300	175	75	-----	-----
7	640	440	290	-----	-----
8	1,045	500	300	-----	-----
9	365	270	180	-----	-----
10	226	175	90	-----	-----
11	545	470	240	-----	-----
12	425	415	240	-----	-----
13	530	-----	290	-----	-----
14	974	-----	440	-----	-----
15	831	-----	365	-----	-----
16	625	-----	370	-----	-----
17	485	-----	370	-----	-----
18	390	-----	290	-----	-----
19	265	-----	165	-----	-----
20	335	-----	305	-----	-----
21	150	-----	100	-----	-----
22	485	-----	410	-----	-----
23	765	-----	625	-----	-----
24	700	-----	595	-----	-----
Loans in settlement	-----	-----	-----	-----	-----
Paid-up stock, B and F	321	-----	272	-----	-----

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
<i>Class A.</i>					
1	\$400 00	\$24 96	\$37 80	\$27 96	\$34 59
2	9,100 00	24 44	36 59	27 32	33 55
3	10,500 00	23 92	35 41	26 67	32 54
4	27,300 00	23 40	34 21	26 03	31 51
5	14,100 00	22 88	33 05	25 40	30 51
6	6,000 00	22 56	31 94	24 76	29 54
7	7,400 00	21 84	30 83	24 13	28 58
8	12,300 00	21 32	29 76	23 51	27 65

MEMORANDA OF SERIES, LOANS, ETC.—Continued.

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
9	\$7,100 00	\$20 80	\$28 69	\$22 83	\$26 72
10	5,300 00	20 28	27 66	22 26	25 81
11	8,900 00	19 76	26 64	21 64	24 92
12	7,000 00	19 24	25 65	21 02	24 05
13	6,200 00	18 72	24 62	20 40	23 14
14	12,800 00	18 20	23 70	19 79	22 33
15	9,000 00	17 68	22 79	19 18	21 51
16	8,900 00	17 16	21 90	18 58	20 72
17	22,950 00	16 64	21 03	17 97	19 93
18	27,300 00	16 12	20 17	17 37	19 16
19	10,600 00	15 60	19 35	16 77	18 41
20	17,200 00	15 08	18 53	16 17	17 67
21	15,500 00	14 56	17 74	15 58	16 94
22	10,050 00	14 04	16 96	14 99	16 23
23	17,200 00	13 52	16 19	14 40	15 52
24	25,800 00	13 00	15 52	13 81	14 89
25	13,900 00	12 48	14 87	13 23	14 27
26	14,300 00	11 96	14 15	12 65	11 96
27	26,100 00	11 44	13 45	12 07	11 44
28	16,900 00	10 92	12 75	11 49	10 92
29	20,900 00	10 40	12 06	10 92	10 40
30	12,700 00	9 88	11 39	10 35	9 88
31	10,300 00	9 36	10 72	9 78	9 36
32	9,000 00	8 84	10 06	9 22	8 84
33	8,900 00	8 32	9 42	8 65	8 32
34	10,500 00	7 80	8 78	8 09	7 80
35	8,500 00	7 28	8 17	7 53	7 28
36	8,900 00	6 76	7 54	6 98	6 76
37	5,400 00	6 24	6 94	6 43	6 24
38	14,200 00	5 72	6 32	5 88	-----
39	21,500 00	5 20	5 71	5 33	-----
40	15,600 00	4 68	5 11	4 79	-----
41	24,700 00	4 16	4 51	4 24	-----
42	35,600 00	3 64	3 93	3 70	-----
43	20,000 00	3 12	3 34	3 17	-----
44	14,200 00	2 60	2 77	2 63	-----
45	9,800 00	2 08	2 20	2 10	-----
46	19,100 00	1 56	1 64	1 57	-----
47	10,900 00	1 04	1 09	1 01	-----
48	16,300 00	52	54	52	-----
<i>Class C.</i>					
1	-----	14 40	16 18	15 26	15 26
2	-----	13 80	15 43	14 59	14 59
3	-----	13 20	-----	-----	-----
4	-----	12 60	13 95	13 26	13 26
5	-----	12 00	13 21	12 60	12 60
6	-----	11 40	12 49	11 94	11 94
7	-----	10 80	11 77	11 29	11 29
8	-----	10 20	11 05	10 63	10 63
9	-----	9 60	10 35	9 98	9 98
10	-----	9 00	9 65	9 34	9 34
11	-----	8 40	8 96	8 69	8 69
12	-----	7 80	8 27	8 05	8 05
13	-----	7 20	7 67	7 43	7 43
14	-----	6 60	7 00	6 80	6 80
15	-----	6 00	6 33	6 17	6 17
16	-----	5 40	5 67	5 54	5 54
17	-----	4 80	5 02	4 91	4 91
18	-----	4 20	4 37	4 28	4 28
19	-----	3 60	3 73	3 66	3 66
20	-----	3 00	3 09	3 05	3 05
21	-----	2 40	2 46	2 43	2 43
22	-----	1 80	1 84	1 82	1 82
23	-----	1 20	1 22	1 21	1 21
24	-----	60	61	60	60
Loans in settlement	35,557 64	-----	-----	-----	-----
Paid-up stock, B and F	-----	-----	-----	-----	-----

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
John H. Wise	San Francisco	50	\$100 00
Geo. E. Gray	San Francisco	5	100 00
Christian Reis	San Francisco	50	100 00
W. H. Busch	San Francisco	50	100 00
Wm. Pardy	San Francisco	100	100 00

No. 134.—SAN FRANCISCO.

REPUBLIC SAVINGS, BUILDING, AND LOAN ASSOCIATION
OF CALIFORNIA.

Incorporated October 11, 1889.

EDWARD OLIVER, Secretary.

GEORGE H. FULLER, President.

No series.

End of fiscal year, September 30, 1893.

No. of shares, 1,018.

Resources.		Liabilities.	
Loans	\$5,875 00	Dues and advance payments ..	\$10,919 00
Arrearages	220 80	Earnings	950 00
Cash on hand	352 87	Overdrafts and bills payable...	2,429 67
Real estate	13,050 00	Profits unapportioned.....	5,350 00
Other assets	150 00	All other liabilities.....	
Total resources	\$19,648 67	Total liabilities	\$19,648 67
Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	\$263 03	Paid overdrafts and bills pay- able.....	\$3,545 84
Received for dues	3,348 20	Loans	200 00
Received for paid-up stock		Interest	208 62
Received for premiums.....	400 75	Dues on surrendered shares....	2,311 35
Received for interest	414 75	Profits on surrendered shares..	307 45
Received for fees and fines.....	88 15	Salaries	602 00
Loans repaid	2,850 00	Taxes	137 17
Overdrafts and bills payable....	950 00	Other expenses	980 13
All other sources	880 55	All other disbursements.....	550 00
Total receipts.....	\$9,195 43	Balance on hand	352 87
		Total disbursements.....	\$9,195 43

Authorized capital stock.....	\$25,000,000 00
No. of shares	250,000
No. of members	59
No. of borrowers.....	8
No. of mortgage loans for year.....	
Amount of mortgage loans for year.....	
No. of foreclosnres since organization.....	3
Amount due on foreclosures	\$1,978 83
No. of shares last report.....	1,402
No. of shares issued since last report.....	21
No. of shares canceled since last report	405
Net profits of year.....	
Plan of distribution.....	Dexter.

No. shares loaned on	83
No. shares free	935
Ratio of salaries to total receipts	6.54 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	18.69 per cent.
Surrender value of all shares	\$16,269 00
Total present worth of mortgages	4,271 00
Total appraised value of land	2,400 00
Total appraised value of improvements	2,600 00
Total book value of stock hypothecated	1,711 00
Total value of security held	6,711 00
Association liquidating.	

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

	In Force	Now in Force.	Shares Loaned Upon.	Shares "Free."	Total Book Value.
Regular (active)	524	524	83	441	\$9,365 00
Paid-up stock	33	33		33	1,554 00
Withdrawing stock	461	461		461	5,464 50

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Geo. H. Fuller	San Francisco	20	\$100 00
H. W. Hutton	San Francisco	20	100 00
A. L. Hathaway	Vallejo	10	100 00
T. L. Bromley	Oakland	10	100 00
E. Oliver	San Francisco	10	100 00
F. A. Jones	Alameda	10	100 00
T. E. Driscoll	Baden	10	100 00

No. 135.—SAN FRANCISCO.

RENTERS COÖPERATIVE INVESTMENT COMPANY.

Incorporated November 24, 1890.

J. H. MALLETT, JR., Secretary.

FRANK P. LATSON, President.

No. of series, 36.

End of fiscal year, December 15, 1893.

No. of shares, 5,106.

Resources.		Liabilities.	
Loans	\$68,436 50	Dues and advance payments ..	\$34,672 75
Arrearages	3,246 95	Earnings	8,999 44
Cash on hand	526 48	Overdrafts and bills payable...	7,941 36
Real estate	-----	Profits unapportioned	-----
Other assets: advance taxes and personal accounts.....	324 36	All other liabilities	20,920 74
		Loans incomplete ..	\$3,776 79
		Paid-up stock	16,874 60
		Due withdrawals ..	269 35
Total resources	\$72,534 29	Total liabilities	\$72,534 29

Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand	\$1,873 45	Paid overdrafts and bills pay- able	\$1,497 44
Received for dues	21,130 00	Loans	47,670 56
Received for paid-up stock	16,550 00	Interest	950 55
Received for premiums	3,410 34	Dues on surrendered shares ..	13,838 35
Received for interest	3,410 33	Profits on surrendered shares and paid-up certificates	1,606 04
Received for fees and fines ..	853 92	Salaries	3,060 00
Loans repaid	11,265 00	Taxes	307 55
Overdrafts and bills payable ..	7,941 36	Other expenses	2,348 85
All other sources	5,432 63	All other disbursements: ad- vances on mortgages	11 21
Profit and loss	\$23 53	Balance on hand	526 48
Advances	25		
Expense fund	5,408 85		
Total receipts	\$71,867 03	Total disbursements	\$71,867 03

Authorized capital stock	\$500,000 00
No. of shares	5,000
No. of members	445
No. of borrowers	75
No. of mortgage loans for year ..	40
Amount of mortgage loans for year ..	\$45,171 56
No. of foreclosures since organization ..	-----
Amount due on foreclosures	-----
No. of shares last report	2,806
No. of shares issued since last report ..	3,226
No. of shares canceled since last report ..	926
Net profits of year	\$6,747 57
Plan of distribution	Dexter.
No. shares loaned on	1,376
No. shares free	3,730
Ratio of salaries to total receipts	4.26 per cent.
Ratio of expenses (including salaries and taxes) to total receipts	7.95 per cent.
Surrender value of all shares (estimated) ..	\$40,072 41
Total present worth of mortgages	55,917 12
Total appraised value of land	112,440 00
Total appraised value of improvements ..	74,301 00
Total book value of stock hypothecated ..	12,519 38
Total value of security held	199,260 38
Premium	Installment.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force -----	Now in Force.	Shares Loaned Upon.	Shares "Free."
1	595	-----	380	65	315
2	120	-----	60	20	40
3	135	-----	65	30	35
6	179	-----	60	15	45
7	535	-----	40	-----	40
9	89	-----	12	5	7
10	140	-----	20	-----	20
11	74	-----	25	10	15
13	71	-----	33	-----	33
14	127	-----	75	25	50
15	219	-----	127	25	102
16	273	-----	199	84	115
17	210	-----	135	70	65
18	312	-----	222	72	150
19	219	-----	169	104	65
20	238	-----	125	75	50
21	243	-----	168	115	53
22	97	-----	70	5	65
23	265	-----	175	140	35
24	33	-----	20	10	10
25	211	-----	195	100	95
26	290	-----	230	50	180
27	338	-----	318	113	205
28	137	-----	120	56	64
29	433	-----	373	90	283
30	343	-----	248	10	238
31	267	-----	207	-----	207
32	283	-----	248	10	238
33	258	-----	253	-----	253
34	271	-----	361	8	353
35	270	-----	270	23	247
36	103	-----	103	46	57
Totals	-----	-----	5,106	1,376	3,730

MEMORANDA OF SERIES, LOANS, ETC.—Continued.

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
1	\$1,360 00	\$0 55	\$23 14.2	-----	-----
2	2,000 00	55	22 21.8	-----	-----
3	1,500 00	55	21 57.6	-----	-----
6	500 00	55	19 04.2	-----	-----
7	-----	55	18 30.6	-----	-----
9	64 00	60	17 96.4	-----	-----
10	-----	60	16 92.5	-----	-----
11	-----	60	16 09.4	-----	-----
13	-----	60	15 08.6	-----	-----
14	170 00	60	14 00.8	-----	-----
15	2,062 50	60	12 81.2	-----	-----
16	5,830 00	60	12 17.9	-----	-----
17	1,450 00	60	11 60.0	-----	-----
18	5,195 00	60	10 83.9	-----	-----
19	7,100 00	60	10 23.4	-----	-----
20	3,430 00	60	9 72.1	-----	-----
21	6,895 00	60	8 96.1	-----	-----
22	-----	60	8 33.9	-----	-----
23	3,100 00	60	7 72.8	-----	-----
24	800 00	60	7 16.6	-----	-----
25	7,650 00	60	6 49.7	-----	-----
26	780 00	60	5 95.7	-----	-----
27	5,700 00	60	5 34.2	-----	-----
28	3,550 00	60	4 78.7	-----	-----
29	5,200 00	60	4 21.9	-----	-----
30	400 00	60	3 63.4	-----	-----
31	-----	60	3 14.0	-----	-----
32	-----	60	2 58.1	-----	-----
33	-----	60	2 04.4	-----	-----
34	-----	60	1 52.2	-----	-----
35	1,100 00	60	1 00.7	-----	-----
36	2,600 00	60	50.0	-----	-----
Totals	\$68,436 50	-----	-----	-----	-----

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Frank P. Latson	San Francisco	1,000	\$100 00
Geo. M. Perine	San Francisco	5	100 00
Bernard Dreyer	Gonzales, Cal.	850	100 00
Henry Gumpel	San Francisco	850	100 00
Chas. A. Warren	San Francisco	850	100 00

No. 136.—SAN FRANCISCO.

CALIFORNIA GUARANTEE INVESTMENT COMPANY.

Incorporated August 2, 1890.

JOHN W. BUTLER, Secretary.

H. M. A. MILLER, President.

No. of series, 2S.

End of fiscal year, August 31, 1893.

No. of shares, 18,571.

Resources.		Liabilities.	
Loans.....	\$563,955 95	Dues and advance payments, A, B, and D.....	\$417,781 20
Arrearages.....	-----	Earnings.....	45,209 81
Cash on hand.....	-----	Overdrafts and bills payable.....	48,016 01
Real estate.....	-----	Profits unapportioned and re- serves.....	5,699 61
Other assets.....	780 48	All other liabilities.....	48,029 80
Due from collectors.....	\$684 08	Loans incomplete.....	\$5,179 80
Due from members.....	96 40	Special deposits.....	42,850 00
Total resources.....	\$564,736 43	Total liabilities.....	\$564,736 43
Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$10,597 73	Paid overdrafts and bills pay- able.....	\$43,250 00
Received for dues.....	89,841 68	Loans.....	246,614 90
Received for paid-up stock.....	207,900 00	Interest.....	5,370 12
Received for premiums.....	22,977 24	Dues on surrendered shares, A, B, C, and D.....	219,123 36
Received for interest.....	30,537 71	Profits on surrendered shares.....	25,464 09
Received for fees and fines.....	1,118 98	Salaries.....	7,187 50
Loans repaid.....	55,528 51	Taxes.....	4,415 50
Overdrafts and bills payable.....	82,516 01	Other expenses.....	10,889 94
All other sources.....	65,443 52	All other disbursements.....	4,145 97
Special deposits.....	\$46,682 00	Insurance advanced.....	\$179 34
In hands of collectors.....	684 08	Special deposits.....	3,832 00
Expense fund col- lections.....	18,077 44	Discounts.....	134 63
Total receipts.....	\$566,461 38	Balance on hand.....	-----
		Total disbursements.....	\$566,461 38

Authorized capital stock.....	\$50,000,000 00
No. of shares.....	500,000
No. of members.....	796
No. of borrowers.....	207
No. of mortgage loans for year.....	147
Amount of mortgage loans.....	\$231,125 00
No. of foreclosures since organization.....	-----
Amount due on foreclosures.....	-----
No. of shares last report.....	21,700
No. of shares issued since last report.....	2,379
No. of shares canceled since last report.....	5,508
Net profits of year.....	\$29,131 67
Plan of distribution.....	Partnership.
No. shares loaned on.....	8,057
No. shares free.....	10,514
Ratio of salaries to total receipts.....	1.27 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	3.97 per cent.
Surrender value of all shares.....	\$431,993 21
Total present worth of mortgages.....	337,570 45
Total appraised value of land.....	520,051 00
Total appraised value of improvements.....	380,635 00
Total book value of stock hypothecated.....	58,432 76
Total value of security held.....	959,118 76
Premium.....	Premium shares; Installment.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force -----	Now in Force.	Shares Loaned Upon.	Shares "Free."
1			1,826	105	1,721
2			889	344	545
3			280	20	260
4			332	230	102
5			351	144	207
6			988	606	382
7			1,521	688	833
8			755	392	363
9			698	370	328
10			743	168	575
11			772	450	322
12			424	124	300
13			202	76	126
14			151	91	60
15			247	105	142
16			752	482	270
17			708	394	314
18			386	170	216
19			890	680	210
20			520	270	250
21			682	502	180
22			255	160	95
23			676	276	400
24			285	120	165
25			708	238	470
26			567	274	293
27			1,748	478	1,270
28			215	100	115
Totals			18,571	8,057	10,514

Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
1	\$5,250 00	\$18 72	\$25 60	-----	\$23 88
2	16,200 00	18 20	24 60	-----	23 00
3	1,000 00	17 68	23 63	-----	22 14
4	11,500 00	17 16	22 67	-----	21 29
5	7,200 00	16 64	21 74	-----	20 47
6	29,300 00	16 12	20 82	-----	19 65
7	34,100 00	15 60	19 93	-----	18 85
8	19,500 00	15 08	19 06	-----	18 07
9	18,300 00	14 56	18 20	-----	17 29
10	8,400 00	14 04	17 37	-----	16 54
11	22,500 00	13 52	16 56	-----	15 80
12	5,900 00	13 00	15 76	-----	15 07
13	3,800 00	12 48	15 00	-----	14 36
14	4,400 00	11 96	14 23	-----	11 96
15	5,250 00	11 44	13 49	-----	11 44
16	22,400 00	10 92	12 75	-----	10 92
17	19,500 00	10 40	12 03	-----	10 40
18	8,400 00	9 88	11 32	-----	9 88
19	33,500 00	9 36	10 63	-----	9 36
20	13,500 00	8 84	9 95	-----	8 84
21	25,600 00	8 32	9 28	-----	8 32
22	7,500 00	7 80	8 62	-----	7 80
23	13,800 00	7 28	7 98	-----	7 28
24	6,000 00	6 76	7 35	-----	6 76
25	11,900 00	6 24	6 73	-----	6 24
26	13,700 00	5 72	6 12	-----	None.
27	23,900 00	5 20	5 52	-----	None.
28	5,000 00	4 68	4 93	-----	None.
Total	\$397,000 00	-----	-----	-----	-----
Amount installment loans	160,743 95	-----	-----	-----	-----
Total real estate loans	\$557,743 95	-----	-----	-----	-----

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each (In Guarantee Capital Stock.)	
		Shares.	Par Value.
H. M. A. Miller.....	San Francisco	309	\$100 00
E. C. Hutchinson.....	San Francisco	351	100 00
John Dempster McKee.....	San Francisco	242	100 00
John W. Butler.....	San Francisco	238	100 00
Kirkham Wright.....	San Francisco	50	100 00
A. S. Baldwin.....	San Francisco	50	100 00
C. O. G. Miller.....	Oakland.....	250	100 00
Joseph Hutchinson.....	Palo Alto.....	212	100 00

No. 137.—SAN FRANCISCO.

PACIFIC COAST SAVINGS SOCIETY.

Incorporated January 26, 1891.

G. D. BERNARD, Secretary.

WENDELL EASTON, President.

No series.

End of fiscal year, December 30, 1893.

No. of shares, 30,207.

Resources.		Liabilities.	
Loans.....	\$478,124 50	Dues and advance payments....	\$416,808 59
Arrearages.....	5,005 83	Earnings.....	46,651 38
Cash on hand and in bank.....	34,413 46	Overdrafts and bills payable.....	-----
Real estate.....	-----	Profits unapportioned.....	49 41
Other assets.....	61,270 02	All other liabilities.....	115,304 43
Furniture and fixtures.....	\$4,754 59	Due banks.....	\$15,000 00
Progressive banks.....	3,810 00	Deposits.....	100,304 43
Due on collection account.....	52,705 43		
Total resources.....	\$578,813 81	Total liabilities.....	\$578,813 81
Receipts for Fiscal Year.		Disbursements for Fiscal Year.	
Balance on hand.....	\$27,610 50	Paid overdrafts and bills payable.....	\$60,283 47
Received for dues and paid-up stock.....	253,194 73	Loans.....	145,777 43
Received for premiums.....	27,082 09	Interest.....	6,778 90
Received for interest.....	27,082 10	Dues on surrendered shares.....	136,952 20
Received for fines and fees.....	4,078 96	Profits on surrendered shares.....	4,321 65
Loans and overdrafts repaid.....	98,327 91	Salaries.....	7,765 00
Overdrafts and bills payable.....	-----	Taxes.....	2,981 04
All other sources: deposits.....	1,631,811 39	Other expenses.....	18,370 10
		All other disbursements.....	1,651,544 43
		Fixtures.....	\$1,134 09
		Progressive banks.....	3,810 00
		Paid deposits.....	1,646,600 34
		Balance on hand.....	34,413 46
Total receipts.....	\$2,069,187 68	Total disbursements.....	\$2,069,187 68

Authorized capital stock.....	\$50,000,000 00
No. of shares.....	500,000
No. of members.....	2,866
No. of borrowers.....	309
No. of mortgage loans for year.....	46
Amount of mortgage loans for year.....	\$88,007 89
No. of foreclosures since organization.....	
Amount due on foreclosures.....	
No. of shares last report.....	28,822
No. of shares issued since last report.....	15,699
No. of shares canceled since last report.....	14,314
Net profits of year.....	\$27,729 14
Plan of distribution.....	Dexter.
No. shares loaned on.....	6,226
No. shares free.....	23,981
Ratio of salaries to total receipts.....	.32 per cent.
Ratio of expenses (including salaries and taxes) to total receipts.....	1.41 per cent.
Surrender value of all shares.....	\$451,207 04
Total present worth of mortgages.....	
Total appraised value of land.....	658,103 00
Total appraised value of improvements.....	323,685 00
Total book value of stock hypothecated.....	827,895 68
Total value of security held.....	1,814,683 63
Premium.....	Installment.

MEMORANDA OF SERIES, LOANS, AND VALUE OF SHARES.

Series.	Original Issue.	In Force -----	Now in Force.	Shares Loaned Upon.	Shares "Free."
Stock	68,742	-----	30,207	6,226	23,981
Series.	Amount of Loans, Each Series.	Dues Paid Per Share.	Book Value Per Share.	Value at 6 Per Cent Interest.	Withdrawal Value.
Stock	\$478,124 50	-----	\$463,459 97	-----	\$451,207 04

DIRECTORS, AND CAPITAL STOCK HELD BY EACH.

Names of Directors.	Residence.	Amount of Capital Stock Held by Each.	
		Shares.	Par Value.
Wendell Easton.....	San Francisco	344	\$100 00
George W. Frink.....	San Francisco	25	100 00
Wm. C. Murdock.....	San Francisco	274	100 00
George Easton.....	San Francisco	69	100 00
C. S. Benedict.....	San Francisco	50	100 00

APPENDIX.

LAWS OF THE STATE OF CALIFORNIA,

FOR THE FORMATION, GOVERNMENT, CONTROL, AND EXISTENCE OF
BUILDING AND LOAN ASSOCIATIONS.

Compiled by WICKLIFFE MATTHEWS, Esq., Attorney-at-Law, and Secretary of the Commonwealth Mutual Building and Loan Association, of San Francisco, 402 Montgomery Street, rooms 18 and 19, San Francisco, California.

1. *Corporation Defined.*

A corporation is a creature of the law, having certain powers and duties of a natural person. Being created by the law, it may continue for any length of time which the law prescribes.^a (Section 283, Civil Code.)

2. *A Building and Loan Association is a Private Corporation.*

Private corporations may be formed by the voluntary association of any five or more persons in the manner prescribed in this article. A majority of such persons must be residents of this State. (Section 285, Civil Code.)

3. *Name of Instrument Creating Corporation.*

The instrument by which a private corporation is formed is called "Articles of Incorporation." (Section 289, Civil Code.)

4. *Articles of Incorporation—What to Contain.*

Articles of incorporation must be prepared, setting forth:

First—The name of the incorporation.^b

Second—The purpose for which it is framed.^c

Third—The place where its principal business is to be transacted.^d

Fourth—The term for which it is to exist, not exceeding fifty years.

Fifth—The number of its Directors or Trustees, which shall not be less than five nor more than eleven, and the names and residences of those

^a The law limits the time to fifty years.

^b In all Building and Loan Associations organized after the 31st day of March, 1891, the words "Mutual Building and Loan Association" shall form part of the name of every such corporation. (Abstract from Section 633, Civil Code, and from the Act approved March 31, 1891.)

Of Building and Loan Associations organized prior to March 31, 1891, it is not necessary that the words "Mutual Building and Loan Association" shall form part of the name of such corporation.

^c In Building and Loan Associations organized after March 31, 1891, the articles of incorporation, in setting forth the purposes for which the corporation is formed [framed] shall state that it is formed to encourage industry, frugality, home building, and savings among the stockholders; the accumulation of savings; the loaning to its stockholders of the funds so accumulated, with the profits and earnings; and the repayment to each stockholder of his savings and profits when they have accumulated to a certain sum, or at any time when he shall desire the same, as provided in the by-laws or when the corporation shall desire to repay the same; and shall also state that it is formed for all the purposes specified in this title (Title XVI, Part IV, Division 1st, of the Civil Code). In Building and Loan Associations incorporated prior to March 31, 1891, it was not necessary that all of the foregoing should have been inserted.

^d In incorporating under a general law, a strict compliance with all the requirements of the statutes in matters of detail is not essential, and the proceedings will not be invalid for slight defects or omissions. (*S. V. Waterworks vs. San Francisco*, 22 Cal. 434;

who are appointed for the first year. * * * *And provided also*, That any time during the existence of corporations for profit, the number of Directors may be increased or diminished by a majority of the stockholders of the corporation to any number not exceeding eleven nor less than five, who must be members of the corporation, whereupon a certificate stating the number of Directors must be filed as provided for in Section 296, for the filing of the original articles of incorporation.

Sixth—The amount of its capital stock;^a and the number of shares into which it is divided.^b

Seventh—If there is a capital stock, the amount actually subscribed, and by whom. (Section 290, Civil Code.)

5. *Articles of Incorporation to be Subscribed and Acknowledged.*

The articles of incorporation must be subscribed by five or more persons, a majority of whom must be residents of this State, and acknowledged by each before some officer authorized to take and certify acknowledgments of conveyances of real property. (Section 292, Civil Code.)

6. *Articles of Incorporation to be Filed with County Clerk and Secretary of State.*

Upon filing the articles of incorporation in the office of the County Clerk of the county in which the principal business of the company is to be transacted, and a copy thereof certified by the County Clerk, with the Secretary of State,^c the Secretary of State must issue to the corporation, over the great seal of the State, a certificate that a copy of the articles containing the required statement of facts has been filed in his office, and thereupon the persons signing the articles, and their associates and successors, shall be a body politic and corporate, by the name stated in the certificate, and for the term of fifty years, unless it is in the articles of incorporation otherwise stated. (Abstract from Section 296, Civil Code.)

7. *Certified Copy of Articles of Incorporation Prima Facie Evidence.*

A copy of any articles of incorporation filed in pursuance of this chapter, and certified by the Secretary of State, must be received in all

Ex Parte S. V. W. W., 17 Cal. 132; *People vs. Stockton Railroad Company*, 45 Cal. 306; *Roman Catholic Orphan Asylum vs. Abrams*, 49 Cal. 455.) But a substantial compliance with the requirements of the Act by the persons seeking to derive the benefits of incorporation must be observed, and the omission of essential steps will be fatal. (*Mokelumne Hill Manufacturing Company vs. Woodberry*, 14 Cal. 424; *Harris vs. McGregor*, 29 Cal. 124; *People vs. Selfridge*, 52 Cal. 331.) The omission to state the place where its principal place of business is to be transacted is fatal. (*Harris vs. McGregor*, 29 Cal. 124.)

^a In Building and Loan Association corporations organized prior to March 31, 1891, the capital stock could be placed at any sum that was desired or named in the articles of incorporation. Those organized after the 31st day of March, 1891, cannot have a capital stock exceeding \$2,000,000.

^b Building and Loan Association corporations organized prior to the 31st day of March, 1891, could fix the value of their shares in any sum not exceeding \$200 each, payable in periodical installments. (Section 639, Civil Code, amendment approved March 30, 1874. Amendments 1873-4, page 217; took effect July 1, 1874.)

Those organized after March 31, 1891, can only fix their shares of the par value of \$100 or \$200 each, as shall be provided in the articles of incorporation, and fixed by the by-laws. (Section 634, Civil Code, and the amendments of 1891, page 253; approved March 31, 1891.)

^c The statutes in regard to filing the articles of incorporation must be followed, in order to create the corporate existence of the association. (*Bigelow vs. Gregory*, 73 Illinois, 197.)

the Courts and other places as *prima facie* evidence of the facts therein stated. (Section 297, Civil Code.)

8. *Building and Loan Associations should file Certified Copies of their Articles of Incorporation, duly Certified thereto by the Secretary of State, in the Office of the County Clerk in each County in the State in which they hold any Property.*

No corporation hereafter formed shall purchase, locate, or hold any property in any county of this State without filing a copy of the copy of its articles of incorporation, filed in the office of the Secretary of State, duly certified by such Secretary of State, in the office of the County Clerk of the county in which such property is situated, within sixty days after such purchase or location is made.

Every corporation now in existence, whether formed under the provisions of this Code or not, must, within ninety days after the passage of this section, file such certified copy of the copy of its articles of incorporation in the office of the County Clerk of every county in this State in which it holds any property (except the county where the original articles of incorporation are filed); and if any corporation hereafter acquires any property in any county other than that in which it now holds property, it must, within ninety days thereafter, file with the Clerk of such county such certified copy of the copy of its articles of incorporation. The copies so filed with the several County Clerks, and certified copies thereof, shall have the same force and effect in evidence as would the original.

Any corporation failing to comply with the provisions of this section shall not maintain nor defend any action or proceeding in relation to such property, its rents, issues, or profits, until such articles of incorporation, and such certified copy of its articles of incorporation, and such certified copy of the copy of its articles of incorporation, shall be filed at the places directed by the general law and this section; *provided*, that all corporations shall be liable in damages for any and all loss that may arise by the failure of such corporation to perform any of the foregoing duties within the time mentioned in this section; *and provided further*, that the said damages may be recovered in an action brought in any Court of this State of competent jurisdiction, by any party or parties suffering the same. (Section 299, Civil Code.)

9. *Adoption of By-Laws—When, How, and by Whom.*

Every corporation, under this title, must, within one month after filing articles of incorporation, adopt a code of by-laws for its government, not inconsistent with the Constitution and laws of this State.

The assent of stockholders representing a majority of all the subscribed capital stock, or a majority of the members, if there be no capital stock, is necessary to adopt by-laws, if they are adopted, at a meeting called for that purpose; and in the event of such meeting being called, two weeks' notice of the same by advertisement in some newspaper published in the county in which the principal place of business of the corporation is located, or if none is published therein, then in a paper published in an adjoining county, must be given by the order of the Acting President.

The written assent of the holders of two thirds of the stock, or of two thirds of the members, if there be no capital stock, shall be

effectual to adopt a code of by-laws, without a meeting for that purpose.^a (Section 301, Civil Code.)

10. *Directors—Election thereof.*

The Directors of a corporation must be elected annually by the stockholders or members, and if no provision is made in the by-laws for the time of election, the election must be held on the first Tuesday in June.

Notice of such election must be given, and the right to vote determined, as prescribed in Section 301.^b (Section 302, Civil Code.)

11. *By-Laws—For What May Provide.*

A corporation may, by its by-laws, where no other provision is specially made, provide for:

First—The time, place, and manner of calling and conducting its meetings, and may dispense with notice of all regular meetings of stockholders or Directors.

Second—The number of stockholders or members constituting a quorum.

Third—The mode of voting by proxy.

Fourth—The qualifications and duties of Directors; also, the time of their annual election, and the mode and manner of giving notice thereof.

Fifth—The compensation and duties of officers.

Sixth—The manner of election and tenure of office of all officers other than the Directors.

Seventh—Suitable penalties for the violation of by-laws, not exceeding in any case \$100, for any offense; and

Eighth—The newspaper in which all notices of the meeting of stockholders or Board of Directors, notice of which is required shall be published, which must be some newspaper published in the county where the principal place of business of the corporation is located, or if none is published therein, then in a newspaper published in an adjoining county; *provided*, that when the by-laws prescribe the newspaper in which said publication shall be made, if from any cause at the time any publication is desired to be made, the publication of such newspaper shall have ceased, the Board of Directors may, by an order entered on the records of the corporation, direct the publication to be made in some other newspaper published in the county; if none is published therein, then in an adjoining county.^c (Section 303, Civil Code.)

^a By-laws must be reasonable and not oppressive or vexatious. (*St. Luke's Church vs. Matthews*, 6 Am. Dec. 619; *Leggett vs. N. J. M., & B. Company*, 23 Id. 728; *Taylor vs. Griswold*, 27 Id. 33; *Kent vs. Quicksilver Mining Company*, 78 N. Y. 182-183; *Carlan vs. Father Matthews Society*, 3 Daly, 20.)

By-laws must be prospective (not retroactive). They cannot impair vested rights. (*People vs. Crocker*, 9 Cal. 112; *Howard vs. Savannah T. U. P.*, Charl. 173; *Pulford vs. Fire Department*, 31st Mich. 455; *Kent vs. Quicksilver Mining Company*, 78 New York, 159-183.)

A by-law good in part and bad in part will be sustained as to that which is good, if separable from that which is objectionable. (*Amesbury vs. Bowditch Ins. Company*, 6 Gray, 596; *Rogers vs. Jones*, 1st Wend. 237; *Shelton vs. Mayor*, 30 Ala. 540.)

A by-law void as to strangers and non-assenting members, may be good as a contract as to assenting members. (*Stee vs. Bloom*, 19 Johns. 456; *Cooper vs. Frederick*, 9th Ala. 738.)

^b See No. 9, *post*.

^c Under Subdivision 7, of Section 303, above quoted, Building and Loan Associations could unquestionably provide for fines for non-payment of dues, interest, or premium.

12. *Book of By-Laws Must be Kept.*

All by-laws adopted must be certified by a majority of the Directors, and Secretary of the corporation, copied in a legible hand in some book kept in the office of the corporation, to be known as "The Book of By-Laws," and no by-law shall take effect until so copied, and the book shall then be open to the inspection of the public during office hours of each day, except holidays.

The by-laws may be repealed or amended, or new by-laws may be adopted, at the annual meeting, or at any other meeting of the stockholders or members called for that purpose, by the Directors, by a vote representing two thirds of the subscribed stock, or by two thirds of the members.

The written assent of the holders of two thirds of the stock, or two thirds of the members, if there be no capital stock, shall be effectual to repeal or amend any by-law, or to adopt additional by-laws.

The power to repeal and amend the by-laws, and adopt new by-laws, may, by a similar vote at any such meeting, or similar written assent, be delegated to the Board of Directors.

The power, when delegated, may be revoked by a similar vote at any regular meeting of the stockholders or members. Whenever any amendment or new by-law is adopted, it shall be copied in the "Book of By-Laws," with the original by-laws and immediately after them, and shall not take effect until so copied.

If any by-law be repealed, the fact of repeal, with the date of the meeting at which the repeal was enacted, or written assent was filed, shall be stated in said book, and until so stated, the repeal shall not take effect.^a (Section 304, Civil Code.)

[Upon the effect of non-compliance regarding statute, see *Hall vs. Crandall*, 29 Cal. 567.]

13. *Directors—How Many, and Who to be.*

The corporate powers, business, and property of all corporations formed under this title, must be exercised, conducted, and controlled by a Board of not less than five nor more than eleven Directors, to be elected from among the holders of stock, or when there is no capital stock, then from the members of such corporation. * * *

A majority of the Directors must be, in all cases, citizens of this State. Directors of corporations for profit must be holders of stock therein, in amount to be fixed by the by-laws of the corporation.

Directors of all other corporations must be members thereof. Unless a quorum is present and acting, no business performed, or act done, is valid as against the corporation.

Whenever a vacancy occurs in the office of Director, unless the by-laws of the corporation otherwise provide, such vacancy must be filled by an appointee of the Board.^b (Abstract from Section 305, Civil Code.)

^a For what other books that are necessary to be kept, in addition to the "Book of By-Laws," by Building and Loan Associations, see No. 64, *post*.

^b The Directors of a corporation are its chosen representatives, and constitute the corporation for all purposes of directing others. They are the mind and soul of the corporate entity, and what they do as the representatives of the corporation the corporation itself is deemed to do. (*Maynard vs. Fireman's Fund Ins. Company*, 34 Cal. 48.)

Illegality of election of members cannot be collaterally raised. (*Eakright vs. Logansport Railroad Company*, 13 Ind. 404; *Sterumetz vs. Versailles T. Company*, 57 Ind. 457; *Atlantic Railroad Company vs. Johnston*, 70 N. C. 348; *Walker vs. Fleming*, 1d. 483; *Hughes vs. Parker*, 20 N. H. 58; *R. R. Co. vs. McPherson*, 25 Mo. 13.)

14. *Directors to be Elected at First Meeting.*

At the first meeting at which the by-laws are adopted, or at such subsequent meeting as may be then designated, Directors must be elected to hold their offices for one year, and until their successors are elected and qualified. (Section 306, Civil Code; took effect July 1, 1874.)

15. *Election by Ballot; Number of Votes.*

All elections must be by ballot, and every stockholder shall have the right to vote in person, or by proxy, the number of shares standing in his name, as provided in Section 312 of this Code, for as many persons as there are Directors to be elected, or to cumulate said shares and give one candidate as many votes as the number of Directors multiplied by the number of his shares of stock shall equal, or to distribute them on the same principle among as many candidates as he shall think fit. * * * The Directors receiving the highest number of votes shall be declared elected. (Abstract from Section 307, Civil Code.)

16. *Organization of Board of Directors.*

Immediately after their election, the Directors must organize, by the election of a President (who must be one of their number), a Secretary, and Treasurer; they must perform the duties enjoined on them by law and the by-laws of the corporation. A majority of the Directors is a sufficient number to form a Board for the transaction of business. Every decision of a majority of the Directors forming such Board, made when duly assembled, is valid as a corporate act. (Section 308, Civil Code.)

17. *Dividends—How Made; from What.*

The Directors of corporations must not make dividends except from the surplus profits arising from the business thereof; nor must they divide, withdraw, or pay to the stockholders, or any of them, any part of the capital stock; nor must they create debts beyond their subscribed capital stock; nor must they divide, withdraw, or pay to the stockholders, or any of them, any part of the capital stock, except as hereinafter provided [see section for the withdrawal of stock]; nor reduce or increase the capital stock, except as herein specially provided.^a For a violation of the provisions of this section, the Directors under whose administration the same may have happened (except those who may have caused their dissent therefrom to be entered at large on the minutes of the Directors at the time, or were not present when the same did happen), are in their individual and private capacity jointly and severally liable to the corporation and to the creditors thereof, in the event of its dissolution, to the full amount of the capital stock so divided, withdrawn, paid out, or reduced, or debt contracted; and no statute of limitations is a bar to any suit against such Directors, for any sums for which they are liable by this section; *provided, however*, that where a corporation has been heretofore or may hereafter be formed for the purpose, among other things, of acquiring, holding, and selling real estate, water, and

^aThis section does not prohibit the surrender of stock as hereinafter provided in Building and Loan Associations, nor does it prohibit the forcible retirement of stock as hereinafter provided; but the surrender of stock and retirement of stock when the same can be done as hereinafter set forth, must be done strictly in accordance with law, as herein provided.

water rights, the Directors of such corporation may, with the consent of stockholders representing two thirds of the capital stock thereof, given at a meeting called for that purpose, divide among the stockholders the land, water, or water rights so by such corporation held, in the proportion to which their holdings of such stock at the time of such division would entitle them. All conveyances made by the corporation in pursuance of this section shall be made and received, subject to the debts of such corporation existing at the date of the conveyance thereof. Nothing herein shall prohibit a division and distribution of the capital stock of any corporation which remains after the payment of all its debts upon its dissolution, or the expiration of its term of existence.^a (Section 309; Civil Code, as amended by the Act approved March 31, 1891, Statutes and Amendments to the Codes of California of 1891, page 468.)

18. *Removal of Directors from Office.*

No Director shall be removed from office unless by a vote of two thirds of the members, or of stockholders holding two thirds of the capital stock, at a general meeting held after previous notice of the time and place, and of the intention to propose such removal. Meetings of stockholders for this purpose may be called by the President, or by a majority of the Directors, or by members or stockholders holding at least one half of the votes. Such calls must be in writing and addressed to the Secretary, who must thereupon give notice of the time, place, and object of the meeting, and by whose order it is called. If the Secretary refuse to give the notice, or if there is none, the call may be addressed directly to the members or stockholders, and be served as a notice, in which case it must specify the time and place of meeting. The notice must be given in the manner provided in Section 301 of this title unless other express provision has been made therefor in the by-laws. In case of removal, the vacancy may be filled by election at the same meeting.^b (Section 310, Civil Code.)

19. *Justice of the Peace may Order Meeting, When.*

Whenever, from any cause, there is no person authorized to call or to preside at a meeting of a corporation, any Justice of the Peace of the county where such corporation is established may, on written application of three or more of the stockholders, or of the members thereof, issue a warrant to one of the stockholders or members, directing him to call a meeting of the corporation, by giving the notice required, and the Justice may, in the same warrant, direct such person to preside at such meeting until a clerk is chosen and qualified, if there is no other officer present legally authorized to preside thereat. (Section 311, Civil Code.)

20. *Majority of Stock must be Represented at all Elections.*

At all elections or votes had for any purpose, there must be a majority of the subscribed capital stock; or of the members repre-

^a The prohibition contained in this section is directed against the Trustees or Directors, and is designed to protect creditors and to guard against the distribution of the capital stock in the form of dividends. (*Martin vs. Zellerbach*, 38 Cal. 300.)

It is a fundamental principle that dividends can be paid only out of the profits or the net increase of the capital of the corporation. (*Morawetz on Corporations*, Section 344.)

^b For form of notice, see No. 10.

sented, either in person or by proxy, in writing.^a Every person acting therein (in person, or by proxy or representative) must be a member thereof or a bona fide stockholder, having stock in his own name on the stock-books of the corporation, at least ten days prior to the election.^b Any vote or election had, other than in accordance with the provisions of this article, is voidable at the instance of absent (or any) stockholders or members, and may be set aside by petition to the District Court of the county where the same is held.^c Any regular or called meeting of the stockholders or members may adjourn from day to day, or from time to time, if for any reason there is not present a majority of the subscribed stock, or members, or no election had, such adjournment and the reasons therefor being recorded in the journal of proceedings of the Board of Directors. (Section 312, Civil Code.)

21. *Stock of Minors, Insane or Deceased Persons—How Represented.*

The shares of stock of an estate of a minor or insane person may be represented by his guardian, and of a deceased person by his executor or administrator. (Section 313, Civil Code.)

22. *Postponement of Election.*

If from any cause an election does not take place on the day appointed in the by-laws, it may be held on any day thereafter, as is provided for in such by-laws, or to which such election may be adjourned or ordered by the Directors.^d If an election has not been held at the appointed time, and no adjourned or other meeting for the purpose has been ordered by the Directors, a meeting may be called by the stockholders as provided in Section 310 of this article. (Section 314, Civil Code.)

23. *Complaints and Proceedings upon Elections.*

Upon the application of any person or body corporate aggrieved by any election held by any corporate body, the District Court (Superior Court) of the district in which such election is held must proceed forthwith to hear the allegations and proofs of the parties, or otherwise inquire into the matters of complaint, and thereupon confirm the election, order a new one, or direct such other relief in the premises as accords with right and justice. Upon filing the petition, and before any further proceedings are had under this section, five days' notice of the hearing

^aA proxy, even for value, can be revoked, if about to be used for fraudulent purposes. (*Reed vs. Bank of Newberg*, 6 Paige, 337.)

^bTo entitle shares of stock to be voted at a meeting, the evident meaning of the above section is that they must be voted by the owner thereof, appearing as such owner on the books of the corporation, or by his representative. Stock standing in the name of a person, "trustee," to whom it had been so issued without authority of the owner, cannot be voted by him, it appearing that he had no interest whatever in the stock, was not a shareholder himself, and held no proxy from the owner. (*Stewart vs. Mahoney Mining Company*, 54 Cal. 149.)

^cThe object of the stock-book and of requiring transfers of stock to be recorded by the corporation, is for the protection of the corporation, to enable it to know who are its members, who are entitled to dividends; and for no purpose is it more important than to enable it to know who are entitled to vote in case of an election. (*Hoppin vs. Buffum*, 9th R. 1. 513.)

^dIt is too well settled to require comment that all corporations, whether municipal or private, may transact any business at an adjourned meeting, as they could have done at the original meeting, whether the meeting be continued without interruption for many days, or by adjournment from day to day, or from time to time, many days intervening. It is evident it must be considered the same meeting, without any loss or accumulation of powers. (*Warner vs. Mower*, 11 Vt. 385; *Schoff vs. Bloomfield*, 8 Vt. 472; *Smith vs. Law*, 21 N. Y. 296; *People vs. Batchelor*, 22 N. Y. 128.)

must be given under the direction of the Court, or the Judge thereof, to the adverse party, or those to be affected thereby.^a (Section 315, Civil Code.)

24. *Setting aside Elections, Upon whose Complaint.*

Any officer of a corporation who willfully gives a certificate, or willfully makes an official report, public notice, or entry in any of the records or books of the corporation, concerning the corporation, or its business, which is false in any material representation, shall be liable for all the damages resulting therefrom to any person injured thereby; and if two or more officers unite or participate in the commission of any of the acts herein designated, they shall be jointly and severally liable. (Section 316, Civil Code.)

25. *Consent makes Meeting Valid.*

When all the stockholders or members of a corporation are present at any meeting, however called or notified, and sign a written consent thereto on the record of such meeting, the doings of such meeting are as valid as if had at a meeting legally called and noticed. (Section 317, Code of Civil Procedure.)

26. *Stockholders may fill Vacancies—When.*

The stockholders and members of such corporation, when so assembled, may elect officers to fill all vacancies then existing, and may act on such other business as might lawfully be transacted at regular meetings of the corporation. (Section 318, Code of Civil Procedure.)

27. *Meetings—Place Where Same Must be Held.*

The meetings of the stockholders and Board of Directors of a corporation must be held at its office or principal place of business. (Section 319, Civil Code.)

28. *When By-Laws do not Provide for Regular Meetings, How Special are Called.*

When no provision is made in the by-laws for regular meetings of the Directors and the mode of calling special meetings, all meetings must be called by special notice in writing, to be given to each Director by the Secretary, on the order of the President, or if there be none, on the order of two Directors.^b (Section 320, Civil Code.)

29. *Change of Principal Place of Business.*

Every corporation that has been or may be created under the general laws of this State, may change its principal place of business from one place to another in the same county, or from one city or county to another city or county within this State.

^aA stockholder in a corporation may maintain an action to set aside an election of Directors of the corporation, although at the time of the election no stock had stood in his name on the books of the corporation sufficiently long to entitle him to vote. (*Wright vs. Central California Colony Water Company*, 67 Cal. 532.)

The Superior Court has jurisdiction as a Court of equity to inquire into the validity of such an election, and to set it aside if not made in conformity with law. (*Id.*)

^bNotice of special meetings need not state the purpose of the meeting. It is sufficient if it contains the fact of meeting, the time and place. (*Granger vs. Original E. M. & M. Company*, 59 Cal. 678.)

Before such change is made, the consent in writing of the holders of two thirds of the capital stock must be obtained and filed in the office of the corporation. When such consent is obtained and filed, notice of the intended removal or change must be published at least once a week for three successive weeks in some newspaper published in the county wherein said principal place of business is situated, if there is one published therein. If not, in a newspaper of an adjoining county, giving the name of the county or city where it is situated, and that to which it is intended to remove it. (New section, approved April 3, 1876, and being an addition to Section 321 of the Civil Code.)

30. *Stockholders Liable for Debts.*

Each stockholder of a corporation is individually and personally liable for such proportion of its debts and liabilities as the amount of stock or shares owned by him bears to the whole of the subscribed capital stock or shares of the corporation, and for a like proportion only of each debt or claim against the corporation. Any creditor of the corporation may institute joint or several actions against any of its stockholders, for the proportion of his claim payable by each, and in such action the Court must ascertain the proportion of the claim or debt for which each defendant is liable, and a several judgment must be rendered against each, in conformity therewith. If any stockholder pays his proportion of any debt due from the corporation, incurred while he was such stockholder, he is relieved from any further personal liability for such debt; and if an action has been brought against him upon such debt, it shall be dismissed as to him upon his paying the costs, or such proportion thereof as may be properly chargeable against him. The liability of each stockholder is determined by the amount of stock or shares owned by him at the time the debt or liability was incurred; and such liability is not released by any subsequent transfer of stock. The term "stockholder" as used in this section shall apply not only to such persons as appear by the books of the corporation to be such, but also to every equitable owner of stock, although the same appear on the books in the name of another, and also to every person who has advanced the installments or purchase money of stock in the name of a minor, so long as the latter remains a minor; and also to every guardian or other trustee who voluntarily invests any trust funds in the stock. Trust funds in the hands of a guardian or trustee shall not be liable under the provisions of this section by reason of any such investment, nor shall the person for whose benefit the investment is made be responsible in respect to the stock until he becomes competent and able to control the same; but the responsibility of the guardian or trustee making the investment shall continue until that period. Stock held as collateral security, or by a trustee, or in any other representative capacity, does not make the holder thereof a stockholder within the meaning of this section, except in the cases above mentioned, so as to charge him with any proportion of the debts or liabilities of the corporation, but the pledgor or person or estate represented is to be deemed the stockholder as respects such liability. * * * (Abstract from Section 322, Civil Code.)

31. *Certificates of Stock, How and When Issued.*

All corporations for profit must issue certificates for stock when fully paid up, signed by the President and Secretary, and may provide in

their by-laws for issuing certificates prior to the full payment, under such restrictions and for such purposes as their by-laws may provide. (Section 323, Civil Code.)

32. *Transfer of Shares.*

Whenever the capital stock of any corporation is divided into shares, and certificates therefor are issued, such shares of stock are personal property, and may be transferred by indorsement by the signature of the proprietor, or his attorney or legal representative, and delivery of the certificate; but such transfer is not valid, except between the parties thereto, until the same is so entered upon the books of the corporation, as to show the names of the parties by, and to whom transferred, the number or designation of the shares, and the date of the transfer.^a (Section 324, Civil Code.)

33. *Shares Held by Married Woman, Husband Need not Join in Transfer.*

Shares of stock in corporations held or owned by a married woman may be transferred by her, her agent or attorney, without the signature of her husband, in the same manner as if such married woman were a *feme sole*. All dividends payable upon any shares of stock of a corporation held by a married woman, may be paid to such married woman, her agent or attorney, in the same manner as if she were unmarried, and it is not necessary for her husband to join in a receipt therefor; and any proxy or power given by a married woman touching any shares of stock of any corporation owned by her is valid and binding without the signature of her husband, the same as if she were unmarried. (Section 325, Civil Code.)

34. *Non-Resident Stockholders—What may be Demanded from as Proof of Authority to Transfer—Attorney and Agent of.*

When the shares of stock in a corporation are owned by parties residing out of the State, the President, Secretary, or Directors of the corporation, before entering any transfer of the shares on its books, or issuing a certificate therefor to the transferee, may require from the attorney or agent of the non-resident owner, or from the person claiming under the transfer, an affidavit or other evidence that the non-resident owner was alive at the date of the transfer, and if such affidavit or other satisfactory evidence be not furnished, require from the attorney, agent, or claimant, a bond of indemnity, with two sureties satisfactory to the officers of the corporation, or if not so satisfactory, then one approved by a Judge of the Superior Court of the county in which the principal office of the corporation is situated, conditioned to protect the corporation against any liability to the legal representatives of the owner of the shares in case of his (or her) death before the transfer; and if such affidavit or other evidence or bond be not furnished when required as herein provided, neither the corporation, nor any officer thereof, shall be liable for refusing to enter the transfer on the books of the corporation. (Section 326, Civil Code.)

^a As a general rule, where a corporation refuses to allow a transfer of shares upon its books, the transferee may treat this as a conversion of his shares by the company. (*Baltimore Railway Company vs. Sewell*, 35 Md. 238; *Scripture vs. Francess town S. Company*, 50 N. H. 571; *Bank of America vs. McNeil*, 10 Bush, 54; *West Branch, etc., Companies Appeal*, 81 Pa. St. 19; *German Building Association vs. Sendmeyer*, 50. Pa. St. 67; *Protective Life Insurance Company vs. Osgood*, 93 Ill. 69.)

35. *Contract Contrary to Constitutional Provisions Void.*

Any contract or contracts, verbal or written, hereafter made, whereby it is sought directly or indirectly to relieve any Director or Trustee of any corporation or joint-stock association from any liability imposed by section three (3) of article twelve (12) of the Constitution of California, are hereby declared to be and shall be null and void. (New Section 327, Civil Code.)

36. *Directory May Levy Assessments—For and Upon What.*

The Directors of any corporation formed or existing under the laws of this State, after one fourth of its capital stock has been subscribed, may, for the purpose of paying expenses, conducting business, or paying debts, levy and collect assessments upon the subscribed capital stock thereof, in the manner and form and to the extent provided herein. (Section 331, Civil Code.)

37. *Limitation of Assessments.*

No one assessment must exceed ten per cent of the amount of the capital stock named in the articles of incorporation, except in the cases in this section otherwise provided for, as follows:

First—If the whole capital of a corporation has not been paid up, and the corporation is unable to meet its liabilities or satisfy the claims of its creditors, the assessment may be for the full amount unpaid upon the capital stock; or if a less amount is sufficient, then it may be for such a percentage as will raise that amount.^a (Abstract from Section 332, Civil Code.)

38. *Levy of Assessment.*

No assessment must be levied while any portion of a previous one remains unpaid, unless:

1. The power of the corporation has been exercised in accordance with the provisions of this article, for the purpose of collecting such previous assessment;

2. The collection of the previous assessment has been enjoined; or,

3. The assessment falls within the provisions of either the first, second, or third subdivision of Section 332.^b (Section 333, Civil Code.)

39. *What the Order Levying Assessment Must Contain.*

Every order levying an assessment must specify the amount thereof, when, to whom, and where payable; fix a day, subsequent to the full term of publication of the assessment notice, on which the unpaid assessments shall be delinquent, not less than thirty nor more than sixty days from the time of making the order levying the assessment; and a day for the sale of delinquent stock, not less than fifteen nor more than sixty days from the day the stock is declared delinquent. (Section 334, Civil Code.)

40. *Levy of Assessment—Form of Notice.*

Upon the making of the order, the Secretary shall cause to be published a notice thereof, in the following form:

^aThe corporation has power to levy assessments on paid-up stock. (*Santa Cruz R. R. vs. Spreckels*, 2 West Coast Reporter, 752, 833.)

^bSubdivision first of Section 332 is given. Subdivisions second and third of Section 332 are not applicable to Building and Loan Associations.

(Name of corporation, in full. Location of principal place of business.) Notice is hereby given that at a meeting of the Directors, held on the (date), an assessment of (amount) per share was levied upon the capital stock of the corporation, payable (when, to whom, where). Any stock upon which this assessment shall remain unpaid on the (day fixed), will be delinquent and advertised for sale at public auction, and unless payment is made before, will be sold on the (day appointed), to pay the delinquent assessment, together with cost of advertising and expenses of sale. (Signature of Secretary and location of office.) (Section 335, Civil Code.)

41. *Service and Publication of Notice of Assessment—What Papers Made in, and How Made.*

The notice must be personally served upon each stockholder, or in lieu of personal service, must be sent through the mail, addressed to each stockholder at his place of residence, if known, and if not known at the place where the principal office of the corporation is situated, and be published once a week for four successive weeks in some newspaper of general circulation, and devoted to the publication of general news, published at the place designated in the articles of incorporation as the principal place of business, and also in some newspaper published in the county in which the works of the corporation are situated, if a paper be published therein. If the works of the corporation are not within a State or Territory of the United States, publication in a paper of the place where they are situated is not necessary. If there be no newspaper published at the place designated as the principal place of business of the corporation, then the publication must be made in some other newspaper of the county, if there be one, and if there be none, then in a newspaper published in an adjoining county. (Section 336, Civil Code.)

42. *Form of Delinquent Notice—Publication Thereof.*

If any portion of the assessment mentioned in the notice remains unpaid on the day specified therein for declaring the stock delinquent, the Secretary must, unless otherwise ordered by the Board of Directors, cause to be published in the same papers in which the notice hereinbefore provided for shall have been published, a notice substantially in the following form:

(Name in full; location of principal place of business.)

Notice: There is delinquent upon the following described stock, on account of assessment levied on the (date) (and assessments levied previous thereto, if any), the several amounts set opposite the names of the respective shareholders as follows: (names, number of certificate, number of shares, amount); and in accordance with law (and an order of the Board of Directors, made on the (date), if any such order shall have been made), so many shares of each parcel of such stock as may be necessary will be sold at the (particular place), on the (date), at (the hour) of such day to pay the delinquent assessments thereon, together with costs of advertising and expenses of the sale. (Name of Secretary, with location of office.) (Section 337, Civil Code.)

43. *What Notice of Sale of Delinquent Stock Must Contain.*

The notice must specify every certificate of stock, the number of shares it represents, the amount due thereon, except where certificates

may not have been issued to parties entitled thereto, in which case the number of shares and amount due thereon, together with the fact that the certificates for such shares have not been issued, must be stated. (Section 338, Civil Code.)

44. *How Publication of Notice of Sale of Delinquent Stock Must be Made.*

The notice, when published in a daily paper, must be published for ten days, excluding Sundays and holidays, previous to the day of sale. When published in a weekly paper, it must be published in each issue for two weeks previous to the day of sale. The first publication of all delinquent sales must be at least fifteen days prior to the day of sale. (Section 339, Civil Code.)

45. *How Corporation Acquires Jurisdiction to Sell and Convey Delinquent Stock.*

By the publication of the notice, the corporation acquires jurisdiction to sell and convey a perfect title to all of the stock described in the notice of sale upon which any portion of the assessment or costs of advertising remains unpaid at the hour appointed for the sale, but must sell no more of such stock than is necessary to pay the assessments due and costs of sale. (Section 340, Civil Code.)

46. *Sale of Delinquent Stock Must be Made at Public Auction.*

On the day, at the place, and at the time appointed in the notice of sale, the Secretary must, unless otherwise ordered by the Directors, sell or cause to be sold at public auction to the highest bidder for cash, so many shares of each parcel of the described stock as may be necessary to pay the assessment and charges thereon, according to the terms of sale. If payment is made before the time fixed for sale, the party paying is only required to pay the actual cost of advertising, in addition to the assessment. (Section 341, Civil Code.)

47. *Delinquent Stock to be Sold to the Highest Bidder.*

The person offering at such sale to pay the assessment and costs for the smallest number of shares, or fraction of a share, is the highest bidder, and the stock purchased must be transferred to him on the stock-books of the corporation, on payment of the assessment, and costs. (Section 342, Civil Code.)

48. *On Default of Bidders Corporation May Purchase Delinquent Stock.*

If, at the sale of stock, no bidder offers the amount of the assessments and costs, and charges due, the same may be bid in and purchased by the corporation, through the Secretary, President, or any Director thereof, at the amount of the assessments, costs, and charges due; and the amount of the assessments, costs, and charges must be credited as paid in full on the books of the corporation, and entry of the transfer of the stock to the corporation must be made on the books thereof. While the stock remains the property of the corporation, it is not assessable, nor must any dividends be declared thereon, but all assessments and dividends must be apportioned upon the stock held by the stockholders of the corporation. (Section 343, Civil Code.)

49. *Disposition of Stock Purchased by Corporation.*

All purchases of its own stock made by any corporation vest the legal title to the same in the corporation, and the stock so purchased is held subject to the control of the stockholders, who may make such disposition of the same as they deem fit, in accordance with the by-laws of the corporation or vote of a majority of all the remaining shares. Whenever any portion of the capital stock of a corporation is held by the corporation by purchase, a majority of the remaining shares is a majority of the stock for all purposes of election or voting on any question at a stockholders' meeting. (Section 344, Civil Code.)

50. *Extension of Time of Delinquent Sale.*

The dates fixed in any notice of assessment or notice of delinquent sale published according to the provisions hereof, may be extended from time to time for not more than thirty days, by order of the Directors, entered on the records of the corporation; but no order extending the time for the performance of any act specified in any notice is effectual, unless notice of such extension or postponement is appended to and published with the notice to which the order relates. (Section 345, Civil Code.)

51. *Assessments Shall Not be Invalidated for Failure to Make Publication, or for Non-Performance of any Act, but Publication Must be Begun Anew.*

No assessment is invalidated by a failure to make publication of the notices hereinbefore provided for, nor by the non-performance of any act required in order to enforce the payment of the same, but in case of any substantial error or omission in the course of proceedings for collection, all previous proceedings except the levying of the assessment are void, and publication must be begun anew. (Section 346, Civil Code.)

52. *Action for Recovery of Stock Sold for Delinquent Assessments, and Limitation Thereof.*

No action must be sustained to recover stock sold for delinquent assessments upon the ground of irregularity in the assessment, irregularity or defect of the notice of sale, or defect or irregularity in the sale, unless the party seeking to maintain such action first pays or tenders to the corporation, or the party holding the stock sold, the sum for which the same was sold, together with all subsequent assessments which may have been paid thereon, and interest on such sums from the time they were paid, and no such action must be sustained unless the same is commenced by the filing of a complaint and the issuance of a summons thereon within six months after such sale was made. (Section 347, Civil Code.)

53. *How Proof of Publication is Made.*

The publication of notice required by this article may be proved by the affidavit of the printer, foreman, or principal clerk of the newspaper in which the same was published, and the affidavit of the Secretary or auctioneer is prima facie evidence of the time and place of sale, of the quantity and particular description of the stock sold, and to whom, and

for what price, and of the fact of the purchase money being paid. The affidavits must be filed in the office of the corporation, and copies of the same certified by the Secretary thereof are prima facie evidence of the facts therein stated. Certificates signed by the Secretary, and under the seal of the corporation, are prima facie evidence of the contents thereof. (Section 348, Civil Code.)

54. *Waiver of Sale—Action to Recover Assessment.*

On the day specified for declaring the stock delinquent, or at any time subsequent thereto, and before the sale of the delinquent stock, the Board of Directors may elect to waive further proceedings under this chapter for the collection of delinquent assessments, or any part or portion thereof, and may elect to proceed by action to recover the amount of the assessment and the costs and expenses already incurred, or any part or portion thereof. (Section 349, Civil Code.)

55. *Corporate Powers.*

Every corporation as such, has power:

First—Of succession by its corporate name, for the period limited, and when no period is limited, perpetually.^a

Second—To sue and be sued in any Court.

Third—To make and use a common seal and alter the same at pleasure.

Fourth—To purchase, hold, and convey such real and personal estate as the purposes of the corporation may require, not exceeding the amount limited in this part.^{bc}

Fifth—To appoint such subordinate officers or agents as the business of the corporation may require, and to allow them suitable compensation.

Sixth—To make by-laws, not inconsistent with any existing law, for the management of its property, the regulation of its affairs, and for the transfer of its stock.

Seventh—To admit stockholders or members, and to sell their stock or shares for the payment of assessments or installments.

Eighth—To enter into any obligations or contracts essential to the transaction of its ordinary affairs or for the purposes of the corporation. (Section 354, Civil Code.)

56. *Limitation of Power.*

In addition to the powers enumerated in the preceding section (Section 354, Civil Code), and to those expressly given in that title of this part under which it is incorporated, no corporation shall possess or exercise any corporate powers except such as are necessary to the exercise of the powers so enumerated and given. (Section 355, Civil Code.)

^a The life of a corporation is limited to fifty years.

^b Building and Loan Associations which were organized prior to March 31, 1891, are limited in the amount of real estate which they may own by Section 643 of the Civil Code, as it stood prior to such Act, which Act is now in force as to Building and Loan Associations organized prior to said date. (See Nos. 114, 116, *post.*) Building and Loan Associations organized after March 31, 1891, are limited as to the amount of real estate which they may own, or purchase, or acquire. (See Nos. 61, 127, *post.*)

^c The general power to purchase land, and dispose thereof, imports the right to mortgage to secure debts. (*Jackson vs. Brown*, 5 Wend. 590; *McAllister vs. Plant*, 54 Miss. 106; *West vs. Madison County Agricultural Board*, 82 Ill. 205.) A corporation may mortgage its realty. (*Davis vs. Rock Creek L. F. & M. Company*, 55 Cal. 359.)

57. *Shall not Issue Money.*

No corporation shall create or issue bills, notes, or other evidences of debt upon loans or otherwise, for circulation as money.^a (Section 356, Civil Code.)

58. *The Misnomer Does not Invalidate the Instrument.*

The misnomer of a corporation in any written instrument does not invalidate the instrument, if it can be reasonably ascertained from it what corporation is intended. (Section 357, Civil Code.)

59. *Corporation to Organize within One Year.*

If a corporation does not organize and commence the transaction of its business, or the construction of its works, within one year from the date of its incorporation, its corporate powers cease. The due incorporation of any company claiming in good faith to be a corporation under this part, and doing business as such, or its right to exercise corporate powers, shall not be inquired into collaterally in any private suit to which such *de facto* corporation may be a party^b—but such inquiry may be had at the suit of the State, on information of the Attorney-General.^c (Section 358, Civil Code.)

60. *Increasing and Diminishing Capital Stock.*

No corporation shall issue stock or bonds except for money paid, labor done, or property actually received, and all fictitious increase of stock or indebtedness is void. Every corporation may increase or diminish its capital stock, create or increase its bonded indebtedness, subject to the foregoing provisions:

First—The capital stock of a corporation may be increased or diminished at a meeting of the stockholders by a vote representing at least two thirds of the subscribed capital stock.^d Such meetings must be called by the Board of Directors, and notice must be given by publication in a newspaper published in the county where the principal place of business of such corporation is located, or if there be none published in said county, then in a newspaper published in an adjoining county, such paper to be designated by the Board of Directors in the order calling the meeting.

Second—The notice must specify the object of the meeting, and the amount to which it is proposed to increase or diminish the capital stock,

^a This limitation upon corporate powers does not prevent Building and Loan Associations from the execution of negotiable instruments. (New Section 354, Civil Code.)

^b As an illustration of what is meant by commencing to transact the corporate business within the year, see *People vs. S. & F. R. R. Co.*, 45 Cal. 306. One who has contracted with an apparent corporation as such is estopped in an action on the contract from denying the existence of the corporation. (*Fresno Canal & I. Co. vs. Warner*, 72 Cal. 379.) A corporation is not estopped to deny the validity of an unauthorized act of an agent when it has not availed itself of any benefit from his act. (*Bliss vs. Kaweah C. & I. Co.*, 65 Cal. 502.) In an action by a corporation to foreclose a mortgage given by the defendant for money loaned to him by the corporation, the defendant is estopped to deny the regularity of the organization of the corporation and its power to enter into the contract. (*The Grangers Business Association of California vs. Clark*, 67 Cal. 634.)

^c A corporation *de facto* may legally do and perform every act and thing which the same entity could do or perform were it a *de jure* corporation. As to all the world, except the paramount authority under which it acts, and from which it receives its charter, it occupies the same position as though in all respects valid, and even as against the State, except in direct proceedings to arrest its usurpation of power, its acts are binding. (*People vs. La Rue*, 67 Cal. 526.)

^d The capital stock of a Building and Loan Association can not be increased to a sum exceeding \$2,000,000. (Section 634, Civil Code, approved March 31, 1891.)

the time and place of holding the meeting, which latter must be at the principal place of business of the corporation, and at the building where the Board of Directors usually meet.

The notice herein provided must be published once a week, for at least sixty days. The capital stock cannot be diminished to an amount less than the indebtedness of the corporation.

Third—The bonded indebtedness of a corporation may be created or increased by a vote of the stockholders representing at least two thirds of the subscribed capital stock at a meeting called by the Board of Directors, and after notice of the time and place of the meeting published in the same manner and for the time above prescribed, which notice shall state the amount of the bonded indebtedness which it is proposed to create, or the amount to which it is proposed to increase such indebtedness, and shall in all other respects contain the same matters as are above provided and set forth in the notice of a meeting to increase or diminish the capital stock.

Fourth—In addition to the notice by publication, the Secretary of the corporation shall also address a notice to each of the stockholders whose name appears on the company's books as sufficiently addressed, at his place of residence, if known, and if not known, then at the principal place of business of the corporation, which notice shall be mailed to such stockholder at least thirty days before the day appointed for such meeting, and upon such increase or diminution of the capital stock, or increase of the bonded indebtedness being made as herein provided, a certificate must be signed by the Chairman and Secretary of the meeting, and a majority of the Directors, showing a compliance with the requirements of this section; the amount to which the capital stock has been increased or diminished, or the amount of the bonded indebtedness created, or to which the bonded indebtedness may have been increased, and the amount of stock represented at the meeting, and the whole vote by which the object was accomplished. The certificate must be filed in the office of the Clerk of the county where the original articles of the corporation are filed, and a certified copy thereof in the office of the Secretary of State, and thereupon the capital stock shall be so increased or diminished, or the bonded indebtedness may be created or increased accordingly. When the by-laws of the corporation prescribe the paper in which notice of meeting is to be published, the notices herein provided for shall be published in such paper, unless publication thereof shall have ceased. (Section 359, Civil Code, as amended by the Act approved March 23, 1893, Statutes and Amendments to the Codes of California, page 191.)

61. *Amending Articles or Certificate of Incorporation.*

Any corporation may amend its articles of association or certificate of incorporation by a majority vote of its Board of Directors or Trustees, and by a vote or written assent of the stockholders representing at least two thirds of the subscribed capital stock of such corporation; and a copy of the said articles of association or certificate of incorporation, as thus amended, duly certified to be correct by the President and Secretary of the Board of Directors or Trustees of such corporation, shall be filed in the office or offices where the original or certificate of incorporation are required by this code to be filed; and from the time of so filing such copy of the amended articles of association or certificate of incor-

poration, such corporation shall have the same powers, and it and the stockholders thereof shall thereafter be subject to the same liabilities as if such amendment had been embraced in the original articles or certificate of incorporation; *provided*, that the time of the existence of such corporation shall not be by such amendment extended beyond the time fixed in the original articles or certificate of incorporation; *provided further*, that such original and amended articles or certificate of incorporation shall together contain all the matters and things required under which the original articles of association or certificate of incorporation were executed and filed; *and provided further*, that nothing herein contained shall be construed to cure or amend any defect existing in any original certificate of incorporation heretofore filed, by reason that such certificate does not set forth the matters required to make the same valid as a certificate of incorporation at the time of its filing; *and also provided*, that if the assent of two thirds of the said stockholders to such amendment has not been obtained, that a notice of the intention to make the amendment shall first be advertised for thirty (30) days in some newspaper published in the town or county, or city and county, in which the principal place of business of the association or corporation is located, before the filing of the proposed amendment; *and provided also*, that nothing in this section shall be construed to authorize any corporation to diminish its capital stock. (Section 362, Statutes and Amendments of California of 1893, page 131.)

62. *Acquisition of Real Property.*

By a unanimous vote of all the Directors at any regular meeting, any corporation existing, or hereafter to be formed under the laws of this State, may acquire and hold lots and the buildings on and in which its business is carried on, and may improve the same to any extent required for the convenient transaction of its business.^a (Section 363, Civil Code.)

63. *Correction of Errors in Filing Articles of Incorporation.*

When articles of incorporation have been prepared, subscribed, and executed in accordance with the provisions of Sections 290 and 292 of the Civil Code, and such original articles filed by error or inadvertence with the Clerk of the county other than that named in the articles of incorporation in which the principal place of business is to be transacted, and the Secretary of State shall have issued a certificate of incorporation based on a certified copy of such original articles of incorporation, any stockholder or Director of such corporation may petition the Superior Court of the county in which such original articles of incorporation were filed, for an order to withdraw such original articles of incorporation and file in place thereof a certified copy of the copy thereof on file in the office of the Secretary of State. Such petition must be verified and must state clearly the facts showing that such articles of incorporation were filed by inadvertence and mistake, and notice of the hearing of said petition must be given for at least ten days before the day of hearing by publication in a newspaper published in the county where such petition is filed. Upon the day set for hearing the petition, the Superior Court may grant an order showing such original articles of incorporation to be withdrawn, and a certified copy of the

^aThis section is qualified by Section 643, Civil Code, as to Building and Loan Associations which were organized prior to the 31st day of March, 1891.

copy in the office of the Secretary of State, in the place thereof, filed, and the original articles of incorporation must be filed within ten days thereafter in the county in which the principal place of business is to be transacted, as stated in such articles of incorporation, and a certified copy of the order allowing such action must be filed with the certified copy in the office of the Secretary of State, after which said corporation shall be entitled to all rights and privileges of a private corporation, and the title to any property it may have previously acquired shall not be affected by reason of the failure to file the original articles of incorporation in the first instance.^a (Section 363, Civil Code.)

64. *What Books Must be Kept.*

First—A "stock-certificate" book.^b

Second—A "record book."^c^h

Third—A "loan register."^d

Fourth—A "stock and transfer book;" that is, a "stock journal," and a "stock ledger."^e

Fifth—A book of by-laws.^f

Sixth—Any other books and all such other records and books as the by-laws may prescribe.^g

65. *Examination into Affairs of Building and Loan Associations by State Officers.*

The Attorney-General or District Attorney, whenever, and as often as required by the Governor, must examine into the affairs and conditions

^a There are two Sections 363, Civil Code.

^b See Nos. 31 and 32.

^c All corporations for profit are required to keep a record of all their business transactions; a journal of all meetings of their Directors, members, or stockholders, with the time and place of holding the same, whether regular or special, and if special, its object, how authorized, and the notice thereof given. The record must embrace every act done, or ordered to be done; who were present and who absent; and, if requested by any Director, member, or stockholder, the time shall be noted when he entered the meeting, or obtained leave of absence therefrom on a similar request; the ayes and noes must be taken on any proposition, and a record thereof made. On similar request the protest of any Director, member, or stockholder to any action or proposed action must be entered in full—all such records to be open to the inspection of any Director, member, stockholder, or creditor of the corporation. (Section 377, Civil Code.) See penal clauses hereafter set forth, Nos. 105, 107, 108, 109, *post*.

^d To facilitate the examinations of the Commissioners as specified in the foregoing section, every association shall keep a book of records, written in ink, showing the values of the real estate security held in connection with each loan, and signed in each case by the Appraiser or officer or committee of the association making such estimated values.

^e In addition to the records required to be kept by the preceding section, corporations for profit must keep a book to be known as the "stock and transfer book," in which must be kept a record of all stock; the names of the stockholders or members, alphabetically arranged; installments paid or unpaid; assessments levied and paid, or unpaid; a statement of every alienation, sale, or transfer of stock made, the date thereof, and by and to whom; and,

^f See No. 12, *ante*.

^g All such other records as the by-laws prescribe. Corporations for religious and benevolent purposes must provide in their by-laws for such records to be kept as may be necessary. Such stock and transfer book must be kept open to the inspection of any stockholder, member, or creditor. (Section 378, Civil Code.)

^h *Records as Evidence.*—It is competent to show by oral testimony that part of what transpired at the corporate meeting is omitted from the record, and to supply the omission (*Bay View Association vs. Williams*, 50 Cal. 353; *Harmony Building Association vs. Blodgett*, 40 Leg. Intel. 172, decided by Supreme Court of Pennsylvania); and it seems from *Gilson Quartz Mining Company vs. Gilson*, 51 Cal. 340, that parole evidence is admissible to show that a resolution spread upon the minutes does not express correctly the proposition voted upon. A vote of the Board of Directors may be presumed from its acts, though there is no proof of such vote on the corporate records. (*Pixley vs. W. P. R. Co.*, 33 Id. 183.)

of any corporation in this State, and report such examination in writing, together with a detailed statement of facts to the Governor, who must lay the same before the Legislature; and for that purpose the Attorney-General or District Attorney may administer all necessary oaths to the Directors and officers of any corporation, and may examine them on oath in relation to the affairs and condition thereof, and may examine the books, papers, and documents belonging to such corporation or appertaining to its affairs and condition. (Section 382, Civil Code.)

66. *Examination Made by the Legislature.*

The Legislature, or either branch thereof, may examine into the affairs and conditions of any corporation in this State at all times, and for that purpose any committee appointed by the Legislature, or either branch thereof, may administer all necessary oaths to the Directors, officers, and stockholders of such corporation, and may examine them on oath in relation to the affairs and condition thereof, and may examine the safes, books, papers, and documents belonging to such corporation, or pertaining to its affairs and condition, and compel the production of all keys, books, papers, and documents by summary process, to be issued on application to any Court of record, or any Judge thereof, under such rules and regulations as the Court may prescribe. (Section 383, Civil Code.)

67. *Board of Commissioners of Building and Loan Associations.*

All Building and Loan Associations heretofore or hereinafter incorporated under the laws of this State, or any other State or Territory, or those of any foreign country, and doing business in this State, shall be subject to the examination and supervision of a Board of Commissioners of Loan Associations, which Board shall consist of two Commissioners, each of whom shall be an expert of accounts, and shall be appointed by the Governor within thirty days after the passage of this Act, to hold office for the period of four years, and until their successors are appointed and qualified. (Section 1 of the Act approved March 23, 1893, Statutes and Amendments to the Code of California of 1893, page 229.)

68. *Qualification of Commissioners and Bond Thereof.*

The Commissioners, before entering upon the duties of their office, must each execute an official bond in the sum of five thousand (\$5,000) dollars, and take the oath of office, all as prescribed by the Political Code for State officers in general. (Section 4 of the Act approved March 23, 1893, Statutes and Amendments to the Codes of California of 1893, page 230.)

69. *Salary of Commissioners and How Paid.*

The Commissioners shall each receive a salary of two thousand four hundred (\$2,400) dollars per annum and necessary traveling expenses, not to exceed, for the two Commissioners, the sum of five hundred (\$500) dollars per annum, to be audited by the State Controller and to be paid in the same manner as the salaries of other State officers. (Section 2 of the Act approved March 23, 1893, Statutes and Amendments to the Codes of California of 1893, page 230.)

70. *Duties of Commissioners—License.*

The duties of the Commissioners of Loan Associations shall be to furnish to all corporations legally authorized to transact the business of a Building and Loan Association within this State, a license authorizing them to transact the business of a Building and Loan Association for one year from the date of said license; to receive and place on file in their office the semi-annual reports required to be made by Building and Loan Associations by this Act; to supply each association with blank forms and such statements as the Commissioners may require; to be made on or before the first day of October of each year, a tabulated report to the Governor of this State, showing the condition of all institutions examined by them, with such recommendations as they may deem proper, accompanied by a detailed statement, verified by oath, of all moneys received and expended by them since their last report.

No association after the expiration of the term for which a license has been granted to it by the Commissioners of Loan Associations, shall continue to transact the business of a Building and Loan Association, without first procuring from said Commissioners a renewal of such license on the terms provided for by this Act, and any corporation violating this provision shall forfeit the sum of ten dollars per day during the continuance of the offense.

(Section 5, and abstract from Section 17, of the Act approved March 31, 1893, Statutes and Amendments to the Codes of California of 1893, pages 230 and 233.)

71. *Visits by Commissioners.*

The Commissioners shall visit once in every year, and as much oftener as they deem expedient, every Building and Loan Association doing business in this State. At such visit they shall have free access to the vaults, books, and papers, and shall thoroughly inspect and examine all the affairs of each of said corporations, and make such inquiries as may be necessary to ascertain its condition and ability to fulfill all its engagements, and whether it has complied with the provisions of law governing such associations. They shall preserve in a permanent form a full record of their proceedings, including a statement of the condition of each of said corporations, which shall be open to the inspection of the public during their office hours. (Section 6 of the Act approved March 23, 1893, Statutes and Amendments to the Codes of California of 1893, page 230.)

72. *Power of Commissioners.*

Either of the Commissioners may summon all Trustees, officers, or agents of any such corporation, and such other witnesses as he thinks proper, in relation to the affairs, transactions, and condition of the corporation, and for that purpose may administer oaths; and whoever refuses, without justifiable cause, to appear and testify when thereto required, or obstructs a Commissioner in the discharge of his duty, shall be punished by a fine not exceeding one thousand dollars, or imprisonment not exceeding one year, or by both such fine and imprisonment. (Section 8 of the Act approved March 23, 1893, Statutes and Amendments to the Codes of California of 1893, page 231.)

73. *Commissioners to Report to Attorney-General—Duty of Attorney-General.*

If the Commissioners, upon examination of any corporation under their supervision, find that such corporation has been violating the provisions of law governing such association, or is conducting its business in an unsafe manner, such as to render its further proceedings hazardous to the public, or to those having funds in its custody, they shall notify the Attorney-General of such facts,^a and the Attorney-General in his discretion may apply to the Judge of the Superior Court of the county in which such corporation is doing business to issue an injunction restraining such corporation in whole or in part from further proceedings with its business until a hearing can be had. Such Judge may in such application issue such injunction, and after a full hearing may dissolve or modify it, or make it perpetual, and may make such order and decree according to the course of proceedings in equity to restrain or prohibit the further prosecution of the business of the corporation as may be needful in the premises, and may appoint one or more receivers to take possession of its property and effects, subject to such direction as may from time to time be prescribed by the Court. (Section 9 of Act approved March 23, 1893, Statutes and Amendments to the Codes of California of 1893, page 231.)

74. *Receivers, and Schedule of Property.*

When receivers are so appointed, the Secretary of the corporation shall make a schedule of all its property, and its Secretary, Board of Investment, and other officers transferring its property to the receivers shall make oath that said schedule sets forth all the property which the corporation owns or is entitled to. The Secretary shall deliver said schedule to the receivers, and a copy thereof to the Commissioners, who may at any time examine under oath such Secretary, Board of Investment, or other officers, in order to determine whether or not all the property which the corporation owns or is entitled to has been transferred to the receivers. (Section 11 of the Act approved March 23, 1893, Statutes and Amendments to the Codes of California of 1893, page 231.)

75. *Examination of Accounts of Receivers by Commissioners.*

The Commissioners, or one of them, shall at least once in each year, and as much oftener as they may deem expedient, examine the accounts and doings of all such receivers, and shall carefully examine and report on all accounts and reports of receivers made to the proper Court, and referred to the Commissioners by the Court, and for the purposes of this section shall have free access to the books and papers relating to the transactions of such receivers, and may examine them under oath relative to such transactions. (Section 12 of the Act approved March 23, 1893, Statutes and Amendments to the Codes of California of 1893, page 232.)

76. *Investigation of Affairs upon Request.*

Upon the certificate under oath of any five or more officers, trustees, creditors, shareholders, or depositors of any such corporation, setting forth their interest, and the reasons for making such examination,

^a See penal clause, No. 98, *post*.

directed to the Commissioners, and requesting them to examine such corporation, they shall forthwith make a full investigation of its affairs in the manner provided. (Section 13 of the Act approved March 31, 1893, Statutes and Amendments to the Codes of California of 1893, page 232.)

77. *Violation of Laws Relating to Corporations.*

The Commissioners, if in their opinion any such corporation or its officers or trustees have violated any law in relation to such corporation, shall forthwith report the same, with such remarks as they may deem expedient, to the Attorney-General, who shall forthwith institute a prosecution for such violation, in behalf of the People of the State. (Section 14 of the Act approved March 31, 1893, Statutes and Amendments to the Codes of California of 1893, page 232.)

78. *Office of the Commissioners.*

The Commissioners shall have their office in San Francisco, which office shall be kept open for business every day, and during such hours as are commonly observed by the banks of that city as banking hours.^a They shall procure rooms for their office at a monthly rental not to exceed forty dollars.^b They may also provide fuel, printing, stationery, and other necessary conveniences connected with their office, not to exceed an aggregate cost of three hundred dollars per annum. All expenses authorized in this section shall be audited and paid in the same manner as the salaries of the Commissioners. (Section 3 of the Act approved March 23, 1893, Statutes and Amendments to the Codes of California of 1893, page 230.)

79. *Expenses of Act—How to be Met.*

To meet the expenses provided by this Act [Act approved March 23, 1893,] every Building and Loan Association, or corporation, or association doing business on the building and loan plan, shall pay in advance to the Commissioners its pro rata amount of such expenses, to be determined by an assessment levied upon the shares of each of such associations in force on the thirty-first day of December, one thousand eight hundred and ninety-two, pro rata, according to the par value of such shares; and annually thereafter the said Commissioners shall levy in a like manner and collect in advance, a like assessment on the shares of all such associations in force, as per report herein provided for to be made to said Commissioners of the condition at the close of business on August thirty-first preceding. (Section 15 of the Act approved March 31, 1893, Statutes and Amendments to the Codes of California of 1893, page 232.)

80. *How Collections May be Enforced.*

The collections of all moneys assessed, as herein provided, for the annual expenses, or forfeitable as fines for failure to make reports, as herein specified, and due from any corporation or association coming within the provisions of this Act, may be enforced by an action instituted in any Court of competent jurisdiction, and all moneys collected

^a Banking hours in San Francisco are from 10 A. M. until 3 P. M.

^b The office of the Commissioners is now at 109 California Street, rooms 4 and 5.

or received by the said Commissioners under this Act shall be deposited with the State Treasurer, to the credit of a fund to be known and designated as the "Building and Loan Association Inspection Fund." (Section 16 of the Act approved March 31, 1893, Statutes and Amendments to the Codes of California of 1893, page 232.)

81. *Reports to Building and Loan Association Commissioners.*

Every Building and Loan Association doing business in this State shall, once in each year, to wit: within twenty days after the expiration of its annual fiscal term, make a report in writing to the Commissioners of Loan Associations, verified by the oath of its President and Secretary, showing accurately the financial condition of such association at the close of said term. The report shall be in such form as the Commissioners shall prescribe, upon blanks by them furnished for that purpose, and shall specify the following particulars, namely: Name of the corporation; place where located; authorized capital stock; amount of stock paid in; the names of the Directors; the amount of capital stock held by each; the amount due to shareholders; the amount and character of all other liabilities; cash on hand, and the number and value of shares in each and every series of stock issued by the association. All money received or disbursed by such association shall be duly accounted for to the shareholders and to the Commissioners of Building and Loan Associations. (Section 18 of the Act approved March 31, 1893, Statutes and Amendments to the Codes of California of 1893, page 233.)

82. *"Building and Loan Associations" Include What.*

The name "Building and Loan Association," and all reference to the same as "Association" or "Associations," as used in this Act [Act approved March 31, 1893,] shall include all corporations, societies, organization or organizations, or associations doing a savings and loan or investment business on the building society plan, viz.: loaning its funds to its members or shareholders, or investing the same for the mutual benefit of its members or shareholders, and whether issuing certificates of stock which mature at a time fixed in advance or not. (Section 20 of the Act approved March 31, 1893, Statutes and Amendments to the Codes of California of 1893, page 233.)

Extension and Dissolution of Corporations.

The dissolution of corporations is provided for as follows:

83. *First—If Involuntary.*

An action may be brought by the Attorney-General, in the name of the people of this State, upon his own information or upon the complaint of a private party, against any person who usurps, intrudes into, or unlawfully holds or exercises * * * any franchise within this State, and the Attorney-General must bring the action whenever he has reason to believe that any such franchise has been usurped, intruded into, or unlawfully held or exercised by any person, or when he is directed to do so by the Governor." (Abstract from Section 803, Code of Civil Procedure.)

* Corporations which have been organized as private corporations prior hereto, under the laws of the State of California, and which have only been organized as private corporations, and which do not specify in their articles of incorporation, if they were organ-

84.

When a defendant against whom such action has been brought is adjudged guilty of usurping, or intruding into, or unlawfully holding any * * * franchise or privilege, judgment must be rendered that such defendant be excluded from the * * * franchise or privilege, and that he pay the costs of the action. The Court may also in its discretion impose upon the defendant a fine not exceeding five thousand dollars, which fine, when collected, must be paid into the treasury of the State. (Abstract from Section 809, Code of Civil Procedure.)

85. *Bonds to be Given.*

When the action is brought upon the information or application of a private party, the Attorney-General may require such party to enter into an undertaking, with sureties to be approved by the Attorney-General, conditioned that such party or the sureties will pay any judgment for costs or damages recovered against the plaintiff, and all the costs and expenses incurred in the prosecution of the action. (Section 810, Code of Civil Procedure.)

86. *Second—Voluntary Dissolution of Corporations.*

Building and Loan Associations may be dissolved and precluded from doing business as such (*post*).

A corporation may be dissolved by the Superior Court of the county where its principal place of business is situated, upon its voluntary application for that purpose. (Section 1227, Code of Civil Procedure.)

87.

The application must be in writing, and must set forth:

First—That at a meeting of the stockholders or members called for that purpose, the dissolution of the corporation was resolved upon by a two-thirds vote of all the stockholders or members;

Second—That all claims and demands against the corporation have been satisfied and discharged. (Section 1228, Code of Civil Procedure.)

88.

The application must be signed by a majority of the Board of Trustees, Directors, or other officers having the management of the affairs of the corporation, and must be verified in the same manner as a complaint in civil actions. (For verification, see Section 446, Code of Civil Procedure.) (Section 1229, Code of Civil Procedure.)

89.

If the Court is satisfied that the application is in conformity with this title, a Judge thereof must order it to be filed with the Clerk, and that the Clerk give not less than thirty days nor more than fifty days' notice of the application, by publication in some newspaper published in the county, and if there are none such, then by advertisements posted up in

ized prior to the 31st day of March, 1891, that they were organized for the purposes substantially as provided for in those sections for the organization of Land and Building corporations, and under Sections 639, 640, 641, 642, 643, 644, 645, 646, and 647 of the Civil Code, and also all corporations which do a business similar to Building and Loan Associations, and which claim to be Building and Loan Associations, are usurping a franchise which has not been granted them by the State, and under the above sections and following sections can be abolished.

three of the principal public places in the county. (Section 1230, Code of Civil Procedure.)

90.

At any time before the expiration of the time of publication, any person may file his objections to the application. (Section 1231 of the Code of Civil Procedure.)

91. *Decree of Dissolution.*

After the time of publication has expired, the Court may, upon five days' notice to the persons who have filed objections, or without further notice, if no objections have been filed, proceed to hear and determine the application, and if all the statements therein made are shown to be true, must declare the corporation dissolved. (Section 1232, Code of Civil Procedure.)

92. *Judgment Roll.*

The application, notices, and proof of publication (objections, if there be any), and declaration of dissolution, constitute the judgment roll; and from the judgment an appeal may be taken as from other judgments of the Superior Courts. (Section 1233, Code of Civil Procedure.)

93. *On Dissolution, Directors to be Trustees for Creditors.*

Unless other persons are appointed by the Court, the Directors or managers of the affairs of such corporation at the time of its dissolution are trustees of the creditors and stockholders or members of the corporation dissolved, and have full power to settle the affairs of the corporation. (Section 400, Civil Code.)

94. *May Extend Term of Existence.*

Every corporation formed for a period less than fifty years may, at any time prior to the expiration of its term of corporate existence, extend such term to a period not exceeding fifty years from its formation. Such extension may be made at any meeting of the stockholders or members called by the Directors expressly for considering the subject, if voted by stockholders representing two thirds of the capital stock, or by two thirds of the members, or may be made upon the written assent of that number of stockholders or members. A certificate of the proceedings of the meeting upon such vote or upon such assent shall be signed by the Chairman and Secretary of the meeting and a majority of the Directors, and be filed in the office of the County Clerk where the original articles of incorporation were filed, and a certified copy thereof in the office of the Secretary of State, and thereupon the term of the corporation shall be extended for the specified period. (Section 401, Civil Code.)

95. *General Application of Laws.*

The provisions of this title (Title I, Civil Code) are applicable to every corporation, unless such corporation is excepted from its operation, or unless a special provision is made in relation thereto, inconsistent with some provision in this title, in which case the special provision prevails. (Section 403, Civil Code.)

95 $\frac{1}{4}$. *No Tax to be Paid on the Issue of Certificates of Stock.*

The provisions of an Act entitled "An Act imposing a tax on the issue of certificates of stock corporations," approved April 1, 1878, shall not be deemed and held to be applicable to any certificates issued to and transferred by the members or stockholders of any association organized under or governed by this Act. (New Section 648 $\frac{1}{2}$, Civil Code, approved and took effect March 31, 1891, Statutes and Amendments to the Codes of California of 1891, page 257.)

95 $\frac{1}{2}$. *Stock Exempt from Execution.*

The shares of stock in any such corporation held by any person to the value of one thousand dollars shall be exempt from execution, section six hundred and forty-three, of the Civil Code. (See Act approved March 31, 1891, Statutes and Amendments to the Codes of California of 1891, page 256.)

PENAL CLAUSES.

96. *Doing Business without License.*

No association, after the expiration of the term for which a license has been granted to it by the Commissioners of Loan Associations, shall continue to transact the business of a Building and Loan Association without first procuring from said Commissioners a renewal of such license on the terms provided for by this Act, and any corporation violating this provision shall forfeit the sum of ten dollars per day during the continuance of the offense, and any violation of this section by any officer of such association shall be a misdemeanor.^a (Section 17 of the Act approved March 23, 1893, Statutes and Amendments to the Codes of California of 1893, page 233.)

97. *Refusal to Appear and Testify before the Board of Commissioners of Building and Loan Associations, or Obstructing a Commissioner in the Discharge of his Duty.*

Either of the Commissioners may summon all trustees, officers, or agents of any such corporation, and such other witnesses as he thinks proper, in relation to the affairs, transactions, and condition of the corporation, and for that purpose may administer oaths; and whoever refuses, without justifiable cause, to appear and testify thereto when required, or obstructs a Commissioner in the discharge of his duty, shall be punished by a fine not exceeding one thousand dollars, or imprisonment not exceeding one year, or by both such fine and imprisonment. (Section 8 of the Act approved March 23, 1893, Statutes and Amendments to the Codes of California of 1893, page 231.)

98. *Failure of the Board of Commissioners of Building and Loan Associations to Report to the Attorney-General—Removal of Commissioner from Office.*

And if either of the Commissioners having knowledge of the insolvent condition, or any violation of law or unsafe practice of any association under their supervision, such as renders, in their opinion, the conduct of its business hazardous to its shareholders or depositors, and shall fail to

^aA misdemeanor is punishable by imprisonment in a county jail not exceeding six months, or by a fine not exceeding \$500, or by both. (Section 19, Penal Code.)

report the same in writing to the Attorney-General as required by this Act, then such Commissioner, on conviction thereof, shall be punished by a fine of not less than five thousand dollars nor more than ten thousand dollars, or by imprisonment in the county jail not less than one year nor more than two years, or by both such fine and imprisonment, and his office shall be declared vacant by the Governor, and a successor appointed to fill his unexpired term. (Section 10 of the Act approved March 23, 1893, Statutes and Amendments to the Codes of California of 1893, page 231.)

99. *Bribing Trustees of Corporations.*

Every person who gives or offers a bribe to any member of any Common Council, Board of Supervisors, or Board of Trustees of any county, city, or corporation, with intent to corrupt or influence its members in his action on any matter pending before the Board of which he is a member, and a member of either of the Boards mentioned in this section who receives or offers to receive any such bribe, is punishable by imprisonment in the State Prison for a term not less than one nor more than fourteen years, and is disqualified from holding any office in this State. (Section 165, Penal Code.)

100. *Embezzlement of Funds.*

Every officer of this State or any county, city, city and county, or other municipal corporation, or subdivision thereof, and every deputy clerk or servant of any such officer, and every officer, Director, Trustee, clerk, servant, or agent of any association, society, or corporation (public or private), who fraudulently appropriates to any use or purpose not in the due and lawful execution of his trust, any property which he has in his possession or under his control by virtue of his trust, or secretes it with fraudulent intent to appropriate it to such use or purpose, is guilty of embezzlement.^a (Section 504, Penal Code.)

101. *Frauds in Subscription of Stock.*

Every person who signs the name of a fictitious person to any subscription for, or agreement to take, stock in any corporation existing or proposed, and every person who signs to any subscription or agreement the name of any person, knowing that such person has not means, or does not intend in good faith to comply with all the terms thereof, or under any understanding or agreement that the terms of such subscription or agreement are not to be complied with or enforced, is guilty of misdemeanor.^b (Section 557, Penal Code.)

102. *Frauds in Organization, or Increasing the Capital.*

Every officer, agent, or clerk of any corporation, or of any person proposing to organize a corporation or to increase the capital stock of any corporation, who knowingly exhibits any false, forged, or altered book, paper, voucher, security, or other instrument of evidence to any public officer or Board authorized by law to examine the organization of such corporation, or to investigate its affairs, or to be allowed an increase of its capital with intent to deceive such officer or Board in

^a The punishment for embezzlement is the same as the punishment for larceny.

^b For punishment of misdemeanors, see note to No. 96, *ante*.

respect thereto, is punishable by imprisonment in the State Prison not less than three nor more than ten years. (Section 558, Penal Code.)

103. *Subscribing Another's Name to Advertisement.*

Every person who, without being authorized so to do, subscribes the name of another to, or inserts the name of another in any prospectus, circular, or other advertisement or announcement of any corporation or joint-stock association, existing or intended to be formed, with intent to permit the same to be published, and thereby to lead persons to believe that the person whose name is so subscribed is an officer, agent, member, or promoter of such corporation or association, is guilty of a misdemeanor.^a (Section 559, Penal Code.)

104. *Misconduct of Directors.*

Every Director of any stock corporation who concurs in any vote or act of the Directors of such corporation, or any of them, by which it is intended either,

1. To make a dividend, except from surplus profits arising from the business of the corporation, and in the cases and manner allowed by law; or,

2. To divide, withdraw, or in any manner, except as provided by law, pay to the stockholder, or any of them, any part of the capital stock of the corporation; or,

3. To discount or receive any note or other evidence of debt in payment of any installment actually called in and required to be paid, or with the intent to provide means of making such payment; or,

4. To receive or discount any note or other evidence of debt with the intent to enable any stockholder to withdraw any part of the money paid in by him, or his stock; or,

5. To receive from any other stock corporation in exchange for the shares, notes, bonds or other evidences of debt of their own corporation shares of the capital stock of such other corporation, or notes, bonds, or other evidences of debt issued by such corporation—is guilty of a misdemeanor.^a (Section 560, Penal Code.)

105. *Frauds in Keeping Accounts.*

Every Director, officer, or agent of any corporation or joint-stock association, who knowingly receives or possesses himself of any property of such corporation or association, otherwise than in payment of a just demand, and who, with intent to defraud, omits to make, or to cause or direct to be made, a full and true entry thereof in the books or accounts of such corporation or association, and every Director, officer, agent, or member of any corporation or joint-stock association who, with intent to defraud, destroys, alters, mutilates, or falsifies any of the books, papers, writings, or securities belonging to such corporation or association, or makes or concurs in making any false entries, or omits or concurs in omitting to make a material entry in any book of accounts or other record or document kept by such corporation or association, is punishable by imprisonment in the State Prison not less than three nor more than ten years, or by imprisonment in the county jail not exceed-

^a For punishment of misdemeanors, see note to No. 96, *ante*.

ing one year, and a fine not exceeding five hundred dollars, or by both such fine and imprisonment.^a (Section 563, Penal Code.)

106. *Publishing False Reports of Condition.*

Every Director, officer, or agent of any corporation or joint-stock association, who knowingly concurs in making, publishing, or posting any written report, exhibit, or statement of its affairs or pecuniary condition, or book or notice containing any material statement which is false, or refuses to make any book or post any notice required by law, such as are mentioned in this chapter, is guilty of a felony.^b (Section 564, Penal Code.)

107. *Refusing to Permit Inspection of Books.*

Every officer or agent of any corporation having or keeping an office within this State, who has in his custody or control any book, paper, or document of such corporation, and who refuses to give to a stockholder or member of such corporation, lawfully demanding during office hours [permission] to inspect or to take a copy of the same, or any part thereof, a reasonable opportunity so to do, is guilty of a misdemeanor.^c (Section 565, Penal Code.)

108. *Director of a Corporation Presumed to know its Condition.*

Every Director of a corporation or joint-stock association is deemed to possess such a knowledge of the affairs of his corporation as to enable him to determine whether any act, proceeding, or omission of its Directors is a violation of this chapter. [That is, violation of criminal law.] (Section 568, Penal Code.)

109. *When a Director is Presumed to Assent.*

Every Director of a corporation or joint-stock association who is present at a meeting of the Directors at which any act, proceeding, or omission of such Directors in violation of this chapter occurs, is deemed to have concurred therein, unless he at the time causes, or in writing requires, his dissent therefrom to be entered on the minutes of the Directors. (Section 569, Penal Code.)

110. *Concurrence by Directors—When Record Shows Act—If Director Remains Such Six Months, or Causes Dissent to be Entered on Books.*

Every Director of a corporation or joint-stock association, although not present at a meeting of the Directors at which any act, proceeding, or omission of such Directors in violation of this chapter occurs, is deemed to have concurred therein if the facts constituting such violation appear on the record or minutes of the proceedings of the Board of Directors, and he remains a Director of the same company for six months thereafter, and does not within that time cause, or in writing require, his dissent from such illegality to be entered in the minutes of the Directors. (Section 570, Penal Code.)

^a An indictment lies against an agent or a corporation for making false entries in the corporation books. (53 California, page 615.)

^b Felony is punishable by imprisonment in the State Prison not exceeding five years

^c For punishment of misdemeanors, see note to No. 96, *ante*.

The foregoing provisions of law apply to all Building and Loan Associations, whether organized prior to March 31, 1891, or afterwards. Corporations that were organized prior to March 31, 1891, and which have not elected to come under the laws approved March 31, 1891, are governed by different laws than associations which were organized after the 31st day of March, 1891, or which have elected to come under the laws of March 31, 1891.

Sections 111 to 118 $\frac{3}{4}$, both inclusive, constitute the laws governing corporations organized and incorporated prior to March 31, 1891.

111. *Land and Building Corporations.*

Prior to the passage of the Act of March 31, 1891, all corporations that were engaged in what is known as Building and Loan Association business, were known under and by the title of "Land and Building Corporations." (See Title 16, Civil Code.)

112. *How Organized.*

Corporations organized for the erection of buildings and making other improvements on real property, may raise funds in shares not exceeding two hundred dollars each, payable in periodical installments. Such bodies are known as "Land and Building Corporations," and may be organized with or without a capital stock.^a (Section 639, Civil Code.)

113. *Land and Building Corporations May Borrow Money.*

Any such corporation may borrow money for the purpose of carrying out its objects, and may give as security therefor its shares or mortgage upon its real estate. (Section 640, Civil Code.)

114. *Power and Object of Land and Building Corporations.*

Any such corporation may purchase real estate and erect buildings for its members, and make loans to its members for the purpose of aiding them in acquiring and improving real estate. Such loans must in all cases be secured on such real estate. (Section 641, Civil Code.)

115. *Land and Building Associations May Insure the Lives of Members and Debtors.*

Such corporations may insure, in some life insurance company incorporated under the laws of this State, the lives of its members and debtors. In case of death of a debtor or member so insured, the amount recovered on the policy must be applied to extinguish the indebtedness, including the premium paid, and the residue, if any, must be paid to the legal representative of the decedent. (Section 642, Civil Code.)

116. *What Real Estate May be Owned at any One Time by a Land and Building Corporation.*

Any such corporation may purchase, hold, and convey real estate, as follows:

^a All corporations which were organized prior to the passage of the Act approved March 31, 1891, were organized under this section and still continue to exist, but cannot now be organized under the provisions of this section. (Amendment approved March 30, 1874, Amendments 1873 and 1874, page 217; took effect July 1, 1874.)

1. The lot and building in which the business of the corporation is carried on, the cost of which must not exceed twenty thousand dollars.

2. Such as may from time to time be necessary to supply the wants of its members, the cost of which held unallotted to the members thereof at any one time must not exceed the sum of one hundred thousand dollars.

3. Such as shall have been mortgaged, pledged, or conveyed to it in trust to secure money loaned or to secure the purchase price thereof in pursuance of the regular business of the corporation. (Section 643, Civil Code.)

117. *What the By-Laws May Provide.*

The by-laws of such corporations must specify the amount of the periodical subscriptions or payments to be made by each member, the time and manner in which such payments are to be made; the fines and forfeiture for default; the time and manner of election of Directors and other officers, and their terms of office; the manner in which the real estate may be distributed, allotted, or sold to its members; the terms and conditions upon which loans may be made to its members, and by them repaid to the corporation; the manner in which a person may become and cease to be a member; the conditions on which members may withdraw from the corporation, and the provisions for the payment to withdrawing members of the sums of money due to them, arising from subscriptions or payments, and the proportion of the profits such withdrawing members may receive on withdrawal.^a (Section 644, Civil Code.)

118. *Consolidation and Transfer of Corporation Business and Property.*

Any two or more such corporations may unite and become incorporated in one body, with or without any dissolution or division of the funds of such corporation, or either of them; or any such corporation may transfer its engagements, funds, and property to any other such corporation, upon such terms as may be agreed upon by two thirds of the members of each of such bodies present at general meetings of the members convened for the purpose by notice, stating the object of the meeting, sent through the post office to every member, and by general notice appearing daily at least one week, or weekly at least two weeks, in some newspaper published at the place of the principal business of the corporation; but no such transfer can prejudice any right of any creditor of either corporation. (Section 647, Civil Code.)

118½.

Provided, that Building and Loan Associations heretofore incorporated [prior to March 31, 1891] may continue to charge and dispose of

^a The by-laws of a corporation are part of the contract under which a stockholder subscribes for stock, and the State cannot pass any law impairing the obligation of contract. (Article 1, Section 10, of the Constitution of the United States.)

If the by-laws of a corporation do not provide for the retirement or the withdrawal of shares at the time that a person subscribes therefor, the Board of Directors cannot force the withdrawal of shares, for the forced withdrawal would be violating the obligation of the contract. (Article 1, Section 10, of the Constitution of the United States.)

Section 645 of the Civil Code refers to the making of annual statements. Same is repealed by Section 18 of the Act approved March 23, 1893 (Statutes and Amendments to the Codes of California of 1893, page 233), and is provided for in No. 81, *ante*, with this exception, that the report of Land and Building corporations so annually made, must be printed and circulated among the members. (Abstract from Section 645, Civil Code.)

such entrance and transfer fees as are prescribed by the by-laws of such corporation. (Abstract from Section 634, Civil Code, as amended by Act approved March 31, 1891, Statutes and Amendments to Codes of California of 1891, page 253.)

118 $\frac{3}{4}$.

These sections above cited are continued in force as to all Building and Loan Associations organized prior to the passage of the Act approved March 31, 1891. By this Act, Sections 639, 640, 641, 642, 643, 644, 645, and 647, Title 16, Part IV, Division First, of the Civil Code are hereby repealed; *provided, however*, that so far as the said sections relate to and govern Building and Loan Associations (Land and Building Associations) heretofore incorporated and doing business under the Civil Code, the said sections shall continue in full force and validity. (Abstract from Section 1 of the Act approved March 31, 1891, Statutes and Amendments to the Codes of California of 1891, page 252.)

NEW LAW GOVERNING ASSOCIATIONS ORGANIZED AFTER MARCH 31, 1891, AND NOT APPLICABLE TO LAND AND BUILDING ASSOCIATIONS.

The following laws govern and apply to corporations only which were organized after March 31, 1891, or corporations which were organized after March 31, 1891, and have elected to continue business under the provisions of the Act approved March 31, 1891 (Act repealing sections of Land and Building Associations); Sections 639, 640, 641, 642, 643, 644, 645, and 647 of Title XVI, Part IV, Division First, of the Civil Code are hereby repealed; *provided, however*, that so far as said sections relate to and govern Building and Loan Associations heretofore incorporated and doing business under the Civil Code, the said sections shall continue in full force and validity." (Abstract from Section 1 of the Act approved March 31, 1891, Statutes and Amendments to the Codes of California of 1891, page 252.)

119. *Name—What Words Must be Used.*

Corporations may be formed subject to the provisions of this title, with all the rights and powers herein specified. Such corporations shall be known as Mutual Building and Loan Associations, and the words "Mutual Building and Loan Associations" shall form part of the name of every such corporation.^b (Abstract from Section 633, approved March 31, 1891, Statutes and Amendments to the Codes of California of 1891, page 252.)

120. *Dues, and Payment thereof—Shares of Stock, and Size thereof—Capital Stock, and Amount thereof—Series, and When Issued—Free Shares—Pledged Shares.*

The capital stock of such corporation shall be paid in by the stockholders in regular equal periodical payments, at such times and in such amounts as shall be provided in the by-laws. Such periodical payments shall be called "dues," and at or before a time to be stated in the by-

^a The remainder of this section, providing for the examination by Bank Commissioners, was repealed by the Act approved March 23, 1893, Statutes and Amendments to the Codes of California of 1893, page 229.

^b As to what the articles of incorporation shall set forth of associations formed since March 31, 1891, and to be hereafter formed, see No. 4, *ante*.

laws, each stockholder shall pay to the corporation, upon each share of stock held by him, such an amount of dues as the by-laws shall provide, and the payment of dues shall so continue on each share of stock issued till it reaches its matured value, or is withdrawn, canceled, or forfeited. The capital stock shall consist of such accumulated dues, together with the earnings and profits of the corporation, and shall in no case exceed two million dollars, except as to corporations now existing. It shall be divided into shares of matured or par value of one hundred dollars or two hundred dollars each, as shall be provided in the articles of incorporation, and fixed by the by-laws. Certificates of stock shall be issued to each stockholder on the first payment of dues by him. The shares shall be issued in yearly, half-yearly, or quarterly series, except in corporations now existing, in such amounts in each series and at such times as shall be determined by the Board of Directors. No shares of a prior series shall be issued after the issuing of shares in a new series. Shares which have not been pledged as security for the repayments of a loan shall be called "free" shares. Shares which have been so pledged shall be called "pledged" shares. All stock matured and surrendered or canceled in any series shall become the property of the corporation, and may be issued in any subsequent series. Payment of dues on shares of stock in each series shall commence from the time that shares began to be issued in such series.

Fines.

Any such corporation shall have power by its by-laws to impose and collect a fine from each stockholder not exceeding ten per cent of the defaulted amount, for every neglect or refusal to make his payments of dues, premium, or interest when due, and to impose and collect a like fine successively on every regular pay day during such default.

Entrance Fee.

Every such corporation hereafter formed shall also have power to charge an entrance fee upon each share of stock issued, not exceeding ten cents on each share, and may also charge a transfer fee not exceeding ten cents on each share, all of which shall be paid into the treasury, and accounted for as all other funds of the association.

(Abstract from new Section 634, Civil Code, approved March 31, 1891, Statutes and Amendments to the Codes of California of 1891, page 253.)

121. Payment of Dues or Interest in Advance.

Payment of dues or interest may be made in advance, but no association shall allow interest on such advance payments at a greater rate than six per cent per annum, nor for a longer period than one year. (Abstract from new Section 634, Civil Code, approved March 31, 1891, Statutes and Amendments to the Codes of 1891, page 254.)

122. Forcible Retirement of Stock.

The Directors may, at their discretion, under the regulations prescribed in their by-laws, retire the free shares of any series of stock at any time after four years from the date of their issue by enforcing the withdrawal of the same, but whenever there shall remain in any series, at the expiration of five years after the date of its issue, an excess above

one hundred free shares of the par value of two hundred dollars each, or two hundred free shares of the par value of one hundred dollars each, then it shall be the duty of the Directors to retire annually twenty-five per centum of such excess existing at said expiration of five years after the date of its issue, so that no more than one hundred free shares shall remain in such series at the expiration of nine years from the date of its issue; *provided*, that no more than one half of the monthly receipts be used for that purpose; and thereafter the Directors may in their discretion retire such other free shares as they consider to the best interest of the association to retire; *provided*, that whenever under the provisions of this section the withdrawal of shares is to be enforced, the shares to be retired shall be determined by lot drawn from all free shares in the series, as shall be regulated by the by-laws, and the holders thereof shall be paid the amount actually paid in and the full amount of earnings at the date of the last apportionment of profits.* (New Section 635, Civil Code; approved March 31, 1891, Statutes and Amendments to the Codes of California of 1891, page 252.)

123. *Payment of Stocks upon Maturity thereof—Satisfaction of Mortgages upon Maturity of Stocks.*

When the stock in any series shall have reached its matured value, payment of dues thereon shall cease. All of the stockholders in such series who have borrowed from the association shall be entitled to have their securities returned to them. And a satisfaction of the mortgage made by them to the association and the holder of free shares of stock in such series shall be paid out of the funds of the association, the matured value thereof, with such rate of interest as shall be determined by the by-laws, from the time the Board of Directors shall declare such shares to have matured until paid, but at no time shall more than one third of the receipts of the association be applicable to the payment of matured shares, without the consent of the Board of Directors. The order of the payment of matured shares shall be determined by the by-laws. (Section 636, Civil Code; approved March 31, 1891, Statutes and Amendments to the Codes of California of 1891, page 254.)

124. *Money to be Loaned—Premium thereon.*

The moneys in the hands of the Treasurer, and such sums as may be borrowed by the corporation for the purpose, shall be loaned out in open meeting to the member who shall bid the highest premium, or may

* In associations which have elected to come under the law approved March 31, 1891, and to be under what is known as the "new law," they cannot retire the stock of a member who objects thereto, unless such member has actually voted affirmatively to elect to come under the new law, as a member who has taken shares in an association which was organized prior to March 31, 1891, and which had no provision in its by-laws for the retirement of free stock, and such member had not elected to come under the new law, the forcible retirement of his stock would be impairing the obligation of a contract which is prohibited by the Federal and State Constitutions. (Section 10, Article 1, of the Federal Constitution; also Section 16, Article 1, of the Constitution of California, 1879.)

As to corporations organized after the 31st day of March, 1891, and as to all members who have personally voted to elect to come under the law of March 31, 1891, their stock can be forcibly retired, as provided in the above section.

Where a bill in an action against a Building and Loan Association by one of its members, for an accounting of such member's profits in the association, avers that certain charter provisions of defendant association, in force when plaintiff became a member, have been abrogated by defendant to the injury of plaintiff, the sustaining of a demurrer to the bill is error. (*Sullivan vs. Jackson Building and Loan Association* (Miss.), 12 So. 590.)

be loaned at such premium as may be fixed from time to time by the Board of Directors; and the premium may be deducted from the amount of the loan, or such proportion may be deducted as the by-laws shall provide, and in case the balance of said premium shall be payable in such installments as the by-laws shall determine; *provided, however*, that where the premium is payable in installments, the number of installments into which the same is divided shall be uniformly applicable to all loans made by the corporation, and shall be payable at the times and in the manner as provided in the by-laws; *and provided further*, that in no case shall the amount loaned exceed the matured value of the shares pledged to secure the loan. (Section 637, Civil Code; approved March 31, 1891, Statutes and Amendments to the Codes of California of 1891, page 254.)

125. *Interest—Mortgage Security—Loans on Stocks.*

The rate of interest on all loans may be fixed by the by-laws, but in case the by-laws fail to fix the rate, then it shall be fixed from time to time by the Board of Directors. For every loan made, a note or obligation secured by a first mortgage upon unincumbered real estate shall be given, accompanied by a transfer and pledge to the association of the shares borrowed upon, as collateral security for the repayment of the loan, or in lieu of the mortgage there may be pledged and transferred to the association, for the payment of the loan, free shares, the withdrawal value of which under the by-laws at the time of such borrowing shall exceed the amount borrowed and interest thereon for six months. At the discretion of the Board of Directors, a borrower may repay a loan and all arrears of interest and fines thereon at any time, upon the surrender of the shares pledged for the loan. (Section 638, Civil Code; approved March 31, 1891, Statutes and Amendments to the Codes of California of 1891, page 255.)

126. *Forfeiture of Stock.*

Whenever any member shall be six months in arrears in the payment of his dues upon free shares, the Secretary shall give him notice thereof in writing, and a statement of his arrearage, by mailing the same to him at the last post office address given by him to the association, and if he shall not pay the same within two months thereafter, the Board of Directors may, at their option, declare his shares forfeited, and at the time of such forfeiture the withdrawal value thereof shall be determined and stated, and the defaulting member shall be entitled to withdraw the same without interest, upon such notice as shall be required of a withdrawing shareholder. Whenever a borrowing member shall be six months in arrears in the payment of his dues or interest, or premium, the whole loan shall become due at the option of the Board of Directors, and they may proceed to enforce collection upon the securities held by the association. The withdrawal value at the time of the commencement of the action of all shares pledged as collateral security for the loan, shall be applied to the payment of the loan, and said shares from that time shall be deemed surrendered to the association. (New Section 639, Civil Code; approved March 31, 1891, Statutes and Amendments to the Codes of California of 1891, page 255.)

127. *Purchase of Real Property.*

Any such association may purchase at any sale, public or private, any real estate upon which it may have a mortgage, judgment, lien, or other incumbrance, or in which it may have an interest, and may sell, convey, lease, or mortgage the same, at pleasure, to any person or persons. (New Section 640, Civil Code; approved and took effect March 31, 1891, Statutes and Amendments to the Codes of 1891, page 254.)

128. *May Borrow Money.*

Any association organized in pursuance of the provision of this Act, may borrow money for the purpose of making loans or paying withdrawals. (Section 641, Civil Code; approved and took effect March 31, 1891, Statutes and Amendments to the Codes of 1891, page 255.)

129. *Profits and Losses Apportioned.*

Profits and losses shall be apportioned at least annually, and shall be apportioned to all the shares in each series outstanding at the time of such apportionment, according to the actual value of such shares as distinguished from their withdrawal value. (Section 642, Civil Code; approved March 31, 1891, Statutes and Amendments to the Codes of California of 1891, page 255.)

130. *Who May be Members.*

Any person of full age and sound mind may become a member of the association by taking one or more shares therein, and subscribing to the by-laws and annexing to his signature his post office address. A minor may hold shares in the name of the parent, guardian, or next friend of the trustee. (Abstract from new Section 643, Civil Code, approved March 31, 1891, Statutes and Amendments to the Codes of 1891, page 256.)

131. *Electing to Come Under New Law.*

Any Building and Loan Association now existing and heretofore incorporated, desiring to continue its existence under the provisions of this title, may do so if the holders of a majority of the stock, at their regular annual meeting, or at a special meeting of the stockholders called for that purpose, shall so elect. The notice of the meeting, whether regular or special, shall state, as one of the objects of the meeting, to vote on the question whether the corporation shall continue its existence under the provisions of this title, and the notice of meeting shall be published, as required by section three hundred and one, and in addition thereto a similar notice shall be mailed to each stockholder at his post office address. Within thirty days after the holders of a majority of the stock at any such meeting have voted to continue the existence of the corporation, under the provisions of this title, the Secretary of the corporation shall, under oath, make and subscribe as such Secretary a certificate, in writing, stating the calling of such meeting, the fact that the holders of the majority of the stock voted to continue the existence of the corporation under this title, which shall be filed in the office of the County Clerk in which the original articles of incorporation have been filed, and shall file in the office of the Secretary of State a certified copy thereof, according to the provisions of section two hundred and ninety-six,

and the Secretary of State shall issue his usual certificate, as provided in this section. Thereupon such corporation shall be subject to all the provisions of this title, as though originally incorporated under the provisions hereof, except that no change in its name or amount of capital stock shall be made, but the name shall be the same as contained in the original articles.^a (Section 646, Civil Code; Statutes and Amendments to the Codes of California of 1891, page 257.)

The following section, which is applicable to all associations, can only be enforced as against associations which were organized after the 23d day of March, 1893, unless such associations had a provision in their by-laws to a similar effect as this law:

132. *Withdrawal of Stockholders.*

Stockholders desiring to withdraw from any association, or to surrender a part or all of their stock, shall have power to do so by giving thirty days' notice, in writing, of such intention to withdraw. On the expiration of such notice, the stockholder so withdrawing shall be entitled to receive the full amount paid in by him or her, together with such proportion of the earnings thereon as the by-laws may provide, or as may be fixed by the Board of Directors; *provided*, that not more than one half of the monthly receipts in any one month shall be applied to withdrawals for that month, without the consent of the Board of Directors; and no shareholder shall be permitted to withdraw whose stock is pledged as security to the association for a loan until such loan is fully paid. Such withdrawals shall be made in succession in the order that the notices are given.^b (Section 19 of the Act approved March 23, 1893, Statutes and Amendments to the Codes of 1893, page 233.)

^a This latter provision herein cannot legally be made as to any stockholder, if, by reason of the making thereof, the obligation of any contract entered into by any stockholder is violated or impaired, or if said stockholder does not personally vote for said change, even though a majority of the stockholders should so vote for said change. In associations which have elected to come under the law approved March 31, 1891, and to be under what is known as the "new law," they cannot retire the stock of a member who objects thereto, unless such member has actually voted affirmatively to elect to come under the new law; as a member who has taken shares in an association which was organized prior to March 31, 1891, and which had no provision in its by-laws for the retirement of free stock, and such member had not elected to come under the new law, the forcible retirement of his stock would be impairing the obligation of a contract, which is prohibited by the Federal Constitution. (Section 10, Article I, of the Federal Constitution; also Section 16, Article I, of the Constitution of California, 1879.) As to corporations organized after the 31st day of March, 1891, and as to all members who have personally voted to elect to come under the law of March 31, 1891, their stock can be forcibly retired, as provided in the new law. Any change in the nature of the contract made by a stockholder when he entered the association, by reason of a majority of the stockholders electing to come under the new law, cannot be enforced as against a stockholder who has voted against coming under the new law.

^b If an association has provided in its charter or by-laws that stock could not be withdrawn for any certain length of time, or even until maturity thereof, this would be a contract, or a portion of a contract, so far as the association was concerned, and the passage of this Act would be impairing the obligation of this contract, and withdrawal could not be enforced. (See note to No. 131.)

Quite a number of provisions of the new law which have been heretofore shown to be inapplicable to associations incorporated as Land and Building corporations, and which cannot be enforced as against persons who had subscribed for stock, or as against said associations, by reason of contractual relations entered into, may nevertheless be enforced and be in full force and effect as against persons who have subscribed for stock in said association under the old law, but which subscription for stock have been made after the passage of the Acts in question.

All the sections of what is known as the "new law," and which apply to Building and Loan Associations rather than to Land and Building Associations, are all applicable to all Building and Loan Associations when they do not impair the obligations of con-

133. *Foreign Corporations.*

No Mutual Building and Loan Association, or company, association, or corporation organized under the laws of any other State or Territory, to carry on a business of a like character to that authorized by this title, shall be allowed to do business or to sell their stock in this State, without first having deposited with the State Controller or Secretary of State the sum of fifty thousand dollars in money, or United States or municipal bonds of this State, or in mortgages upon real estate located within this State, as a guarantee fund for the protection and indemnity of residents of the State of California with whom such company, association, or corporation shall do business. The fund so deposited to be paid by the custodian thereof to the residents of California only, and not then, until proof of claim, by final judgment, has been filed with the custodian of said fund against such foreign company, association, or corporation. Any of the securities so deposited may be withdrawn at any time upon others herein provided for, of like amount, being substituted in lieu thereof. Any person or persons who shall be found in this State as agent, or in any other capacity representing such foreign company, association, or corporation which has not complied with the provisions of this section, shall be deemed guilty of a misdemeanor, and upon conviction shall be punished by a fine not exceeding one thousand dollars, or by imprisonment in a county jail for not exceeding twelve months, or by both such fine and imprisonment. (Section 645, Civil Code; approved March 31, 1891, Statutes and Amendments to the Codes of California of 1891, page 256.)

tracts, or change vested rights, or violate the terms and conditions of the charter or articles of incorporation, or change the effect of some by-law existing at the time of the passage of the Act.

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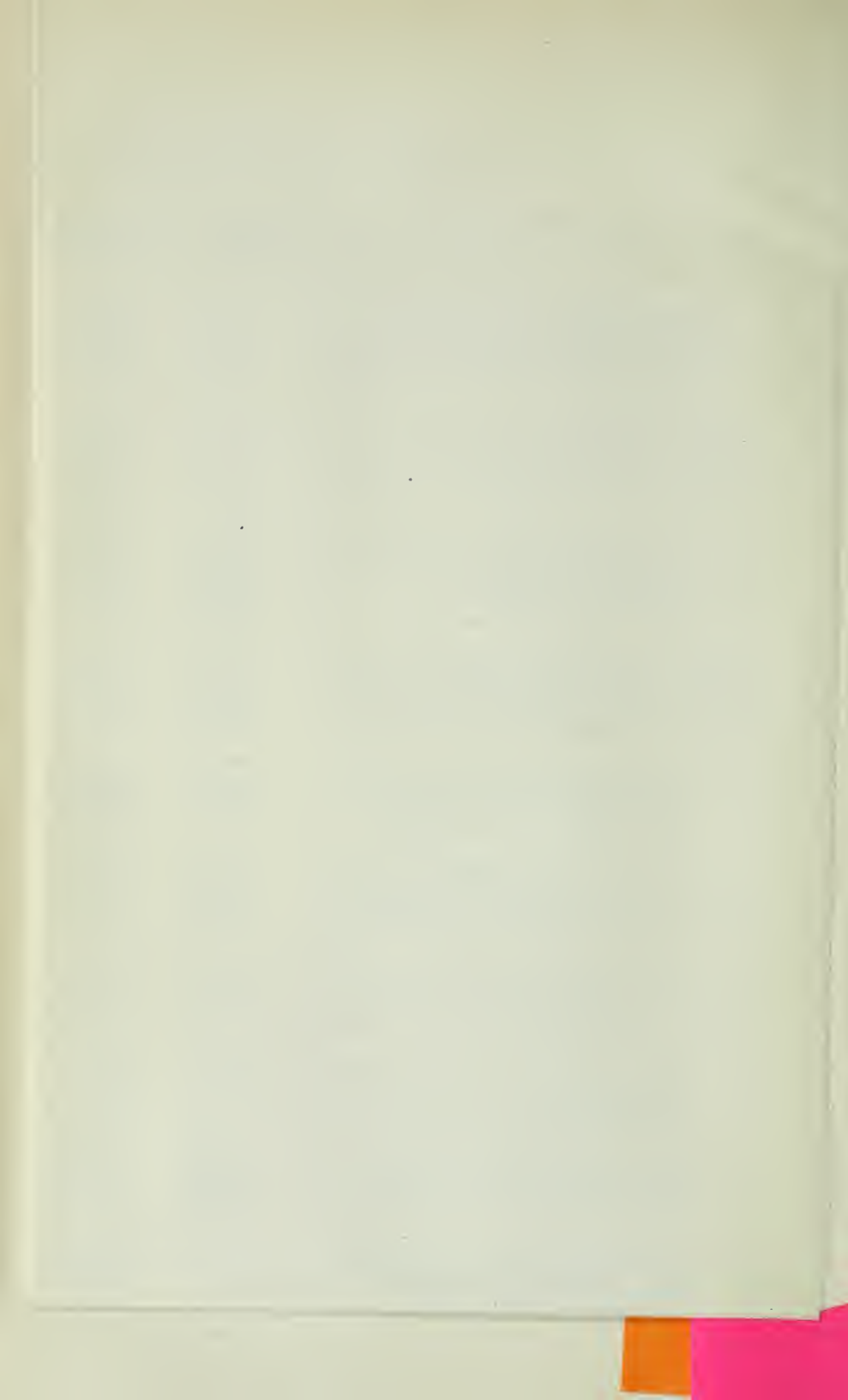


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REPORT

OF THE

Board of Railroad Commissioners

(FIRST BIENNIAL)

OF THE

STATE OF CALIFORNIA.

1893-1894.



SACRAMENTO:

STATE OFFICE, : : : A. J. JOHNSTON, SUPT. STATE PRINTING.
1894.

MEMBERS OF THE BOARD.

WM. BECKMAN, First District.....Sacramento.
J. M. LITCHFIELD, Second District.....San Francisco.
JAS. W. REA, Third District.....Santa Clara.

OFFICERS.

JAS. V. KELLY, Secretary.....Santa Clara.
R. H. STAFFORD, Bailiff.....Sacramento.
F. H. LOMBARD, Stenographer.....San Francisco.

OFFICE OF THE BOARD OF RAILROAD COMMISSIONERS.

Rooms 27 and 28, "Chronicle" Building.....San Francisco.

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REPORT.

To his Excellency H. H. MARKHAM, Governor of California:

SIR: We have the honor to submit to you the fourteenth annual report, which embraces two and one half years, and ending June 30, 1894. It contains the reports of the various railroad companies reporting to this Commission during the period above named; also the proceedings of the Board during said period, in such detail as the subject-matters warrant.

As this is the last report from this Board as now constituted, we deem it eminently advisable and proper to briefly review the work of the Commission during the past four years.

When the present members took the oath of office and were duly installed as Commissioners, and had fully organized, as contemplated by the Constitution of California, on the 5th day of January, 1891, we found, as has always been the case, clamor in certain quarters for a reduction of the freights and fares over the lines of the Southern Pacific system in California. We say the Southern Pacific Company's system in California because we have not heard of any general demand during our term of office for reduction in freights and fares, as charged by the other lines (representing about one third of the total mileage) doing business in this State, but not under the management of that company, so that in fact the demand for reduction was directed against the Southern Pacific Company.

The fair-minded will admit that the equitable adjustment of freights and fares between the carrier and shipper cannot be determined by a superficial examination of the subject, but requires careful study and a thorough investigation of the whole matter, in order to arrive at a just conclusion, and in this connection, we beg to submit, it is surprising that a body of men, defining the policy of political parties, should so forget the functions of a Railroad Commission as to demand, in qualification for that office, that the nominees pledge themselves to prejudge the cases they will be called on to adjudicate, and by solemn promise declare that they will arbitrarily reduce the rates of the railroads 25 per cent, without investigation or opportunity for a hearing.

One of the first resolutions adopted by the Board shortly after its organization, in January, 1891, was the following:

Resolved, That it is the duty of this Board to visit the different shipping points of the State, examine into the management of the railroads, notify the citizens in the town and surrounding country to appear before our Board with any complaints and grievances they may have to offer, and that this Board take such steps as may be necessary to remove all just cause of complaint.

Resolved, That the Chairman and Secretary of this Board lay out a route, and designate stopping places, dates of stoppage, and notify the citizens along the road of our meetings and the object of such meetings.

In accordance with the above resolution the Board did visit the following-named places, after giving due notice of the time and place of meeting and the object for which it was given, viz.: San Diego, Riverside, Los

Angeles, Pasadena, Santa Barbara, Bakersfield, Hollister, Paso Robles, Latrobe, and Porterville. In all of the above-named places regular meetings were held. Complaints were received and witnesses were examined touching the question of freights and fares, and in every instance relief was granted the shipper to his entire satisfaction.

During the first year this Board heard thirty-seven cases, and in nearly every case relief was given to the complainant. It is true in many cases the differences were adjusted by the carrier when the subject was properly presented to it by the shipper, through the medium of this Commission, without an order from this Board; but in many cases wide differences existed where an amicable adjustment could not be reached between the carrier and shipper; then it became the duty of this Commission to set in motion the machinery given it by the Constitution, by commanding all interested parties to appear at a time fixed, and both shipper and carrier were given an impartial hearing.

One of the most important cases that came before the Commission and which was resisted by the carrier, that affected the general question as to the reasonableness of rates, was that of J. W. Gilman et al. vs. The Southern Pacific Company.

The plaintiff together with one hundred and sixty-five shippers petitioned this Board for a reduction of freight and passenger rates over that portion of the line of the Southern Pacific Company known as the Porterville Division. Petitioners claimed that the carrier's rates were excessive and unreasonable, and asked for a general reduction to conform to the rates in use on the main line. The Southern Pacific Company, through Mr. Richard Gray, the General Traffic Manager, answered said petition and denied that the Southern Pacific Company's rates were discriminative, unjust, and unreasonable, but on the contrary were manifestly just and reasonable, and at the same time claiming that it costs more to handle a limited amount of tonnage on a branch line than it does a large volume of business on a trunk line, and further, that if the road between Porterville and Fresno had been built and operated by an independent company, no such rates as were then in force would have been possible or could have been secured by the producers at Porterville. Thus the issue was joined. The Commission met at Porterville on February 5, 1891. The Southern Pacific Company was duly notified to be in attendance, and after a fair and full hearing, both shipper and carrier being ably represented, the Commission adopted the following resolution:

Resolved, That the Southern Pacific Company be required to show cause why its freight rates to and from points on its Fresno Division, commonly known as the Porterville Branch, should not be revised with a view to modification, on the basis charged to other communities similarly situated.

That thereafter and on the 30th day of March, 1891, the Board made the following order:

The above case was called, and argument having been made before this Board in defense of said Southern Pacific Railroad Company's present rates, and full and fair consideration given same, it is now ordered that the rates as per schedules "A," "B," "C," and "D" annexed, be substituted for those now in use and force; same to take effect not later than fifteen days from date.

The schedules referred to are published in full in our twelfth annual report, and made a general reduction of about 10 per cent, which was satisfactory to the shippers.

Many cases of like importance have been determined by the Commission, and in nearly every instance favorable to the shippers, but which we do not deem necessary to specially mention. There is one case, however, that deserves more than a passing notice. This was the case of R. O. Shively vs. The Southern Pacific Company.

Mr. Shively was a merchant doing business in the city of San José, and as such was engaged in shipping large quantities of merchandise of various kinds over the lines of the Southern Pacific Company. He alleged among other things that the rates of passenger fares in this State were much higher than those on roads in other portions of the United States similarly circumstanced as to cost of construction, cost of operation, grades, etc., and that the fare schedules as then in force in this State should be reduced at least 10 per cent over the lines of the Southern Pacific Company. He further alleged that the freight rates charged by said company and approved by the Railroad Commissioners previous to the organization of this Board on January 5, 1891, were unjust, and that grave discrimination existed between classes of produce shipped from various points throughout the State, and that the freight schedules should be revised so as to affect every class of merchandise and every point of shipment within the State, and asked that a general reduction of 20 per cent on the then existing freight schedules be made.

The filing of a complaint so general, and at the same time sweeping in its character, resulted in a disagreement between this body and an organization known as the Traffic Association of California, by whom it was contended that the State Board of Railroad Commissioners was not a judicial body; that it was within their power, and it was their duty, to establish and arbitrarily fix passenger and freight rates, without giving the railroad company notice or an opportunity to be heard; but when the rates were once established by the Board, the company would then be granted a hearing, for the purpose of disproving the unjustness of these rates, should the Commission err in its judgment in the adjustment of the schedules.

The Commission did not accept this view of the question. Section 22 of Article XII of the Constitution declares that:

“Said Commissioners shall have the power, and it shall be their duty, to establish rates of charges for transportation of passengers and freight by railroad and other transportation companies, and publish the same from time to time, with such changes as they may make.”

This same section provides that such rates, when established, shall be deemed *conclusively just and reasonable*, thus having the same effect as a *final judgment* in a court of law.

We therefore held that if the decisions of this Commission are to be conclusive on the subject, and to have the same effect as a judgment in a court of law, they should be of *judicial impartiality*.

An Act of the Legislature of this State, entitled “An Act to organize and define the powers of the Board of Railroad Commissioners,” approved April 15, 1880, expressly provides: “That this Board shall have power to issue writs of summons and subpoena in like manner as courts of record. The summons shall direct the defendant to appear and answer within fifteen days from date of service,” and it further provides that “complaints before said Board shall be in writing and under oath,” and that “the process issued by the Board shall extend to all parts of the State.” This statute defining the powers of the Board clearly

requires a notice, and an opportunity to be heard on part of the defendants against any complaint made before this Board.

It is apparent that the Traffic Association was in error when it insisted that this Commission should, without notice to the railroad company, or an opportunity for it to be heard, proceed to establish a schedule of freights and fares, which schedule, when so established, is by the Constitution declared to be *conclusively just and reasonable*.

The general rule of law is, "that the method pursued should be appropriate to the case; adapted to the end to be attained, just to the parties, with notice, and an opportunity to be heard before an appropriate and impartial tribunal." This is the doctrine laid down by that eminent jurist and writer on constitutional law, Judge Cooley, in his work on Constitutional Limitations (6th ed.), page 694; and many other writers have adopted this rule on this subject. Argument is unnecessary to show that railroad commissions are appropriate tribunals to fix and establish rates. But the rates of freights and fares must be reasonable and just, and should yield a fair return on the money invested; otherwise the order fixing those rates would be declared null and void when brought before the proper tribunal. This has been decided in many cases before the Supreme Court of the United States.

The question whether rates are reasonable is a judicial one, subject to review by the courts. This doctrine has been upheld in every case where the subject has been presented to the courts for consideration, and especially in the case of *Budd vs. New York*, 143 U. S. Reports, pp. 517 *et seq.*; and again in the 4th Interstate Commerce Commission Reports, p. 45; also in the case of *Chicago and Grand Trunk Railroad vs. Wellman*, 143 U. S. Reports, p. 339.

This doctrine was also upheld by the Supreme Court of the United States in the case of *Chicago, Milwaukee, and St. Paul Railway Company vs. Minnesota*. This was a writ of error to review a judgment of the Supreme Court of the State of Minnesota, awarding a writ of mandamus against the Chicago, Milwaukee, and St. Paul Railway Company, and the Court decided that:

"The Act of the Legislature of Minnesota, establishing a railroad and warehouse commission, being interpreted by the Supreme Court of that State as providing that the rates of charges for the transportation of property, recommended and published by the Commission, shall be final and conclusive as to what are equal and reasonable charges, and that there can be no judicial inquiry as to the reasonableness of such rates, and a railroad company, in answer to an application for a mandamus, contending that such rates, in regard to it, are unreasonable, and not being allowed by the State court to put in testimony on the question of unreasonableness of such rates, held that the Act is in conflict with the Constitution of the United States, as depriving the company of its property without due process of law, and depriving it of the equal protection of the laws.

"That the company, as the owner of its railroad, franchises, equipment, and appurtenances, is entitled to the possession and beneficial use thereof, was authorized to establish rates for the transportation of freight and passengers, subject only to the provision that such rates should be fair and reasonable; that the establishing of such rates by the State, against the will of the company, was *pro tanto* a taking of its property, and depriving it thereof, without due process of law, in viola-

tion of Section 1, Article XIV of the amendments of the Constitution of the United States; and that the making of the order of October 13, 1887, was *pro tanto* a taking and depriving the company of its property, without due process of law, in violation of said section, and therefore void and of no effect.

“The Granger cases, so called, reported in 94 U. S., arose on statutes passed in Illinois in 1873, and in Wisconsin, Iowa, and Minnesota in 1874. The Wisconsin and Iowa Acts were statutes fixing a maximum tariff. The Illinois and Minnesota statutes provided that commissioners should make schedules which should be *prima facie* reasonable rates. * * * From what has been said it is not to be inferred that this power of limitation or regulation is itself without limit. This power to regulate is not a power to destroy, and limitation is not the equivalent of confiscation. Under pretense of regulating fares and freights the State cannot require a railroad corporation to carry persons or property without reward, neither can it do that which in law amounts to a taking of private property for public use without just compensation, or without the due process of law. The Supreme Court authoritatively declares that it is the expressed intention of the Legislature of Minnesota, by the statute, that the rates recommended and published by the Commission, if it proceeds in the manner pointed out by the Act, are not simply advisory, not merely *prima facie* equal and reasonable, but final and conclusive as to what are equal and reasonable charges; that the law neither contemplates nor allows any issue to be made, or inquiry to be had, as to their equality or reasonableness in fact; that under the statute the rates published by the Commission are the only ones that are lawful and therefore, in contemplation of law, the only ones that are equal and reasonable; and that in a proceeding for a mandamus under the statute there is no fact to traverse except the violation of law in not complying with the recommendations of the Commission. In other words, although the railroad company is forbidden to establish rates that are not equal and reasonable, there is no power in the courts to stay the hands of the Commission, if it chooses to establish rates that are unequal and unreasonable.

“This being the construction of the statute by which we are bound in considering the present case, we are of opinion that, so constructed, it conflicts with the Constitution of the United States in the particulars complained of by the railroad company. It deprives the company of its right to a judicial investigation, by due process of law, under the forms and with the machinery provided by the wisdom of successive ages, for the investigation, judicially, of the truth of a matter in controversy, and substitutes therefor, as an absolute finality, the action of a Railroad Commission, which in view of the powers conceded to it by the State Legislature, cannot be regarded as clothed with judicial functions or possessing the machinery of a court of justice.

“Under Section 8 of the statute which the Supreme Court of Minnesota says is the only one which relates to the matter of the fixing by the Commission of general schedules of rates, and which section, it says, fully and exclusively provides for that subject, and is complete in itself, all that the Commission is required to do is, on the filing with it by a railroad company of copies of its schedules of charges, to ‘find’ that any part thereof is in any respect unequal or unreasonable, and then it is authorized and directed to compel the company to change the

same and adopt such charge as the Commission 'shall declare to be equal and reasonable,' and, to that end, it is required to inform the company in writing in what respect its charges are unequal and unreasonable. No hearing is provided for, no summons or notice to the company before the Commission has found what it is to find, and declare what it is to declare, no opportunity provided for the company to introduce witnesses before the Commission; in fact, nothing which has the semblance of due process of law; and although, in the present case, it appears that, prior to the decision of the Commission, the company appeared before it by its agent, and the Commission investigated the rates charged by the company for transporting milk, yet it does not appear what the character of the investigation was, or how the result was arrived at."

In concurring with the above decision, Mr. Justice Miller laid down the following general rules that should govern the establishing of rates by Railroad Commissioners, viz.:

"1. In regard to the business of common carriers, limited to points within a single State, that State has the legislative power to establish the rates of compensation for such carriage.

"2. The power which the Legislature has to do this can be exercised through a Commission, which it may authorize to act in the matter, such as the one appointed by the Legislature of Minnesota by the Act now under consideration.

"3. Neither the Legislature nor such Commission, acting under the authority of the Legislature, can establish, arbitrarily and without regard to justice and right, a tariff of rates for such transportation, which is so unreasonable as to practically destroy the value of property of persons engaged in the carrying business on the one hand, nor so exorbitant and extravagant as to be in utter disregard of the rights of the public for the use of such transportation, on the other.

"4. In either of these classes of cases there is an ultimate remedy by the parties aggrieved, in the courts, for relief against such oppressive legislation, and especially in the courts of the United States, where the tariff of rates established, either by the Legislature or by the Commission, is such as to deprive a party of his property without due process of law.

"But when the question becomes a judicial one, and the validity and justice of these rates are to be established or rejected by the judgment of a court, it is necessary that the railroad corporations interested in the rate to be considered should have notice and have a right to be heard on the question relating to such rate, which I have pointed out as judicial questions. For the refusal of the Supreme Court of Minnesota to receive evidence on this subject, I think the case ought to be reversed, on the ground that this is a denial of due process of law in a proceeding which takes the property of the company, and if this be a just construction of the statute of Minnesota it is for that reason void."

The language used by the statute of Minnesota is that the rates of charges for the transportation of property, recommended and published by the Commission, shall be FINAL and CONCLUSIVE as to what are equal and reasonable charges, and that there can be no JUDICIAL INQUIRY as to the REASONABLENESS of such rates.

Section 22 of Article XII of our Constitution has granted to the

Railroad Commission of the State of California powers similar to the grant of authority conferred on the Minnesota Commission, as follows:

"In all controversies, civil or criminal, the rates of fares and freights established by said Commission shall be deemed conclusively just and reasonable."

It follows that if the Minnesota law is unconstitutional, Section 22 of Article XII of the Constitution of California is equally so, when construed that this Commission can fix the rates without regard to their reasonableness. A condition precedent to the establishment of any rate is, it must be equitable and allow the carrier a fair remuneration for the services performed, and upon this theory have we endeavored to proceed with every question presented to us for consideration.

There is one more case to which we wish to call special attention, that bears directly on the question of the powers and duties of Commissioners in establishing fares and freights, and sustains the views taken by this Commission, viz.: *John H. Reagan et al.*, appellants, vs. *The Farmers' Loan and Trust Company et al.*, recently decided by the Supreme Court of the United States, passing on Judge McCormick's decision of the Circuit Court of the United States for the Western District of Texas. This was an appeal from a decree of the above-named Circuit Court perpetually enjoining the International and Great Northern Railroad Company from putting in or continuing in effect the rates or tariffs of the Railroad Commission of Texas, on the ground that the rates so established by the Commission were unfair, unjust, and unreasonable, and therefore canceling the same, and declaring the same null and void.

By an Act of the Legislature of the State of Texas creating a Railroad Commission the following language appears :

"SEC. 5. In all actions between private parties and railway companies brought under this law, the rates, charges, orders, rules, regulations, and classifications prescribed by said Commission before the institution of such action shall be held conclusive, and deemed and accepted to be *reasonable, fair, and just*, and in such respects shall not be controverted therein until *finally found* otherwise in a direct action brought for that purpose." The next section prescribes the penalties for a violation of the above section.

Omitting many points raised, not directly bearing upon the case, the Court says: "Passing from the question of jurisdiction to the Act itself, there can be no doubt of the general power of a State to regulate the fares and freights which may be charged and received by railroad or other carriers, and that this regulation can be carried on by means of a Commission. Such a Commission is merely an administrative Board created by the State for carrying into effect the will of the State as expressed by its Legislature. *Stone vs. Farmers' Loan and T. Company* (Railroad Commission cases, 116 U. S. 307, 29:636). No valid objection, therefore, can be made on account of the general features of this Act: those by which the State has created the Railroad Commission, and intrusted it with the duty of prescribing rates of fares and freights as well as other regulations for the management of the railroads of the State.

"Specific objections are made to the Act, on the ground that, by Section 5, the rates and regulations made by the Commission are declared conclusive in all actions between private individuals and the companies, and that by Section 14 excessive penalties are imposed upon railroad

corporations for any violation of the provisions of the Act; and thus, as claimed, there is not only a limitation but a practical denial to railroad companies of the right of a judicial inquiry into the reasonableness of the rates prescribed by the Commission. The argument is, in substance, that the railroad companies are bound to submit to the rates prescribed until in a direct proceeding there has been a final adjudication that the rates are unreasonable, which final adjudication, in the nature of things, cannot be reached for a length of time; that meanwhile a failure to obey those regulations exposes the company, for each separate fare or freight exacted in excess of the prescribed rates, to a penalty so enormous as in a few days to roll up a sum far above the entire value of the property; that even if in a direct proceeding the rates should be adjudged unreasonable, there is nothing to prevent the Commission from reestablishing rates but slightly changed and still unreasonable, to set aside which requires a new suit, with its length of delay; and thus, as is claimed, the railroad companies are tied hand and foot and bound to submit to whatever illegal, unreasonable, and oppressive regulations may be prescribed by the Commission.

“It is enough to say in respect to these matters, at least so far as this case is concerned, that it is not to be supposed that the Legislature of any State, or a Commission appointed under the authority of any State, will ever engage in a deliberate attempt to cripple or destroy institutions of such great value to the community as the railroads, but will always act with the sincere purpose of doing justice to the owners of railroad property, as well as to other individuals; and also that no legislation of a State, as to the mode of proceeding in its own courts, can abridge or modify the powers existing in the Federal courts, sitting as courts of equity. So that if in any case there should be any mistaken action on the part of a State, or its Commission, injurious to the rights of a railroad corporation, any citizen of another State, interested directly therein, can find in the Federal court all the relief which a court of equity is justified in giving. We do not deem it necessary to pass upon these specific objections, because the fourteenth section, or any other section, prescribing penalties may be dropped from the statute without affecting the validity of the remaining portions, and if the rates established by the Commission are not conclusive, they are at least *prima facie* evidence of what is reasonable and just. For the purpose of this case it may be conceded that both the clauses are unconstitutional, and still the great body of the Act remains unchallenged: that which establishes the Commission, and empowers it to make reasonable rates and regulations for the control of railroads. It is familiar law that one section or part of an Act may be invalid without affecting the validity of the remaining portion of the statute. Any independent provision may be thus dropped out, if that which is left is fully operative as a law, unless it is evident from a consideration of all the sections that the Legislature would not have enacted that which is within independently of that beyond its power. Applying this rule, and the invalidity of these two provisions may be conceded without impairing the force of the rest of the Act. The creation of a Commission, with power to establish rules for the operation of railroads and to regulate rates, was the prime object of the Legislature. This is fully accomplished, whether any penalties are imposed for a violation of the rules prescribed, or whether the rates shall be conclusive or simply

prima facie evidence of what is just and reasonable. The matters of penalty and the effect, as evidence, of the rates are wholly independent of the rest of the statutes. Neither can it be supposed that the Legislature would not have established the Commission and given it power over railroads without these independent matters. In other words, it is not to be presumed that the Legislature was legislating for the mere sake of imposing penalties, but the penalties and the provision as to evidence were simply in aid of the main purpose of the statute. They may fail and still the great body of the statutes have operative force, and the force contemplated by the Legislature in its enactment. Take a similar body of legislation—a tax law. There may be incorporated under such a law a provision giving conclusive effect to tax deeds, and also a provision as to the penalties incurred by non-payment of taxes. These two provisions may, for one reason or another, be obnoxious to constitutional objections. If so, they may be dropped out, and the balance of the statute exist. It would not for a moment be presumed that the whole tax system of the State depended for its validity upon the penalties for non-payment of taxes or the effect to be given to the tax deed. We therefore, for the purpose of this case, assume that the two provisions of the statutes are open to the constitutional objections made against them. We do not mean by this to imply that they are so in fact, but simply that it is unnecessary to consider and determine the matter, and we leave it open for future consideration.

“It appears from the bill that, in pursuance of the powers given to it by this Act, the State Commission has made a body of rates for fares and freights. This body of rates, as a whole, is challenged by the plaintiff as unreasonable, unjust, and working a destruction of its rights of property. The defendant denies the power of the court to entertain an inquiry into that matter, insisting that the fixing of rates for carriage by a public carrier is a matter wholly within the power of the legislative department of the Government and beyond examination by the courts.

“The courts are not authorized to revise or change the body of rates imposed by a Legislature or a Commission; they do not determine whether one rate is preferable to another, or what, under all circumstances, would be fair and reasonable as between the carriers and the shippers; they do not engage in any mere administrative work, but still there can be no doubt of their power and duty to inquire whether a body of rates prescribed by a Legislature or a Commission is unjust and unreasonable, and such as to work a practical destruction to rights of property, and if found so to be, to restrain its operation. In *Chicago, B. & Q. R. Co. vs. Iowa*, 94 U. S. 155 (24:94), and *Peik vs. Chicago & N. W. R. Co.*, 94 U. S. 164 (24:97), the question of legislative control over railroads was presented, and it was held that the fixing of rates was not a matter within the absolute discretion of the carriers, but was subject to legislative control. As stated by Mr. Justice Miller in *Wabash, St. L. & P. R. Co. vs. Illinois*, 118 U. S. 557, 569 (30:244–248), 1 Inters. Com. Rep. 31, in respect to those cases:

“The great question to be decided, and which was decided, and which was argued in all those cases, was the right of the State within which a railroad company did business, to regulate or limit the amount of any of these traffic charges.”

“There was in those cases no decision as to the extent of control, but only as to the right of control. This question came again before this

Court in *Stone vs. Farmers' Loan & T. Co.* (Railroad Commission Cases), 116 U. S. 307, 331 (29: 636, 644), and while the right of control was reaffirmed, a limitation on that right was plainly intimated in the following words of the Chief Justice:

"From what has thus been said, it is not to be inferred that this power of limitation or regulation is itself without limit. This power to regulate is not a power to destroy, and limitation is not the equivalent of confiscation. Under pretense of regulating fares and freights the State cannot require a railroad corporation to carry persons or property without reward; neither can it do that which in law amounts to a taking of private property for public use without just compensation or without due process of law."

"This language was quoted in the subsequent case of *Dow vs. Beidelman*, 125 U. S. 680, 689 (31: 841, 843), 2 Inters. Com. Rep. 56. Again, in *Chicago M. & St. P. R. Company vs. Minnesota*, 134 U. S. 418, 458 (33: 970, 981), 3 Inters. Com. Rep. 209, it was said by Mr. Justice Blatchford, speaking for the majority of the Court:

"The question of the reasonableness of a rate of charge for transportation by a railroad company, involving, as it does, the element of reasonableness, both as regards the company and as regards the public, is eminently a question for judicial investigation, requiring the process of law for its determination."

And in *Chicago & G. T. R. Company vs. Wellman*, 143 U. S. 339, 344 (36: 176, 179), is this declaration of the law:

"The Legislature has power to fix rates, and the extent of judicial interference is protection against unreasonable rates.' * * *

"These cases all support the proposition that while it is not the province of the courts to enter upon the merely administrative duty of framing a tariff of rates for carriage, it is within the scope of judicial power, and a part of judicial duty, to restrain anything which, in the form of a regulation of rates, operates to deny to the owners of property invested in the business of transportation that equal protection which is the constitutional right of all owners of other property. There is nothing new or strange in this. It has always been a part of the judicial function to determine whether the act of one party (whether that party be a single individual, an organized body, or the public as a whole) operates to divest the other party of any rights of person or property. In every Constitution is the guarantee against the taking of private property for public purposes without just compensation. The equal protection of the laws which, by the Fourteenth Amendment, no State can deny to the individual, forbids legislation, in whatever form it may be enacted, by which the property of one individual is, without compensation, wrested from him for the benefit of another or of the public. This, as has been often observed, is a government of law, and not a government of men, and it must never be forgotten that under such a government, with its constitutional limitations and guarantees, the forms of law and the machinery of government, with all their reach and power, must in their actual workings stop on the hither side of the unnecessary and uncompensated taking or destruction of any private property, legally acquired and legally held. It was therefore within the competency of the Circuit Court of the United States for the Western District of Texas, at the instance of the plaintiff, a citizen of another State, to enter upon an inquiry as to the reasonableness and justice of the rates prescribed

by the Railroad Commission. Indeed, it was in so doing only exercising a power expressly named in the Act creating the Commission.

"It follows from these considerations, that the decree as entered must be reversed in so far as it restrains the Railroad Commission from discharging the duties imposed by this Act, and from proceeding to establish reasonable rates and regulations; but must be affirmed so far only as it restrains the defendants from enforcing the rates already established."

Thus it follows that while this Commission has the power and it is their duty to establish and regulate the passenger and freight schedules upon all the railroads within this State, yet that authority so vested in this Commission is limited, as has been seen, to the lines of the reasonableness of the schedules sought to be enforced, with notice and an opportunity to be heard.

Any other construction of Section 22 of Article XII of our Constitution would be in violation of Section 1 of Article XIV of the Amendments to the Constitution of the United States, and that an order of this Commission arbitrarily fixing the fares and freights would be *pro tanto* a taking and depriving the carrier of its property without due process of law and in violation of said section, and therefore void and of no force.

The Traffic Association of California differed with us in the essential principles that should govern every impartial tribunal in justice alike to the accused and to the accuser. It had notice and was given an opportunity to be heard before final judgment; but the Association refused to file a complaint setting forth its grievances, and to all intents and purposes abandoned and refused to proceed with an investigation upon the lines indicated by the Commission—a position that has since been affirmed by the United States Circuit Courts and reaffirmed by the Supreme Court of the United States in the cases above cited. The filing of the complaint before the Commission by Mr. Shively removed every matter of dispute between itself and the Traffic Association of California, and the Commission proceeded to investigate the subject-matter upon the lines of judicial impartiality. The Southern Pacific Company was duly summoned, and on the 14th day of November, 1892, the case was set for trial, and was continued from time to time, until the close of the investigation, which extended over a period of eleven months. During that period a great many witnesses were examined in support of the plaintiff's cause, and the Traffic Association of California was specially invited to offer any assistance that lay in its power to aid this Commission in arriving at a just, equitable, and above all, an honest conclusion from the evidence, but, with the exception of their Traffic Manager, who was brought before the Commission by subpoena, no aid was given or suggestion made by said Traffic Association of California in respect to rates in California over the lines of the Southern Pacific Company, of which said Association complained through their Traffic Manager.

John E. Richards, Esq., appeared for Mr. Shively, and the Southern Pacific Company was represented by the Hon. J. C. Martin. Many of the leading officials of that company appeared and testified in behalf of said company. Also the Commissioners' special adviser, Col. Richard P. Morgan, an eminent civil engineer and railway expert, was examined, and materially aided the Commission in its investigation.

We have therefore submitted the testimony adduced, as a part of our report, in an abridged form, of all the principal witnesses, but have omitted a great deal of superfluous matter, that we do not consider necessary, as not having a direct bearing upon the subject-matter in dispute, and we only offer that portion containing the salient points upon which either side based its claims. This testimony is on file with the State Board of Examiners, awaiting action of the Legislature as to whether same should be printed.

CONDITIONS CONSIDERED.

To arrive at an equitable conclusion as to what would be fair, just, and reasonable rates to be established on freights and fares in California, required much diligent research and examination of the conditions past, present, and future, that are factors always to be considered in the adjustment of rates, especially in this State.

Physical Characteristics.—We have carefully considered and contrasted the general physical characteristics of California with other sections of the United States, and we find that no State in the Union presents conditions so complex and difficult for the construction and operation of railroads as exist in this State.

Area Embraced within the State.—There are 156,000 square miles embraced within this State, of which 35,000 square miles, while having great possibilities for future development, are practically unproductive, not affording any legitimate basis upon which calculations can be made, in determining what amount of traffic could be developed in the immediate future; then there are 82,000 square miles of mountain lands and 39,000 square miles that can be classed as valley lands, and in this connection we will quote from the report of Col. Richard P. Morgan, the Commissioners' expert, as follows: "It is safe to say that no State in the Union, possibly excepting Colorado, which invites their construction, presents within itself, and pervading the State, conditions so complex, formidable, and arbitrary to the construction and successful operation of railways as those of California, and at the present time, of the 4,400 miles of road operated within the State, little or no traffic arises on nearly 20 per cent of that mileage."

Mountain Grades.—Careful comparisons have been made of the principal systems of railroads in the United States that have heavy grades, with those of our own State, and we find that in most cases the difficulties to be overcome in the construction and operation of the roads in this State are greater as a rule, all things considered, than in any other State, when we place all the conditions in juxtaposition, that are factors to be considered.

FACTORS CONSIDERED.

Density of population, volume of traffic, high altitudes to overcome, mileage where little or no traffic arises, are some of the conditions that prevent the economical construction and operation of railroads in this State, and to overcome these physical obstacles that will always exist, we submit that liberal views should be entertained and encourage-

ment offered to all new enterprises in railroad construction, to the end that the investor would be assured of a fair return upon the capital expended in the investment, and feel that his enterprise was reasonably safe, and not be subject to a practical confiscation by a constant changing of rates at every change of administration; and we contend that the unsettled condition of the public mind upon this point has retarded and actually prevented the construction of many roads that would have otherwise been built, and that capitalists refuse to embark in such hazardous undertakings.

As our researches compare favorably with those found and submitted by Colonel Morgan, we quote again from his report:

"The total rise of the strictly mountain grades of the main lines of the Southern Pacific Company within the limits of California, north, east, south, and west, is 30,556 feet in a distance of 515 miles, making an average grade of 59 feet per mile. In other words, there is thirteen times the horizontal length of grade, and fifteen times the vertical rise, that the Pennsylvania Central Railroad encounters in crossing the Alleghany Mountains, which have long been considered, in connection with railway construction and transportation, as the 'great barrier' between the Atlantic seaboard and the Mississippi Valley.

"In addition to the foregoing, the Southern Pacific Company's lines extending outside of California, and connecting adjoining States, have mountain grades which aggregate 10,818 feet in a distance of 192 miles, or an average grade of 56 feet per mile. On the main lines of the system of the Southern Pacific Company west of El Paso, the mountain grades aggregate a distance of 707 miles and a total rise of 41,373 feet, the grades averaging 58.5 feet per mile—about 8 feet per mile greater than the average of the Pennsylvania Central Railroad in crossing the Alleghany Mountains.

"Comparing the mountain grades of these systems, the total rise of the roads of the Southern Pacific Company is twenty-one times greater, and the horizontal distance eighteen times greater than on the Pennsylvania Central Railroad.

"The Santa Fe system, on its extension through adjoining States and in Southern California, the Carson and Colorado, the Nevada, California, and Oregon, and also other roads in California, have, in proportion, to their length, to overcome mountain grades equal to those encountered by the lines of the Southern Pacific system. The profiles which are a part of this report will illustrate this fact.

"If the railways which are within the limits of the San Joaquin and Sacramento and smaller valleys, and also on the ocean table-lands, could be considered by themselves, and their rates established by adopting the figures of the passenger and freight tariffs of some other State, solely because the surface of that State and those of the valleys and table-lands of California are similar; and if the extensions of the railways north, east, south, and west, over the great mountain ranges and across the broad, mountainous, arid regions which encompass the State, could be disregarded, and the railways in the valleys and on the table-lands could be separated from the systems of which they are integral parts, it would greatly simplify the problem of rate-making.

"But it surely must be manifest to every intelligent and unbiased mind at all familiar with the practical operations of railways and the conditions affecting these, that rates so established would furnish no sufficient

basis to justify any opinion as to the reasonableness of the present rates on these lines. If their extensions were discontinued and they were cut off and their termini were permanently established at the bases of the foothills of the surrounding mountains, lower rates to tidewater could doubtless be easily made by such mere comparison as has been suggested; but it is more than probable that for many good reasons they would be found to be unreasonably low, and that they would have to be increased and made higher than those now existing, to become reasonable and sufficient to operate and completely maintain the roads. Under such conditions, they would furnish to the people of California but a tithe of the facilities and benefits now enjoyed.

"This statement is upheld by facts and the practical opinions of financiers and business men, forcibly expressed by their acts. More than two hundred railroad companies have been incorporated to construct railways in the areas spoken of, and it cannot be doubted that, mainly for the reasons briefly presented, but few of them have been built. The field is still open. Railroads can be built and equipped at comparatively low cost, because money, labor, and the materials that enter into their construction are much cheaper than ever before in this country. The true reason why many of those contemplated have never been built is because the existing railroads and the water transit, by the San Joaquin and Sacramento Rivers and their tributaries, the bays, and minor inlets, and also the coastwise ocean transit, are fully equal to the demand and provide opportunity for healthy competition. It is a fact of great importance that about 75 per cent of the local commerce of California possesses all the advantages that free water lines of transit confer. This competitive force is exerted, not for six or eight months, and then suspended by winter for four to six months, as it is in all of the States east of California to the Atlantic seaboard north of the 39th parallel of latitude, but on the contrary its influence is continuous every day in each year. Branch railroads and extensions have been and are being constructed by several of the railroad companies of the State, doubtless fully as fast as justifiable; but these branches are probably sustained as auxiliary lines, and by the application to them of the principle of constructive mileage, or its equivalent, also by the economy of consolidation, and not by the excessively high rates which their expenses and maintenance would require if they were independent roads.

"And in this latter connection we state that the percentage of operating expenses to gross earnings of the lines operated by the Southern Pacific Company is 63.4 per cent; for the other lines in California, 79 per cent. The average rate of fare per passenger per mile for the Southern Pacific lines is 2.15 cents; for the other lines the average indicated by the table is closely in the neighborhood of 4 cents per passenger per mile. The average freight earnings per ton per mile for the Southern Pacific Company is 1.67 cents; for the other lines shown in the table, excepting only the Atlantic and Pacific Railroad, from 2.62 cents per ton per mile to 12 cents per ton per mile, the average of which must be much greater than the Southern Pacific Company's average.

In comparing the physical characteristics of the California and Eastern roads, on page 15 of Colonel Morgan's report he notes a most remarkable fact that brings out in a strong light the radical difference in the topography of our coast and the comparatively level Eastern country. He says: "The S. F. & N. P. R. R., many parts of which are very

costly, has more lineal feet of tunnel line than the Pennsylvania Central road."

Volume of Business.—Careful comparisons were made with all of the principal railroads of the United States and those of California as to the volume of business moving in opposite directions, and we find that the conditions in California are at variance with those existing in the Mississippi Valley and the far East, in this, that the tonnage moves largely in one direction and that the cars are returned empty as a rule in this State, while the tonnage over the great systems in the Eastern States moves in both directions to a greater degree, and this of itself warrants the charging of a higher rate in California.

Cost of Fuel.—By a careful comparison, one can readily see that the cost of fuel, like other supplies in this State, is much greater than in the Eastern States, and that it must necessarily be taken into consideration in the adjustment of rates in California, and of itself warrants the establishing of a higher rate than is now in force on the roads east of the Rocky Mountains. Reports of all California roads show that were the price of fuel the same in this State as that now prevailing east of the Rocky Mountains, the California companies would save many millions of dollars annually, and in justice to the roads in our State, quote the following from a former report of the Commission as reasons why the rates in California should rule higher in California than in other States. Speaking of this subject the Southern Pacific Company shows that:

"The average cost per train-mile of all the roads of the United States, including our own, is but 7.01 cents, while our cost for the year 1887 was 21.25 cents per mile run, which is 36 per cent greater than the entire locomotive expenses of the New York Central Railroad Company, including all items of every kind, such as general and running repairs, fuel, light, waste, and engine men, and 32 per cent greater than the Lake Shore and Michigan Southern Railroad Company's entire locomotive expenses. We are placed at a still *greater* disadvantage when compared with the Pennsylvania Central Railroad, which runs over great deposits for coal nearly its entire length.

"If the Southern Pacific Company (Pacific System) had obtained fuel at the Pennsylvania Company's prices, its operating expenses would have been decreased, and the net earnings increased over \$2,000,000; while, on the other hand, if the Pennsylvania road had paid our prices its operating expenses would have been increased and its net earnings decreased, in round numbers, \$5,000,000.

"At the Chicago, Milwaukee, and St. Paul's prices, our operating expenses would have been decreased and the net earnings increased, even figures, \$1,800,000; while, at our fuel prices, the Chicago, Milwaukee, and St. Paul's expenses would have been increased and its net earnings decreased \$3,000,000.

"At the Illinois Central's fuel prices, our operating expenses would have been decreased and the net earnings increased \$2,300,000; while, at our prices, the Illinois Central's expenses would have been increased and the net earnings decreased, in even figures, \$2,300,000.

"At the Chicago and Northwestern's prices, our operating expenses would have decreased and the net earnings increased \$2,200,000; while, at our figures, the Chicago and Northwestern's expenses would have been increased and its net earnings decreased \$4,200,000.

"At the Lake Shore and Michigan Southern's prices, our operating expenses would have been decreased and the net earnings increased \$2,400,000; while the Lake Shore and Michigan Southern's expenses, at our prices for fuel, would have been increased and its net earnings decreased, in round numbers, \$2,700,000.

"Certainly no one would say that it was just to require us to adopt a classification which is applicable to these great lines, especially since the traffic (per mile of road) is on the Union Pacific road 58.01 per cent greater than on the Southern Pacific Company's lines; on Chicago and Northwestern, 8.83 per cent greater than on the Southern Pacific Company's lines; on the Lake Shore and Michigan Southern, 234.13 per cent greater than on the Southern Pacific Company's lines; and on the New York Central, 388.66 per cent greater than on the Southern Pacific Company's lines. And, on the other hand, the cost of moving one ton of freight or one passenger (either or both) one mile on the Southern Pacific Company's lines (Pacific System) is 35.27 per cent greater than on the Union Pacific; 42.66 per cent greater than on the Chicago and Northwestern (which carries, practically, the same amount of traffic); 98.88 per cent greater than on the Lake Shore and Michigan Southern; and 54.62 per cent greater than on the New York Central. This mere outline of facts plainly and convincingly demonstrates that classifications and rates, reasonable, fair, and just to the public, and to the great systems of railroads in the Eastern States, could not be fairly and justly applied to the traffic of the Southern Pacific Company's lines.

"In passing I must not forget to call your attention to another important factor entering into the cost of transportation. None of these great roads East have so many adverse physical characteristics to overcome as our roads here. The total rise of all grades (or the sum of the ascent plus the sum of the descent, in feet) per mile of road on the Southern Pacific Company's lines is 154.7 per cent greater than on the New York Central; 162.13 per cent greater than on the Lake Shore and Michigan Southern Railway; 34.40 per cent greater than on the Chicago, Milwaukee, and St. Paul; and 60.5 per cent greater than on the Illinois Central.

"We estimate by comparison, and as the basis of value upon nearly all things is founded upon their relative worth or excellence, we will say, with all these great advantages in favor of Eastern lines and against our own, that there should not be urged upon us a classification in full and perfect harmony with the conditions of population, traffic, and other circumstances that ever surround them."

Colonel Morgan, in his very exhaustive report, speaking upon this subject of fuel, says:

"The cost of the fuel consumed in the operation and maintenance of the railroads of California is unusually great; and there is no probability of materially reducing it. Therefore, being so important and permanent an item of expense, and one that can be readily estimated with a fair degree of exactness, it is briefly presented in connection with the more comprehensive comparisons with railway operations in other States which are made in this report.

"In California the principal fuel used is coal, a small proportion only being wood. With minor exceptions, the results show that the average cost of wood is fully equivalent to the cost of coal, being from \$2 75 to \$6 a cord, delivered on the locomotive tenders.

"The actual average cost of the coal used by the Southern Pacific Company on its lines in California is \$6 40 per ton, delivered on the loco-

motive tenders. The average cost to the San Francisco and North Pacific Railroad Company is \$7 25 per ton. The average cost to the railroads in Southern California is \$7 80 per ton; the cost of some roads being as high as \$9.

"The average cost of the coal used by all of the railroad companies of California is at least \$7 per ton, delivered on the locomotive tenders and at the other places of consumption.

"From Philadelphia and Baltimore to Chicago and St. Louis and thence to Kansas City, the average cost of coal, delivered on the locomotive tenders of the roads extending throughout Pennsylvania, Maryland, West Virginia, Ohio, Indiana, Illinois, and Missouri, may be safely estimated at not more than \$1 26 per ton—which is 18 per cent only of the average cost per ton to the roads operated in California.

"The following comparisons show the vital importance of cheap fuel in the operation of railroads:

"The cost of the fuel used by the Southern Pacific Company in operating its roads in California was, in 1891, \$3,238,886, equal to \$1,156 per mile of road.

"The system of the Chicago and Alton Railroad Company from Chicago to St. Louis and to Kansas City, in all 848 miles (not including second track), extends through Illinois and Missouri. The cost of the coal for operating it, delivered on the tenders of the locomotives, was, in 1887, \$416 per mile, being \$740 per mile less than the cost to the Southern Pacific Company in California in 1891. But there is to be considered the further fact that the passenger and freight mileage per mile of road was much greater on the Chicago and Alton system than on the Southern Pacific Company's lines.

"Estimating the passenger and freight mileage of the Chicago and Alton system to be the same as on the Southern Pacific lines of California, shows that the difference in the cost of coal per mile of road operated is fully \$815 per annum, and that this excess in cost aggregates \$2,800,000 per annum, or a fraction more than 10 per cent of the gross earnings of the roads of the Southern Pacific Company in California.

"The average cost of coal used by the Santa Fe system in California is \$7 75 per ton; therefore, as its volume of passenger and freight business and mileage per mile of road is much less than on the roads of the Southern Pacific Company, it is safe to estimate that, compared with the Alton system, the excess in the cost of this item of expense is considerably more than 10 per cent of its gross earnings. This excess in cost of fuel is an onerous charge in the cost of operating the railroads of California, and it amounts to from 10 per cent to 20 per cent of their gross earnings.

"The fact that the average cost of coal in California is more than five times as great as the average cost of the lines spoken of, from the Atlantic seaboard to Kansas City, also the gradients being much more difficult and the volume of passenger and freight traffic considerably less, throw sufficient light upon the question to clearly show that comparisons of the figures of rates alone to determine their relative justice and equity will not be accepted nor upheld even by those persons least informed.

"There is not a driver of a transportation team toiling over the vast mountains or through the desert, arid regions of the West, carefully training a 'green line mule,' who does not at the same time consider and learn to know that the cost of feed, the character of the roads, and the tonnage to and fro, and also his own compensation, are important factors by which the rates of his line are made and justified."

CONCLUSIONS OF COLONEL MORGAN.

After several months of personal observation and investigation Colonel Morgan gives his conclusions as follows:

"*First*—That California is, and always will be, especially exceptional in its conditions—conditions which must be factors in determining what would be just and equitable railroad rates for the transportation of persons and property within its limits.

"*Second*—That it is wholly impracticable to establish for its railroads uniform passenger and freight charges, and have them bear justly and equitably upon the people of the State and the railroad companies.

"*Third*—That the present rates of the several railroads are not so nearly uniform as it may be practicable to establish upon very exhaustive examination and careful employment of the factors from which they ought to be deduced.

"*Fourth*—That, taking into account operating expenses and all other matters of general import bearing on and affecting the operation of railroads in this State, so far as I have been able, *I am convinced and believe that the rates charged by the railroad companies of California for the transportation of persons and property are not as a whole unreasonably high, and that if they are, then the rates for railroad transportation on the roads and systems of roads throughout the United States have been, and now are, also, as a whole, unreasonably high.*

"*Fifth*—That the exceptional conditions in California, which must largely determine what would be just and equitable rates for the railroads to charge for the transportation of persons and property within its limits, having respect to local public interests and those of the State at large, are diversified and complex in detail beyond any precedent. The most exhaustive and comprehensive investigation of those conditions must be made, involving much time and very considerable expense to satisfactorily determine the question of what would be just and equitable rates for each road and system of roads in the State, so exactly as to justify any declaration that as a rule those now existing are not as just and equitable as practicable."

(Our previous report contains Colonel Morgan's report in full.)

PASSENGER RATES.

We have taken into consideration, and carefully compared the passenger rates of all the trunk lines of the Eastern States, with those of our own State, together with the costs of construction and maintenance of the various roads so compared, and after due deliberation of the whole subject, found that the passenger rates as they existed on the 25th day of October, 1893, were, as a whole, not unreasonably high, for the services rendered, but were just and equitable, and that the prayer of the plaintiff should be denied.

FREIGHT RATES ADJUSTED.

We have likewise taken into consideration every factor that would aid us in the equitable adjustment of the freight schedules as they existed in California on the 25th day of October, 1893, and after mature consideration found that the merchandise freight schedules should be reduced

on an average of 10 per cent from the existing rates, and, furthermore, recommended the adoption of the Western Classification, by resolution, as will appear from the following

ORDER FIXING RATES.

WHEREAS, It has been the intention of this Commission to bring about the adoption of the Western Classification for freight on the railroads of the State of California, said classification being almost universally adopted for local business by the great railroad systems west of the Mississippi River; and whereas, pursuant to instructions of the Commission the Southern Pacific Company has prepared and submitted to the Commission a proposed new local tariff of freight rates for the transportation of general merchandise, to be governed by the Western Classification, with an average reduction of 10 per cent in its general results to the shippers of merchandise in this State; and whereas, this Commission has examined said proposed new tariff, and has determined that it substantially complies with the instruction of this Commission; therefore, be it

Resolved, That the publication of said tariff by said Southern Pacific Company be and is hereby authorized, and the rates embraced in said tariff be and are hereby adopted by this Commission, and ordered to become effective on and after the first day of January, A. D. 1894.

THE WESTERN CLASSIFICATION.

The Western Classification is that now used by every railroad of any importance west of Chicago and St. Louis. It divides the freight traffic of the country into ten classes. Classes one, two, three, and four are for less than carload quantities of freight; classes five, A, B, C, D, and E are for carloads only. It undertakes to specify and provide an appropriate class-rating for each article that is generally known in the various lines of production, manufacture, and trade.

The adoption of the Western Classification has made necessary a graduating of the rates heretofore charged by the carriers thus adopting this classification, and as a result the tariffs to and from the leading cities of California have been separately printed in pamphlet form, being thus made conveniently accessible for reference and study by every merchant or business man. These tariffs, together with the Western Classification, we find are now very generally distributed among the business community, and readily referred to by the merchants in their own offices.

This work of readjustment of the Western Classification and tariffs thereunder, is now an accomplished fact, and in fairness it may be said that the Southern Pacific Company has shown no disposition to hamper the readjustment, but has cheerfully met the views of this Commission, doing so to the extent of departing from the Western Classification, when clearly to the advantage of shippers to do so in relation to items affecting productions of this State. For example: Under the Western Classification wines in wood, carloads, rate at third class; that is, third in order of the ten classes provided in classification; whereas, under the modification thus made an exception has been introduced reducing the classification on wine, carloads, to Class B, that is, seventh in order of the ten classes named.

SCHEDULE OF COMPARATIVE RATES.

Special attention is invited to the following tables of comparative rates on commodities named, showing reductions from the rates of 1893, in carload lots and less than carload lots, together with the percentage of reductions made, as the result of the adoption of the Western Classification :

COMPARISON OF RATES ON COMMODITIES NAMED, 1894 VS. 1893.

Canned Goods, Soap, Green Coffee in sacks, and Sugar in sacks or barrels. (Rates in cents per 100 lbs.)

To—	From San Francisco.				From Stockton.				From Sacramento.					
	L. C. L.		Per Cent Re- duction...	C. L.		Per Cent Re- duction...	L. C. L.		Per Cent Re- duction...	C. L.		Per Cent Re- duction...		
	1893.	1894.		1893.	1894.		1893.	1894.		1893.	1894.			
Merced	47	36	23	30	37 3/4	10	34	20	46	36	21	46	33	28
Fresno	75	54	28	32	65 3/4	20	52	27	74	54	26	74	51	31
Goshen	65	30	30	32	82 3/4	24	63	28	91	65	27	91	62	32
Hanford	92	65	30	32	91 3/4	29	65	34	100	65	35	100	62	38
Tulare	97	69	29	32	87 3/4	23	67	28	96	69	28	96	66	31
Bakersfield	120	87	27	31	110 3/4	22	85	28	119	87	27	119	82	31
Roseville	26	17	35	16	13	19	16	12	12	6	50	12	4	66
Newcastle	35	26	26	31	25	22	22	20	21	15	29	21	12	42
Auburn	39	29	26	39	29	14	25	23	21	25	18	28	15	40
Colfax	52	39	25	31	42	16	35	24	38	28	26	38	24	37
Truckee	101	78	23	28	91	19	74	25	87	67	23	87	60	31
Wheatland	26	22	16	21	26	22	22	21	19	15	15	16	14	16
Marysville	26	22	16	26	26	16	22	16	26	21	19	15	13	13
Chico	35	33	6	14	35	33	33	6	31	25 1/2	21	31	23 1/2	27
Red Bluff	58 1/2	49	16	23	58 1/2	16	49	16	50	37 1/2	27	50	34 1/2	33
Redding	70	60	21	29	76	60	60	21	76	49 1/2	24	64	47	26
Dunsmitr	108	83	23	31	106	83	83	23	106	74	25	99	66 1/2	34
Sisson	130	89	26	35	118	89	89	25	118	78	30	111	72 1/2	35
Montague	148	100	32	38	146	100	100	31	139	88	37	139	84	40

COMPARISON OF RATES ON COMMODITIES NAMED, 1894 VS. 1893.

Coal Oil. (Rates in cents per 100 lbs.)

To—	From San Francisco.				From Stockton.				From Sacramento.					
	L. C. L.		C. L.		L. C. L.		C. L.		L. C. L.		C. L.			
	1893.	1894.	1893.	1894.	1893.	1894.	1893.	1894.	1893.	1894.	1893.	1894.		
	Per Cent Reduction...	Per Cent Reduction...	Per Cent Reduction...	Per Cent Reduction...	Per Cent Reduction...	Per Cent Reduction...	Per Cent Reduction...	Per Cent Reduction...	Per Cent Reduction...	Per Cent Reduction...	Per Cent Reduction...	Per Cent Reduction...		
Merced	94	40	59	30	49½	38	23	37¾	30	85½	40	46	33	23
Fresno	146¼	58	60	32	90¾	56	38	65¾	48	126¾	58	74	51	31
Goshen	171¾	69	59	32	110¼	67	42	82¾	59	152¼	69	91	62	32
Hanford	166½	69	58	32	126¼	69	45	91¾	60	162¼	69	100	62	38
Tulare	179½	73	59	32	124¼	71	43	87¾	63	160	73	96	66	31
Bakersfield	226¾	92	59	31	171¼	90	47	110¾	79	207½	92	119	82	31
Roseville	52	21	60	16	32	14	56	16	12	131½	7	12	4	66
Newcastle	70	31	55	35	24	31	50	24	25	23¼	17	21	12	42
Anburn	78	35	55	39	58	28	52	29	23	26	21	25	15	40
Colfax	104	46	56	32	76½	31	52	29	23	21	26	21	19	25
Truckee	156¾	92	41	101	125½	85	32	91	68	40¼	32	38	24	37
Wheatland	52	24	54	26	52	24	54	26	21	89½	17	15	13	13
Marysville	52	24	54	26	52	24	54	26	21	29¾	17	15	13	13
Chico	70	37	47	35	70	37	47	35	30	39¼	17	16	14	16
Red Bluff	117	55	53	58½	117	55	53	58½	45	68	27½	59	34	23½
Redding	152	68	58	74	152	68	58	74	54	100	41½	58	50	34½
Dunsuir	216	91	58	108	211	91	57	106	74	127¼	57½	64	47	26
Sisson	234¼	96	59	120	222	96	57	118	78	175	81	90	60½	34
Montague	263¼	107	59	148	251¼	107	57	146	92	186¼	85	111	72½	35
										215¼	95	139	84	40

COMPARISON OF RATES ON COMMODITIES NAMED, 1894 VS. 1893.

Type, Cast. (Rates in cents per 100 lbs.)

To—	From San Francisco.				From Stockton.				From Sacramento.						
	L. C. L.		C. L.		Per Cent Reduction...		C. L.		Per Cent Reduction...		L. C. L.		C. L.		
	1893.	1894.	1893.	1894.	1893.	1894.	1893.	1894.	1893.	1894.	1893.	1894.	1893.	1894.	
Merced	47	36	23	20	48	37 ³ / ₄	34	10	31 ¹ / ₂	17	46	46	37 ¹ / ₂	20	47
Fresno	75	54	28	29	54	65 ³ / ₄	52	20	57	26	54	74	54	29	54
Goshen	92	65	30	35	55	82 ³ / ₄	63	24	71	32	55	91	65	27	57
Hanford	92	65	30	35	55	91 ³ / ₄	65	29	77	32	58	100	65	35	57
Tulare	97	69	29	36 ¹ / ₂	55	87 ³ / ₄	67	23	74	33 ¹ / ₂	55	96	69	28	80
Bakersfield	120	87	27	101	42 ³ / ₄	110 ³ / ₄	85	22	94	39 ³ / ₄	57	119	87	27	100
Roseville	26	17	35	20	13	16	13	19	12	10	16	12	6	50	43
Newcastle	35	26	26	27	19 ¹ / ₂	25	22	12	19	16 ¹ / ₂	13	21	15	29	14
Auburn	39	29	26	32	20 ¹ / ₂	29	25	14	21	17 ¹ / ₂	17	25	18	28	16
Colfax	52	39	25	38	34	42	35	16	30	22	27	38	28	26	25
Truckee	101	78	23	70	37	47	91	74	19	62	34	87	67	23	57
Wheatland	26	22	16	20	20	26	22	16	20	18	10	15	15	11	11
Marysville	26	22	16	20	20	26	22	16	20	19 ¹ / ₂	1	16	16	15	11
Chico	35	33	6	33	36	30	33	6	30	30 ¹ / ₂	9	31	25 ¹ / ₂	21	22
Red Bluff	58 ¹ / ₂	49	16	41	39 ¹ / ₂	58 ¹ / ₂	49	16	41	37	9	50	37 ¹ / ₂	27	31
Redding	70	40	21	48	45	6	76	60	21	48	11	64	49 ¹ / ₂	24	38
Dunsmuir	108	83	23	71	55 ¹ / ₂	22	106	83	23	71	53	74	99	74	25
Sisson	120	89	26	79	58	118	89	25	79	55 ¹ / ₂	30	111	78	30	70
Montague	148	100	32	98	64	146	100	31	98	61 ¹ / ₂	37	139	88	37	89

COMPARISON OF RATES ON COMMODITIES NAMED, 1894 VS. 1893.

Iron, bar and band, Nails, and Wrought Pipe. (Rates in cents per 100 lbs.)

To—	From San Francisco.				From Stockton.				From Sacramento.							
	L. C. L.		Per Cent Reduction...	C. L.		Per Cent Reduction...	L. C. L.		Per Cent Reduction...	L. C. L.		Per Cent Reduction...				
	1893.	1894.		1893.	1894.		1893.	1894.		1893.	1894.					
Merced	47	36	23	33	13	37 3/4	34	10	30	3	46	36	21	37 1/2	33	11
Fresno	75	54	28	51	20	65 1/2	52	20	20	16	74	54	26	63	51	19
Goshen	92	65	30	78	20	82 3/4	63	24	71	17	91	65	27	77	62	20
Hanford	92	65	30	78	20	91 3/4	65	29	77	22	100	65	35	83	62	25
Tulare	97	69	29	81	18	87 3/4	67	22	74	15	96	69	28	80	66	17
Bakersfield	120	87	27	101	19	110 3/4	85	22	94	16	119	87	27	100	82	18
Roseville	26	17	35	20	20	16	13	19	12	12	12	6	50	7	4	43
Newcastle	35	26	26	27	11	25	22	12	19	20	21	15	29	14	12	15
Auburn	39	29	26	29	7	29	25	14	21	23	25	18	28	16	15	6
Collax	52	39	25	38	6	42	35	16	30	32	38	28	26	25	24	4
Truckee	101	78	23	70	72	91	74	19	62	68	87	67	23	57	60	---
Wheatland	26	22	16	20	21	26	22	16	20	21	15	15	6	11	13	---
Marysville	26	22	16	20	21	26	22	16	20	21	15	15	6	11	14	---
Chico	35	33	6	30	30	35	33	6	30	30	34	25 1/2	28	23	23 1/2	---
Red Bluff	58 1/2	49	16	41	45	58 1/2	49	16	41	45	50	37 1/2	27	31	34 1/2	---
Redding	76	60	21	48	54	76	60	21	48	54	61	49 1/2	24	38	47	---
Dunsmuir	108	83	23	71	74	108	83	23	71	74	99	74	25	62	68 1/2	---
Sisson	120	89	26	79	78	118	89	25	79	78	111	78	30	70	71 1/2	---
Montagne	148	100	32	98	92	146	100	31	98	92	139	88	37	89	84	5

As the Shively case affected the entire system of the Southern Pacific Company in this State, as well as adjoining States and Territories, after careful consideration, the Commission deemed it advisable, in order to arrive at a conclusion which would be just alike to the railroad and shipper, to employ the services of a civil engineer and railroad expert; the subject being one requiring a greater familiarity of the details of operating expenses, and other matters of general import affecting the operation of railroads, than possessed by this Commission.

The man selected for this purpose was Colonel Richard Price Morgan, of Illinois, a man of large experience, who has been employed in a similar capacity in other portions of the United States, and formerly a member of the Railroad and Warehouse Commission of the State of Illinois, and was the expert selected for the United States Government of the Senate Pacific Railway Commission during its investigation of the affairs of the Central Pacific Railroad Company in 1887. He came to this Board commended by some of the most distinguished public men of the Western States, and among them were the names of Senator Palmer, Judge Cooley, Senator Reagan, now a member of the Texas Railroad Commission, and many others, consequently he was thoroughly familiar with such matters, and capable of performing the task, and for the purpose of securing permission to incur the indebtedness, forwarded the following communication to the State Board of Examiners for approval:

SAN FRANCISCO, CAL., July 11, 1892.

To the State Board of Examiners:

GENTLEMEN: The State Board of Railroad Commissioners respectfully present for your consideration the following facts, and ask that you take action with reference to the same at the next meeting of your Board.

A complaint has been filed before the State Board of Railroad Commissioners by one R. O. Shively, a merchant of San José, setting forth that railroad freights and fares are too high upon all the railroad lines of the State of California, and asking an investigation of transportation schedules by the Board, and a reduction of at least 10 per cent in fares and 20 per cent in freights all over the State. The Commission has entered upon this investigation. It has summoned every railroad company in the State to appear before it and answer the Shively complaint. Upon such appearance the Commission proposes to take up the investigation at once, and to make the same as thorough and complete as the conditions of the case require. In so doing, the Commission is acting in harmony with a general and emphatic demand on the part of the people of the State for such an inquiry.

If the efforts of the Commission to make such an investigation are resisted and impeded by the railroad companies of the State, the proceeding will be an expensive one. The Commission will require an expert of sufficient experience in railroad bookkeeping and affairs to enable it to have all the necessary facts before it as the inquiry goes on. The Commission has already taken steps to procure such an expert. Col. R. P. Morgan, of Illinois, comes highly recommended to the Commission, and offers his services as an expert.

If this investigation is seriously and strongly resisted by the railroad corporations, the fees and charges of Colonel Morgan may reach the sum of \$10,000. In addition to an expert, the Commission will require stenographers, and will also be put to considerable expense by reason of its protracted sessions in various parts of the State. These expenses may also amount to as much as \$10,000. The Commission intends to make this investigation as speedy as possible, in justice to its importance, and to be as economical in its outlays as is possible; but it believes that it should be equipped with sufficient funds to answer fully in its action the public demand for a thorough investigation of railroad freights and fares.

The laws of the State have as yet made no provision for the expense which an investigation of this character will entail, and the Railroad Commission, until such laws are enacted, must rely upon the approval of the Board of Examiners and the favor of the State Legislature.

Will your honorable body consider this matter at its next session, and indicate to the State Board of Railroad Commissioners what action you will take with reference to the approval of the bills for the expenses of the Commission created by this investigation?

Yours very respectfully,

JAMES W. REA,

President of the Board of Railroad Commissioners.

Attest: JAS. V. KELLY,
Secretary of the Board of Railroad Commissioners.

Acting upon the assumption that the Legislature would pass all needed legislation in furtherance of the investigation undertaken in the payment of the claims that would be authorized by the Commission, this Board did enter into an agreement with Colonel Morgan, as per the following resolution passed on the 11th day of July, 1892:

Resolved, That the services of Col. Richard P. Morgan be and are hereby engaged by this Commission for the purpose and on the terms stated in the correspondence had with him in respect thereto; the engagement to take effect immediately, and the President and Secretary of the Commission are hereby instructed to put Mr. Morgan in communication by letter with the managers of the railroad companies of California, and otherwise assist him in every practicable way to obtain any data and general information he may desire.

In justice to Colonel Morgan, we will state that he faithfully performed the task undertaken and furnished this Commission with the information desired, all of which was published in full in our twelfth annual report, but thus far his claim, which was slightly more than half of the original estimate, has not been allowed, which we fully expected would be appropriated at the last session of the Legislature.

We therefore submit this matter for your official consideration, and ask that you recommend to the next Legislature the passage of his claim, amounting to \$6,529 08.

All of which is respectfully submitted.

JAMES W. REA, President,
Third District.
J. M. LITCHFIELD,
Second District.
WILLIAM BECKMAN,
First District.

SPECIAL REPORT OF COMMISSIONER REA.

To Hon. H. H. MARKHAM, Governor of California:

In view of the fact that for the past eight years I have been a member of the State Board of Railroad Commissioners, having been twice elected to that position by the people of my district, which in area comprises the larger half of the State of California, and which contains within its boundaries the greatest producing sections and most important cities of the interior of the State, I have deemed it proper to present to the Governor of California, and to its people, my views upon the past eight years' service of the Railroad Commission, and the problems which the succeeding Board will be called upon to confront, if not to solve.

It is unnecessary for me at this time or place to rehearse the practical accomplishments of the past two Commissions. Any citizen who will take the trouble to examine the freight and fare schedules in existence in 1886, and to compare them with those at present in effect throughout the State, will find that the Commissions of that period have been of constant and practical utility, and have left a record of effective service, which succeeding bodies will find it difficult to surpass. During the past eight years the record will show that the Railroad Commission has received a large number of complaints of discriminations between shippers, and of inequalities in freight and fare schedules with reference to both places and products. These complaints have been heard, and in almost every instance determined in favor of the complainants, and the needed relief obtained, either by the order of the Board, or by the concession of the railroad companies, when the matter was officially brought to their attention.

What is known in California as "The Railroad Problem" was in a fair way toward solution when the term of the present Board began, and would doubtless soon have been solved had the commercial conditions of California remained constant, and had that competition which obtained a foothold at each extremity of the State been enabled to penetrate its interior, operate upon its great producing valleys, and reach San Francisco itself. That competition has not so done is due in some degree, at least, to the agitation of the railroad question during the past four years; to the hostility to great corporate interests and enterprises which such agitation always engenders in the public mind, and to the consequent distaste which all capital in common develops toward extending its investments into latitudes which are unfriendly to the capital already invested there.

For this mutual feeling of distrust the wholesale merchants of San Francisco and their organization, known as the Traffic Association, have been largely responsible. The birth and growth of the Traffic Association of San Francisco was in the main due to the effect upon the wholesale trade of that city, due to the establishment of "terminals" in various parts of the interior, which enabled the interior mer-

chant to deal directly with the East, relieved him of his metropolitan intermediary, and freed him from the clutches of the San Francisco wholesaler. The consequent falling off of trade through San Francisco suggested to its merchants the formation of a combination among themselves strong enough, in either its friendship or its enmity, to compel the adoption of a policy on the part of the Southern Pacific Company which would favor the San Francisco merchant, and restore to his wholesale house that domination of the interior trade of California which was his in former days.

As a representative of the merchants and producers of the interior, I have always been opposed to the plans and purposes and methods of the Traffic Association; to their effort to use the Railroad Commission to attain their selfish ends, and later to their base attempt to destroy what they were not able to misuse.

The initial effort of the Traffic Association was put forth in 1891 in the suggestions of its manager, Mr. Leeds, that it was the duty of the Commission to fix arbitrarily a freight schedule based upon the rates existent in other and dissimilar communities, and to compel the adoption of such a schedule by the railroads, without a hearing or an opportunity to determine their fairness or their effect. The Commission refused to take this position, or to attempt the exercise of a power so clearly in violation of their oath and duty, but did declare and repeat their readiness to entertain and to impartially adjudge any issue as to the equity of existing schedules that might be framed before them by the usual and proper process of a complaint and hearing. The Traffic Association declined to make such a complaint, or to frame such an issue, although urged by the Commission, and by myself in particular, so to do.

When the "Shively complaint" was filed by an interior merchant, whose integrity of purpose and good faith cannot be questioned, and when, by its ample allegations, an opportunity was given for every alleged discrimination and inequality of rates to be inquired into and adjusted, the concealed purposes of the Traffic Association manifested themselves in open hostility, both to the complainant and the Commission. Notwithstanding this opposition on the part of a body of men who, with honest and open purposes, might have aided materially in this public investigation into the equity of freights and fares in and for the whole State of California, the inquiry proceeded, and in its outcome has produced good effect, not only in a material equalization of rates, but also in the adoption of the Western Classification throughout the State. In the midst of this investigation, and for a purpose which has never yet been explained, the State Legislature which convened in 1893 undertook to court-martial the Railroad Commission, and in one of those blind moods which sometimes affect men thrown together by the chances of politics, proposed to bow-string our Board without the formality of a hearing. In a letter to the Legislature I demanded an opportunity to be heard, and uttered the prophecy that the attempt to deal with the railroad problem, directly or through the medium of an attack upon the Commission, would, as for its only result, "either demonstrate the ignorance or expose the venality" of the members of the Legislature who made the attempt. How far the result has verified the prediction let the acts of the Legislature of 1893 determine.

The investigation of the Railroad Commission was a travesty upon

justice. The life of the Commission was preserved by the votes of the open friends of the railroad, not because the Southern Pacific Company loved the Commission, but because it feared to entrust its fortunes to the uncertain qualities of intelligence and honesty which distinguish Legislatures like that of 1893. The point of this remark is doubly emphasized by the fact that at the same time the Legislature was engaged in investigating the Railroad Commission, it was also occupied in the passage of the Reassessment bill, which, in two forms, was before them. They defeated the Carpenter bill, and with singular consistency, but doubtful sense, enacted the Seawell bill, and it became a law. The effect of this infamous measure is now too well known to the people of California.

By its terms the State has lost more than half a million of dollars which would have come into its treasury, or that of its counties and cities, under the Carpenter bill.

The Seawell reassessment law constitutes the ample and complete vindication of the Railroad Commission against the assault and aspersions of the Legislature of 1893. It demonstrates the ignorance or exposes the venality of those who voted for its passage, and voted also to impeach the Railroad Commission.

There is no escape from this alternative of unworth, except by the confession of its truth in the conjunctive by those members of the Legislature who supported both measures. It will be a flimsy subterfuge to say that the responsibility for the effect of the Seawell law rests upon the State Board of Equalization and not upon the Legislature, for the reason that the plain language of the statute permitted no other honest construction than that the Board of Equalization has placed upon it, and the final verdict of our State history will affix the infamy of that piece of legislation where it properly belongs, upon the State Legislature of 1893.

The *personnel* and the *politics* of the Board of Railroad Commissioners will each be changed on the first Monday of January of the coming year. An entirely new body of men will occupy the places of its present members, the majority of which will be dominated, so far as regard for the sanctity of their sworn official duty will permit, by the policy of the Democratic party as expressed in its party platform for the present year. That platform pledges the dominant members of the Railroad Commission to an average reduction of 25 per cent in the freight rates of the railroads of California. With a confidence born of experience, I venture the prediction that the incoming Railroad Commission will not be able to redeem that pledge within the lines of their constitutional duty and the limitations of their oath of office.

It is a fact easy of ascertainment that, as to the smaller railroads of California, such a reduction in revenues would mean ruin; and that as to the Southern Pacific Company, with its obligations to pay the interest upon the enormous bonded indebtedness of its leased lines, a reduction of 25 per cent in its gross income would speedily cast it and its dependent roads into the hands of a receiver. The responsibility for such a disaster to the commercial systems of California I am satisfied no Railroad Commission will ever dare to assume.

The result will be that the incoming Railroad Commission will find itself in much the same position as that occupied by its predecessors for the past eight years.

It will formulate rules of procedure, hear complaints of shippers, grant

relief in individual cases as they may arise, revise schedules with a view to the correction of the inequalities and discriminations as they come to the surface in the course of transportation and trade. It will occupy a position of increasing delicacy between the large corporate interests of the railroad companies on the one hand, and the large local interests of the merchants of San Francisco, represented in the Traffic Association, upon the other. If, between these two great and equally selfish energies, the Railroad Commission shall take that impartial attitude which its duty to itself, and especially to the whole State of California, demands, its members will be beset by politicians, carped at by paid critics, denounced by demagogues, and charged with all the crimes in the catalogue of official misdeeds. And as a compensation for all this, in addition to their own consciousness of rectitude, they may possibly, before their official term expires, possess the high merit of having failed to find favor in the eyes of a Legislature like that of 1893.

Respectfully submitted.

JAS. W. REA,
Railroad Commissioner for the Third District of California.

STATISTICS COMPILED FROM REPORTS OF RAILROAD COMPANIES.

TABLE No. 1.

FINANCIAL STATEMENT TO JUNE 30, 1894.

Companies.	Cost of Construction, Including Buildings, Lands, Fences, Tools, Salaries, Etc.	Cost of Equipment.	Capital Stock Issued.	Funded Debt Issued and now Outstanding.	Floating Debt.
Southern Pacific Company	No road owned.		\$120,934,170 00	\$2,858,000 00	\$10,055,638 51
Central Pacific Railroad Company	\$171,171,685 07		68,000,000 00	87,887,680 00	2,834,538 71
Southern Pacific Railroad Company of California	129,953,548 30		68,402,900 00	52,683,500 00	818,818 69
California Pacific Railroad Company	19,536,644 63		12,000,000 00	6,825,500 00	1,212,145 38
North Pacific Railway Company	24,733,617 20		12,896,000 00	9,907,000 00	1,959,238 24
South Pacific Coast Railway Company	11,500,000 00		6,000,000 00	5,500,000 00	
Northern California Railroad Company	2,354,000 00		1,280,000 00	1,074,000 00	
Southern California Railway Company	24,833,690 67	\$466,845 38	12,894,000 00	8,784,000 00	
Atlantic and Pacific Railroad Company	Not reported.				
San Francisco and North Pacific Railroad Company	\$10,437,096 31	437,096 31	6,000,000 00	4,162,000 00	
Carson and Colorado Railroad Company	6,380,000 00	Not segregated.	4,380,000 00	2,000,000 00	101,331 93
North Pacific Coast Railroad Company	3,295,971 01	\$104,862 87	2,709,500 00	903,000 00	33,975 24
Pacific Coast Railway Company	2,985,887 15	Not segregated.	1,370,000 00	1,370,000 00	131,391 39
Los Angeles Terminal Railroad Company	4,526,092 55	Not segregated.	3,000,000 00	1,500,000 00	12,615 48
Nevada-California-Oregon Railroad Company	2,292,972 65	Not segregated.	2,200,000 00	1,500,000 00	81,964 48
Eel River and Eureka Railroad Company	708,781 66	\$89,472 03	1,200,000 00	None.	41,231 65
Nevada County Narrow Gauge Railroad Company	625,343 76	76,305 22	242,200 00	488,000 00	18,494 80
National City and Otay Railway Company	Not reported.		200,000 00	260,000 00	19,714 75
Colusa and Lake Railroad Company	\$161,479 04	31,846 27	400,000 00	451,000 00	
Arcata and Mad River Railroad Company	154,447 62	41,580 00	187,740 00	68,000 00	1,246 53
Visalia Railroad Company	167,616 97		82,025 00	None.	6,760 54
Vreka Railroad Company	103,556 36		99,075 00	45,000 00	None.
Visalia and Tulare Railroad Company	95,368 28	12,446 50	60,000 00	50,000 00	16,571 12
San Diego, Cuyamaca, and Eastern Railway Company	555,928 64	21,159 78	769,000 00	550,000 00	8,840 85
Redondo Railway Company	249,785 20	107,317 04	500,000 00	None.	45,022 18

TABLE No. 1—Continued.

Companies.	Gross Earnings.	Operating Expenses.	Income From Operation.	Total Income and Operating Expenses Atlantic and Pacific System, Southern Pacific Company.	New Lines Constructed During the Year	Length of Main Line of Road in State, Includ- ing Branches and Spurs.	Length of Yard Trunk and Sidings.
Southern Pacific Company	{ Atl. & Pac. Syst. \$10,303,170 95 32,873,355 46	{ Atl. & Pac. Syst. \$7,127,916 27 20,197,633 82	{ Atl. & Pac. Syst. \$3,175,263 68 12,675,861 64	{ \$43,176,735 41 income 27,325,610 69 operating	38	3,054.51	Pacific system. 992.38
Central Pacific Railroad Co.	\$2,121,204 58	\$1,690,616 69	\$430,587 89		2.84	490.98	85.59
Southern Pacific R. R. Co. of Cal.	812,348 79	786,613 24	25,735 55			252.28	20.85
California Pacific Railroad Co.	808,336 69	512,302 66	296,034 03			165.32	Not reported.
Northern Railway Company	146,503 37	96,506 18	49,997 19			199.25	Not reported.
South Pacific Coast Railway Co.	383,195 30	291,006 70	92,188 60			88	12
Northern California R. R. Co.	186,314 36	125,673 51	60,640 85			76.10	Not reported.
Southern California Ry. Co.	152,410 52	139,965 41	22,020 11			50.20	8.16
Atlantic and Pacific R. R. Co.	59,501 09	40,676 11	18,905 13			79	4.40
S. F. and North Pacific R. R. Co.	94,369 26	68,413 02	25,956 24			25	5
Carson and Colorado R. R. Co.	184,136 30	65,403 10	32,733 20			22.50	4
North Pacific Coast R. R. Co.	28,395 33	29,951 92	*1,559 59			16.29	12.29
National City and Otay R. R. Co.	19,020 47	12,535 06	6,485 41			17.25	1.50
Columbia and Lake Railroad Co.	76,659 25	70,069 55	6,589 70			7.50	3.75
Nevada-Cal.-Oregon R. R. Co.	17,186 69	9,683 00	7,503 69			7.50	.33
Visalia Railroad Company	11,387 65	6,990 28	4,397 37			7.50	.40
Yreka Railroad Company	10,295 72	18,032 19	*7,736 47			11.50	Not reported.
San Diego, Guaymas, and Eastern Railway Company	46,279 17	31,680 26	14,598 91			25.37	Not reported.
Redondo Railway Company	47,646 12	57,427 83	*9,781 71			17.70	5.30
Total in State.					40.81	4,628.25	163.57
Total Pacific system.							992.38
Grand total siding							1,155.95

* Deficit.

TABLE No. 2.

TRAFFIC STATEMENT.

Companies.	Total Number of Passengers Carried.	Average Rate of Fare per Mile, in Cents.	Total Tons of Freight Hauled.	Average Rate of Freight per ton per Mile, in Cents.	Total Miles Run by Passenger Trains.	Total Miles Run by Freight Trains.	Total Miles Run by Mixed Trains.
Southern Pacific Company	17,713,466	01.939	6,291,608	01.319	7,719,586	8,793,945	588,591
Central Pacific Railroad Company		Reported	by Southern	Pacific Company.			
Southern Pacific Railroad Company of Cal.							
California Pacific Railroad Company							
Northern Railway Company							
South Pacific Coast Railway Company							
Northern California Railroad Company							
Southern California Railroad Company	923,690	02.510	472,174	02.405	857,579	392,347	110,023
Atlantic and Pacific Railroad Company	68,277	01.66	248,804	00.99+	296,059	375,863	
San Francisco and North Pacific Railroad Co.	871,978	02.078	168,803	04.868	243,123	68,343	50,184
Carson and Colorado Railroad Company	8,689	05.21	16,405	04.86	None.	None.	145,685
North Pacific Coast Railroad Company	1,097,753	01.278	77,310	04.345	214,702	115,197	
Pacific Coast Railway Company	38,848	04.77	71,169	05.22	190,458	297,536	
Los Angeles Terminal Railroad Company	485,635	01.794	51,964	04.855	123,564	6,403	
Nevada-California-Oregon Railroad Company	5,081	02.584	13,492	04.501	None.	None.	47,561
Bel River and Eureka Railroad Company	37,143	04	63,440	04	None.	None.	50,196
Nevada County Narrow Gauge	45,493	05.361	23,993	13.49	10,319	None.	56,100
National City and Oray Railway Company	108,804				36,672	894	48,854
Colusa and Lake Railroad Company	9,316	04.10	12,217	03.03	Not given.	Not given.	9,357
Arcata and Mad River Railroad Company	29,882	02.10	7,491	13+	Not given.	Not given.	17,640
Visalia Railroad Company	14,222	07	10,696	12.	Not given.	Not given.	Not given.
Yreka Railroad Company	11,607	06.8	23,637		Not given.	Not given.	10,950
Visalia and Tulare Railroad Company	18,219	04.83	796	08.65	None.	None.	38,064
San Diego, Guaymas, and Eastern Railway Co.	35,570	02.819	41,501	02.978	None.	4,134	79,657
Redondo Railway Company	52,924		24,084		None.	103,900	

TABLE No. 3.

STATEMENT OF WAGES RECEIVED BY RAILROAD EMPLOYÉS.

Companies.	General Office Clerks	Station Agents	Engineers	Firemen	Conductors	Brakemen	Machinists	Carpenters	Section Men	Telegraph Operators	Laborers	Number of Employés	Daily Compensation of Engineers	Daily Compensation of Firemen	Daily Compensation of Conductors	Daily Compensation of Section Men	Average Compensation of Employés, Excluding General Officers
Southern Pacific Company	569	558	677	718	360	806	468	932	4,005	231	573	14,329	\$4 43	\$2 42	\$4 10	\$1 57	\$2 60
Central Pacific Railroad Company																	
Southern Pacific R. R. Co. of Cal.																	
California Pacific Railroad Co.																	
Northern Railway Co.																	
South Pacific Coast Railway Co.																	
Northern California Railroad Co.	67	123	51	55	39	85	74	77	266	10	133	1,229	4 46	2 72	3 74	1 81	2 44
Southern California Railway Co.	27	7	33	57	23	50	18	20	260	11	72	266	5 30	2 47	3 87	1 08	2 00
Atlantic and Pacific Railroad Co.	14	34	11	11	10	14	19	30	133	1	22	370	3 56	2 03	3 18	1 86	2 41
S. F. and North Pacific Railroad Co.		14	5	7	3	6	1	1	38			87	4 43	3 20			
Carson and Colorado Railroad Co.		23	12	12	12	19	2	1	89	1	17	334	3 73	2 21	2 91	1 44	2 09
North Pacific Coast Railroad Co.																	
Pacific Coast Railway Company	3	10	6	7	6	8	21		25	2	9	109	3 00	1 75	2 49	2 03	1 75
Los Angeles Terminal Railroad Co.	2	3	3	3	2	5	1	1	24		3	48	3 60	2 27	3 22	1 70	2 21
Nevada-California-Oregon R. R. Co.	1	12	3	3	2	5	1	2	14		9	59	2 75	1 80	2 80	2 00	2 14
Del River and Eureka Railroad Co.	1	3	2	2	2	4	1	2	20		1	51	4 00	2 50	3 82	1 65	2 85
Nevada County Narrow Gauge																	
National City and Otay Railway Co.																	
Colusa and Lake Railroad Company																	
Arcata and Mad River Railroad Co.	1	2	2	1	1	1			15		8	18	4 46	2 00	2 00	1 80	3 16
Visalia Railroad Company	2	1	3	3	1	1	2		5		9	44	2 60	2 00	2 66	2 26	
Yreka Railroad Company																	
Visalia and Tulare Railroad Company		1	1	1	1				1				3 00	2 00	3 00	1 80	2 40
San Diego, Cuyamaca & Eastern Ry. Co.													5 32	1 89	2 71	2 62	2 62
Redondo Railway Company	3	2	3	2	2	2	1	1	17		3	30	2 81	2 07	2 67	1 76	2 15
											5	57	2 40	2 13	2 13	1 43	2 00

TABLE No. 4.

SHOWING CONSUMPTION OF FUEL, AND COST, IN 1894.

Companies.	Coal— Tons.	Cost per Ton.	Wood— Cords.	Cost per Cord.	Total Fuel Consumed in Tons.
Southern Pacific Company	608,801	\$4 89	105,790	\$4 16	661,697
Central Pacific Railroad Company	} Reported by Southern Pacific Company.				
Southern Pacific R.R. Co. of Cal.					
California Pacific Railroad Co.					
Northern Railway Company					
South Pacific Coast Railway Co.					
Northern California Railroad Co.					
Southern California Railway Co.					
Atlantic and Pacific Railroad Co.					
San Francisco & North Pacific R.R. Co.					
Carson and Colorado Railroad Co.					
North Pacific Coast Railroad Co.	1,691	6 31	8,048	3 00	5,715
Pacific Coast Railway Company					
Los Angeles Terminal Railroad Co.	5,155	7 70			5,155
Nevada-California-Oregon R.R. Co.	179	7 80	1,108	3 61	733
Eel River and Eureka Railroad Co.			16	3 50	
Nevada County Narrow Gauge			2,000	3 50	
National City and Otay Railway Co.					
Colusa and Lake Railroad Company			300	4 50	
Arcata and Mad River Railroad Co.			1,442	3 25	721
Visalia Railroad Company			9		9
Yreka Railroad Company	400	4 50			400
Visalia and Tulare Railroad Company			365	3 50	
San Diego, Cuyamaca & Eastern Ry. Co.	1,071	7 51			1,071
Redondo Railway Company	985	8 75			985

POWERS AND DUTIES OF RAILROAD COMMISSIONERS.

[From the Constitution of the State of California]

ARTICLE XII.

CORPORATIONS.

SECTION 17. All railroad, canal, and other transportation companies are declared to be common carriers and subject to legislative control. Any association or corporation, organized for the purpose under the laws of this State, shall have the right to connect at the State line with railroads of other States. Every railroad company shall have the right with its road to intersect, connect with, or cross any other railroad, and shall receive and transport each the other's passengers, tonnage, and cars without delay or discrimination.

SEC. 18. No President, Director, officer, agent, or employé of any railroad or canal company shall be interested, directly or indirectly, in the furnishing of material or supplies to such company, nor in the business of transportation as a common carrier of freight or passengers over the works owned, leased, controlled, or worked by such company, except such interest in the business of transportation as lawfully flows from the ownership of stock therein.

SEC. 19. No railroad or other transportation company shall grant free passes, or passes or tickets at a discount, to any person holding any office of honor, trust, or profit in this State; and the acceptance of any such pass or ticket by a member of the Legislature, or any public officer, other than Railroad Commissioner, shall work a forfeiture of his office.

SEC. 20. No railroad company, or other common carrier, shall combine or make any contract with the owners of any vessel that leaves port, or makes port in this State, or with any common carrier, by which combination or contract the earnings of one doing the carrying are to be shared by the other not doing the carrying. And whenever a railroad corporation shall, for the purpose of competing with any other common carrier, lower its rates for transportation of passengers or freight from one point to another, such reduced rates shall not be again raised or increased from such standard without the consent of the governmental authority in which shall be vested the power to regulate fares and freights.

SEC. 21. No discrimination in charges, or facilities for transportation, shall be made by any railroad or other transportation company between places or persons, or in the facilities for the transportation of the same classes of freight or passengers within this State, or coming from or going to any other State. Persons and property transported over any railroad, or by any other transportation company or individual, shall be delivered at any station, landing, or port, at charges not exceeding the charges for the transportation of persons and property of the same class, in the same direction, to any more distant station, port, or landing. Excursion and commutation tickets may be issued at special rates.

SEC. 22. The State shall be divided into three districts as nearly equal in population as practicable, in each of which one Railroad Commissioner shall be elected by the qualified electors thereof, at the regular gubernatorial elections, whose salary shall be fixed by law, and whose term of office shall be four years, commencing on the first Monday after the first day of January next succeeding their election. Said Commissioners shall be qualified electors of this State and of the district from which they are elected, and shall not be interested in any railroad corporation, or other transportation company, as stockholder, creditor, agent, attorney, or employé; and the act of a majority of said Commissioners shall be deemed the act of said Commission. Said Commissioners shall have the power, and it shall be their duty, to establish rates of charges for the transportation of passengers and freight by railroad or other transportation companies, and publish the same from time to time, with such changes as they may make; to examine the books, records, and papers of all railroad and other transportation companies, and for this purpose they shall have power to issue subpoenas and all other necessary process, to hear and determine complaints against railroad and other transportation companies, to send for persons and papers, to administer oaths, take testimony, and punish for contempt of their orders and processes, in the same manner and to the same extent as Courts of record, and enforce their decisions and correct abuses through the medium of the Courts. Said Commissioners shall prescribe a uniform system of accounts to be kept by all such corporations and companies. Any railroad corporation or transportation company which shall fail or refuse to conform to such rates as shall be established by such Commissioners, or shall charge rates in excess thereof, or shall fail to keep their accounts in accordance with the system prescribed by the Commission, shall be fined not exceeding twenty thousand dollars for each offense; and every officer, agent, or employé of any such corporation or company, who shall demand or receive rates in excess thereof, or who shall in any manner violate the provisions of this section, shall be fined not exceeding five thousand dollars, or be imprisoned in the county jail not exceeding one year. In all controversies, civil or criminal, the rates of fares and freights established by said Commission shall be deemed conclusively just and reasonable, and in any action against such corporation or company, for damages sustained by charging excessive rates, the plaintiff, in addition to the actual damage, may, in the discretion of the Judge or jury, recover exemplary damages. Said Commission shall report to the Governor, annually, their proceedings, and such other facts as may be deemed important. Nothing in this section shall prevent individuals from maintaining actions against any of such companies. The Legislature may, in addition to any penalties herein prescribed, enforce this article by forfeiture of charter or otherwise, and may confer such further powers on the Commissioners as shall be necessary to enable them to perform the duties enjoined on them in this and the foregoing section. The Legislature shall have power, by a two-thirds vote of all the members elected to each house, to remove any one or more of said Commissioners from office, for dereliction of duty, or corruption, or incompetency; and whenever, from any cause, a vacancy in office shall occur in said Commission, the Governor shall fill the same by the appointment of a qualified person thereto, who shall hold office for the residue of the unexpired term, and until his successor shall have been elected and qualified.

[From Statutes of California, 1880.]

CHAPTER LVII.

An Act to compel railroad corporations, or individuals owning railroads, to operate their roads.

[Approved April 15, 1880.]

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

SECTION 1. From and after the completion of any railroad, or the completion of such portion thereof capable of being operated, it shall be the duty of the corporation, or individual owning the same, to operate it; and upon the failure of said corporation or individual so owning said road to keep the same, or any part thereof, in full operation for the period of six months, its or his right to operate the same in whole or in part, as the case may be, shall be forfeited; and the lands occupied for the purposes of its or his road, so far as the same shall not be operated, shall revert to the original owners, or their successors in interest. A railroad shall be deemed to be in full operation when one passenger train, or one mixed train, is run over it once each day in each direction, and a sufficient number of freight trains to accommodate the traffic on said road.

SEC. 2. This Act shall not be construed to apply to a case where the operation of a road is prevented by the act of God, nor to a case where the operation of said road, together with its branch or trunk lines, does not yield income sufficient to defray the expenses of maintaining and operating the same in connection with its said branch or trunk lines.

SEC. 3. The Railroad Commissioners of the State of California shall have the power to examine and determine the question whether said road, together with its said branch and trunk lines, does or does not yield income sufficient to operate the same.

SEC. 4. This Act shall take effect immediately.

[From Statutes of California, 1880.]

CHAPTER LIX.

An Act to organize and define the powers of the Board of Railroad Commissioners.

[Approved April 15, 1880.]

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

SECTION 1. The three persons elected Railroad Commissioners pursuant to the provisions of section twenty-two of article twelve of the Constitution of the State, constitute, and shall be known and designated as the "Board of Railroad Commissioners of the State of California."

They shall have power to elect one of their number President of said Board, to appoint a Secretary, to appoint a Bailiff, who shall perform the duties of janitor; also to employ a stenographer, whenever they may deem it expedient.

SEC. 2. The salary of each Commissioner shall be four thousand dollars per annum; the salary of the Secretary shall be twenty-four hundred dollars per annum; the salary of the Bailiff shall be twelve hundred dollars per annum; such salaries to be paid by the State of California in the same manner as the salaries of State officers are paid. The stenographer shall receive a reasonable compensation for his services, the amount to be fixed by the State Board of Examiners, and paid by the State. Said Commissioners, and the persons in their official employment, when traveling in the performance of their official duties, shall have their traveling expenses other than transportation paid, the amount to be passed on by the State Board of Examiners, and paid by the State. Said Board of Railroad Commissioners shall be allowed one hundred dollars per month for office rent, and fifty dollars per month for fuel, lights, postage, expressage, subscriptions to publications upon the subject of transportation, and other incidental expenses, to be paid by the State; *provided*, that all moneys remaining unexpended at the expiration of each fiscal year shall be returned to the State Treasury. Said Board is further authorized to expend not to exceed four hundred dollars for office furniture and fixtures, to be paid by the State. The State shall furnish said Board with all necessary stationery and printing, upon requisitions signed by the President of said Board.

SEC. 3. Said Commissioners, and the persons in their official employment, shall, when in the performance of their official duties, have the right to pass free of charge on all railroads, steamers, ships, vessels, and boats, and on all vehicles employed in or by any railroad or other transportation company engaged in the transportation of freight and passengers within the State.

SEC. 4. It shall be the duty of the Attorney-General and the District Attorney in every county, on request of said Board, to institute and prosecute, and to appear, and to defend, for said Board, in any and all suits and proceedings which they or either of them shall be requested by said Board to institute and prosecute, and to appear in all suits and proceedings to which the Board is a party, shall have precedence over all other business except criminal business; *provided*, that said Board shall have the power to employ additional counsel to assist said Attorney-General or said District Attorney, or otherwise, when in their judgment the exigencies of the case may so require, the fees and expenses of said additional counsel to be determined by the State Board of Examiners, and paid by the State.

SEC. 5. The office of said Board shall be in the city of San Francisco. Said office shall always be open (legal holidays and non-judicial days excepted). The Board shall hold its sessions at least once a month in said city of San Francisco, and at such other times and such other places within this State as may be expedient. The sessions of said Board shall be public, and when held at a place other than the office in the city of San Francisco, notice thereof shall be published once a week for two successive weeks before the commencement of such session, in a newspaper published in the county where such session is to be held; and if no newspaper is published in such county, then in a newspaper published in an

adjacent county, such publication to be paid by the State in the manner as other publications authorized by law are paid.

SEC. 6. The Board shall have a seal, to be devised by its members, or a majority thereof. Such seal shall have the following inscription surrounding it: "Railroad Commission, State of California." The seal shall be affixed only to, first, writs; second, authentications of a copy of a record or other proceedings, or copy of a document on file in the office of said Commission.

SEC. 7. The process issued by said Board shall extend to all parts of the State. The Board shall have power to issue writs of summons and of subpoena in like manner as Courts of record. The summons shall direct the defendant to appear and answer within fifteen days from the day of service. The necessary process issued by the Board may be served in any county in this State by the Bailiff of the Board, or by any person authorized to serve process of Courts of record.

SEC. 8. The Secretary of said Board shall issue all process and notices required to be issued, and do and perform such other duties as the Board may prescribe. The Bailiff shall preserve order during the sessions of said Board, and shall have authority to make arrests for disturbances. He shall also have authority, and it shall be his duty, to serve all process, orders, and notices issued by said Board when directed by the President, and make return of the same.

SEC. 9. All complaints before said Board shall be in writing and under oath. All decisions of said Board shall be given in writing, and the grounds of the decisions shall be stated. A record of the proceedings of said Board shall be kept, and the evidence of persons appearing before said Board shall be preserved.

SEC. 10. Whenever the Board shall render any decision within the purview and pursuant to the authority vested in said Board by section twenty-two of article twelve of the Constitution, said Board, or the person, copartnership, company, or corporation making the complaint upon which such decision was rendered, is authorized to sue upon such decision in any Court of competent jurisdiction in this State.

SEC. 11. Whenever said Board, in the discharge of its duties, shall establish or adopt rates of charges for the transportation of passengers and freight, pursuant to the provisions of the Constitution, said Board shall serve a printed schedule of such rates, and of any changes that may be made in such rates, upon the person, copartnership, company, or corporation affected thereby; and upon such service, it shall be the duty of such person, copartnership, company, or corporation to immediately cause copies of the same to be posted in all its offices, station houses, warehouses, and landing offices affected by such rates, or change of rates, in such manner as to be accessible to public inspection during usual business hours. Said Board shall also make such further publication thereof as they shall deem proper and necessary for the public good. If the party to be served, as hereinbefore provided, be a corporation, such service may be made upon the President, Vice-President, Secretary, or managing agent thereof, and if a copartnership, upon any partner thereof. The rates of charges established or adopted by said Board, pursuant to the Constitution and this Act, shall go into force and effect on the twentieth day after service of said schedule of rates, or changes in rates, upon the person, copartnership, company, or corporation affected thereby, as hereinbefore provided.

SEC. 12. When jurisdiction is, by the Constitution, conferred on the Board of Railroad Commissioners, all the means necessary to carry it into effect are also conferred on said Board; and when in the exercise of jurisdiction within the purview of the authority conferred on said Board by the Constitution, the course of proceeding be not specifically pointed out, any suitable process or mode of proceeding may be adopted by the Board which may appear most conformable to the spirit of the Constitution.

SEC. 13. The said Board shall, immediately after entering upon the performance of its duties, demand and receive from the Transportation Commissioner, appointed under an Act approved April first, eighteen hundred and seventy-eight, section nine, chapter one, all public property belonging to the office of said Transportation Commissioner, in his possession, or under his control, and it is hereby made his duty to deliver the same to the said Board.

SEC. 14. The term "transportation companies" shall be deemed to mean and include:

First—All companies owning and operating railroads (other than street railroads) within this State.

Second—All companies owning and operating steamships engaged in the transportation of freight or passengers from and to ports within this State.

Third—All companies owning and operating steamboats used in transporting freight or passengers upon the rivers or inland waters of this State.

The word "company," as used in this Act, shall be deemed to mean and include corporations, associations, partnerships, trustees, agents, assignees, and individuals. Whenever any railroad company owns and operates, in connection with its road and for the purpose of transporting its cars, freight, or passengers, any steamer or other watercraft, such steamer or other watercraft shall be deemed a part of its said road. Whenever any steamship or steamboat company owns and operates any barge, canal-boat, steamer, tug, ferry-boat, or lighter in connection with its ships or boats, the things so owned and operated shall be deemed to be part of its main line.

SEC. 15. The salaries of the Commissioners, Secretary, Bailiff, and all other officers and attachés in any manner employed by the Board of Commissioners, and all expenses of any kind created under this Act, shall be paid out of any money in the General Fund not otherwise appropriated, and the Controller of State is hereby authorized and directed to draw his warrants from time to time for such purposes, and the State Treasurer is hereby authorized and directed to pay the same.

SEC. 16. This Act shall take effect immediately.

RULES OF THE BOARD OF RAILROAD COMMISSIONERS.

The Railroad Commissioners of the State of California hereby adopt the following rules to govern the exercise of the judicial power conferred upon the Commissioners by the State Constitution, and the laws made in pursuance thereof:

RULE I.

Any person believing himself aggrieved by any railroad or other transportation company, in any particular, may file his complaint against such railroad or transportation company with the Secretary of the Commissioners. The Secretary must indorse on the complaint the day, month, and year that it is filed, and must, at the request of the person filing the same, issue a summons thereon.

RULE II.

The summons must be directed to the defendant, must be signed by the Secretary, and attested by the seal of the Commissioners, and must contain:

1. The names of the parties to the proceeding.
2. A statement of the nature of the complaint.
3. A direction that the defendant appear and answer it within fifteen days after service thereof.

RULE III.

The summons may be served by the Bailiff of the Commissioners, or by any citizen of the State, and shall be served by delivering a copy thereof, together with a copy of the complaint, to the defendant, or if the defendant is a corporation, to the President, Secretary, Treasurer, or Managing Agent thereof. Proof of service of summons and complaint must be as follows:

1. If made by the Bailiff, his certificate thereof.
2. If by any other person, his affidavit thereof.

RULE IV.

From the time of service of the summons and copy of complaint, the Commissioners shall be deemed to have acquired jurisdiction of the parties and subject-matter. The voluntary appearance of the defendant is equivalent to personal service.

RULE V.

The complaint must contain:

1. The names of the parties to the proceeding.
2. A statement of the cause of complaint, in ordinary and concise language, giving such particulars of time, place, and circumstances as may enable the defendant to answer the same intelligently.
3. A demand of the relief claimed.

RULE VI.

The complainant may unite several causes of complaint in the same complaint, but the causes so united must be separately stated.

RULE VII.

The defendant may, within the time required in the summons to answer, object to the complaint upon the following grounds:

1. That it does not state facts sufficient to authorize the proceedings.
2. That it contains more than one cause of action, and that such causes are not separately stated.
3. That it is ambiguous, uncertain, or unintelligible.

RULE VIII.

If the objection is sustained, the complainant may, within ten days thereafter, amend his complaint. If the objection is overruled, the defendant may, within ten days thereafter, answer the complaint.

RULE IX.

The answer of the defendant may contain:

1. A general or specific denial of the allegations of the complaint controverted by him.
2. A statement of any new matter of defense, or in mitigation or explanation of the charges made in the complaint.

RULE X.

The complainant may, within ten days after the service of the answer, object to the same as insufficient, and if the objection is sustained the defendant may, within ten days thereafter, amend his answer.

RULE XI.

The complaint, answer, and demurrer must be subscribed by the party or by some attorney at law in his behalf. If the complaint is verified, the answer must be verified in the same manner, by the persons and in the form required by the Code of Civil Procedure in civil cases.

RULE XII.

The provisions of Sections 452, 453, 462, 463, 464, 465, 469, 470, 471, 472, 473, 475, and 476 of the Code of Civil Procedure shall be applicable to pleading before these Commissioners.

RULE XIII.

If the defendant fails to appear and answer the complaint, the Commissioners shall render such decision thereon, within the relief demanded in the complaint, as the facts may warrant.

RULE XIV.

The Secretary of the Commissioners must keep a calendar of the proceedings at issue, according to the date of service of the summons; and Sections 594, 595, and 596 of the Code of Civil Procedure shall be appli-

cable to the proceedings to be had after said proceedings are entered on the calendar.

RULE XV.

Any party to such proceeding, feeling aggrieved at the decision of the Commissioners, may, within sixty days after such decision, apply to the Commissioners for a rehearing; such application shall be in writing, and shall be filed with the Secretary. The application may be made upon any or all of the following grounds:

1. Irregularity in the proceedings or abuse of discretion, by which the party was prevented from having a fair rehearing.

2. Accident or surprise which ordinary prudence could not have guarded against.

3. Newly discovered evidence, material for the party making the application, which could not, with reasonable diligence, have been discovered and produced at the trial.

4. Insufficiency of evidence to justify the decision, or that it is against law.

5. Error of law occurring on the trial. Sections 658, 659, and 660 of the Code of Civil Procedure shall be applicable to such rehearing.

RULE XVI.

Sections 668, 669, and 670 of the Code of Civil Procedure shall be applicable to the entry of the decisions of these Commissioners.

RULE XVII.

The provisions of Part IV of the Code of Civil Procedure, relating to the general principles, kinds, and degrees, production, and effect of evidence, and of the rights and duties of witnesses, shall be applicable to proceedings before these Commissioners.

RULE XVIII.

The word "person" in these rules includes corporations and firms; the singular the plural, and the masculine the feminine and neuter genders.

RULE XIX.

These rules may be amended at any regular meeting of the Commissioners, and amendments so made shall go into effect sixty days thereafter.

RULE XX.

These rules shall be in force from and after the first day of July, 1881.

ADDITIONAL RULES OF PROCEDURE.

WHEREAS, By Section 11, Chapter 59, of the Statutes of 1880, entitled "An Act to organize and define the powers of the Board of Railroad Commissioners," it is provided that "whenever said Board, in the discharge of its duties, shall establish or adopt rates of charges for trans-

portation of passengers or freight, pursuant to the provisions of the Constitution, said Board shall serve a *printed schedule* of such rates, and of any changes that may be made in such rates, upon the person, copartnership, company, or corporation affected thereby; and upon such service it shall be the duty of such person, copartnership, company, or corporation to immediately cause *copies of the same* to be posted in all of its offices, station houses, warehouses, and landing offices affected by such rates, in such manner as to be accessible to public inspection during usual business hours." And whereas, it is further provided in said section and Act that "the rates of charges established or adopted by said Board, pursuant to the Constitution and this Act, shall go into force and effect the twentieth day after service of said schedule of rates or changes of rates upon the person, copartnership, company, or corporation affected thereby, as herein provided." And whereas, unless waived by the party to be affected thereby, as aforesaid, the mode and time prescribed exclude all others. And whereas, it is optional with such party to waive said time, and also service of printed copy of said schedule. And whereas, it is competent and proper for this Commission, when it shall "*establish or adopt*" rates of charges as aforesaid, to consult the convenience and preference of such party as to the form and clerical preparation of the schedule it is required to copy and post for inspection and use as aforesaid;

Now, therefore, it is hereby ordered, That in pursuance of said section of said Act, this Commission can and will establish or adopt rates of charges for the transportation of passengers and freight only by schedule; and that in the preparation thereof, in the usual form for convenient use, as aforesaid, the Secretary of the Commission is hereby authorized and directed to avail himself of such form or draft of such schedule as may be most conveniently copied and used by the party to be most affected thereby.

And it is further ordered, That upon the completion of any schedule of rates of charges, so drafted and prepared, as aforesaid, the same shall be submitted to the Commission, and it shall be "established and adopted," as aforesaid. A certified copy of the order adopting the same shall be served by said Secretary upon the party to be affected thereby; and in case such party shall prefer for its own convenience, and to simplify the duties of all concerned, to make its own copies of all such schedules, and shall consent to put the same in operation within twenty days from and after the service of said order, and in accordance therewith, it may do so without further preliminary process or proceeding to enforce the same; *provided,* that said party, or its general manager, shall, within three days from and after the service of said order, acknowledge the service of said schedule by printed copy, expressly waiving all other service or notice thereof, in writing, addressed to said Commission, and to be filed and remain of record in its office.

And it is further ordered, That if such acknowledgment and waiver, as aforesaid, shall not be filed in said office within three days from and after the service of such order, as aforesaid, then, and in that case, said Secretary shall immediately proceed to print such schedule and order, and to serve printed copies thereof on the parties to be affected thereby, and shall keep a record of his action in the minutes of said Commission.

LIST OF RAILROAD INCORPORATIONS.

FILED IN OFFICE OF SECRETARY OF STATE FROM AUGUST 4, 1892, TO
OCTOBER 18, 1894.

SAN FRANCISCO AND SANTA CLARA VALLEY RAILWAY COMPANY.

Capital stock, \$1,600,000.
Length, 80 miles.
Standard gauge.
Articles filed August 4, 1892.

DIRECTORS.

C. P. Hawes	San Francisco.
P. J. Dunne	San Francisco.
Wm. R. A. Johnson	San Francisco.
Wm. P. Henley	San Francisco.
James Deitrick	San Francisco.

SOUTHERN HEIGHTS AND VISITACION RAILWAY COMPANY.

Capital stock, \$1,000,000.
Length, 8 miles.
Gauge (not stated—street railway).
Articles filed August 17, 1892.

DIRECTORS.

Chas. F. Crocker	San Francisco.
H. E. Huntington	San Francisco.
F. S. Douty	San Francisco.
N. T. Smith	San Mateo County.
J. L. Willcutt	Oakland.

NORTHEASTERN CALIFORNIA RAILROAD COMPANY.

Capital stock, \$1,000,000.
Length, 30 miles.
Standard gauge.
Articles filed August 19, 1892.

DIRECTORS.

D. E. Miles	San Francisco.
L. D. Brewster	Chippewa Falls, Wis.
Henry L. Tatum	San Francisco.
J. J. Bowen	San Francisco.
A. M. Willis	San Francisco.
S. P. Smiley	San Francisco.
E. A. Lancaster	Chicago, Ill.

SAN FRANCISCO AND CLEAR LAKE RAILWAY COMPANY.

Capital stock, \$3,000,000.
Length, 90 miles.
Standard gauge.
Articles filed September 21, 1892.

DIRECTORS.

J. C. Broadhurst	San Francisco.
J. W. Eisenbuth	San Francisco.
Green Majors	Alameda.
C. V. Lodge	San Francisco.
E. M. Greene	Oakland.

RIVERSIDE, SAN BERNARDINO, AND LOS ANGELES RAILROAD COMPANY.

Capital stock, \$2,000,000.
 Length, 75 miles.
 Standard gauge.
 Articles filed October 15, 1892.

DIRECTORS.

D. S. Dorn	San Francisco.
Samuel Miller	San Francisco.
M. H. Sherman	Phoenix, Arizona Territory.
A. L. Johns	San Francisco.
R. J. Davis	Oakland.

CLEAR LAKE AND RUSSIAN RIVER RAILWAY AND NAVIGATION COMPANY.

Capital stock, \$500,000.
 Length, 20 miles.
 Gauge (not stated.)
 Articles filed November 4, 1892.

DIRECTORS.

A. Levy	Lakeport.
D. W. White	Lakeport.
F. W. Gibson	Lakeport.
Wm. Gessner	Lakeport.
L. Sailor	Lakeport.
W. J. Biggerstaff	Lakeport.
R. W. Crump	Lakeport.

SANTA ANA AND NEWPORT RAILWAY COMPANY.

Capital stock, \$500,000.
 Length, 20 miles.
 Gauge, standard.
 Articles filed November 7, 1892.

DIRECTORS.

W. S. Bartlett	Santa Ana.
C. A. Mead	Santa Ana.
G. E. Foster	Santa Ana.
Frank Moody	Santa Ana.
George H. Carlyle	Westminster.

CALIFORNIA AND NORTHEASTERN RAILROAD COMPANY.

Capital stock, \$2,000,000.
 Length, 40 miles.
 Gauge, standard or narrow.
 Articles filed November 11, 1892.

DIRECTORS.

Joseph E. Barry	San Francisco.
Solomon Bloom	San Francisco.
Edward B. Young	San Francisco.
Marcus D. Hyde	Oakland.
James Spiers	Berkeley.
Will H. Smith	Salt Lake, Utah.

NORTH FORK AND MINARET RAILROAD COMPANY.

Capital stock, \$10,000.
 Length, 10 miles.
 Gauge (not stated). "T" rail.
 Articles filed December 9, 1892.

DIRECTORS.

T. Stewart White	Grand Rapids, Mich.
Thomas Friant	Grand Rapids, Mich.
James Hadden	Oakland.
Wentworth R. Birmingham	Oakland.
Chas. W. Mott	San Francisco.

THE MONTEREY AND FRESNO RAILROAD COMPANY.

Capital stock, \$150,000.

Length, 150 miles.

Gauge, standard.

Articles filed January 15, 1893.

DIRECTORS.

A. W. Jones	Kansas City, Mo.
C. L. Walter	Fresno.
Alex. Gordon	Fresno.
Harry A. Greene	Monterey.
W. J. Hill	Salinas City.
Wm. Palmtag	Hollister.
Thos. Flint	Hollister.

MONTEREY AND FRESNO RAILROAD COMPANY.

Capital stock, \$3,000,000.

Length, estimated to be 150 miles.

Gauge, standard.

Articles filed January 18, 1893.

DIRECTORS.

A. W. Jones	Kansas City, Mo.
C. L. Walter	Fresno.
Alexander Gordon	Fresno.
Harry A. Green	Monterey.
W. J. Hill	Salinas City.
William Palmtag	Hollister.
Thomas Flint	Hollister.

NEVADA SOUTHERN RAILWAY COMPANY.

Capital stock, \$2,000,000.

Length of road, estimated to be 100 miles.

Gauge, broad.

Articles filed January 21, 1893.

DIRECTORS.

Demetrius G. Schofield	San Francisco.
Walter F. Crosby	Colorado Springs, Col.
Frank L. Morgan	Needles.
Otto B. Amsden	Needles.
William L. Beardsley	Denver, Col.
George C. Manley	Denver, Col.

THE LOS ANGELES, OWENS VALLEY, AND UTAH RAILROAD COMPANY.

Capital stock, \$2,500,000.

Length, 140 miles.

Gauge, standard.

Articles filed April 3, 1893.

DIRECTORS.

Frederick Stock	Los Angeles.
George A. Chapel	Los Angeles.
Allan J. Smith	Los Angeles.
Norman B. Carter	Los Angeles.
F. B. Guthrie	Los Angeles.

SAN DIEGO AND PHOENIX RAILROAD COMPANY.

Capital stock, \$4,000,000.
 Length of road is estimated to be 175 miles.
 Gauge, standard.
 Articles filed April 13, 1894.

DIRECTORS.	
D. C. Reed.....	San Diego.
Harry L. Titus.....	San Diego.
Charles U. Bell.....	San Diego.
H. G. Merrill.....	San Diego.
Albert Roberts.....	San Diego.

FERNSIDE AND WALNUT STREET WHARF RAILROAD COMPANY.

Capital stock, \$25,000.
 Length, 1 mile.
 Gauge (not stated).
 Articles filed May 9, 1893.

DIRECTORS.	
H. Krusi.....	Alameda.
John McMullen.....	San Francisco.
H. S. Wood.....	Belvedere.
J. M. Taylor.....	Oakland.
W. J. Miller.....	Oakland.

MONTEREY AND PACIFIC GROVE STREET RAILWAY AND ELECTRIC POWER CO.

Capital stock, \$180,000.
 Length of road is estimated to be 5 miles.
 Forty-two-inch gauge.
 Articles filed June 2, 1893.

DIRECTORS.	
Dr. O. S. Trimmer.....	Pacific Grove.
P. Oyer.....	Pacific Grove.
Mariano Malarin.....	San José.
J. S. Melteer.....	Monterey.
Juan Malarin.....	Monterey.

LOS ANGELES AND PACIFIC RAILROAD COMPANY.

Capital stock, \$200,000.
 Length of road is estimated to be 16 miles.
 Gauge (not stated).
 Articles filed September 26, 1893.

DIRECTORS.	
John Cross.....	Los Angeles.
Charles W. Cross.....	San Francisco.
Charles M. Cross.....	San Francisco.
Albert P. Cross.....	Los Angeles.
John E. Loomis.....	Los Angeles.
James G. Garrison.....	Los Angeles.
John A. Pirtle.....	Los Angeles.

BODIE RAILWAY AND LUMBER COMPANY.

Capital stock, \$200,000.
 Length of road is estimated to be 34 miles.
 Narrow gauge road.
 Articles filed October 5, 1893.

DIRECTORS.	
William John Menzies.....	Edinburgh, Scotland.
Thomas Menzies.....	San Rafael.
Charles P. Eels.....	San Francisco.
William S. Wood.....	San Francisco.
E. L. Reese.....	San Francisco.

ALUM ROCK RAILWAY COMPANY.

Capital stock, \$300,000.

Length of road is estimated to be 7½ miles.

Gauge, standard or narrow.

Articles filed November 4, 1893.

DIRECTORS.	
R. H. Quincy	San José.
J. J. Scrivner	San Francisco.
Hugh M. Cameron	Oakland.
J. T. Grant	San José.
Jacob Miller	San José.

SAN DIEGO, FORT YUMA, AND ATLANTIC RAILWAY COMPANY.

Capital stock, \$7,000,000.

Length of road is estimated to be 175 miles.

Gauge, standard.

DIRECTORS.	
George H. Hill	San Diego.
Dwight Braman	Boston, Massachusetts.
Charles B. Richards	San Diego.
R. A. Thomas	San Diego.
C. L. Josselyn	National City.
Francis S. Eaton	San Diego.
W. C. Kimball	National City.

OAKLAND RAILWAY COMPANY.

Capital stock, \$2,500,000.

Length of road is estimated to be 12¾ miles.

Gauge (not stated).

Articles filed January 6, 1894.

DIRECTORS.	
Charles F. Crocker	San Francisco.
H. E. Huntington	San Francisco.
S. T. Gage	Oakland.
C. E. Green	San Francisco.
F. S. Douty	San Francisco.

EL MORO RAILROAD COMPANY.

Capital stock, \$60,000.

Length of road is estimated to be 6 miles.

Gauge (not stated).

Articles filed March 28, 1894.

DIRECTORS.	
L. F. Gilmore	San Francisco.
A. D. Flagler	San Francisco.
George H. Green	San Francisco.
W. C. Lakenan	Kansas City, Mo.
L. C. Branch	San Francisco.

SAN DIEGO, PACIFIC BEACH, AND LA JOLLA RAILWAY COMPANY.

Capital stock, \$25,000.

Length of road is estimated to be 4 miles.

Gauge (not stated).

Articles filed April 6, 1894.

DIRECTORS.	
Ralph C. Dabney	El Cajon.
Herbert Dabney	San Diego.
C. E. Boyd	San Diego.
R. Gail Nichols	Dehesa.
Harry L. Titus	San Diego.

PASADENA AND LOS ANGELES ELECTRIC RAILWAY COMPANY.

Capital stock, \$500,000.

Length of road is estimated to be 30 miles.

Gauge (not stated).

Articles filed April 11, 1894.

DIRECTORS.

P. M. Green	Pasadena.
H. W. Magee	Pasadena.
E. C. Webster	Pasadena.
L. P. Hansen	Pasadena.
Fitz E. Beach	Pasadena.
William Lacy	Los Angeles.
E. P. Clark	Los Angeles.

OVERLAND PACIFIC RAILWAY COMPANY.

Capital stock, \$2,510,000.

Length of road is estimated to be 100 miles.

Gauge, standard.

Articles filed May 15, 1894.

DIRECTORS.

Barclay Henley	San Francisco.
T. L. Johnson	San Francisco.
Calvin Stewart	Fort Bragg.
G. W. Hunt	Walla Walla, Wash.
R. S. Strahan	Portland, Or.

LOS ANGELES, PASADENA, AND ALTADENA ELECTRIC RAILWAY COMPANY.

Capital stock, \$1,000,000.

Length of road is estimated to be 18½ miles.

Gauge (not stated).

Articles filed June 9, 1894.

DIRECTORS.

Thomas J. Barbour	San Francisco.
E. P. Carnicle	Los Angeles.
George H. Barker	Philadelphia, Pa.
Hervey Lindley	Los Angeles.
Charles L. Strange	Los Angeles.

SUTRO RAILROAD COMPANY.

Capital stock, \$400,000.

Length of road is estimated to be $5\frac{447}{1000}$ miles.

Gauge (not stated).

Articles filed July 28, 1894.

DIRECTORS.

Adolph Suto	San Francisco.
O. D. Baldwin	San Francisco.
J. H. Moore	San Francisco.
Thos. J. Glynn	San Francisco.
O. F. Von Rhein	San Francisco.

MAYFIELD AND STANFORD JR. UNIVERSITY STREET RAILWAY COMPANY.

Capital stock, \$10,000.

Length of road is estimated to be 2 miles.

Gauge (not stated).

Articles filed August 18, 1894.

DIRECTORS.

Joseph P. Ponce	Mayfield, Cal.
Alexander Peers	Mayfield, Cal.
Bernard Mayer	Mayfield, Cal.
Gordon Wigle	Palo Alto, Cal.
Bainbridge L. Ryder	San José, Cal.

UNITED RAILROAD COMPANY.

Capital stock, \$5,000,000.

Length of road is estimated to be 250 miles.

Gauge, standard.

Articles filed August 23, 1894.

DIRECTORS.

B. F. Langford	Stockton.
Robert H. Delafield	San Francisco.
J. W. Hartzell	San Francisco.
T. C. Kieruff	Berkeley.
Charles H. Forbes	San Francisco.

SAN JOSÉ RAILROAD COMPANY.

Capital stock, \$1,000,000.

Length of road is estimated to be 19½ miles.

Gauge (not stated).

Articles filed September 18, 1894.

DIRECTORS.

Wendell Easton	San Francisco.
Moses L. Levy	San Francisco.
James W. Findlay	San José.
Eugene M. Rosenthal	San José.
Charles M. Keeney	San Francisco.

ALAMEDA AND OAKLAND RAILWAY COMPANY.

Capital stock, \$500,000.

Length of road is estimated to be 15 miles.

Gauge (not stated).

Articles filed October 3, 1894.

DIRECTORS.

W. M. Rank	Alameda.
E. S. Denison	Oakland.
Alton H. Clough	Oakland.
George H. Mastick	Alameda.
W. H. Chickering	Oakland.

Board of Railroad Commissioners:

SIRS: The above list of railroad incorporations does not include the amended, amalgamation, or consolidation, or the increase or decrease of capital stock, or creation of bonded indebtedness filed by different railroad corporations from January 16, 1893, to date, October 10, 1894, as your letter of October 8, 1894, only asked for the original articles.

E. G. WAITE,
Secretary of State.
By W. H. STEVENS,
Deputy.

SACRAMENTO, October 11, 1894.

MILES OF NEW LINE CONSTRUCTED.

During year ending June 30, 1893—	
Miles new track, single.....	439.80
Miles new track, second.....	3.20
Miles new track, sidings and spurs.....	76.11
During year ending June 30, 1894—	
Miles new track.....	38.00

REPORTS OF COMMISSIONER BECKMAN.

SACRAMENTO, May 3, 1893.

To the honorable Board of Railroad Commissioners of California :

GENTLEMEN : Within the last sixty days I have traveled over nearly every mile of the Southern Pacific Railroad system. In traveling over the Coast Division I found about 900 men at work on the extension between Santa Margarita and San Luis Obispo. I found a large number of men at work on the bridge crossing the Merced River, in the San Joaquin Valley, using creosoted piling for the foundation trestle bents, doing the work in a very substantial manner, and, as the foreman informed me, using about 200,000 feet of lumber. A large number of men were also at work on the American River bridge, near Sacramento, taking down two 75-foot truss spans and substituting one 150-foot span. This was made necessary on account of the southward movement of the channel of that stream during the recent high water. I find that, in the year 1892, the Southern Pacific Company renewed wooden bridges with wood, in California, at the first crossing of the Los Angeles River; at New San Gabriel River, in Los Angeles County; at Cottonwood Creek; drawbridge No. 2, at High Street, Alameda; and drawbridges Nos. 3 and 4, between Newark and Alviso.

In the year 1892, I found, by inquiry, that they used, in the repairs of track on California lines, 6,000,000 feet, board measure, of timber. They also used 7,000,000 feet for renewal of snow-sheds. I find that they have built very few iron bridges. They claim iron bridges are too expensive, as the distance is too great from the manufactories, making the price of material very high. I find that last year they built iron bridges on second and fourth crossings of Tehachapi Creek, at the second crossing of the Los Angeles River, at the second crossing of Truckee River, and at Butte Cañon, on the Sacramento Division.

I have been informed by the proper official that, during the year 1892, they used 879,964 ties to replace old ties. I also found that they have replaced a great many miles with new rails, weighing 76 pounds to the yard. Also find that, during the year 1892, the following lines were added to the Pacific System, within the State of California: Redlands Junction to Crafton, 7 miles; Collis to Fresno, 15 miles; Fresno to Polasky, 24 miles; Declez to Declezville, $2\frac{1}{2}$ miles; Baden to San Bruno, 4 miles; Santa Monica to Santa Monica Wharf, $2\frac{1}{2}$ miles; making a total of 55 miles.

The Southern Pacific Company has also leased, in California, the road from San Bernardino to Redlands (motor road); from San Bernardino to Motor Junction, 7 miles.

The new railroads constructed last year were all thoroughly ballasted with washed gravel, and, in addition to this, the older lines were heavily ballasted, as follows: Santa Monica branch, between University and Santa Monica, 12 miles; San Joaquin Division, between Merced and

Bakersfield, 102 miles; Oregon branch, between Biggs and Durham, 13 miles.

I found that the following depot buildings were constructed last year, as follows: Western Division, brick passenger depot at Stockton; combination passenger and freight depots at Rodeo, Livermore, and Cows Landing; passenger depot at Gelston; freight depot at Napa Junction; on the Sacramento Division, combination passenger and freight depot at Chico and Yuba City; on the Mohave Division, combination depot at Piru; on Los Angeles Division, passenger depot at Carmenita; on Coast Division, combination depot at Gonzales, and union passenger depot at Santa Cruz for Coast and Santa Cruz divisions. They are now building, and contemplate building, on the Western Division, combination freight and passenger depot at Elk Grove and Volta, also freight depot at French Camp; on Sacramento Division, combination depot at Gridley; on Shasta Division, freight depot at Castle Crag; on Los Angeles Division, combination depot at Norwalk, and freight depot at Declez; on Coast Division, combination depot at Morgan Hill, freight depot at Palo Alto, and freight depot at Santa Cruz.

I was informed by one of the officers that, during the summer, they would put up a combination depot at Wheatland and Lincoln; on Shasta Division, passenger depot at Castle Crag; on Coast Division, passenger depot at Palo Alto, and combination depot at Madrone.

Side-tracks were laid during the year 1892 at 140 stations, aggregating 51 miles in length. New additional side-tracks have been built this year to the length of 16 miles, as follows: Western Division, at Emerald, Oakland, Stockton, Shell Mound, South Vallejo, Suisun, Tracy, Union, and Vernalis; Sacramento Division, at Chico, Gold Run, Marysville, Orland, Rockland, Sacramento, Towles, Woodland, and Yuba City; Shasta Division, at Black Butte Summit; San Joaquin Division, at Bakersfield, Fresno, Hanford, Herbert, Hickman, Lemoore, Malaga, Sanger, and Zante; on Mohave Division, at Carpenteria, Santa Barbara, and Tejunga; on Los Angeles Division, at Anaheim, Bloomington, Los Angeles, and Santa Monica; on Coast Division, at Loma Prieta, Morgan Hill, Ocean View, Palo Alto, San José, and Sunnyside; also at San Francisco and Santa Cruz. About 15,000 feet of track was laid in construction of second track in the city of Los Angeles.

In the replacement of old cars, worn out and broken up, the company expects to build, at their Sacramento shops, some 500 new freight cars during 1893. There will also be added to the Pacific system equipment, operating, to a greater or less extent, in California, 14 new heavy ten-wheel passenger engines, 8 switching engines, and 3 compound twelve-wheel mountain freight engines. There will also be added, during the year, 12 first-class Pullman sleeping-cars in all respects up to the latest modern standards. Six of these have already been received and put into service.

I have been also informed by one of the officials of the company that during the current year they intend to renew important wooden bridges as follows: American River bridge, 150-foot span; first crossing, Alameda Creek, two 188-foot spans to be renewed with wood; second crossing, Alameda Creek, two 198-foot spans to be renewed with wood; at Red Bank, near Red Bluff, three 60-foot spans to be renewed with wood; at Reed's Creek, near Red Bluff, three 64-foot spans to be renewed with wood; at Dibble Creek, near Red Bluff, two 60-foot spans to be renewed with

wood. Feather River bridge, on the Northern California Railway, washed out last winter, is to be rebuilt of wood, with a span of 150 feet and two spans of 75 feet each. They also propose to construct iron bridges as follows: 80-foot span at Summit Valley, on the Sacramento Division; at the third and sixth crossings of Tehachapi Creek, the former of two and the latter of one 64-foot span; and at San Francisco Creek, one 84-foot span, on the Coast Division.

The great slide in the Santa Cruz Mountains, blocking the north end of Wrights Station tunnel, on the South Pacific Narrow Gauge line, was sufficiently cleared away so that traffic was resumed April 18, 1893, the road having been blockaded by this slide and traffic suspended from December 28, 1892, up to that date. The heavy expense for removal of the slide, coupled with the loss of earnings, will make this year rather a disastrous one for this road.

I have traveled a great deal on Eastern railways, and, so far as my observation goes, the California track, structures, and equipment are well and safely maintained, and compare favorably with most of the Eastern roads. I have stopped at many stations, and made inquiry of the inhabitants about the accommodations and rates on both fares and freights, and I have heard very little complaint.

I have passed over several of the smaller roads not belonging to the Southern Pacific system, and, at an early date, will report my observations to this Board.

WILLIAM BECKMAN,
Railroad Commissioner of the First District.

Filed in office of Railroad Commissioners, May 8, 1893.

SACRAMENTO, May 25, 1893.

To the honorable Board of Railroad Commissioners of California:

GENTLEMEN: Since our last meeting, I have traveled over the Nevada, California, and Oregon Railway, the terminal point being Reno, Nevada; running through the State of Nevada for 28 miles, and through Honey Lake and Lake Valleys, in California, for 52 miles, to Amedee. I find that this road has never been a self-sustaining institution. It is owned by the Moran Bros., of New York, bankers. This property, as above stated, is owned by individuals. It is a curio among railroads, owing to the fact that it has no debt of any description, pays cash for everything, has no bonds or stock, asks no credit, pays no interest, and demands cash for any service it gives. The property is managed by E. Gest. The policy of this gentleman is to have a good road, thoroughly built and well equipped, and to keep everything in a high standard, with a view, after first cost, of being able to operate at a minimum of expense. The road uses the steam shovel and gravel train constantly. They are digging out all cuts to a width of 44 feet, widening the fills where needed, and filling up every trestlework with earth. They have, so far, filled up three very large ones, two of which were 600 feet long and 44 feet wide. Wherever they have culverts, I find they are of either stone pipe, or 24-inch terra cotta pipe. Where water troubles the banks, stone culverts and stone ripraps are used.

By inquiry, I found they put in 20,000 new ties during the year 1892.

I was also informed that it required about the same number for the year 1893. The first 30 miles of the road from Reno north was formerly laid with iron rails, which have, in the last two years, been replaced with steel rails. I found, in many places, the old line had been abandoned and a new one built, thereby lessening curvature distance and grades. The buildings of the road are good.

The road owns ample lands for terminal facilities for properly operating the road, but none other, confining their business entirely to transportation, and having no interest in dams or reservoirs which are being constructed in Honey Lake Valley, which will, in course of time, develop the country, and will be an inducement for settlers to cultivate the soil, and thereby increase population and business for the railroad. I was really surprised to find such a well constructed and equipped railroad in a country so sparsely settled. I heard no complaint regarding the road; on the contrary, it is doing all that can be done to develop the country by having low rates and assisting to market its products.

I made inquiry of J. M. Fulton, Master of Transportation, about extending the road. Mr. Fulton was non-committal, but informed me that if it had not been for the California Legislature of 1893, they would now be building north into Modoc County, California, and Lake County, Oregon, which, he says, is the best territory that he knows of without a railroad. This road is a three-foot gauge, has only two stations in California, and I am really in hope that the owners of this road will see their way clear to build it into Oregon, as that would be the means of developing a great agricultural country, besides furnishing accommodations for carrying out live stock, instead of being driven a long distance to a railroad.

Respectfully,

WILLIAM BECKMAN,
Railroad Commissioner for the First District.

Filed in office of Railroad Commissioners, June 3, 1893.

SACRAMENTO, May 25, 1893.

To the honorable Board of Railroad Commissioners of California:

GENTLEMEN: While on the eastern slope of the Sierra Nevadas, I also traveled over the Carson and Colorado Railroad, starting from the Mound House, in the State of Nevada, thence running south, in the State of Nevada, to Queen, 183 miles; thence, in the State of California, to Keeler, 113 miles. This road runs through a sagebrush country; there is very little traffic on the same, either in passengers or freight. From Queen to Keeler, trains run on Mondays, Wednesdays, and Fridays south, and Tuesdays, Thursdays, and Saturdays north. There is very little inducement for this road to branch out, or to extend its line; hence, but little improvement has been made, only what was absolutely necessary, for the last two years, although I found the road in very good condition, the station buildings sufficient to accommodate all the business, and in very good condition. I think the company deserves a great deal of credit for keeping their road in such good condition, when the emoluments are very light. It is true, some of the patrons of the road complain about high rates, but wherever I got in conversation with any

of the patrons, they admitted that they would not run the road if it was given to them, free of rent, for five years. I learned, by inquiry, that the builders of this road in the beginning were to extend it either to Mohave or to Barstow on the Santa Fe system, but I have my doubts whether this road will ever be extended, unless they should develop resources in that country not known of at the present time. While there are very fertile tracts of land adjacent to this road, at the same time the general nature is that of a grazing country.

On the 5th day of June, I expect to go north as far as the Oregon line, shall take in the Colusa and Lake Railroad, running from the town of Colusa to Sites, also the Yreka Railroad, running from Montague to Yreka, the county seat of Siskiyou County, and will report my observations at our next meeting.

Yours respectfully,

WM. BECKMAN,

Railroad Commissioner for the First District, California.

Filed in office of Railroad Commissioners, June 3, 1893.

SACRAMENTO, July 10, 1893.

To the honorable Board of Railroad Commissioners of California:

GENTLEMEN: Since our last meeting I have traveled extensively through the States of Oregon and Washington. I had a very pleasant meeting with the Railroad Commissioners of Oregon. We spent several hours discussing freights, fares, and railroads generally. I find that freights and fares are a great deal higher in Oregon and Washington than they are in California; but, considering the comparative sparseness of the population along most of the lines in Oregon and Washington, and consequent differences in the traffic to be moved, the differences in rates may be justified by the differences in commercial and industrial conditions.

The following comparison will give you some information of passenger and freight rates in Oregon and a portion of Washington:

SACRAMENTO, CAL., July 10, 1893.

Commissioner Beckman's comparison of passenger rates on the Oregon railroads and California railroads, being one cent per mile higher in Oregon than they are in California, as the following table will show:

California Roads.				Oregon Roads.			
From San Francisco to—	Miles.	Fare— Limited.	Fare— Unlimited.	From Portland to—	Miles.	Fare— Limited.	Fare— Unlimited.
Colfax	144	\$4 55	\$5 05	Tacoma	145	.....	\$6 25
Mohave	382	.....	11 85	Spokane	374	\$16 25	22 90
Delano	282	.....	8 15	Dayton	279	.....	11 78
Edgewood	355	.....	11 35	Baker City	357	.....	14 20
Bealville	342	.....	10 25	Ashland	341	.....	13 68
Cana	197	5 65	6 10	Roseburg	197	.....	7 95
San José	50	.....	1 25	Salem	52	.....	2 13
Kingsburg	227	.....	6 50	Pendleton	231	.....	9 16
Newcastle	121	3 45	3 95	Eugene	123	.....	4 96
Lancaster	407	.....	12 80	Pasco	399	.....	15 70
Alila	274	.....	7 90	Ellensburg	271	.....	13 50
Chico	186	5 40	5 90	Umatilla	187	.....	7 39
Coles	404	.....	13 25	Huntington	404	.....	16 10
Pixley	268	.....	7 75	North Fork	263	.....	10 46
Fresno	207	.....	5 90	Greens	202	.....	8 14

SACRAMENTO, CAL., July 10, 1893.

The following table will show the comparison on grain between the Union Pacific of Oregon and the Southern Pacific of California:

Union Pacific of Oregon.			Southern Pacific of California.		
To Portland From—	Miles.	Rate per Ton per Car.	To Port Costa From—	Miles.	Rate per Ton per Car.
Clarine.....	10	\$1 00	Concord.....	11	\$.75
Troutdale.....	18	1 60	Vanden.....	23	1 20
Rooster Rock.....	25	1 70	Yountville.....	29	1 25
Oneonta.....	33	1 80	Rutherford.....	34	1 40
Cascade Locks.....	45	2 10	Davis.....	44	1 60
Wyett.....	52	2 10	Ellis.....	54	1 65
Hood River.....	66	2 50	Morrano.....	68	1 50
Summit.....	96	2 90	Trigo.....	94	1 90
Grants.....	111	3 05	Waterford.....	115	2 30
Synally Hook.....	123	3 50	Live Oak.....	121	2 50
Black Locks.....	134	3 70	Amsterdam.....	131	2 60
Arlington.....	142	3 70	Mendota.....	144	3 10
Willows.....	151	3 70	Chico.....	154	3 20
Lexington.....	188	4 20	Tehama.....	181	3 50
Juniper.....	204	3 90	Kingsburg.....	203	3 85
Nolan.....	212	4 60	Tulare.....	219	4 10
Snodgrass.....	265	4 80	Lerdo.....	270	4 35
Namela.....	286	5 00	Bakersfield.....	282	4 40

Respectfully yours,

WILLIAM BECKMAN,
 Railroad Commissioner for the First District of California.

Filed in office of Railroad Commissioners, July 29, 1893.

COMMUNICATIONS, COMPLAINTS, ANSWERS, ETC.

COMMUNICATION OF U. S. MILLER & BROS.

MILPITAS, June 18, 1893.

Hon. JAMES W. REA:

DEAR SIR: As Railroad Commissioner, I wish to ask you a question. At Milpitas the Southern Pacific has opened a wharf, on which we land our perishable produce. Now, in order to keep it from wilting, we have to load it in the cars ourselves, at the same time paying them 10 cents per hundred for shipping (double rates). This is not justice. Is it lawful for them to compel us to do it? If not, I wish you would give them a gentle notice of this negligence, and oblige your friends and supporters.

U. S. MILLER & BROS.,
Milpitas, Santa Clara County, Cal.

Filed in office of Railroad Commissioners, June 27, 1893.

JAS. V. KELLY,
Secretary.

REPLY OF SOUTHERN PACIFIC COMPANY.

SAN FRANCISCO, August 3, 1893.

Hon. JAS. W. REA, Railroad Commissioner, City:

DEAR SIR: Returning herewith letter of June 18th addressed to you by Messrs. U. S. Miller & Bros., Milpitas, I beg to say that we have carefully investigated the complaint, as we have every desire to meet the views of and satisfy our patrons to any extent practicable.

At Milpitas, as at other points where miscellaneous garden and field produce is shipped to San Francisco, the offerings of freight greatly fluctuate; for example, before the vegetable season opens there is very little shipped from that station in the way of miscellaneous produce, but as the season advances and fruits and vegetables mature, shipments of these commodities increase, dropping off later, after these crops have matured and been marketed. When business is light at the station our agent at Milpitas can easily do all the work without assistants; as the business increases we add such assistants as may prove necessary.

We have a freight platform there which Messrs. Miller & Bros. speak of as an "open wharf"; this platform is 20 feet wide, and while ample for the business done, is not wide enough to permit of any produce becoming wilted while being trucked across it. When business is brisk there a number of teams from different shippers, and more than

one perhaps from the same shipper, come to the depot at the time generally understood to be the hour when freight should be delivered at the station if to go forward on next train; at such times there is apt to be a rush, one man, whether it be the agent or his assistant, can, it is manifest, attend to but one team at a time, and the teams therefore have to take their turn. As, unfortunately, patrons generally do not make deliveries at the station until as near the time of train arrival and departure as they feel they can safely do, all of the fruit is delivered at a comparatively late hour, with a good deal of rush to get through as a consequence. If any of the teamsters undertake to unload their freight before their turn comes, it is not practicable for the other teams to be kept waiting while the agent with his assistant, or assistants, goes out of the regular order to take charge of the freight of the party unloading ahead of his turn. Sometimes also it happens that there is more than one team belonging to the same shipper, in which event, in order to hasten matters, it has more than once occurred that the two teamsters assist in getting off the load, so that they may get away without delay, and in that case it would not be unnatural if one of them did some of the trucking. It is usual for the teamsters to put the freight off the wagon onto the platform; if there were but one teamster and he was working with our agent or assistant, very likely the work would be combined, one lifting from the wagon, the other taking it and putting on the station truck, or both working on the wagon or with the station trucks, as might seem to be the way to do business with the quickest dispatch. It is not our custom to ask or require shippers to truck their own produce from their wagons into our cars, and we cannot find that Messrs. Miller & Bros. have found it necessary to do any trucking. We aim to furnish the assistance necessary at that station, and expect our own employés to do the work at the station.

As a rule, we get along very pleasantly at Milpitas and other stations like situated and with like kind of traffic, and have had no complaint except the one before us. Usually the agent and the shipper work harmoniously and pleasantly, and we are rather surprised that this complaint should have been deemed necessary. We are satisfied there is no foundation for it, for we have not relied on the statements of our agent, but have sent a man specially to investigate the matter.

Yours truly,

C. A. SMURR.

Filed in office of Railroad Commissioners, August 4, 1893.

JAS. V. KELLY,
Secretary.

COMPLAINT OF THE FRANK TANNING COMPANY.

REDWOOD CITY, CAL., April 20, 1893.

To the honorable Board of Railroad Commissioners of the State of California:

GENTLEMEN: The undersigned would most respectfully call your attention to the unfairness practiced in shipments of leather from Santa Cruz to this point.

We have lately received two separate consignments of leather from Santa Cruz upon which a freight rate of twenty-four (24) cents per 100 pounds was charged, whereas our house in San Francisco is continually receiving leather from the same point upon which only seventeen (17) cents per 100 pounds is charged. The leather to San Francisco passes through Redwood City, and is hauled twenty-eight miles farther, at a less rate of seven (7) cents per 100 pounds.

We therefore ask your honorable Board to afford us such relief as we think we are entitled to in this matter.

Very respectfully,

THE FRANK TANNING CO.
LOUIS J. FRANK, Secretary.

Filed in office of Railroad Commissioners, April 21, 1893.

JAS. V. KELLY,
Secretary.

ANSWER TO COMPLAINT OF THE FRANK TANNING COMPANY.

SOUTHERN PACIFIC COMPANY,
OFFICE OF THE GENERAL TRAFFIC MANAGER, }
SAN FRANCISCO, May 18, 1893.

To the honorable Board of Railroad Commissioners of the State of California:

GENTLEMEN: In answer to the communication filed with your honorable Board on the 21st of April, 1893, by the Frank Tanning Company, a copy of which has been sent to and received by the Southern Pacific Company:

The Southern Pacific Company respectfully states: It is true that the rate on leather in less than carloads charged by the Southern Pacific Company for the transportation from Santa Cruz to Redwood City is twenty-four (24) cents per 100 pounds, while the rate from Santa Cruz to San Francisco is seventeen (17) cents per 100 pounds; but the reason and justification for this difference are as follows:

The transportation of leather and other commodities between Santa Cruz and San Francisco is made by this defendant in competition with the transportation between said points by watercraft, and the transportation between Santa Cruz and Redwood City is not so made. The rate charged by the Southern Pacific Company on leather from Santa Cruz to Redwood City, 24 cents per 100 pounds, as aforesaid, is a rea-

sonable, fair, and just rate, and gives to the Southern Pacific Company no more than a reasonable, fair, and just compensation for the service rendered in the transportation. The rate on leather from Santa Cruz to San Francisco, 17 cents per 100 pounds, is less than what would ordinarily be a reasonable, fair, and just rate to this defendant for the service rendered in the transportation; but this rate is forced on the Southern Pacific Company by reason of the competition aforesaid, which applies to the transportation between Santa Cruz and San Francisco and does not apply to the transportation between Santa Cruz and Redwood City, but the aforesaid rate gives to the Southern Pacific Company something more than the actual cost of movement.

The rate by watercraft on leather from Santa Cruz to San Francisco is, and for a long time has been, in less than carload lots, twelve and one half ($12\frac{1}{2}$) cents per 100 pounds, to which is added a charge of two and one half ($2\frac{1}{2}$) cents for wharfage at Santa Cruz, making a total rate by water craft from Santa Cruz to San Francisco fifteen (15) cents per 100 pounds; and by reason of this competition the Southern Pacific Company has been and is forced to accept less than a reasonable, fair, and just rate on the transportation of leather in less than carload lots from Santa Cruz to San Francisco; and under the aforesaid competition by water craft the Southern Pacific Company has been and is unable to obtain for the service rendered in such transportation from Santa Cruz to San Francisco any rate greater than seventeen (17) cents per 100 pounds. The lower rate to San Francisco than to Redwood City, as hereinbefore set forth, is a natural advantage of location which San Francisco, by reason of its situation on tide-water, has over Redwood City, and is a condition which the Southern Pacific Company is forced to recognize in establishing its rate.

If the rate to San Francisco should be increased by the Southern Pacific over the rate now charged by it for the transportation of leather in less than carload lots from Santa Cruz to San Francisco, the entire traffic would be lost to the Southern Pacific Company, and would be gained by the watercraft aforesaid, which would entail a loss on the Southern Pacific Company without conferring any advantage or benefit on Redwood City, or the Frank Tanning Company.

Inasmuch as the right of railroads to so adjust their rates as to meet competition, which is of itself actual, active, and of controlling force, has been heretofore fully recognized by the laws of the State of California, and of the United States, as uniformly interpreted by the Railroad Commission of the State of California and the Interstate Commerce Commissioners of the United States and by the Courts, it is respectfully submitted that the complaint of the Frank Tanning Company is without merit.

Respectfully submitted.

SOUTHERN PACIFIC COMPANY.
By R. GRAY, General Traffic Manager.

Filed in office of Railroad Commissioners, May 19, 1893.

JAS. V. KELLY,
Secretary.

COMPLAINT OF R. L. DUNN.

AUBURN, PLACER COUNTY, CAL., March 3, 1893.

To the Board of Railroad Commissioners, San Francisco, Cal.:

GENTLEMEN: The undersigned respectfully represents that he is an elector and resident of Placer County, California. He desires to call to your attention a certain matter coming within your official jurisdiction.

Some three years since the Southern Pacific Company constructed, and have since maintained, a certain "spur track" known by the railroad name of Bowman Spur, on the line of the Central Pacific Railroad, in Placer County, at a point as near as may be half way between the stations of Auburn and Clipper Gap, and distant from 3 to 3½ miles from each place. The said spur track was in the first place erected at the request and partial expense of the residents of the locality for whose use it was primarily intended. Since its construction it has been continuously maintained as a point of receipt of, and delivery of freight traffic, and the undersigned is informed and believes that freight rates have been fixed by the railroad company for the use of shippers of freight to and from the said spur. There is no station agent or telegraph office at said spur or is it, so the undersigned is informed and believes, noted on the time-card sheets of the train service of the railroad. For several months last past what is commonly known as the Colfax local train, carrying passengers, takes passengers on at said spur on being flagged and stops to let passengers off on request. The passenger traffic has been gradually increasing during this period, and the undersigned believes that its amount is as considerable as that of Antelope, Arcade, or Applegate, or other flag stations on the run of the said Colfax local train, and with greater possibilities of increase.

The particular matter to which your attention and action are invited is the matter of passenger fares to and from the said Bowman Spur. The fare charged and collected by the conductor of the aforesaid train, by authority and direction of his superiors, is 35 cents from Auburn and Clipper Gap, respectively, to the said Bowman Spur, and 35 cents from Bowman Spur to either of the two adjacent stations noted. You will note that the rate of fare established by your Board, in conformity with law, for passenger travel from Auburn to Clipper Gap, is 35 cents. The undersigned submits that the Bowman Spur rates aforesaid do not conform to the general mileage rate established by your Board, and that the rate should properly be a proportional part, in the ratio of distance, to the rate established by you between Auburn and Clipper Gap.

The undersigned, for himself and the other residents of the locality with whose wishes he is personally conversant, requests that you will ascertain and establish such a rate of passenger fare for said Bowman Spur.

Respectfully,

R. L. DUNN.

Filed in office of Railroad Commissioners, March 6, 1893.

JAS. V. KELLY,
Secretary.

ANSWER OF SOUTHERN PACIFIC COMPANY.

SAN FRANCISCO, March 13, 1893.

To the honorable Board of Railroad Commissioners of the State of California, San Francisco:

GENTLEMEN: I beg leave to own receipt of a copy of Mr. R. L. Dunn's complaint to your Commission under date of March 3d, in respect to the rates charged for passengers from Auburn and Clipper Gap, respectively, to Bowman's Spur.

Bowman's Spur, as stated in the petition, is a spur track put in at a point 3.3 miles east of Auburn and 3.41 miles west of Clipper Gap, on the line of the Central Pacific Railroad. This spur track was put in for freight purposes only. It has never been made a passenger station, and so far the travel to and from that point has not been sufficient to justify its being made a passenger station. Nevertheless, our trains, Nos. 1 and 2, Nos. 25 and 26, stop at Bowman's Spur to take on passengers when signaled to do so, and if a passenger for Bowman's Spur is on the train it will stop to deliver him at that point. The rate charged in this case is the same as in all other similar cases, namely, the regular mileage rate to the station beyond.

During the month of January, 1893, our Ticket Auditor reports that there were but 2 passengers reported from Bowman's Spur, and during the month of February but 7 passengers. Both passengers carried in January were destined to Sacramento, and of those carried in February, 5 were destined to Sacramento and 2 to Auburn.

The rate charged between Bowman's Spur and Auburn and Clipper Gap, respectively, is 35 cents per passenger, as stated in the petition. We respectfully submit that as it is not a regular station, and as there is not business enough to make it a regular station, and as the trains named above stop upon signal to take up passengers, or, if they bear passengers to be delivered there, stop for the purpose of said delivery, and as in all cases it is a special stop, not provided for on the time card, and is therefore unusually expensive, the rates charged under the rule, which is uniform throughout the State for similar cases, are reasonable and justifiable, and we would respectfully request your approval of the same.

Yours respectfully,

J. C. STUBBS.

COMMUNICATION FROM MR. R. L. DUNN.

MARCH 18, 1893.

Hon. WM. BECKMAN, Railroad Commissioner:

DEAR SIR: I am informed by an official of the railroad company that the matter concerning which I wrote to the Railroad Commissioners two weeks since will shortly be adjusted satisfactorily; that in a few months the spur will be made into a side-track and put on the time-card sheet with the proper mileage rate.

Under the circumstances I am not disposed to push my complaint with the Commission, so if an equivalent statement is made by the

company to you, I am willing to withdraw it as having been satisfactorily adjusted.

Thanking you for your attention to the matter,
Very truly yours,

R. L. DUNN.

Filed in office of Railroad Commissioners, May 8, 1893.

COMPLAINT OF SHAW BROTHERS.

RAYMOND, CAL., January 26, 1893.

Hon. WILLIAM BECKMAN, *Railroad Commissioner:*

DEAR SIR: If you will remember, some time ago we had a conversation (on train going from Fresno to San Francisco), regarding the rate of freight on the Raymond branch. Recently the company has reduced the rate on wood, to *Madera* only, to \$1 per cord, which is very reasonable, but as there is but little wood shipped to *Madera*, compared to *Fresno* and *Merced*, the reduction does not benefit this community very much. What we need very much is a cheaper rate to *Fresno* and *Merced*, especially to *Fresno*, so as to compete with other localities on other branch roads. Brickyard men of *Fresno* tell us that they ship almost double the distance on the *Sanger* and *Porterville* branch, for less than they can from *Raymond*.

Our firm alone could ship on an average of two thousand cars yearly, if we had a competing rate with other branch roads to *Fresno*. We have to pay the same rate from *Herbert switch*, 3 miles from here, as from *Raymond*. In shipping grain to *Raymond*, we pay same rate to *Talbot switch*, 6 miles this side of *Berenda*, as from *Berenda*. With the present rate on grain from *Talbot* or *Berenda*, we can haul it by team cheaper. They charge same for car-lots as for local from *Berenda*. At the present rate on wood to *Fresno* and *Merced*, it can be hauled by team from same locality for less than we can ship.

If you think necessary, we will make complaint direct to the Railroad Commissioners, signed by the patrons of the road.

Hoping that you will favor us with your influence in securing a cheaper rate on this branch to and from all points, we remain,

Yours most respectfully,

SHAW BROTHERS.

Filed in office of Railroad Commissioners, May 8, 1893.

JAS. V. KELLY,
Secretary.

ANSWER OF SOUTHERN PACIFIC COMPANY TO COMPLAINT OF SHAW BROS.

SAN FRANCISCO, June 12, 1893.

MR. J. V. KELLY, *Secretary State Board of Railroad Commissioners, City:*

DEAR SIR: Referring to complaint of Messrs. Shaw Brothers, of Raymond, Cal., dated January 26, 1893, copy of which was referred to this office for consideration.

After looking into the matter carefully we find that it stands as follows:

The rate on wood from Raymond and Herbert to Fresno, distance 49 miles, is \$1 50 per ton, or \$15 per car of ten tons or seven cords, whichever measure gives our patrons benefit of lowest rate. Messrs. Shaw Bros.' information that parties on the Porterville branch ship almost double the distance at less rate to Fresno is erroneous.

The rate from Exeter to Fresno, distance 52 miles, is \$1 50 per ton, same as from Raymond and Herbert. From Kaweah, a point on the same branch, 48 miles distant from Fresno, like rate is in effect. From Sanger Junction, a point 14 miles distant from Fresno, rate of 80 cents per ton is in effect; thus from a point one third the distance the rate is over one half that of Raymond.

I trust that these figures show that the Raymond shippers are on an equality with other wood-shipping points in the vicinity of Fresno.

Concerning wood shipments to Merced: The rate from Raymond, distant 47 miles, is \$1 80 per ton, or \$18 per car of ten tons or seven cords. Under this rate 1,115 tons were shipped in 1892. The only other point of rail competition on this business is Arundel, 12 miles distant from Merced, which enjoys a rate of 90 cents per ton, under which rate, however, but 206 tons were shipped in 1892. Thus rates from other points evidently do not affect business.

We have recently, in accordance with the request of the farmers along the line of the Yosemite branch, reduced our grain rates to tide-water points as follows:

In carloads of not less than 20,000 pounds. Rates are in cents per 2,000 pounds.

From—	To Sacra-mento.	*To Stockton.	To Port Costa.	To Benicia.	To South Vallejo.	To San Fran-cisco and Oakland Wharf.
Talbot.....	370	295	360	360	385	410
Daulton.....	410	334	400	400	425	450
Herbert.....	490	415	480	480	505	530
Raymond.....	510	435	500	500	525	550

* Add usual switching charge when consigned to Stockton wharf.

You are doubtless aware that business over the Yosemite branch is exceedingly light, but we are pleased to give all the encouragement and assistance in our power to traffic originating in that section.

We trust that this statement of facts as they stand will demonstrate the impropriety of future reducing rates.

Previous to change in the grain rates to the above figures, the tariff read as follows:

From—	To Sacra- mento.	To Stockton.	To Port Costa.	To Benicia.	To South Vallejo.	To San Fran- cisco and Oakland Wharf.
Talbot.....	415	340	405	405	430	455
Daulton.....	490	415	480	480	505	530
Herbert.....	590	515	580	580	605	630
Raymond.....	610	535	600	600	625	650

Yours truly,

C. F. SMURR.

Filed in office of Railroad Commissioners, June 13, 1893.

JAS. V. KELLY,
Secretary.

COMPLAINT OF CUNNINGHAM & CO.

Before the Board of Railroad Commissioners of the State of California.

CUNNINGHAM & COMPANY, *Plaintiff,*
vs.
SOUTHERN PACIFIC COMPANY, *Defendant.* } Complaint.

To the said Honorable Board:

The plaintiff, your petitioner herein, respectfully represents and shows:

I.

That during all the times herein mentioned said plaintiff was and now is a corporation duly organized and existing under the laws of the State of California, doing business as such and having its principal place of business in the city of Santa Cruz, county of Santa Cruz, and its officers and stockholders are all citizens of said State.

II.

That the defendant, the Southern Pacific Company, is a corporation duly and legally organized, acting and existing and doing business as a common carrier in the State of California, and is the owner and lessee of certain lines of railroad and operating the same within said State, from said city of Santa Cruz to Santa Margarita, in the county of San Luis Obispo, and all intermediate points.

III.

That the above named plaintiff since the year 1890 has been and now is engaged in the business of manufacturing, shipping, and selling lumber, the principal market whereof is in the counties of Santa Cruz, Monterey, and San Luis Obispo, along the line of defendant's railroads aforesaid.

IV.

That said defendant for more than two years last past has made and now makes unjust discrimination against plaintiff in freight charges for transportation of all lumber shipped by said plaintiff over the said railroads from the said city of Santa Cruz to said town of Santa Margarita and all intermediate stations. Which discrimination is in favor of shippers of lumber from other towns on the line of said railroad, viz., Capitola, Monte Vista, Loma Prieta, Aptos, and Pajaro, to said Santa Margarita and said intermediate points, as will more fully appear from the "table of distances and rates," which is hereunto annexed, marked "Exhibit A," and hereby made a part of this complaint.

V.

That in the vicinity of said Monte Vista, Loma Prieta, and Aptos there have been and now are large lumber mills and manufactories which have been and now are manufacturing for shipment and sale large quantities of lumber of a class and grade similar to that manufactured by plaintiff and with which plaintiff is compelled to compete in the market along the line of said railroad at all points between said Monte Vista and said Santa Margarita and all *intervening points between said last named places*.

And for further and separate cause of complaint against said defendant, said plaintiff avers, alleges, and complains as follows, to wit:

I.

That during all the times herein mentioned said plaintiff was and now is a corporation, duly organized and existing under the laws of the State of California, doing business as such, and having its principal place of business in the city of Santa Cruz, county of Santa Cruz, and its officers and stockholders are all citizens of said State.

II.

That the defendant, the Southern Pacific Company, is a corporation duly and legally organized, acting and existing and doing business as a common carrier in the State of California, and is the owner and lessee of certain lines of railroad, and operating the same within said State from said city of Santa Cruz to Santa Margarita, in the county of San Luis Obispo, and all intermediate points.

III.

That the above named plaintiff, since the year 1890, has been and now is engaged in the business of manufacturing, shipping, and selling lumber, the principal market whereof is in the counties of Santa Cruz, Monterey, and San Luis Obispo, along the line of defendant's railroads aforesaid.

IV.

That the rates charged by the said defendant for the transportation of lumber and planing-mill products over the lines of its said railroads from the city of Santa Cruz to the town of Santa Margarita, on the line of said railroad, and to all points on the line of said road between said city of Santa Cruz and said town of Santa Margarita, are excessive and unjust, and that according to the information and belief of this plaintiff the said rates should be thoroughly revised, and should be reduced not less than $33\frac{1}{3}$ per cent upon the existing rates.

And plaintiff further represents that all of the witnesses to be produced in this behalf upon the hearing of this complaint reside at said city of Santa Cruz, and it would work a great hardship and inconvenience, and will entail a great expense, both upon them and the plaintiff, to be required to testify before your honorable Board at any place other than in said city of Santa Cruz.

Wherefore this plaintiff prays—

First—That the rates of freight on lumber shipments from said city of Santa Cruz to all points on the said railroad of defendant, between said city of Santa Cruz and said town of Santa Margarita, be reduced 75 cents per thousand feet, so as to equalize the rates and correct the discriminations against shippers from the said city of Santa Cruz, and thereby enable this plaintiff to fairly and justly compete in the market aforesaid.

Second—That your honorable body cause to be revised the freight rates upon lumber and planing-mill products from said city of Santa Cruz to said town of Santa Margarita and all intermediate points, and that such rates be reduced not less than $33\frac{1}{3}$ per cent upon the said existing rates.

Third—That this complaint and the prayer thereof be heard and determined by your honorable body without unreasonable delay, and that such hearing be had at the said city of Santa Cruz, and for such other and further relief as may be just and equitable.

JAMES O. WANZER,
BART BURKE,
Attorneys for said Plaintiff.

STATE OF CALIFORNIA, }
County of Santa Cruz. } ss.

James F. Cunningham, being duly sworn, deposes and says that he is the President of the corporation, Cunningham & Co., the plaintiff named in the foregoing complaint; that he has heard said complaint read and knows the contents thereof; that the same is true of his own knowledge, except the matters therein stated upon information or belief, and that as to those matters he believes the same to be true.

J. F. CUNNINGHAM.

Subscribed and sworn to before me, this tenth day of October, 1893.

[SEAL.]

JAMES O. WANZER,
Notary Public in and for said Santa Cruz County.

EXHIBIT A.

Table of Distances and Rates.

From—	To—	Distance— Miles.	Rate per 1,000 Feet.
Santa Cruz	Chualar	49	\$4 75
Capitola	Chualar	45	4 00
Monte Vista	Chualar	49	4 00
Loma Prieta	Chualar	46	4 00
Aptos	Chualar	42	3 50
Pajaro	Chualar	29	2 50
Santa Cruz	Gonzales	55	5 00
Capitola	Gonzales	51	4 25
Monte Vista	Gonzales	55	4 25
Loma Prieta	Gonzales	52	4 25
Aptos	Gonzales	48	3 75
Pajaro	Gonzales	35	2 75
Santa Cruz	Soledad	64	5 25
Capitola	Soledad	60	4 50
Monte Vista	Soledad	64	4 50
Loma Prieta	Soledad	61	4 50
Aptos	Soledad	57	4 00
Pajaro	Soledad	44	3 00
Santa Cruz	King's City	84	5 75
Capitola	King's City	80	5 00
Monte Vista	King's City	84	5 00
Loma Prieta	King's City	81	5 00
Aptos	King's City	77	4 75
Pajaro	King's City	64	4 00
Santa Cruz	San Lucas	93	6 00
Capitola	San Lucas	89	5 25
Monte Vista	San Lucas	93	5 25
Loma Prieta	San Lucas	90	5 25
Aptos	San Lucas	86	5 00
Pajaro	San Lucas	73	4 50
Santa Cruz	San Ardo	103	6 50
Capitola	San Ardo	99	5 75
Monte Vista	San Ardo	103	5 75
Loma Prieta	San Ardo	100	5 75
Aptos	San Ardo	96	5 50
Pajaro	San Ardo	83	5 00
Santa Cruz	Bradley	116	6 75
Capitola	Bradley	112	6 00
Monte Vista	Bradley	116	6 00
Loma Prieta	Bradley	113	6 00
Aptos	Bradley	109	5 75
Pajaro	Bradley	96	5 25
Santa Cruz	San Miguel	128	7 00
Capitola	San Miguel	124	6 25
Monte Vista	San Miguel	128	6 25
Loma Prieta	San Miguel	125	6 25
Aptos	San Miguel	121	6 00
Pajaro	San Miguel	108	5 50
Santa Cruz	Paso Robles	137	7 00
Capitola	Paso Robles	133	6 25
Monte Vista	Paso Robles	137	6 25
Loma Prieta	Paso Robles	134	6 25
Aptos	Paso Robles	130	6 00
Pajaro	Paso Robles	117	5 50
Santa Cruz	Templeton	142	7 00
Capitola	Templeton	138	6 25
Monte Vista	Templeton	142	6 25
Loma Prieta	Templeton	139	6 25
Aptos	Templeton	135	6 00
Pajaro	Templeton	122	5 50

EXHIBIT A—Continued.

From—	To—	Distance— Miles.	Rate per 1,000 Feet.
Santa Cruz	Santa Margarita ..	156	\$7 00
Capitola	Santa Margarita ..	152	6 25
Monte Vista	Santa Margarita ..	156	6 25
Loma Prieta	Santa Margarita ..	153	6 25
Aptos	Santa Margarita ..	149	6 00
Pajaro	Santa Margarita ..	136	5 50

Filed in office of Railroad Commissioners. Received October 12, 1893. Acknowledged 9:50 A. M.

JAS. V. KELLY,
Secretary.

ANSWER OF SOUTHERN PACIFIC COMPANY.

Before the Board of Railroad Commissioners of the State of California.

CUNNINGHAM & COMPANY, *Plaintiff,* }
vs. } Answer.
SOUTHERN PACIFIC COMPANY, *Defendant.* }

The above named defendant, without in any manner waiving, but in all things expressly insisting upon its objections herein made, that the complaint of the above named plaintiff herein filed does not state facts sufficient to authorize the proceeding, for answer in its behalf to said complaint:

Avers, that it has no information or belief upon the subject sufficient to enable it to more definitely answer the averments of the complaint contained in paragraph I thereof, and therefore, and upon that ground, denies the same.

Defendant admits the averments contained in paragraph II of said complaint.

Defendant avers that it has no information or belief upon the subject sufficient to enable it to more definitely answer the averments contained in paragraph III of said complaint, and therefore, and upon that ground, denies the same.

Defendant denies that for more than two years last past, or for any time, it has made; or now makes, unjust, or any discrimination against plaintiff in freight charges for the transportation of all, or any, lumber shipped by said plaintiff over the said railroads, or any of them, from the city of Santa Cruz or to the said town of Santa Margarita, or to all intermediate stations, or to any intermediate station, or that it has made or now makes any discrimination in freight charges for the transportation of lumber, or otherwise, or at all; or that said or any discrimination is in favor of shippers of lumber from other towns on the line of said railroad, either Capitola, or Monte Vista, or Loma Prieta, or Aptos, or Pajaro, to said Santa Margarita, or to the said intermediate points, or to any intermediate point; or that said, or any discrimination, will appear from the tables of distances and rates annexed to the complaint, marked "Exhibit A" and made a part of said complaint; and defendant denies that said tables of distances and rates attached to the complaint and marked "Exhibit A" are correct, but to the contrary, defendant avers that the same are incorrect.

Defendant avers that it has no information or belief on the subject sufficient to enable it to answer the averment of paragraph V "that plaintiff is compelled to compete in the market along the line of said railroad at all points between said Monte Vista and said Santa Margarita and all intervening points between said last named places," and therefore, and upon that ground, denies the same.

And further answering the second and separate cause of action set forth in the complaint:

Defendant avers, that it has no information or belief upon the subject sufficient to enable it to more definitely answer the averments of the complaint contained in paragraph I thereof, and therefore, and upon that ground, denies the same.

Defendant admits the averments contained in paragraph II of said complaint.

Defendant avers that it has no information or belief upon the subject sufficient to enable it to more definitely answer the averments contained in paragraph III of said complaint, and therefore, and upon that ground, denies the same.

Defendant denies that the rates charged by it for the transportation of lumber and planing-mill products over the lines of its said railroads, or any of them, from the city of Santa Cruz to the town of Santa Margarita on the line of said railroad, or to all points, or to any point, on the line of said road between said city of Santa Cruz and said town of Santa Margarita, are excessive or unjust, or that the said rates should be thoroughly, or at all revised, or should be reduced not less than 33 $\frac{1}{3}$ per cent upon the existing rates, or should be reduced at all; and as to this, defendant avers that the said rates are, and each rate is, reasonable, just, and fair, and yield no more than a proper return for the service rendered in the transportation.

Defendant denies that all of the witnesses to be produced in this behalf, upon the hearing of this complaint, reside at the said city of Santa Cruz, or that it would work a great hardship or inconvenience, or will entail a great expense, either upon them or upon the plaintiff, to be required to testify before your honorable Board at any place other than in said city of Santa Cruz; and as to this, defendant avers that it is willing to accommodate the plaintiff by consenting to taking of deposition of any witness plaintiff may have at the said city of Santa Cruz at any reasonable and proper time, and upon proper notice to it so as to enable it to attend the taking of said deposition; and further, defendant avers that its records, books, and documents which may be necessary to have produced in evidence at the trial of this cause are all in the City and County of San Francisco, and it would be a great inconvenience to the defendant, and would work an interruption of its business, to remove the said records, books, and documents out of the City and County of San Francisco; and defendant further avers, that the witnesses to be produced by it reside for the most part in the City and County of San Francisco, and elsewhere, but not in the city of Santa Cruz, and defendant respectfully requests that the hearing of this cause be had at the regularly established office of this honorable Board of Railroad Commissioners, in the City and County of San Francisco.

Wherefore, defendant prays judgment that the plaintiff take nothing by this proceeding, and that the action be dismissed.

STATE OF CALIFORNIA, }
 City and County of San Francisco. } ss.

C. F. Smurr, being duly sworn, deposes and says that he is an officer and agent, to wit, General Freight Agent, of the Southern Pacific Company, defendant in this cause, and makes this verification for and in behalf of said defendant; that he has read the foregoing answer and knows the contents thereof, and that the same is true of his own knowledge, except as to the matters therein stated upon his information or belief, and as to those matters believes that the same are true.

C. F. SMURR.

Subscribed and sworn to before me, this 17th day of November, 1893.

[SEAL.] E. B. RYAN,
 Notary Public in and for said City and County of San Francisco.

Filed in office of Railroad Commissioners. Received November 27, 1893.

JAS. V. KELLY,
 Secretary.

COMMUNICATION FROM C. F. SMURR TO E. H. SCHOFIELD,
 OF YREKA.

[D. O. C. 116,775.]

SAN FRANCISCO, April 5, 1894.

Mr. E. H. SCHOFIELD, *Yreka, Cal.*:

DEAR SIR: Returning herewith bill of lading, expense bill, and my letter of March 31st, relative to claim as above, and replying to your favor of April 2d, in which you call our attention to the fact that you have written the Railroad Commissioners that we have charged you in excess of legal tariff in amount \$5 50.

If you will kindly refer to bill of lading issued by the agent of the Chicago, Burlington, and Quincy, dated Sterling, Ill., February 1, 1894, you will note that the articles called for in the bill of lading are 9 boxes nested wood burial cases, weight 2,010 pounds, and 2 boxes plain metal coffin trimmings, weighing 370 pounds; entire shipment rated at \$3 14 per 100 pounds. It develops that instead of two boxes plain metal coffin trimmings they were silver-plated, and the Western Classification, which governs on shipments from Sterling, Ill., to Montague, Cal., provides as follows:

Coffin trimmings, plain metal, boxed.....	Second class.
Coffin trimmings, plated, boxed, released.....	1½ first class.

The articles were charged for as follows:

Wooden burial cases—per 100 pounds.	
Chicago to Marysville.....	\$2 19
Marysville to Montague.....	97
Through.....	\$3 16

At weight of 2,000 pounds, makes charges \$63 20. Silver-plated trimmings, Chicago to Montague, \$4 60½ per 100 pounds; weight, 370 pounds; charges, \$17 04; total charges, Sterling to Montague, \$80 24. As charges have been properly assessed, there is no overcharge.

So far as the agent of the railroad at shipping point is concerned, it is to be presumed that he issued the bill of lading from description of the goods given him by the shipper. Probabilities are that he never saw the goods. Had the bill of lading called for 2 boxes silver-plated coffin trimmings, at \$3 14 per 100 pounds, you would have a claim against the line issuing the bill of lading for overcharge.

Regret, under the circumstances, that we are not in position to refund the amount claimed.

Yours truly,

C. F. SMURR.

R. O. SHIVELY vs. THE SOUTHERN PACIFIC COMPANY.

SAN JOSÉ, CAL., December 2, 1893.

J. V. KELLY, *Secretary of State Board of Railroad Commissioners:*

DEAR SIR: I received the other day a notice from your office that the case of "R. O. Shively vs. The Southern Pacific Company" had been set down for hearing upon Monday, December 4, 1893.

My engagements in Court, created prior to your letter, will prevent me from being present in person on that day.

This case has been continued several times during the past year, at the request of the officials and counsel of the Southern Pacific Company. I have offered no strenuous opposition to such continuances, for the reason that I was informed that the Commission had in process of preparation a schedule of rates upon merchandise in which a reduction of ten per cent was aimed at, and also which would be based upon the Western Classification. As both of these changes in the freight schedules of the defendant are in the line of the relief sought by the Shively complaint, I have been content to await developments. I understood that such schedule has been completed and will go into effect January 1, 1894. I would suggest that since this schedule offers partial relief in the direction we have been moving, it would be well to continue the hearing upon the Shively complaint until after the schedule had gone into effect, when the extent of its remedies can be determined by experiment, and when such defects and inequalities in it as are then discovered can be pointed out upon the hearing of this case. For this reason I would respectfully ask that this hearing be continued until after February 1, 1894, and set for such date in that vicinity as shall be agreeable to the Commission.

Yours respectfully,

JOHN E. RICHARDS,
Attorney for R. O. Shively.

Filed in office of Railroad Commissioners, December 4, 1893, 10 A. M.

JAS. V. KELLY,
Secretary.

SAN JOSÉ, CAL., April 17, 1894.

JAS. V. KELLY, *Secretary State Board of Railroad Commissioners:*

DEAR SIR: I received a notification from you the other day that the case of "R. O. Shively vs. Southern Pacific Company," pending before the Commission, had been set for hearing upon April 18, 1894. It is impossible for me to be present on that day, for the reason that I have set for trial in the Superior Court of our county an important case upon that day, and a case which was so set down by the Court some time prior to your notification. There are other reasons, however, why, in my judgment, this case ought not to be hurried to a conclusion. The complaint of Mr. Shively in this matter seeks for two forms of relief at the hands of the Railroad Commission. The first is the adoption of the Western Classification. The second is a general revision of the freight schedules of the Southern Pacific Company and a reduction of tariffs upon the products of the State, as well as upon the merchandise imported into it and carried by the defendant to its destination. When these specific demands were first made through the medium of the Shively complaint, the agents and officers of the defendant insisted before the Commission that it would be impossible to put into effect the Western Classification and to apply its principles to schedules in California. I notice, however, that the action of the Commission of a few months ago, adopting in a modified form the Western Classification, has been acquiesced in by the defendant. I attribute this result to the Shively complaint, and I believe that after the changes of last January in classification have had time to become fully operative, the Commission can again insist upon a yet more complete compliance with the principles of the Western Classification in the schedules of the defendant. When the condition of my legal business gives me leisure I shall be pleased to call up the Shively case, with special reference to this branch of relief, and point out to the Commission the particulars in which the Western Classification may be more completely adopted and enforced. There is another reason why this case should be continued for the present. Last January the Commission promulgated a new freight schedule, and the defendant meekly accepted its terms. That schedule has been in force and effect for about three months. I have observed that the merchants of San Francisco seem to be quite well pleased with that schedule, and are neither chartering ocean steamers nor organizing traffic associations since its adoption. I assume, therefore, that the new schedule is quite favorable to the San Francisco merchants. This fact arouses in my mind the grave suspicion that it is not equally advantageous to the merchant of the interior, and that sooner or later the country storekeeper will wake up to realize that somehow the San Francisco wholesale merchant has the advantage of him in the matter of his freight rates under the schedule recently adopted. The rates have not been in force long enough for this effect to be felt and for a complaint to take form from the interior, and until such time arrives I think the Shively complaint should remain pending before the Commission, as the medium through which the country merchant may make his objections to the present schedule known. There is yet another reason why this case should stand continued for the present at least, and it is this:

When the Shively complaint was filed by me it was based largely upon certain tables and statistics which had been prepared and promulgated

by one J. S. Leeds, who was then posing before the people of California as a master of all the mysteries of railroad schedules. I sought out this miracle among schedule-makers, and asked for his friendship and aid, and of both I received the assurance. The Commission will recall with what integrity these assurances were fulfilled, and with what ability Mr. Leeds increased the obscurity which enfolded the problem of the schedules and finances of the railroads of California. The Commission will also recollect the subsequent proceedings before the Legislature, in which the importance of Mr. Leeds in the early stages was accentuated by his conspicuous absence later on. From all indications this self-blown bladder among traffic managers has about finished his career in California, and will, in the near future, if he does not already, occupy a pillory of public disfavor to which oblivion would be a blessing. I think the Shively complaint should be continued and the case left open, in order that Mr. Leeds may have an opportunity to do penance by appearing as a witness once more therein; to testify that what he doesn't know about freight schedules would fill a volume, and that in his career in California he has played with equal success and ardor the dual part of knave and fool.

Yours respectfully,

JOHN E. RICHARDS,
Attorney for R. O. Shively.

MINUTES OF THE BOARD.

OFFICE STATE BOARD OF RAILROAD COMMISSIONERS, }
SAN FRANCISCO, November 14, 1892. }

The Board met at 10:15 A. M. Present: Commissioners William Beckman, J. M. Litchfield, and J. W. Rea. Commissioner Rea in the chair. The minutes of the previous meeting were read and approved.

The Board took a recess until 11 o'clock A. M., to enable Mr. Richards, attorney for R. O. Shively, to be present.

The Board reassembled at 10:50 A. M. All the Commissioners present. The case of R. O. Shively vs. Southern Pacific Company was called. Commissioner Rea asked Col. R. P. Morgan, expert for the Board, who was present, if his report was ready for the Commission, and after some discussion, moved that the report of Colonel Morgan be now received and read.

Commissioner Litchfield moved as a substitute that said report be received after all other evidence in the case is in. It was so ordered, Commissioner Rea voting no.

Attorney John E. Richards, for the complainant, then read the complaint, and called Mr. C. F. Smurr, General Freight Agent of the Southern Pacific Company, to be sworn.

The Board then took a recess until 1 o'clock P. M.

Reassembled at 1 o'clock P. M. Mr. G. L. Lansing, Secretary and Controller for the Southern Pacific Company, appeared, and was duly sworn.

Attorney Richards asked for an order of the Board, requesting Mr. Lansing to produce, by next Thursday morning, November 17, 1892, before this Board, statements of the amounts paid the leased lines within the State of California for the use of their property for the calendar years 1890, 1891, 1892, and statement of gross receipts of the stations along those lines which comprise the Coast Division, for the same time. Also statement showing operating expenses of the lines comprising the Coast Division for same period.

There being no objection the same was granted and the Secretary directed to take action accordingly.

Col. R. P. Morgan, expert for the State Board of Railroad Commissioners, appeared and was sworn.

At 3:15 P. M. the Board adjourned until Thursday morning, at 10 o'clock.

JAS. V. KELLY,
Secretary.

JAS. W. REA,
President.

OFFICE OF STATE BOARD OF RAILROAD COMMISSIONERS, }
 SAN FRANCISCO, November 17, 1892. }

Board met at 10 o'clock A. M. Present: Commissioners Beckman, Litchfield, and Rea. Commissioner Rea in the chair. The minutes of the previous meeting were read and approved.

The case of R. O. Shively vs. The Southern Pacific Company was called. Col. R. P. Morgan, expert for the Board, was called to the stand. Attorney Richards for the plaintiff asked for an order of the Board directing Col. R. P. Morgan to bring facts, data, etc., before the Board at this time. Commissioner Beckman moved that the request be denied. So ordered, Commissioner Rea voting no. Mr. G. L. Lansing was called as a witness.

The Board took recess at 12 o'clock. Reassembled at 1 o'clock P. M., G. L. Lansing in the witness chair.

Adjourned at 2:30 P. M. until Tuesday, November 22, 1892, at 10 o'clock A. M.

JAS. V. KELLY,
 Secretary.

JAS. W. REA,
 President.

OFFICE STATE BOARD OF RAILROAD COMMISSIONERS, }
 SAN FRANCISCO, November 22, 1892. }

The Board met at 10 o'clock A. M. Present: Commissioners Wm. Beckman, J. M. Litchfield, and J. W. Rea. Commissioner Rea in the chair. The minutes of the previous meeting were read and approved.

The Secretary read a communication from the Interstate Commerce Commission, under date Washington, D. C., November 1, 1892. Ordered placed on file, to be considered at next regular meeting.

The case of R. O. Shively vs. Southern Pacific Company was then called. Mr. G. L. Lansing, Secretary and Controller for the Southern Pacific Company, on the stand.

The Board took a recess until 1 o'clock. Reassembled at 1 o'clock. Mr. Lansing on the stand.

At 2 o'clock P. M., the Board adjourned until Wednesday morning, at 11 o'clock, November 23, 1892.

JAS. V. KELLY,
 Secretary.

JAS. W. REA,
 President.

OFFICE OF THE BOARD OF RAILROAD COMMISSIONERS, }
 SAN FRANCISCO, November 23, 1892. }

The Board met pursuant to adjournment at 11 o'clock A. M. Present: Commissioners Beckman, Litchfield, and Rea. Commissioner Rea in the chair.

Upon motion of Commissioner Litchfield, the reading of the minutes of the previous meeting was dispensed with.

The case of R. O. Shively vs. Southern Pacific Company was called. Mr. G. L. Lansing was recalled as a witness.

Upon motion of Commissioner Beckman, John E. Richards, Esq., attorney for plaintiff, was given permission to take from the office of this Board any schedules or documents necessary for his own information and use, for a reasonable time, upon giving the Secretary a receipt for the same.

Upon motion, the report of Col. R. P. Morgan, expert for this Board, was ordered to be delivered to the Secretary in a sealed condition, and to be kept so sealed until called for by the Board.

The Board took a recess until 1 o'clock.

The Board reassembled at 1:25 P. M. All the Commissioners present.

Colonel Morgan handed his sealed report to the Secretary. Attorney Richards then asked for the production of Colonel Morgan's report.

After discussion the Board adjourned, without taking action in the matter, until Tuesday, November 29, at 10 o'clock A. M.

JAS. V. KELLY,
Secretary.

JAS. W. REA,
President.

OFFICE OF THE BOARD OF RAILROAD COMMISSIONERS, }
SAN FRANCISCO, November 29, 1892. }

The Board met at 10:20 A. M. Present: Commissioners Beckman, Litchfield, and Rea. Commissioner Rea in the chair. The minutes of the last meeting were read and approved.

The case of R. O. Shively vs. The Southern Pacific Company was called. Mr. G. L. Lansing, Secretary of the Southern Pacific Company, in the witness chair.

Mr. Beckman moved that Mr. Lansing be required to furnish the statement of the gross earnings, outside the Coast Division, for the years 1887 to 1891; also statement of gross earnings and gross operating expenses of the Southern Division. Roll call: Commissioner Beckman, aye; Commissioner Rea, aye; Commissioner Litchfield, no. Motion was carried.

Recess was taken until 1 P. M. At 1 P. M. the Board reassembled; all the Commissioners present. Upon motion of Commissioner Litchfield, the next hearing of the case of R. O. Shively vs. The Southern Pacific Company was set for Tuesday, December 6, 1892, at 10 A. M. Commissioner Beckman moved that when the Board adjourn to-day, they meet Wednesday, November 30, 1892, at 11 A. M.

Mr. J. L. Willcutt, Secretary of the Southern Pacific Railroad Company, was called and sworn as a witness.

At 2:35 P. M. the Board adjourned.

JAS. V. KELLY,
Secretary.

JAS. W. REA,
President.

OFFICE OF THE BOARD OF RAILROAD COMMISSIONERS, }
 SAN FRANCISCO, November 30, 1892. }

The Board met at 11 o'clock A. M. Present: Commissioners Wm. Beckman, J. M. Litchfield, and J. W. Rea. Commissioner Rea in the chair. Reading of the minutes of the previous meeting was dispensed with. After some preliminary remarks by the Board, the report of Colonel Morgan was read by that gentleman. At 12:20 P. M., the Board took a recess until 1:15 P. M.

Reassembled at 1:20 P. M.; all the Commissioners present.

Colonel Morgan continued the reading of his report.

Commissioner Litchfield moved a reconsideration of the action of the Board on Tuesday, the 29th inst., adjourning the case of R. O. Shively vs. The Southern Pacific Company until Tuesday, December 6, 1892. So ordered.

On motion of Commissioner Litchfield, the Board adjourned until Friday, December 2, 1892, at 10 A. M., to enable attorney Richards to examine Colonel Morgan on his report.

JAS. V. KELLY,
 Secretary.

JAS. W. REA,
 President.

OFFICE STATE BOARD OF RAILROAD COMMISSIONERS, }
 SAN FRANCISCO, December 2, 1892. }

The Board met at 11 o'clock A. M. Present: Commissioners Wm. Beckman, J. M. Litchfield, and J. W. Rea. Commissioner Rea in the chair. The minutes of the previous meeting were read and approved.

John E. Richards, attorney for R. O. Shively, called Col. R. P. Morgan to the stand as a witness. The question of introducing Colonel Morgan's report as evidence was discussed at length, and the Board took a recess until 1 o'clock P. M. without action thereon.

Reassembled at 1:15 o'clock, and after some further discussion upon the admission of Colonel Morgan's report in evidence, Commissioner Litchfield moved that the case of R. O. Shively vs. Southern Pacific Company, now at issue, be postponed until Wednesday, December 7, at 10 o'clock A. M. So ordered.

The Board then considered the bill of Col. R. P. Morgan, expert for the Board, together with his memorandum of expenses. The same was approved and unanimously recommended to the State Board of Examiners for its approval.

The Board then adjourned until Wednesday, December 7, 1892, at 10 o'clock A. M.

JAS. V. KELLY,
 Secretary.

JAS. W. REA,
 President.

OFFICE STATE BOARD OF RAILROAD COMMISSIONERS, }
SAN FRANCISCO, December 7, 1892. }

The Board met at 10 o'clock A. M. Present: Commissioners William Beckman, J. M. Litchfield, and J. W. Rea. Commissioner Rea in the chair. The minutes of the previous meeting were read and approved.

Mr. G. L. Lansing, Mr. J. L. Willcutt, and Mr. J. S. Leeds were called, and appeared as witnesses, by attorney Richards for the complainant. The Board took a recess at 12 o'clock A. M. until 1 o'clock P. M.

Reassembled at 1:15 P. M.; all the Commissioners present.

Upon motion, Mr. J. S. Leeds was excused until Thursday morning, December 8, 1892, at 10 o'clock.

The Board then adjourned until Thursday morning, December 8, 1892, at 10 o'clock.

JAS. V. KELLY,
Secretary.

JAS. W. REA,
President.

OFFICE STATE BOARD OF RAILROAD COMMISSIONERS, }
SAN FRANCISCO, December 8, 1892. }

The Board met at 10 o'clock A. M. Present: Commissioners William Beckman, J. M. Litchfield, and J. W. Rea. Commissioner Rea in the chair. Reading the minutes of the previous meeting was dispensed with.

Traffic Manager Leeds was recalled by attorney for the complainant, and continued his testimony up to 12 o'clock M., when the Board took a recess until 1 o'clock P. M.

The Board reassembled at 1:35 P. M.; full Board present. Commissioner Rea in the chair.

Mr. Leeds recalled and produced papers asked for at morning session. Adjourned until Tuesday, December 13, 1892, at 10 o'clock A. M.

JAS. V. KELLY,
Secretary.

JAS. W. REA,
President.

OFFICE STATE BOARD OF RAILROAD COMMISSIONERS, }
SAN FRANCISCO, December 14, 1892. }

The Board met at 10 o'clock A. M., pursuant to adjournment. Present: Commissioners Beckman, Litchfield, and Rea. President Rea in the chair.

Mr. Richards, the attorney for complainant, stated that he had arranged for his client to be present at the meeting of the Board, but for some cause unknown Mr. Shively was not present.

Commissioner Litchfield then moved that a communication be sent to all the members of the Senate and Assembly, inviting them to be present at the sessions of the Board, which was adopted.

Commissioner Beckman suggested that they be also notified through the newspapers. So ordered by the Chair, with the statement that the Board had on hand the evidence already taken in the case for their perusal.

After statements from Commissioners Beckman, Litchfield, and Rea relative to the matter of inviting parties aggrieved to file complaints with the Commission for investigation and hearing, the Board, on motion of Commissioner Litchfield, adjourned until December 15, at 10 A. M.

JAS. V. KELLY,
Secretary.

JAS. W. REA,
President.

OFFICE STATE BOARD OF RAILROAD COMMISSIONERS, }
SAN FRANCISCO, December 15, 1892. }

Pursuant to adjournment, the Board met at 10 o'clock A. M. All the Commissioners present. President Rea in the chair.

Upon motion, the reading of the minutes of the previous meeting was dispensed with.

R. O. Shively, the complainant, then appeared before the Board and arose to make a statement in reply to the accusation of Traffic Manager Leeds, that he (Shively) was not acting in good faith, and that he was a stool-pigeon working in the interests of the Southern Pacific Company. He stated that he was not acting in the interests of the Southern Pacific Company, Mr. Rea, or the Railroad Commissioners, but simply represented the interests of the merchants of the interior in general and those of the community of the Santa Clara Valley in particular. He requested that the Traffic Association, the press, the merchants, and the public assist him in his endeavor to have the Southern Pacific rates lowered, which he declared to be an honest and sincere desire on his part.

Mr. J. S. Leeds was then called and took the witness stand.

At 12 o'clock the Board took a recess until 1:45 P. M.

At 1:45 P. M. the Board reassembled. All the Commissioners present. Mr. Leeds recalled to the stand.

Upon motion, the Board adjourned to meet on Tuesday, December 20, 1892, at 10 o'clock A. M.

JAS. V. KELLY,
Secretary.

JAS. W. REA,
President.

OFFICE STATE BOARD OF RAILROAD COMMISSIONERS, }
SAN FRANCISCO, December 20, 1892. }

The Board met at 10 o'clock A. M. Present: Commissioners William Beckman, J. M. Litchfield, and James W. Rea. Commissioner Rea in the chair. The minutes of the last meeting were read and approved.

The case of R. O. Shively vs. Southern Pacific Company was then called. Mr. J. S. Leeds recalled to the witness stand. At 12 o'clock M. the Board took a recess until 1:30 o'clock P. M.

Reassembled at 1:35 P. M. All the Commissioners present, Mr. Leeds on the witness stand. Commissioner Beckman moved that when the Board adjourn to-day, it do so until to-morrow, Wednesday, December 21, 1892, at 10 o'clock A. M. After some discussion the roll was called upon above motion, and carried, Commissioner Rea voting no.

By general consent, the case of R. O. Shively vs. Southern Pacific Company was put over until Wednesday, January 4th, 1893, at 10 o'clock A. M.

JAS. V. KELLY,
Secretary.

JAS. W. REA,
President.

OFFICE STATE BOARD OF RAILROAD COMMISSIONERS, }
SAN FRANCISCO, January 4, 1893. }

The Board met at 10 o'clock A. M. Commissioners Beckman, Litchfield, and Rea present. Commissioner Rea in the chair. The minutes of the previous meeting were read and approved.

The Secretary read a communication from the National City and Otay Railway Company, inclosing revised passenger tariff and schedule. Upon motion of Commissioner Beckman, the same was laid over until the next meeting.

Upon motion of Commissioner Beckman, the further hearing of the case of R. O. Shively vs. The Southern Pacific Company was continued for one week, owing to the absence of witness J. S. Leeds.

A communication was received from Col. Richard P. Morgan, under date of December 23, 1892, stating that urgent demands upon him compelled him to return to his home at Dwight, Ill., and that he would return to California if necessary. Upon motion of Commissioner Litchfield, the Secretary was instructed to notify Colonel Morgan that his presence would be required, and for him to hold himself in readiness to return upon notice by telegram.

Commissioner Rea offered the following resolution:

WHEREAS, The Legislature of the State of California is at present in session; and whereas, the State Board of Railroad Commissioners have for the past several months been frequently and publicly assailed by the Traffic Association of California, through its manager, Mr. J. S. Leeds, and have been charged with dereliction of duty, and with subserviency to railroad interests, and the personal integrity of its members also attacked; and whereas, the said manager of the Traffic Association, after vainly trying to commit this Board to illegal methods of railroad regulation, has widely published and announced officially that it was the purpose of the Traffic Association to have the Railroad Commission abolished by the present Legislature; and whereas, now that the Legislature is in session the said Traffic Association appears, from the report of its legislative committee, to have suddenly abandoned its purpose of abolishing this Commission; and whereas, this Commission believes that it is honestly performing its duty, and proceeding in the only legal manner to the solution of the transportation problem in California; and whereas, the Commission is, and for the past several months has been, engaged in an investigation of the subject of railroad freights and fares in the case of R. O. Shively vs. The Southern Pacific Company; and whereas, during all of the hearing of this case this Commission and its members have been constantly, and we believe dishonestly, assailed by the said J. S. Leeds, as manager of the Traffic Association, and by certain of the newspapers of the State openly known as the organs of the said Traffic Association, some of which have even attempted to levy blackmail upon the complainant in said case; and whereas, this Commission believes that the age of demagoguery has passed in California, and that the dishonest assaults upon public Boards engaged in doing their legal duties by hired and high-priced managers of such private bodies as the Traffic Association, is proper subject of ventilation, and further believes that an investigation of the present and past official acts of the Railroad Commission would be eminently proper, in view of the assaults upon it; therefore, be it

Resolved, That the State Board of Railroad Commissioners insists and urges the Legislature to make such investigation during its present session, and for that purpose suggests that a legislative committee be selected from the members of both houses and irrespective of party; such committee to be composed of honest men above and beyond suspicion of railroad affiliation, influence, or control, which committee shall attend the present sessions of the Commission during the pending inquiry into railroad charges, and thoroughly inform itself and the Legislature as to the integrity and utility of the

Railroad Commission, and also advise the Legislature upon the subject of railroad regulation, and thus share with this Commission the responsibility of a just and speedy solution of the railroad problem in the State of California.

After some discussion, the matter was laid over for one week, upon motion of Commissioner Beckman.

Upon motion of Commissioner Beckman, the Board adjourned until January 11th, at 10 A. M.

JAS. V. KELLY,
Secretary.

JAS. W. REA,
President.

OFFICE STATE BOARD OF RAILROAD COMMISSIONERS, }
SAN FRANCISCO, January 11, 1893. }

The Board met at 10:30 A. M. All the Commissioners present. Commissioner Rea in the chair. The minutes of last meeting were read and approved.

The Secretary read a letter from Mr. Geo. Partridge, under date San Francisco, January 9, 1893; it was received, and the Secretary directed to answer.

The case of R. O. Shively vs. Southern Pacific Company was then called. Traffic Manager J. S. Leeds, the witness with whom the Board wished to proceed, not being present, Commissioner Rea said: "This Commission has tried to suit the convenience of Mr. Leeds, and he has not had the courtesy to telegraph us, making any excuse for his absence, therefore, I move that the Secretary be instructed to consult the Attorney-General in reference to our powers in this matter, and that the Sheriff of Sacramento County be instructed to return Mr. Leeds here to-morrow morning, January 12, 1893, at 10 o'clock."

Commissioner Litchfield moved to amend, "That the Bailiff of this Board be directed to bring Mr. Leeds into the Commission to-morrow morning at 10 o'clock." There being no objection, the motion passed as amended, and the Bailiff was instructed by the Chairman in accordance with the motion.

Adjourned until Thursday morning, January 12, 1893, at 10 o'clock.

JAS. V. KELLY,
Secretary.

JAS. W. REA,
President.

OFFICE STATE BOARD OF RAILROAD COMMISSIONERS, }
SAN FRANCISCO, January 12, 1893. }

The Board met at 10 o'clock A. M., pursuant to adjournment. Present: Commissioners Beckman, Litchfield, and Rea. Commissioner Rea in the chair. The minutes of the previous meeting were read and approved.

The resolution of Commissioner Rea, presented at the meeting of January 4, 1893, was taken up.

Commissioner Litchfield offered the following resolution as an amendment:

WHEREAS, A resolution has been offered by Mr. Schlessinger in the Assembly of this State, recommending the impeachment of members of this Commission, and referred to the Committee on Corporations;

Resolved, That this Commission will not shrink from, but asks for the most rigid investigation as to its acts and the performance of their duties since they assumed the duties of their office.

There being no second to the amendment, the original motion was passed. Commissioner Litchfield voting no.

The Commission then proceeded with the Shively case. Mr. J. S. Leeds took the stand and Mr. Martin proceeded to cross-examine. At 12 m. the Board took a recess till 1 o'clock.

At 1:15 the Commission reassembled and witness J. S. Leeds was recalled.

At 2 p. m. the Board continued the Shively case until Tuesday, January 17, 1893, at 10 o'clock a. m.

The communication and schedule of passenger rates from the National City and Otay Railway Company, filed with this Board December 26, 1892, was taken up and the schedule approved, with the amendment that no extra charge be made as a train rate in cases where the passenger could not purchase a ticket before boarding the train.

The Board then adjourned until January 17, at 10 a. m.

JAS. V. KELLY,
Secretary.

JAS. W. REA,
President.

OFFICE STATE BOARD OF RAILROAD COMMISSIONERS, }
SAN FRANCISCO, January 19, 1893. }

The Board met at 10 o'clock a. m., pursuant to adjournment. Present: Commissioners Beckman, Litchfield, and Rea. Commissioner Rea in the chair. The minutes of the previous meeting were read and approved.

A communication from J. S. Leeds was read by the Secretary, stating his inability to be present at the meeting set for January 17, 1893. A communication from Col. R. P. Morgan, under date Dwight, Ill., January 11th, was read and placed on file.

At 10:30 a. m. the hearing of the Shively case was resumed and witness J. S. Leeds recalled to the stand. The cross-examination was proceeded with by attorney Martin.

At 11:50 o'clock the Board took a recess until 1 p. m.

At 1 o'clock p. m. the Board reassembled. All the Commissioners present. Mr. Leeds was recalled and cross-examination continued.

At 2 p. m. the Board adjourned to meet again on Tuesday, January 24, 1893, at 10 o'clock a. m.

JAS. V. KELLY,
Secretary.

JAS. W. REA,
President.

OFFICE STATE BOARD OF RAILROAD COMMISSIONERS, }
 SAN FRANCISCO, February 27, 1893. }

The Board of Railroad Commissioners met at 10 o'clock A. M. Present: Commissioners Beckman and Litchfield; absent: Commissioner Rea. The minutes of last meeting were read and approved.

The Secretary informed the Board that on January 23, 1893, he received a letter from J. S. Leeds, of the Traffic Association, stating his inability to be present at the meeting to be held January 24th, and that he (the Secretary) communicated with the President of the Board, giving him the contents of Mr. Leeds' letter. Thereupon Commissioner Rea postponed the said meeting until the call of the Chair, and directed the Secretary to so notify the other members of the Commission.

Commissioner Beckman read a communication from Jos. A. Richards, under date of Los Angeles, February 23, 1893, regarding an automatic block coupler. Mr. Beckman explained to the Board that this subject had secured some attention at the last convention of Railroad Commissioners of the United States, held at Washington, D. C., last year, and some legislation is now pending before Congress regarding the same. The communication was received and the Secretary directed to acknowledge the same.

Commissioner Beckman reported to the Board that he would at the next meeting submit a letter of complaint received by him from the Shaw Bros., of Raymond, on wood rates.

The Board then adjourned, subject to call of the Secretary, who shall call a meeting if requested by any member of the Commission.

JAS. V. KELLY,
 Secretary.

JAS. W. REA,
 President.

OFFICE STATE BOARD OF RAILROAD COMMISSIONERS, }
 SAN FRANCISCO, April 12, 1893. }

The Board met at 10:30 A. M. Present: Commissioners J. M. Litchfield and J. W. Rea. Commissioner Rea in the chair. The minutes of the last meeting were read and approved.

A letter was read from Col. R. P. Morgan, under date Dwight, Ill., March 24, 1893, which was received and placed on file.

The Secretary read a call for a National Convention of Railroad Commissioners, to be held at Washington, D. C., on April 19, 1893. Ordered placed on file.

On motion of Commissioner Rea, the case of R. O. Shively vs. The Southern Pacific Company was postponed until June 13, 1893, at 10:30 A. M.

On motion of Commissioner Rea, the Secretary was directed to procure copies of all evidence offered before the various committees of the last Legislature, appertaining to the management of all railroads doing business in the State; also copies of the evidence before the special committee of the State Senate affecting this Commission; also copies of the Journal of both houses for the session for the files of this Board.

The Board then adjourned to the call of the Chair.

JAS. V. KELLY,
 Secretary.

JAS. W. REA,
 President.

OFFICE STATE BOARD OF RAILROAD COMMISSIONERS, }
 SAN FRANCISCO, May 8, 1893. }

The Board met at 10 o'clock A. M. Present: Commissioners Wm. Beckman and Jas. W. Rea. Commissioner Rea in the chair. The minutes of the last meeting were read and approved.

The Secretary read a communication from Richard Gray, Traffic Manager of the Southern Pacific Company, in reply to the letter of complaint from the Frank Tanning Company, of Redwood City, which was received and placed on file.

The Secretary read a letter, under date Raymond, Cal., January 26, 1893, which was received and placed on file, and a copy of the same was ordered served on Mr. C. F. Smurr, General Freight Agent of the Southern Pacific Company.

The Secretary read a letter from John M. Vance, which was ordered placed on file.

The Secretary read a letter from R. L. Dunn, which was ordered placed on file.

Commissioner Beckman then read his report of his tour of investigation of the railroads of the State. It was received and placed on file.

The Board then adjourned.

JAS. V. KELLY,
 Secretary.

J. M. LITCHFIELD,
 President pro tem.

OFFICE STATE BOARD OF RAILROAD COMMISSIONERS, }
 SAN FRANCISCO, June 3, 1893. }

The Board met at 11 o'clock A. M. Present: Commissioners Wm. Beckman and J. M. Litchfield. The minutes of the last meeting were read and approved.

Commissioner Beckman submitted his reports on the California and Nevada and Carson and Colorado railroads. Accepted and ordered placed on file.

The Secretary brought up the subject of his annual report to the Governor, and the Commission approved his action in preparing the same and directed him to comply with the requirements of the Constitution.

The Shively case, which was set for hearing June 13, 1893, was then considered. The Secretary informed the Board that in all probability the attorney for the defendant would be absent from the State at that time. He was instructed to consult the attorneys in the case and ascertain if they would be ready on day set, and if not to fix a date and notify this Board when they would be ready to proceed.

Upon motion of Commissioner Beckman, the Secretary was granted a leave of absence for thirty days, and to select his own time, providing it does not interfere with public interest.

The Board then adjourned to the call of the Chair.

JAS. V. KELLY,
 Secretary.

OFFICE STATE BOARD OF RAILROAD COMMISSIONERS, }
 SAN FRANCISCO, July 29, 1893. }

The Board met at 10:20 A. M. Present: Commissioners Wm. Beckman and J. M. Litchfield. The minutes of the previous meeting were read and approved.

Commissioner Beckman submitted a report of comparisons of freight and passenger rates of Oregon, Washington, and California, made during his recent trip through the before named States, and asked to have the same embodied in the annual report of this Board. So ordered.

A communication was read from the General Manager of the Southern California Railway Company, inviting the Board to be present at the opening of the new depot in the city of Los Angeles, July 29, 1893, to which the Secretary was instructed to respond, stating the inability of the Board to be present.

Adjourned to the call of the Chair.

JAS. V. KELLY,
 Secretary.

OFFICE STATE BOARD OF RAILROAD COMMISSIONERS, }
 SAN FRANCISCO, October 25, 1893. }

The Board met at 10:30 A. M. Present: Commissioners Wm. Beckman, J. M. Litchfield, and J. W. Rea. Commissioner Rea in the chair. The minutes of the last meeting were read and approved.

The Secretary read the complaint of Cunningham & Co. vs. Southern Pacific Company, filed in this office October 12, 1893, and informed the Board that on October 12, 1893, he served a copy of said complaint, together with a summons to appear and answer, as required by the rules of this Board, upon said Southern Pacific Company.

Commissioner Litchfield offered the following resolution, dated San Francisco, October 25, 1893.

WHEREAS, It has been the intention of this Commission to bring about the adoption of the Western Classification for freight on the railroads of the State of California, said classification being almost universally adopted for local business by the great railroad systems west of the Mississippi River; and whereas, pursuant to instructions of the Commission, the Southern Pacific Railroad Company has prepared and submitted to the Commission a proposed new local tariff of freight rates for the transportation of general merchandise, to be governed by the Western Classification, with an average reduction of 10 per cent in its general results to the shippers of merchandise in this State; and whereas, this Commission has examined said proposed new tariff and has determined that it substantially complies with the instructions of this Commission; therefore, be it

Resolved, That the publication of said tariff by said Southern Pacific Company be and is hereby authorized, and the rates embraced in said tariff be and are hereby adopted by this Commission and ordered to become effective on and after the first (1st) day of January, A. D. 1894.

(Signed:)

J. M. LITCHFIELD,
 Commissioner Second District.

(Signed:)

JAS. W. REA,
 Commissioner Third District.

(Signed:)

WM. BECKMAN,
 Commissioner First District.

The resolution was unanimously adopted, and upon motion of Commissioner Beckman, the Secretary was directed to serve a copy of the same upon the Southern Pacific Company. The Board then adjourned.

JAS. W. REA,
 President.

JAS. V. KELLY,
 Secretary.

OFFICE STATE BOARD OF RAILROAD COMMISSIONERS, }
 SAN FRANCISCO, November 13, 1893. }

The Board met at 10:30 A. M. Present: Commissioners J. M. Litchfield and J. W. Rea. Commissioner Rea in the chair. The minutes of the last meeting were read and approved.

The Secretary read a letter from J. C. Martin, Esq., attorney for the Southern Pacific Company, under date November 6, 1893, asking for further time to make answer to complaint of Cunningham & Co. The Secretary informed the Board that he consulted Hon. Bart Burke, attorney for Cunningham & Co., Commissioners J. M. Litchfield, and William Beckman, and there being no objection the time was extended as prayed for, until November 20, 1893.

The Secretary submitted itemized expense account of the Board for month ending October 31, 1893, which was approved.

A letter was received from T. B. Burnett, General Manager of the Los Angeles Terminal Railway Company, under date Los Angeles, November 4, 1893, informing the Board that the Los Angeles Terminal Railway Company desired to reissue their freight traffic schedule, leaving off stations on the San Gabriel Valley Rapid Transit Railroad, inclosing a copy of said schedule, and purposing the same to take effect November 15, 1893. The Secretary was instructed to write Mr. Burnett and ascertain the reason for proposed change.

Upon motion, the case of R. O. Shively vs. Southern Pacific Company, now at issue before this Board, was set for hearing December 4, 1893.

Adjourned to call of the Chair.

JAS. V. KELLY,
 Secretary.

JAS. W. REA,
 President.

OFFICE STATE BOARD OF RAILROAD COMMISSIONERS, }
 SAN FRANCISCO, December 4, 1893. }

Board met at 11 o'clock A. M. Present: Commissioners J. M. Litchfield and J. W. Rea. Commissioner Rea in the chair.

A letter was read by the Secretary from John E. Richards, attorney for R. O. Shively, and on motion of Commissioner Litchfield the further hearing of the Shively case was continued until February 7, 1894. The Secretary was directed to notify Mr. Richards to this effect.

No further business appearing, the Board adjourned to meet at the call of the Chair.

JAS. V. KELLY,
 Secretary.

JAS. W. REA,
 President.

OFFICE STATE BOARD OF RAILROAD COMMISSIONERS, }
 SAN FRANCISCO, February 3, 1894. }

The Board met at 11 o'clock A. M. Present: Commissioners Wm. Beckman and J. M. Litchfield. Commissioner Litchfield in the chair. The minutes of the previous meeting were read and approved.

The Secretary informed the Board that some of the railroad companies doing business in Southern California did not make a satisfactory report to this Board for the year ending 1893, and as the next report of this Commission is very important, having to go before the next Legislature, asked that some action be taken to secure a full and intelligent report from all the railroad companies doing business in the State.

Upon motion of Commissioner Beckman, Commissioner Litchfield and the Secretary of the Board were instructed to visit Southern California, and personally examine the books of the several railroad companies there, and report back to the Commission.

The Board then adjourned to the call of the Chair.

JAS. V. KELLY,
Secretary.

J. M. LITCHFIELD,
President.

OFFICE STATE BOARD OF RAILROAD COMMISSIONERS, }
SAN FRANCISCO, March 26, 1894. }

The Board met at 11 A. M. Present: Commissioners Wm. Beckman and J. M. Litchfield. Commissioner Litchfield in the chair. The minutes of the last meeting were read and approved.

The Secretary read a letter from Southern California Railway Company under date Los Angeles, March 15, 1894, inclosing Tariff No. 4, applying between Los Angeles and Southern California Railway stations, making reductions in rates necessary to put them in line with recent changes made by the Southern Pacific Company; and it appearing from the records that the same is a reduction, Commissioner Beckman moved that the Commission approve the same. Carried, and the Secretary was directed to notify S. B. Hynes, Assistant General Freight Agent of the Southern California Railway Company, to that effect.

It appearing by the records in the case of R. O. Shively vs. Southern Pacific Company, now at issue before the Board, that time of further hearing was left to the attorneys representing both sides in the case, Commissioner Beckman moved that the Secretary be instructed to notify said attorneys that this Board desires to take up and conclude said case, and if possible to arrange so the case can be heard within the next two weeks ending Saturday, April 14, 1894. It was so ordered.

The Board then adjourned to the call of the Chair.

JAS. V. KELLY,
Secretary.

J. M. LITCHFIELD,
President.

OFFICE STATE BOARD OF RAILROAD COMMISSIONERS, }
SAN FRANCISCO, April 10, 1894. }

The Board met at 10:30 A. M. Present: Commissioners Wm. Beckman and J. M. Litchfield. Commissioner Litchfield in the chair. The minutes of the last meeting were read and approved.

The case of R. O. Shively vs. Southern Pacific Company was called.

The complainant not appearing, Commissioner Beckman moved that the case be set for hearing Wednesday, April 18, 1894, at 11 o'clock A. M., and that the Secretary notify the attorneys on both sides accordingly.

So ordered.

The Secretary read a letter from C. F. Smurr, General Freight Agent of the Southern Pacific Company, under date San Francisco, April 7, 1894, together with copies of publication rates issued by Southern Pacific Company. Laid over until next meeting for further examination.

Adjourned to call of Chair.

JAS. V. KELLY,
Secretary.

J. M. LITCHFIELD,
President.

OFFICE STATE BOARD OF RAILROAD COMMISSIONERS, }
SAN FRANCISCO, April 18, 1894. }

Pursuant to adjournment, the Board met at 11 o'clock A. M. Present: Commissioners J. W. Rea and J. M. Litchfield. Commissioner Rea in the chair. The minutes of the last meeting were read and approved.

The schedule of rates submitted by the Southern Pacific Company at a meeting of the Board held April 10, 1894, and laid over for further examination, was, upon motion of Commissioner Litchfield, adopted.

The case of R. O. Shively vs. The Southern Pacific Company, set for hearing this day, was continued, owing to the absence of Commissioner Beckman, and peremptorily set for hearing on Wednesday, the 25th of April, at 11 A. M.

The case of Cunningham & Co. vs. The Southern Pacific Company was called, and Commissioner Rea moved that the Commission try the same at the city of Santa Cruz. Upon that motion the Secretary called the roll. Commissioner Litchfield voted "no," and Commissioner Rea "aye." The case was continued until the next meeting of the Board, for further action.

The Board then adjourned until Wednesday, April 25, 1894, at 11 o'clock A. M.

JAS. V. KELLY,
Secretary.

JAS. W. REA,
President.

OFFICE STATE BOARD OF RAILROAD COMMISSIONERS, }
SAN FRANCISCO, April 26, 1894. }

The Board met at 11 o'clock A. M. Present: Commissioners William Beckman, J. M. Litchfield, and James W. Rea. Commissioner Rea in the chair. The minutes of the last meeting were read and approved.

The Secretary informed the Board that the meeting called for Wednesday, April 25, 1894, was postponed by request of the Chairman of the Board, until the following day, Thursday, April 26, 1894, and all interested parties were notified accordingly.

A publication of freight rates from the Southern Pacific Company,

under date of April 20 and 25, 1894, was received and laid over for further examination.

The case of R. O. Shively vs. Southern Pacific Company was called, and the Secretary read a letter from John E. Richards, attorney for R. O. Shively, asking for further postponement. Ordered on file.

J. C. Martin, attorney for Southern Pacific Company, appeared and asked that the case be dismissed. After some discussion thereon, Commissioner Litchfield offered the following resolution, and moved its adoption:

WHEREAS, Since the filing and hearing of the complaint in this case the Commission has adopted a general schedule of rates on merchandise, based upon the Western Classification, and making a reduction in the average rate previously charged of over 10 per cent, which action is in line of the relief prayed for by the complainant; and whereas, the Commission is satisfied that the rates charged for transportation of passengers are not unreasonable; now, therefore, be it

Resolved, That the case of R. O. Shively vs. The Southern Pacific Company be and is hereby dismissed.

Upon that motion the Secretary was directed to call the roll, with the following result: Commissioners Beckman and Litchfield voting "aye," Commissioner Rea "no." It was adopted.

The Secretary read a letter from the Interstate Commerce Commission, under date of Washington, D. C., April 13, 1894, inviting the Commission to the National Convention of Railway Commissions, etc., to be held in Washington, D. C., May 8, 1894. On motion of Commissioner Rea, Commissioner Litchfield was delegated to represent this Commission at said convention.

The Board then adjourned to the call of the Chair.

JAS. V. KELLY,
Secretary.

JAS. W. REA,
President.

OFFICE STATE BOARD OF RAILROAD COMMISSIONERS, }
SAN FRANCISCO, May 10, 1894. }

The Board met at 11 o'clock A. M. Present: Commissioners Beckman, Litchfield, and Rea. Commissioner Rea in the chair. The minutes of the meetings of April 26 and April 30, 1894, were read and approved.

The rate publications issued by the Southern Pacific Company, under date of April 20th to 30th, inclusive, were read and approved.

The case of Cunningham & Co. vs. Southern Pacific Company was then called for hearing. A letter from the complainant was read by the Secretary, stating it was impossible for them to proceed with the hearing of the case, and making a special request for a continuance of the same to some further date. After discussion, and in compliance with the request made by complainants, Commissioner Beckman moved, and it was ordered, that the hearing be continued to Wednesday, June 27, 1894.

The Secretary submitted Special Tariff No. 3 of the Redondo Railway Company, to take effect May 7, 1894. Upon motion, the same was ordered approved.

The publication of rates issued by the Southern Pacific Company under date of May 5, 1894, was laid over for further examination.

On motion, the Board then adjourned to meet at the call of the Chair.

JAS. V. KELLY,
Secretary.

JAS. W. REA,
President.

MEMORANDUM ACCOUNT.

PALACE HOTEL, SAN FRANCISCO, November 23, 1892.

State of California, by order of the Board of Railroad Commissioners, to Richard P. Morgan, Dr.

1892. November 23—To four months and one third (July 12th to November 23d, inclusive) services as civil engineer and railway expert, examining the railways of the State and making report on the same, at \$1,000 per month.....	\$4,333 33
Paid to assistant	600 00
Paid expense account	1,595 75
Total	\$6,529 08

The above account, amounting to six thousand five hundred and twenty-nine dollars and eight cents, is correct.

(Signed:)

RICHARD P. MORGAN.

STATE OF CALIFORNIA, }
County of San Francisco. } ss.

Col. R. P. Morgan, being first duly sworn, deposes and says, that he is the expert of the State Board of Railroad Commissioners, and that the items constituting the claim hereto attached were incurred in the manner and on the dates shown in said bills or vouchers, and the prices are net, and that the services therein mentioned were actually rendered, and the money actually paid, or to be paid, as therein mentioned, and solely for the benefit of the State.

(Signed:)

RICHARD P. MORGAN.

Subscribed and sworn to before me, this 30th day of November, 1892.

(Signed:)

JAS. W. REA,
President Board of Railroad Commissioners.

REPORTS OF RAILROAD COMPANIES
TO THE
BOARD OF RAILROAD COMMISSIONERS.

DECEMBER 31, 1891, TO JUNE 30, 1893.

REPORTS OF RAILROAD COMPANIES.

SOUTHERN PACIFIC COMPANY.

[For 18 months ending June 30, 1893.]

HISTORY.

1. Name of common carrier making this report: Southern Pacific Company.
2. Date of organization: March 17, 1884.
3. Under laws of what Government, State, or Territory organized: Chartered by Act of State of Kentucky, Chap. 403, approved March 17, 1884; amended by Chap. 601, approved March 21, 1888.
4. The Southern Pacific Company's lines are, for purposes of operation, divided into two systems, known as the Atlantic System and the Pacific System.
 - Atlantic System Lines:* These lines include railroads in the States of Texas and Louisiana, and steamship lines running from New Orleans to Havana, New York, and other ports.
 - Pacific System Lines:* The lines of the Pacific System include the railroads, together with bay and river steamers operated in connection therewith, west of El Paso, Texas, and Ogden, Utah. The lines comprising this system, which include also the Coast Division, are as follows:
 - California Pacific Railroad.
 - Central Pacific Railroad and branches.
 - Northern Railway.
 - Northern California Railway.
 - Oregon and California Railroad.
 - Oregonian Railroad.
 - Portland and Yamhill Railroad.
 - Southern Pacific Railroad of California (Coast and Southern divisions).
 - Southern Pacific Railroad of Arizona.
 - Southern Pacific Railroad of New Mexico.
 - South Pacific Coast Railway (Narrow Gauge).

The tables in this report, exhibiting simply the results of operation, *i. e.*, earnings, operating expenses, and train and traffic statistics, include only the Pacific System, as this embraces all the lines within the State of California. All other tables affecting the Southern Pacific Company as a corporation, include the results for the operation of both Atlantic and Pacific Systems.

ORGANIZATION.

Names of Directors.	Post Office Address.
C. P. Huntington	23 Broad Street, New York.
C. F. Crocker	San Francisco.
T. E. Stillman	23 Broad Street, New York.
T. H. Hubbard	23 Broad Street, New York.
A. N. Towne	San Francisco.
J. C. Stubbs	San Francisco.
N. T. Smith	San Francisco.
S. T. Gage	San Francisco.
H. E. Huntington	San Francisco.
George Crocker	San Francisco.
(Vacancy)	

Date of expiration of terms of Directors: April 5, 1894.

Number of stockholders at date of last election: 119.

Last meeting of stockholders for election of Directors: April 6, 1893.

Post Office address of general office: Fourth and Townsend Streets, San Francisco, and 23 Broad Street, New York.

Post Office address of operating office: Fourth and Townsend Streets, San Francisco

OFFICERS.

Title.	Name.	Location of Office.
Chairman of Executive Committee	(Vacancy)	
President	C. P. Huntington	New York.
First Vice-President	C. F. Crocker	San Francisco.
Second Vice-President	A. N. Towne	San Francisco.
Third Vice-President	J. C. Stubbs	San Francisco.
Secretary and Controller	G. L. Lansing	San Francisco.
Treasurer	N. T. Smith	San Francisco.
Assistant Treasurer	S. H. Davis	New York.
Assistant to Treasurer	H. A. Cummings	San Francisco.
General Solicitor	Wm. S. Herrin	San Francisco.
<i>Pacific System.</i>		
Auditor	E. C. Wright	San Francisco.
General Manager	A. N. Towne	San Francisco.
Chief Engineer	Wm. Hood	San Francisco.
General Superintendent	J. A. Stillman	San Francisco.
Assistant General Superintendent	R. H. Pratt	San Francisco.
Engineer	W. G. Curtis	San Francisco.
Superintendent of Telegraph	F. L. Vandenberg	San Francisco.
Manager for Purchase of Supplies	R. P. Schwerin	San Francisco.
Traffic Manager	Richard Gray	San Francisco.
Assistant Traffic Manager	E. Hawley	New York.
General Freight Agent	C. F. Smurr	San Francisco.
General Passenger and Ticket Agent	T. H. Goodman	San Francisco.
General Baggage Agent	C. L. Crabtree	San Francisco.
Manager of Lines in Oregon	R. Koehler	Portland.

MILES OF ROAD OPERATED UNDER LEASE, JUNE 30, 1893—*Pacific System.*

Name of Road.	Miles.	Total Miles.
CALIFORNIA PACIFIC RAILROAD—		
Vallejo Junction to Vallejo (ferry)	2.00	
Vallejo to Sacramento	60.39	
Davis to Knight's Landing	18.57	
Napa Junction to Calistoga	34.48	
CENTRAL PACIFIC RAILROAD—		115.44
San Francisco to Ogden	883.23	
Niles to San José	17.54	
Roseville to Oregon State line	296.50	
Lathrop to Goshen	146.08	
Oakland local lines (second track, 3.77)	4.84	
Alameda local lines (second track, 5.20)	11.46	
NORTHERN RAILWAY—		1,359.65
West Oakland to Delaware Street	4.15	
West Oakland to Berryman's (second track, 1.54)	5.38	
West Oakland to near Martinez (second track, 26.74)	31.03	
Port Costa to Benicia (ferry)	1.00	
Benicia to Suisun	16.33	
Woodland to Tehama	100.74	
Willows to Fruto	17.10	
Elmira to Rumsey	51.05	
Napa Junction to Santa Rosa	36.70	
Sacramento to Placerville	59.50	
Galt to Lone	27.20	
Woodbridge to Valley Springs (narrow gauge)	29.50	
Woodbridge to Bracks (narrow gauge)	10.70	
NORTHERN CALIFORNIA RAILWAY—		390.38
Oroville to Marysville	25.90	
Marysville to Knight's Landing	27.70	
OREGON AND CALIFORNIA RAILROAD—		53.60
Portland to California State line	366.80	
Portland to Corvallis	96.50	
Woodburn to Natron	92.70	
Albany Junction to Lebanon	11.50	
		567.50

MILES OF ROAD OPERATED—Continued.

Name of Road.	Miles.	Total Miles.
OREGON RAILROAD (NARROW GAUGE)—		
Dundee to Airlie	50.50	
Sheridan Junction to Sheridan	7.00	
PORTLAND AND YAMHILL RAILROAD (NARROW GAUGE)—		57.50
Portland to Dundee		28.50
SOUTHERN PACIFIC RAILROAD OF CALIFORNIA— <i>Coast Division</i> —		
San Francisco to Tres Pinos	100.50	
Carnadero to Santa Margarita	153.10	
Castroville Junction to Lake Majella	19.52	
Pajaro to Santa Cruz	21.20	
Aptos to Monte Vista	7.44	
Hillsdale to Almaden	7.80	
Total Coast Division	309.56	
<i>Southern Division</i> —		
Alcalde to Yuma	551.13	
Florence to Santa Ana	27.60	
Clement Junction to Santa Monica	16.27	
Los Angeles to San Pedro Junction	24.24	
Thenard to Long Beach	3.80	
Studebaker to Whittier	5.90	
Miraflores to Tustin	10.80	
Ontario to Chino	5.70	
Near Martinez to Armona	193.48	
Berenda to Raymond	21.00	
Saugus to Ellwood	91.50	
Fresno to Poso	104.26	
Stockton to Milton	30.00	
Peters to Oakdale	19.00	
Oakdale to Merced	40.60	
Avon to Ramon	19.70	
March 14, 1892. Redlands Junction to Crafton	7.00	
March 14, 1892. San Bernardino to Motor Junction (motor) (second track, 3.20)	7.17	
July 1, 1892. Collis to Fresno	15.39	
October 1, 1892. Fresno to Pollasky	23.70	
December 31, 1892. Declez to Declezville	2.55	
December 31, 1892. Baden to San Bruno	3.67	
December 31, 1892. Santa Monica to Santa Monica Wharf	3.20	
June 12, 1893. Monrovia to Shorbs	10.40	
February 1, 1893. Bakersfield to Asphalto	47.90	
April 15, 1893. Home Junction to Soldiers' Home	1.80	
Total Southern Division	1,287.76	1,597.32
SOUTHERN PACIFIC RAILROAD OF ARIZONA—		
East Bank Colorado River to Arizona and New Mexico line	388.10	
December 1, 1892. Reconstruction: change in line between Yuma and Mescal	4.40	
SOUTHERN PACIFIC RAILROAD OF NEW MEXICO—		392.50
Arizona line to El Paso, Texas (including trackage right over 3.76 miles of G. H. & S. A. Ry., between Texas line and El Paso)		171.06
SOUTH PACIFIC COAST RAILWAY (NARROW GAUGE)—		
San Francisco to Santa Cruz (first track)	80.60	
San Francisco to Santa Cruz (second track)	7.17	
Alameda Junction to 14th Street, Oakland (first track)	1.80	
Alameda Junction to 14th Street, Oakland (second track)	1.79	
Newark to Centreville	3.00	
Campbells to New Almaden	9.60	
Felton to Boulder Creek	7.30	
Junction South Big Trees to Old Felton	1.70	
		104.00
Total Pacific System		4,837.45

In addition to the railroads there are also operated steamers on the Sacramento and Feather Rivers, and ferry and transfer steamers on Bay of San Francisco and tributaries.

REPORT OF SOUTHERN PACIFIC COMPANY.

CAPITAL STOCK.

The total par value of authorized capital stock is \$150,000,000, divided into shares of \$100 each. The total amount issued and outstanding is \$119,047,170. No dividends were declared. The manner of payment for capital stock was as follows:

	Number of Shares.	Cash Realized.
Issued for cash	10,000.00	\$1,000,000 00
Issued for stock of other companies.....	1,180,471.70	118,047,170 00
Totals	1,190,471.70	\$119,047,170 00

FUNDED DEBT.

Class of Bond or Obligation, and Date of Issue and Maturity.	Authorize Issue.	Amount Issued.	Cash Realized.
Steamship bonds, first mortgage, series A— January 1, 1891; January 1, 1911.....	\$3,000,000 00	\$2,929,000 00	\$2,929,000 00

These bonds bear 6 per cent interest, payable in January and July. The amount of interest accruing was \$219,610; amount paid, \$219,610.

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.	Current Liabilities Accrued to and Including June 30, 1893.
Cash	Loans and bills payable
Bills receivable	Audited vouchers and ac- counts
Due from agents	Wages and salaries
Other cash assets (excluding "materials and supplies")..	Net traffic balances due to other companies.....
Due from United States Gov- ernment for transportation of mails, supplies, etc.	Matured interest coupons un- paid (including coupons due July 1)
Balance—current liabilities...	Miscellaneous
	Due from solvent companies and individuals.....
Total	Total

Amount of interest and discount paid during eighteen months upon floating debt and current liabilities, \$83,172 83.

RECAPITULATION.

Account.	Total Amount Outstanding.
Capital stock	\$119,047,170 00
Bonds.....	2,929,000 00
Equipment trust obligations	4,098,344 61
Total	\$126,074,514 61

This company owns no railroad, except through ownership of stock of railroad companies.

PERMANENT IMPROVEMENTS DURING EIGHTEEN MONTHS.

Item.	Expenditures Charged to In- come Account as Permanent Improvements.
Construction :	
Ballast	\$100,238 86
Real estate	3,213 34
Fences	7,937 40
Grading, and bridge and culvert masonry	551 49
Bridges and trestles	51,756 72
Water supply	5,572 69
Other superstructure	7,261 71
Buildings, furniture, and fixtures	120,796 80
Shop machinery and tools	4,057 91
Engineering expenses	51 25
Telegraph line	257 63
Wharfing, etc.	Cr. 1,029 16
Sidings	147,815 60
Castle Crag branch	10,000 00
Other items	3,852 97
Total construction	\$461,232 23
Equipment :	
Passenger cars (tourist and emigrant)	\$9,297 42
Sleeping, parlor, and dining cars	1,905 81
Baggage, express, and postal cars	2,513 34
Combination cars	215 72
Freight cars	301 27
Floating equipment	2,982 27
Total equipment	\$17,215 83
Grand total cost improvements, etc.	\$478,448 06

This company owns no road. Cost of lines under lease is reported by lessee companies.

STOCKS OWNED.

Name.	Par Value.
Southern Pacific Railroad of California	\$65,117,350 00
Southern Pacific Railroad of Arizona	19,995,000 00
Southern Pacific Railroad of New Mexico	6,888,800 00
South Pacific Coast Railway Company	6,000,000 00
Northern Railway Company	12,703,200 00
Northern California Railway Company	1,280,000 00
Oregon and California Railroad Company	3,000,000 00
Morgan's Louisiana and Texas Railroad and Steamship Company	14,994,000 00
Louisiana Western Railroad Company	3,360,000 00
Texas and New Orleans Railroad Company	5,000,000 00
Galveston, Harrisburg, and San Antonio Railway Company	26,532,600 00
New York, Texas, and Mexican Railway Company	615,000 00
Mexican International Railroad Company	4,172,100 00
Austin and Northwestern Railroad Company	716,000 00
Central Texas and Northwestern Railroad Company	200,000 00
Union Compress and Warehouse Company*	16,000 00
Louisiana Sugar Exchange	250 00
Chamber of Commerce and Industry of Louisiana	100 00
New Orleans Board of Trade	100 00
World's Columbian Exposition	20,000 00
Total	\$170,610,500 00

* Bears 8 per cent interest. Dividend received from stock, \$2,560.

Cost of above stock to company, \$121,762,571.

BONDS OWNED.

Name.	Par Value.	Rate.	Income or Dividend Received.
Galveston, Harrisburg, and San Antonio Railway, Western Division, second mortgage.....	\$1,110,000 00	6 per ct.	None.
Gulf, Western Texas, and Pacific Railway, first mortgage (18 months).....	1,453,000 00	5 per ct.	\$108,975 00
Gulf, Western Texas, and Pacific Railway, first mortgage (6 months).....	771,000 00	5 per ct.	19,275 00
Totals.....	\$3,334,000 00	-----	\$128,250 00

Cost of above bonds to company, \$2,333,178 38.

MISCELLANEOUS INCOME.

Item.	Gross Income.	Less Expenses.	Net Miscellaneous Income.
Rental of steamships to Morgan Line.....	\$681,339 97	-----	\$366,805 87
Less insurance.....	-----	\$191,600 00	-----
Sinking fund.....	-----	118,750 00	-----
Miscellaneous.....	-----	4,184 10	-----
Contribution to sinking fund 1892.....	75,000 00	-----	75,000 00
Interest proportion payable by Southern Pacific Co. (a corporation).....	-----	12,196 55	Cr. 12,196 55
Rental of property owned.....	3,600 00	-----	3,600 00
Totals.....	\$759,939 97	\$326,730 65	\$433,209 32

EARNINGS FROM OPERATION—*Pacific System.*

Item.	Total Receipts.	Deductions, etc.	Actual Earnings.
Passenger revenue.....	\$17,084,196 94	-----	-----
Less repayments—tickets redeemed.....	-----	\$61,340 79	-----
Excess fares refunded.....	-----	10,205 84	-----
Other repayments.....	-----	103,975 72	-----
Total deductions.....	-----	\$175,522 35	-----
Total passenger revenue.....	-----	-----	\$16,908,674 59
Mail.....	-----	-----	1,451,858 53
Express.....	-----	-----	685,475 79
Extra baggage and storage.....	-----	-----	210,126 09
Other items.....	-----	-----	705,083 80
Total passenger earnings.....	-----	-----	\$19,961,218 80
Freight revenue.....	\$31,824,145 92	-----	-----
Less repayments—overcharge to shippers.....	-----	\$561,632 58	-----
Other repayments.....	-----	334,225 45	-----
Total deductions.....	-----	\$895,858 03	-----
Total freight earnings.....	-----	-----	30,928,287 89
Total passenger and freight earnings.....	-----	-----	\$50,889,506 69
Other earnings from operation:	-----	-----	-----
Car mileage—balance.....	\$625,616 15	-----	-----
Locomotive mileage—balance.....	145,028 44	-----	-----
Telegraph companies.....	154,770 00	-----	-----
Rents from tracks, yards, and terminals.....	189,015 16	-----	-----
Other sources.....	196,324 87	-----	-----
Total other earnings.....	-----	-----	1,310,754 62
Total gross earnings from operation.....	-----	-----	\$52,200,261 31

OPERATING EXPENSES—*Pacific System.*

Item.	Total.
Maintenance of way and structures :	
Repairs of roadway	\$4,075,664 86
Renewals of rails	622,888 65
Renewals of ties	939,100 64
Repairs of bridges and culverts	911,005 22
Repairs of fences, road crossings, signs, and cattle guards	141,828 19
Repairs of buildings	493,079 67
Repairs of docks and wharves	129,575 49
Repairs of telegraph	5,103 65
Repairs of snowsheds	195,184 86
Other expenses	398,961 46
Total	\$7,912,392 69
Maintenance of equipment :	
Repairs and renewals of locomotives	\$1,583,622 79
Repairs and renewals of passenger cars	946,007 71
Repairs and renewals of freight cars	1,648,705 59
Repairs and renewals of ferry-boats, tugs, floats, barges, and river steamers	194,982 48
Shop machinery, tools, etc.	49,676 51
Other expenses	398,822 47
Total	\$4,821,817 55
Conducting transportation :	
Wages of enginemen, firemen, and roundhousemen	\$2,469,529 13
Fuel for locomotives	5,608,037 45
Water supply for locomotives	209,444 99
All other supplies for locomotives	109,175 22
Wages of other trainmen	1,816,731 13
All other train supplies	192,085 79
Wages of switchmen, flagmen, and watchmen	558,945 60
Expenses of telegraph, including train dispatchers and operators	637,613 88
Wages of station agents, clerks, and laborers	2,461,255 77
Station supplies	123,871 38
Switching charges—balance	24,231 09
Car mileage—balance	486,347 37
Loss and damage	216,053 83
Injuries to persons	299,879 98
Barges, floats, tugs, ferry-boats, and river steamers, expenses of, including wages, fuel, and supplies	846,533 28
Locomotive mileage—balance	123,312 88
Sleeping and parlor cars—expenses	232,714 32
Other expenses	125,577 24
Total	\$16,540,340 33
General expenses :	
Salaries of officers	\$532,590 08
Salaries of clerks	929,089 66
General office expenses and supplies	73,786 16
Agencies, including salaries and rent	340,521 98
Advertising	155,443 65
Commissions	26,472 74
Expense of traffic associations	27,182 55
Rents for tracks, yards, and terminals	242,304 75
Legal expenses	590,009 53
Stationery and printing	158,543 64
Other general expenses	193,104 87
Total	\$3,269,049 61
Recapitulation of expenses :	
Maintenance of way and structures	\$7,912,392 69
Maintenance of equipment	4,821,817 55
Conducting transportation	16,540,340 33
General expenses	3,269,049 61
Grand total	\$32,543,600 18
Percentage of operating expenses to earnings	62.34

RENTALS PAID.

Name of Road.	Interest on Bonds Guaranteed.	Cash.	Total.
Rent paid for leased roads:			
<i>Pacific System.</i>			
Southern Pacific Railroad of California.....	\$4,029,762 22	\$1,175,180 65	\$5,204,942 87
Southern Pacific Railroad of Arizona.....	900,000 00	267,086 51	1,167,086 51
Southern Pacific Railroad of New Mexico.....	376,200 00	160,251 91	536,451 91
South Pacific Coast Railway.....	330,000 00		330,000 00
Northern Railway.....	821,085 00	626,956 45	1,448,041 45
Northern California Railway.....	70,875 00		70,875 00
Central Pacific Railroad.....	4,965,185 00	1,360,000 00	6,325,185 00
Oregon and California Railroad.....	1,273,850 00	Cr. 441,180 14	832,669 86
Portland and Willamette Valley Railway.....		13,287 55	13,287 55
Portland and Yamhill Railroad.....		15,393 69	15,393 69
California Pacific Railroad.....		900,000 00	900,000 00
Union Pacific Railway.....		30,000 00	30,000 00
Central Pacific Railroad trackage at Marysville.....		2,700 00	2,700 00
Galveston, Harrisburg, and San Antonio Railway.....		11,895 68	11,895 68
San Joaquin Valley Railroad.....		18,750 00	18,750 00
San Bernardino and Redlands Railroad.....		7,783 34	7,783 34
Totals.....	\$12,766,957 22	\$4,148,105 64	\$16,915,062 86
<i>Atlantic System.</i>			
Morgan's Louisiana and Texas Railroad and Steamship Co.....	\$678,132 96	\$626,371 95	\$1,304,504 91
Iberia and Vermilion Railroad.....		556 50	556 50
Louisiana Western Railroad.....	201,600 00	186,960 56	388,560 56
Galveston, Harrisburg, and San Antonio Railway.....	1,539,390 00	Cr. 115,299 65	1,424,090 35
Texas and New Orleans Railroad.....	419,410 00	712,564 90	1,131,974 90
Gulf, Western Texas, and Mexican Railway.....	128,250 00	Cr. 260,720 87	Cr. 132,470 87
New York, Texas, and Mexican Railway.....	92,895 00	Cr. 39,342 33	53,552 67
Texas and Pacific Railway—Alexandria Extension.....		15,930 00	15,930 00
Buffalo, Baysee, Ship Channel Company.....	800 00		800 00
Totals.....	\$3,060,477 96	\$1,127,021 06	\$4,187,499 02
Other rentals paid:			
<i>Pacific System.</i>			
Terminal property at San Francisco, etc.....		\$191,489 03	\$191,489 03
River steamer—Central Pacific Railroad.....		1,520 00	1,520 00
Ferry steamer—Central Pacific Railroad.....		8,578 92	8,578 92
Ferry steamer—South Pacific Coast Railway.....		5,216 23	5,216 23
Ferry steamer—California Pacific Railroad.....		18,000 00	18,000 00
River steamer, etc.—Marysville line.....		1,537 95	1,537 95
Terminal at Portland.....		67,938 60	67,938 60
Miscellaneous.....		1,647 75	1,647 75
Ogden Union Depot.....		13,500 00	13,500 00
Totals.....		\$309,428 48	\$309,428 48
<i>Atlantic System.</i>			
Ocean steamships.....		\$681,339 97	\$681,339 97
Houston shop privileges.....		30,037 32	30,037 32
Creosote works privileges.....			
Totals.....		\$711,377 29	\$711,377 29
Total Pacific System.....	\$12,766,957 22	\$4,457,534 12	\$17,224,491 34
Total Atlantic System.....	3,060,477 96	1,838,398 35	4,898,876 31
Grand total.....	\$15,827,435 18	\$6,295,932 47	\$22,123,367 65

INCOME ACCOUNT.

Gross earnings from operation—Pacific System	\$52,200,261 31	
Atlantic System	19,932,992 36	
Less operating expenses—Pacific System	\$32,543,600 18	
Atlantic System	14,394,599 10	
Income from operation—Pacific System	\$19,656,661 13	
Atlantic System	5,538,393 26	\$25,195,054 39
Miscellaneous income, less expenses	\$433,209 32	
Rentals received—Pacific System	\$705,054 50	
Atlantic System	125,641 88	
	830,696 38	
Income from other sources		1,394,715 70
Total income		\$26,589,770 09
Deductions from income:		
Interest on funded debt accrued	\$219,610 00	
Interest on interest-bearing current liabilities accrued, not otherwise provided for	83,172 83	
Rents, including interest guaranteed on bonds	22,123,367 65	
Taxes	1,878,109 27	
Other deductions	1,229,018 33	
Betterments and additions—income	478,448 06	
Total deductions from income		26,011,726 14
Net income		\$578,043 95
Surplus from operations of year ending December 31, 1891 ..	\$2,974,167 68	
Less readjustment, locomotive renewal, and betterment— Central Pacific Railroad Company	251,628 28	
	\$2,722,539 40	
Stock acquired of the Oregon and California Railroad Com- pany	3,000,000 00	
		5,722,539 40
Surplus on June 30, 1893		\$6,300,583 35

FINANCIAL OPERATIONS FOR THE EIGHTEEN MONTHS.

Resources.		Appropriation of Resources.	
Net income from operation ..	\$25,195,054 39	Interest on funded debt paid ..	\$219,610 00
Net income from other rail- road sources	830,696 38	Other interest paid	83,172 83
Net income from other prop- erties	564,019 32	Reduction on floating debt ..	71,000 00
Net amount realized from stock issued	189,000 00	Permanent improvements ..	478,448 06
Net amount realized from bonds issued	1,100,000 00	Equipment	277,425 80
Net increase floating debt ..	1,764,232 65	Securities purchased	3,718,600 00
Net amount from sales of securities	525 00	Other properties purchased ..	1,810,538 30
Receipts from other sources ..	3,000,000 00	Increase of cash assets	440,941 34
		Increase of other assets	61,717 88
		Other expenditures	1,480,646 61
		Taxes	1,878,109 27
		Rentals	22,123,367 65
Total	\$32,643,577 74	Total	\$32,643,577 74

SECURITY FOR FUNDED DEBT.

As security for steamship bonds, first mortgage, Class A, this company has given a mortgage on seven steamships.

GENERAL BALANCE SHEET.

Assets.	Liabilities.
Stocks of other companies owned	Capital stock
\$121,762,571 00	\$119,047,170 00
Bonds of other companies owned	Funded debt
2,333,178 38	2,929,000 00
Other permanent investments	Current liabilities
4,108,311 03	4,098,344 61
Materials and supplies	Accrued interest on funded debt not yet payable
5,192,267 21	1,096,679 66
Sinking fund	Profit and loss
75,450 00	6,300,583 35
Total	Total
\$133,471,777 62	\$133,471,777 62

IMPORTANT CHANGES DURING THE EIGHTEEN MONTHS.

<i>Extension of Road:</i> By Southern Pacific Railroad of California—	
1892—Mar. 14—Redlands Junction to Crafton (constructed)	7.00 miles.
July 1—Collis to Fresno (constructed)	15.39 miles.
Dec. 31—Declez to Declezville (constructed)	2.55 miles.
Dec. 31—Baden to San Bruno (constructed)	3.67 miles.
Dec. 31—Santa Monica to Santa Monica Wharf (constructed)	3.20 miles.
1893—Feb. 1—Bakersfield to Asphalt (constructed)	47.90 miles.
Apr. 15—Home Junction to Soldiers' Home	1.80 miles.
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1892—Oct. 1—Fresno to Pollasky (leased from San Joaquin Valley Railroad Company)	81.51 miles.
Mar. 14—San Bernardino to Motor Junction (leased from San Bernardino and Redlands Railroad Company)	23.70 miles.
1893—June 12—Shorbs to Monrovia (purchased)	7.17 miles.
By Southern Pacific Railroad of Arizona—	10.40 miles.
1892—Dec. 1—Reconstruction—change in line between Yuma and Mescal	4.40 miles.
By Central Pacific Railroad—	
1892—June 30—Alameda local line taken up63 miles.
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	126.55 miles.

September 1, 1892. The Portland and Willamette Valley Railway, which had been operated by a receiver from February 5, 1892, was purchased by the Portland and Yamhill Railroad Company. The latter immediately leased the road—23.50 miles—to the Southern Pacific Company.

Capital stock to the amount of \$189,000 was issued for the purpose of acquiring additional stock of proprietary and affiliated companies.

Bonds were issued under Southern Pacific Company steamship mortgage of January 1, 1891, to the amount of \$1,100,000; \$71,000 were redeemed during the eighteen months.

Stock of the Oregon and California Railroad Company, of the par value of \$3,000,000, was acquired in consideration of the guaranty by this company of certain first mortgage bonds.

CONTRACTS, AGREEMENTS, ETC.—*Pacific System.*

1. *Express Companies.*—Contracts with Wells, Fargo & Co. provide that the railroad shall transport express matter, and payment shall be made for such service at agreed rates for the matter actually transported.

2. *Mails.*—Rates were fixed by the United States Government. On the Central and Southern Pacific Railroads these rates are subject to the terms of the several Acts of Congress granting aid for the construction of said railroads.

3. *Sleeping, Parlor, or Dining Car Companies.*—Sleeping cars are operated by the Pullman Palace Car Company, which company owns an interest in the cars. The net profit or loss from their operation is divided in proportion to the interest owned by each company.

4. *Freight or Transportation Companies or Lines.*— } These contracts principally concern
 5. *Other Railroad Companies.*— } interstate transportation.
 6. *Steamboat or Steamship Companies.*— }

7. *Telegraph Companies.*—Telegraph lines are operated jointly by the Western Union Telegraph Company and this company, under contracts entered into by the several leased railroads. Telegraph lines of South Pacific Coast Railway are operated jointly with Pacific Postal Telegraph Cable Company.

8. *Other Contracts.*—The Central Pacific Railroad, the Southern Pacific Railroad, and the Oregon and California Railroad each received aid in its construction from the United States, and is subject by the Acts granting such aid to certain restrictions and conditions regarding the transportation of freight, passengers, and mails. These Acts of Congress constitute contracts between the railroads and the United States.

EMPLOYÉS AND SALARIES—*Pacific System.*

Class.	Number.	Total Compensation.	Average Daily Compensation.
General officers.....	79	\$535,682 76	\$14 44
General office clerks.....	586	941,534 11	3 42
Station agents.....	530	611,970 12	2 49
Other station men.....	1,260	1,475,920 98	2 49
Enginemen.....	727	1,533,868 02	4 49
Firemen.....	759	884,495 52	2 48
Conductors.....	364	703,215 54	4 11
Other trainmen.....	808	1,197,170 10	3 16
Machinists.....	491	760,960 68	3 30
Carpenters.....	1,121	1,574,063 82	2 99
Other shopmen.....	2,584	3,030,992 62	2 49
Section foremen.....	594	747,603 00	2 68
Other trackmen.....	4,700	3,465,040 68	1 57
Switchmen, flagmen, and watchmen.....	421	582,250 14	2 95
Telegraph operators and dispatchers.....	240	380,668 86	3 38
Employés—account floating equipment.....	357	436,876 02	2 61
All other employés and laborers.....	817	1,337,658 84	3 49
Totals.....	16,438	\$20,199,971 81	\$2 62

PASSENGER AND FREIGHT, AND TRAIN MILEAGE.

Item.	Tonnage, Passengers, etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue.....	27,228,621	
Number of passengers carried one mile.....	791,734,438	
Average distance carried—miles.....	29.07	
Total passenger revenue.....		\$16,908,674 59
Average amount received from each passenger.....		62.09
Average receipts per passenger per mile.....		02.13
Passenger earnings per mile of road (4,837.45 miles).....		4,126 39
Passenger earnings per train-mile.....		1 69
Freight traffic:		
Number of tons carried of freight earning revenue.....	9,460,222	
Number of tons carried one mile.....	1,973,237,485	
Average distance haul of one ton—miles.....	208.58	
Total freight revenue.....		30,928,287 89
Average amount received for each ton of freight.....		3 27
Average receipts per ton per mile.....		01.56
Freight earnings per mile of road (4,837.45 miles).....		6,393 50
Freight earnings per train-mile.....		2 29
Passenger and freight:		
Passenger and freight revenue.....		50,889,506 69
Passenger and freight earnings per mile of road (4,837.45 miles).....		10,519 90
Total earnings per mile of road, including mail, express, etc.....		10,790 86
Train mileage:		
Miles run by passenger trains.....	11,508,964	
Miles run by freight trains.....	12,614,201	
Miles run by mixed trains.....	1,186,823	
Total mileage trains earning revenue.....	25,309,988	
Miles run by switching trains.....	3,798,551	
Miles run by construction and other trains.....	1,609,767	
Grand total train mileage.....	30,718,306	
Mileage of loaded freight cars.....	162,365,570	
Mileage of empty freight cars.....	55,889,101	
Average number of freight cars in train.....	16.16	
Average number of loaded cars in train.....	12.02	
Average number of empty cars in train.....	4.14	
Average number of tons of freight in train.....	146.11	
Average number of tons of freight in each loaded car.....	12.15	

FREIGHT TRAFFIC MOVEMENT—(Company's material included)—*Pacific System.*

Commodity.	Total Freight Tonnage.	Per Cent.
Products of agriculture :		
Grain	1,080,795	11.44
Flour	168,402	1.78
Other mill products	113,147	1.20
Hay	259,687	2.74
Tobacco	8,013	.08
Cotton	2,141	.02
Fruit and vegetables	408,116	4.33
Other	82,275	.88
Products of animals :		
Live stock	365,929	3.86
Dressed meats	19,727	.21
Other packing-house products	10,221	.11
Poultry, game, and fish	16,641	.18
Wool	39,845	.42
Hides and leather	27,656	.29
Other	11,267	.12
Products of mines :		
Anthracite and bituminous coal	312,048	3.31
Coke	61,709	.65
Ores	94,089	.99
Stone, sand, and other like articles	462,379	4.89
Base metals, pig or bar	27,956	.29
Other	61,391	.65
Products of forest :		
Lumber	852,200	9.01
Wood	298,660	3.15
Other	19,440	.20
Manufactures :		
Petroleum and other oils	202,012	2.14
Sugar	135,061	1.42
Naval stores	470	.005
Iron—pig and bloom	24,913	.26
Iron and steel rails	24,977	.26
Other castings and machinery	34,842	.37
Bar and sheet metal	47,200	.50
Cement, brick, and lime	221,967	2.35
Agricultural implements	24,341	.25
Wagons, carriages, tools, etc.	37,038	.39
Wines, liquors, and beers	208,115	2.20
Household goods, and furniture	33,364	.35
Other	310,227	3.23
Merchandise	1,233,365	13.03
Miscellaneous : other commodities not mentioned above	229,504	2.43
Company freight	1,889,092	19.97
Total tonnage	9,460,222	100.00

MILEAGE OF ROAD OPERATED.—*Pacific System.*

Line in Use.	Total Mileage Operated.	Acquired During 18 Months.	Iron Rails.	Steel Rails.	Ferry.
Miles of single track	4,837.45	126.55	206.70	4,621.06	9.69
Miles of second track	49.41	3.20	.81	48.60	
Miles of yard track and sidings	967.04	75.72	967.04		
Total mileage operated (all tracks) .	5,853.90	205.47	1,174.55	4,669.66	9.69

MILEAGE OF LINE BY STATES AND TERRITORIES.

State or Territory.	Total Mileage, Excluding Trackage Rights.	Line Operated under Trackage Rights.	Iron Rails.	Steel Rails.	Ferry.
California	3,016.51	122.15	142.71	2,864.11	9.69
Nevada	448.73			448.73	
Oregon	653.50		63.99	589.51	
Texas	3.76			3.76	
Arizona	393.01	4.40		393.01	
New Mexico	167.30			167.30	
Utah	154.64			154.64	
Total mileage operated (single track)	4,837.45	126.55	206.70	4,621.06	9.69

DESCRIPTION OF EQUIPMENT—*Pacific System.*

Item.	Added During 18 Months.	Total June 30, 1893.	With Train Brake.	With Automatic Coupler.
Locomotives:				
Passenger and freight	Inc. 23	683	675	
Switching	Dec. 2	37	37	
Total locomotives	Inc. 21	720	712	
Cars in passenger service:				
First-class passenger cars	Inc. 19	443	440	443
Second-class passenger cars	Dec. 9	93	93	93
Combination passenger cars	Inc. 4	47	47	47
Tourist cars	Dec. 1	73	73	73
Dining cars	Inc. 1	5	5	5
Parlor cars		3	3	3
Sleeping cars	Inc. 12	92	92	92
Baggage, express, and postal cars	Inc. 3	185	184	185
Other cars in passenger service		10	10	10
Totals	Inc. 29	951	947	951
Cars in freight service:				
Box cars	Inc. 563	9,473	8,751	145
Flat cars	Dec. 36	4,582	3,731	
Stock cars	Dec. 1	22	17	
Coal cars	Inc. 33	605	605	
Tank cars	Dec. 85	2	2	
Refrigerator cars	Dec. 539	31	31	5
Totals	Dec. 65	14,715	13,137	150
Cars in company's service:				
Gravel cars	Dec. 2	105		
Derrick cars		13	11	
Caboose cars	Inc. 15	259	3	
Other road cars	Inc. 92	237	130	5
Totals	Inc. 105	614	144	5
Total cars owned	Inc. 69	16,280		
Cars leased:				
Flat	Dec. 20			
Grand total cars	Inc. 49	16,280	14,228	1,106

The Westinghouse train-brake is used. The Miller automatic coupler is used on all cars, excepting refrigerators, on which the James coupler is used.

RENEWALS OF RAILS AND TIES.

New rails laid during eighteen months: Steel, 28,399.48 tons. Average price per ton at distributing point, \$50.

New ties laid during eighteen months: Redwood, 1,350,875; mountain pine, 665,479; total, 2,016,350. Average price at distributing point, 52 cents.

CONSUMPTION OF FUEL BY LOCOMOTIVES—*Pacific System.*

Locomotives.	Coal— Tons.	Wood— Cords.	Total Fuel Consumed— Tons.	Miles Run.	Average lbs. Consumed per Mile.
Passenger.....	280,976	54,776	308,363	11,508,964	53.6
Freight.....	514,104	76,460	552,335	13,296,003	83.1
Switching.....	59,252	10,073	64,288	3,116,749	41.2
Construction.....	32,851	12,745	39,224	1,609,767	48.7
Mixed.....	28,912	10,185	34,004	1,186,823	53.9
Totals.....	916,095	164,239	998,214	30,718,306	64.9
Average cost at distributing point.....	\$5 35	\$3 92	\$5 56		

ACCIDENTS TO PERSONS IN CALIFORNIA.

Kind of Accident.	Employés.		Passengers.		Others Not Trespassing.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Coupling and uncoupling.....	6	-----	-----	-----	-----	-----
Collisions.....	5	-----	-----	-----	-----	-----
Derailments.....	5	-----	-----	-----	-----	-----
Other causes.....	21	694	6	163	114	260
Totals.....	37	694	6	163	114	260

CHARACTERISTICS OF ROAD.

Reported by lessor companies.

BRIDGES, TRESTLES, TUNNELS, ETC.—*Pacific System.*

Bridges in California: Iron, 40; wooden, 222.

Trestles in California: Aggregate length, 350,482 feet.

Tunnels in California: 70; aggregate length, 49,551 $\frac{24}{100}$ feet; minimum length, 85 feet; maximum length, 6,986 feet 6 inches.

Gauge of track: 2,858.45 miles of 4 feet 8 $\frac{1}{2}$ inches; 143.37 miles of 3 feet.

The company operates 4,837.45 miles of telegraph line for train purposes.

Number of stations on all roads operated by this company in California: 1,035.

STATE OF CALIFORNIA,
(City and County of San Francisco.) } ss.

We, the undersigned, A. N. Towne, Vice-President, and G. L. Lansing, Secretary, of the Southern Pacific Company, on our oath, do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

A. N. TOWNE,
Vice-President.
G. L. LANSING,
Treasurer.

Subscribed and sworn to before me, this eleventh day of September, 1893.

E. B. RYAN,
Notary Public.

SOUTHERN PACIFIC RAILROAD COMPANY.

[For 18 months ending June 30, 1893.]

HISTORY.

1. Name of common carrier making this report: Southern Pacific Railroad Company.
2. Date of organization: November 3, 1892, under general laws.
3. Under laws of what Government, State, or Territory organized: Under general laws of State of California; also Acts of Congress of July 27, 1866 (14 U. S. Stats., p. 292), and March 3, 1871 (16 U. S. Stats., p. 573).
4. Names of constituent companies:

Name of Company.	Incorporated.
The San Francisco and San José Railroad Company.....	August 18, 1860.
Southern Pacific Railroad Company.....	December 2, 1865.
Santa Clara and Pajaro Valley Railroad Company.....	January 2, 1868.
California Southern Railroad Company.....	January 22, 1870.
Southern Pacific Railroad Company.....	October 12, 1870.
Amended.....	April 15, 1871.
Southern Pacific Branch Railroad Company.....	December 23, 1872.
Southern Pacific Railroad Company.....	August 19, 1873.
Los Angeles and San Pedro Railroad Company.....	February 18, 1868.
Southern Pacific Railroad Company.....	December 18, 1874.
San José and Almaden Railroad Company.....	March 2, 1886.
Pajaro and Santa Cruz Railroad Company.....	June 3, 1884.
Monterey Railroad Company.....	January 24, 1880.
Monterey Extension Railroad Company.....	January 6, 1886.
Southern Pacific Branch Railway Company.....	April 12, 1886.
San Pablo and Tulare Railroad Company.....	July 19, 1871.
San Pablo and Tulare Extension Railroad Company.....	February 7, 1887.
San Ramon Valley Railroad Company.....	April 25, 1888.
Stockton and Copperopolis Railroad Company.....	November 17, 1877.
Stockton and Tulare Railroad Company.....	December 2, 1887.
San Joaquin Valley and Yosemite Railroad Company.....	February 15, 1886.
Los Angeles and San Diego Railroad Company.....	October 10, 1876.
Los Angeles and Independence Railroad Company.....	January 8, 1875.
Long Beach, Whittier, and Los Angeles County Railroad.....	December 17, 1887.
Long Beach Railroad Company.....	October 31, 1887.
Southern Pacific Railroad Extension Company.....	February 21, 1888.
Ramona and San Bernardino Railroad Company.....	April 25, 1888.
Southern Pacific Railroad Company.....	May 14, 1888.
Amended.....	November 2, 1892.

5. Authority for consolidation: General laws of the United States and of the State of California.

6. Name of original corporation, and law under which organized: The Southern Pacific Company; organized under the general railroad law of the United States and laws of the State of California.

7. Carrier operating the road of this company: Southern Pacific Company.

CAPITAL STOCK.

The total par value of the capital stock authorized is \$90,000,000, divided into shares of a par value of \$100. The total amount issued and outstanding is \$66,097,000. No dividends were declared. The manner of payment for capital stock was as follows:

	Number of Shares.	Cash Realized.
Issued for cash.....	28,962	*\$2,838,600
Issued for construction.....	623,284	62,328,400
Issued in part payment for bonds of old consolidated roads.....	14,100	1,410,000
Totals.....	666,346	\$66,577,000

*\$2,824,200 for 28,242 shares full paid; \$14,400 for 720 shares 20 per cent paid.

ORGANIZATION.

Names of Directors: Chas. F. Crocker, H. E. Huntington, A. N. Towne, F. S. Douty, Chas. Mayne, N. T. Smith, J. L. Willcutt, all of San Francisco.

Date of expiration of terms of Directors: April 11, 1894.

Total number of stockholders at date of last election, 17.

Date of last meeting of stockholders for election of Directors, April 12, 1893.

Post Office address of general office: Box 2008, San Francisco, Cal.

Post Office address of operating office: Southern Pacific Company, Box 2328, San Francisco, Cal.

OFFICERS.

Title.	Name.	Location of Office.
Chairman of the Board	Charles F. Crocker	San Francisco.
President	Charles F. Crocker	San Francisco.
First Vice-President	H. E. Huntington	San Francisco.
Secretary	J. L. Willcutt	San Francisco.
Treasurer	N. T. Smith	San Francisco.
General Solicitor	W. F. Herrin	San Francisco.
Assistant Counsel	H. J. Brown and J. I. Foulds.	San Francisco.
Chief Engineer	Wm. Hood	San Francisco.
Land Commissioner	Jerome Madden	San Francisco.
General Agent and Attorney	C. P. Huntington	New York.

Other officers are reported by the Southern Pacific Company, lessee.

FUNDED DEBT.

Class of Bond or Obligation, and Date of Issue and Maturity.	Authorized Issue.	Amount Issued.	Cash Realized.
S. P. R. R. Co., first mortgage coupon, 30-year, 6 per cent:			
Series A—Apr. 1, 1875; Apr. 1, 1905	\$15,000,000 00	\$13,123,500 00	\$13,123,500 00
Series B—Oct. 1, 1875; Oct. 1, 1905	5,000,000 00	4,734,000 00	4,734,000 00
Series C—Oct. 1, 1876; Oct. 1, 1906	5,000,000 00	4,153,000 00	4,153,000 00
Series D—Oct. 1, 1876; Oct. 1, 1906	5,000,000 00	4,040,000 00	4,040,000 00
Series E—Apr. 1, 1882; Apr. 1, 1912	5,000,000 00	3,247,000 00	3,247,000 00
Series F—Apr. 1, 1882; Apr. 1, 1912	5,000,000 00	1,996,000 00	1,996,000 00
Series G	6,000,000 00		
Totals	\$46,000,000 00	\$31,293,500 00	\$31,293,500 00
S. P. R. R. Co., first mortgage coupon, 50-year, 5 per cent:			
Oct. 1, 1888; Oct. 1, 1938	38,000,000 00	12,258,000 00	12,258,000 00
Now bearing interest		92,000 00	92,000 00
S. P. Branch Ry. Co., first mortgage coupon, 50-year, 6 per cent:			
Apr. 1, 1887; Apr. 1, 1937	9,000,000 00	3,578,000 00	3,578,000 00
Stockton and Copperopolis R. R. Co., first mortgage coupon, 30-year, 5 per cent:			
Jan. 1, 1875; Jan. 1, 1905	500,000 00	500,000 00	500,000 00
Grand totals	\$93,500,000 00	\$47,721,500 00	\$47,721,500 00

Interest on above bonds (paid by lessee).

Class of Bond.	Rate.	Payable.	Amt. Accrued.	Amt. Paid.
S. P. R. R. Co., first mortgage, 30-year coupons	6	Apr.—Oct. ..	\$2,836,154 72	\$2,843,407 22
S. P. R. R. Co., first mortgage, 50-year coupons	5	Apr.—Oct. ..	834,087 50	823,600 00
S. P. Branch Railway Co., first mortgage, 50-year coupons	6	Apr.—Oct. ..	322,020 00	314,850 00
Stockton and Copperopolis R. R. Co., first mortgage, 30-year coupons	5	Jan.—July ..	37,500 00	37,737 50
Totals			\$4,029,762 22	\$4,019,594 72

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.		Current Liabilities Accrued to and Including June 30, 1893.	
Cash	\$275,425 38	Audited vouchers and accounts	\$799 55
Bills receivable	500 00	Sinking fund uninvested	154,144 85
Other cash assets (excluding "materials and supplies")	767,377 73	Miscellaneous	51,544 71
Southern Pacific Company, for rolling stock in	720,810 15	Trustees land mortgage	474,549 68
		Balance—cash assets	1,083,074 47
Total	\$1,764,113 26	Total	\$1,764,113 26

RECAPITULATION.

Account.	Amount Outstanding.
Capital stock	\$66,577,000 00
Funded debt	47,721,500 00
Floating debt, balance of (assets)	1,083,074 47

The number of miles of road is 1,824.816. As the first mortgage bonds are a lien upon the lands granted by the United States Government, the amount of bonds per mile of road is constantly changing and cannot be stated accurately.

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS.

Item.	Expenditures during 18 Months Charged to Income Account as Permanent Improvements.	Credits—Property and Material Sold.	Differences or Net Additions to Property, etc.
Construction:			
Real estate	\$19,243 14		\$19,243 14
Fences	4,511 12		4,511 12
Grading, and bridge and culvert masonry	90,526 00		90,526 00
Bridges and trestles	16,599 59		16,599 59
Reconstruction—Rio to Yuma	30,000 00		30,000 00
Other superstructure	55,378 55		55,378 55
Buildings, furniture, and fixtures	36,944 84		36,944 84
Shop machinery and tools		Cr. \$919 57	Cr. 919 57
Engineering expenses	110 23		110 23
Telegraph line	23 03		23 03
Wharfing, etc.		Cr. 1,285 66	Cr. 1,285 66
Sidings and yard extensions	95,301 20		95,301 20
Road built by contract	3,202,850 00		3,202,850 00
Purchase of constructed road	8 60	Cr. 14 00	Cr. 5 40
Other items	5,000 00		5,000 00
Total construction	\$3,556,496 30	\$2,219 23	\$3,554,277 07
Equipment:			
1 Locomotive	\$11,858 54	Differences.	Differences.
91 Locomotives		\$1,015,032 20	\$1,003,173 66
8 Passenger cars and change in others	46,591 47		
49 Passenger cars		445,482 44	398,890 97
Sleeping, parlor, and dining cars, change in	1,634 49		
21 Dining cars		6,000 00	4,365 51
Freight cars, change in	697 00		
1344 Freight cars		866,848 01	866,151 01
Total equipment	\$60,781 50	\$2,333,362 65	\$2,272,581 15
Grand total cost construction, equipment, etc.	\$3,617,277 80	\$2,335,581 88	\$1,281,695 92

Grand total cost of construction and equipment to December 31, 1891, \$122,663,359 66; net additions during eighteen months, \$1,281,695 92; total cost to June 30, 1893, \$123,945,055 58; cost per mile (1,824.816 miles), \$67,921 94.

INCOME ACCOUNT.

Income from lease of road.....	\$1,175,180 65	
Income from land sales, \$294,937 91; less principal on bonds redeemed, \$40,750 25	254,187 66	
Interest earned on sinking fund investment.....	51,804 85	
Total income		\$1,481,173 16
Deductions from income:		
Salaries and maintenance of organization.....	\$21,002 06	
Land Department expenses	75,223 23	
Depreciation in rolling stock	381,113 49	
Taxes (or granted lands)	20,650 85	
Total deductions from income.....		497,989 63
Net income		\$983,183 53
Income applicable to redemption of bonds.....	\$254,187 66	
Income of sinking funds	151,804 85	
Total		405,992 51
Surplus from operations of 18 months ending June 30, 1893.....		\$577,191 02
Surplus on December 31, 1891		2,167,939 03
Surplus from operations ending June 30, 1893		\$2,745,130 05

FINANCIAL OPERATIONS FOR EIGHTEEN MONTHS.

Resources.		Appropriation of Resources.	
Net income from lease.....	\$1,175,180 65	Taxes	\$20,650 85
Net amount realized from stock issued.....	1,441,700 00	Reduction of funded debt 6 per cent bonds	628,500 00
Net amount realized from 5 per cent bonds issued.....	975,000 00	Reduction of floating debt	1,416,950 63
Net amount from sales of land	254,187 66	Sinking fund.....	149,974 85
Net amount from sales of securities, etc.....	786,000 00	Permanent improvements—equipment, constructing new road	1,281,695 92
Interest from sinking fund.....	51,804 85	Increase of cash assets.....	177,132 98
Income from land sales—cash.....	399,639 62	Increase of other assets	905,941 69
Income from land sales—notes	337,885 26	Salaries of maintenance and organization	21,002 06
Income from sinking fund.....	151,804 85	Land Department expenses..	75,223 23
		Income applicable to depreciation in rolling stock.....	381,113 49
		Redemption of bonds.....	254,187 66
		Income of sinking funds of company.....	151,804 85
		Land fruit fund.....	109,024 88
Total	\$5,573,202 89	Total	\$5,573,202 89

GENERAL BALANCE SHEET.

Assets.	Liabilities.
Cost of road and equipment.....	Capital stock.....
\$123,945,055 58	\$66,577,000 00
Bonds of other companies owned	Funded debt.....
92,000 00	47,721,500 00
Bills receivable on land sales.....	Profit and loss:
2,541,530 39	Income from land sales for redemption of bonds.....
Cash and current assets.....	10,595,580 00
1,083,074 47	Income for sinking funds..
Sinking fund	1,332,944 85
835,944 85	General income.....
Land fruit fund	2,745,130 05
474,549 68	
Total	Total
\$128,972,154 97	\$128,972,154 97

STOCKS OWNED.

This company owns no stock.

BONDS OWNED.

Southern Pacific Railroad Co. first mortgage, 50-year, 5 per cent bonds; total par value, \$92,000.

IMPORTANT CHANGES DURING THE EIGHTEEN MONTHS.

Extension of road put in operation:

Bakersfield to Asphalto	48.057 miles.
Santa Monica extension to Shore End, and wharf	2.350 miles.
And branch to Soldiers' Home	2.971 miles.
Baden to South San Francisco Station	1.513 miles.
San Bruno toward San Francisco	2.159 miles.
Declez to Declezville	2.552 miles.
Redlands Junction to Crafton	7.190 miles.
Collis to Fresno	15.154 miles.
Fresno to Pollasky	24.112 miles.
New stock issued: For constructed road	\$1,441,700 00
New bonds issued: For constructed road	975,000 00

SECURITY FOR FUNDED DEBT.

Class of Bond or Obligation.	What Road Mortgaged.	Miles.
First mortgage Southern Pacific Railroad Company 6 per cent bonds.....	San Francisco to Tres Pinos	100.490
	Huron to east bank Colorado River, near Yuma	530.439
	Los Angeles to San Pedro	24.650
	Carnadero to San Miguel	125.993
	Mojave to Needles	242.507
	Huron to Alcalde	20.559
	Hillsdale to Almaden	7.711
	Pajaro to Santa Cruz	21.200
	Aptos to New Monte Vista	6.767
	Castroville to Lake Majella	19.554
	Martinez to Armona	193.275
	Avon to San Ramon	20.269
	Collis via Fresno to Poso	117.429
	Peters to Merced	59.262
First mortgage Southern Pacific Railroad Company 5 per cent bonds.....	Berenda to Raymond	21.000
	Florence to Santa Ana	27.820
	Miraflores to Tustin	11.703
	Los Angeles (Clement Junction) to Santa Monica	19.180
	Branch to Soldiers' Home	2.971
	Studebaker to Whittier	5.914
	Long Beach Junction to Long Beach	4.023
	Ontario to Chino	5.780
	Near Bakersfield to Asphalto	48.057
	Santa Margarita to Cuesta	2.700
	Baden to South San Francisco Station	1.513
	San Bruno toward San Francisco	2.159
	Declez to Declezville	2.552
	Redlands Junction to Crafton	7.190
First mortgage Southern Pacific Branch Railway Company 6 per cent bonds.....	Fresno to Pollasky	24.112
	San Pedro to Point Fermin	2.915
	Saugus N.W. to Ellwood	91.500
	San Miguel S.E. to Santa Margarita	27.802
First mortgage Stockton and Copperopolis Railroad Company 5 per cent bonds.....	Stockton to Milton	25.820
	Total miles	1,824.816

All equipment is mortgaged.

Income mortgaged: To pay S. P. R. R. Co. first mortgage 6 per cent bonds, a sinking fund of \$100,000 per year, commencing in 1882; also gross receipts from sales of land. To pay S. P. R. R. Co. first mortgage 5 per cent bonds, a sinking fund of \$20,000 per year, commencing in 1898. To pay S. P. Branch Railway first mortgage 6 per cent bonds, a sinking fund of \$50,000 per year, commencing in 1897.

CHARACTERISTICS OF ROAD

Working Divisions or Branches.	Length—Miles.	Alignment.			Profile.							
		Number of Curves.	Aggregate Length of Curved Line—Miles	Length of Straight Line—Miles	Length of Level Line—Miles	Number of Ascending Grades.	Sum of Ascents of Ascending Grades—Feet	Aggregate Length of Ascending Grades—Miles	Number of Descending Grades.	Sum of Descents of Descending Grades—Feet	Aggregate Length of Descending Grades—Miles	
Coast Division—												
San Francisco to Tres Pinos	100.490	70	14.316	86.174	19.708	32	1,241,190	50.403	27	724,930	30.379	
Carnadero to San Miguel	125.993	198	33.132	92.861	26.447	69	1,075,558	68.786	59	602,118	30.760	
San Miguel to Cuesta	30.502	110	13.795	16.707	3.077	26	759,508	22,044	18	111,466	5.381	
Castroville to Lake Majella	19.554	46	6.593	12.961	4.228	24	411,900	8.741	23	351,700	6.585	
Pajaro to Santa Cruz	21.200	76	7.656	13.544	3.298	22	468,600	8.122	23	473,500	9.780	
Aptos to Monte Vista	6.767	109	3.946	2.821	0.151	2	820,600	6.616				
Hillsdale to Almaden	7.711	33	2.590	5.121	1.892	11	200,300	5.819				
San Bruno northerly toward San Francisco.	2.159	5	1.050	1.109	0.329	3	13,115	0.902	3	18,300	0.928	
Baden to South San Francisco	1.513	3	0.523	0.990	0.012	2	10,530	0.340	12	37,400	1.161	
Southern Division—												
Alcalde to east bank of Colorado River	550.998	438	110.430	440.568	77.288	93	9,261,600	243.710	80	9,009,600	230,000	
Ontario to Chino	5.780	4	0.816	4.964					1	269,240	5.780	
Declez to Declezville	2.552	5	0.999	1.553	0.307	2	62,513	0.749	1	107,400	1.496	
Redlands Junction to Crafton.	7.190	11	2.257	4.933	0.265	2	623,376	6.395	2	31,200	0.530	
Florence to Santa Ana	27.820	4	2.599	25.221	2.595	12	128,000	10.398	15	149,300	14.827	
Clement Junction to shore end of Point Los Angeles wharf	19.180	21	5.682	13.496	4.100	8	125,250	3.935	16	334,958	11.145	
Los Angeles to San Pedro and branch to Ft. Firmin	27.565	36	6.399	21.166	3.322	6	113,471	2.430	10	352,767	21.813	
Therapd to Long Beach	4.023	3	1.028	2.995	0.514	5	34,495	1.619	4	23,761	1.860	
Studebaker to Whittier	5.914	8	1.513	4.401	0.947	5	153,672	4.327	5	12,462	0.640	
Miraflores to Fustin.	11.703	19	2.708	8.995	1.582	9	174,805	4.849	8	219,332	5.272	
Saugus to Ellwood	91.500	225	33.388	58.112	14.190	62	878,300	25.696	68	1,911,131	51.614	
Bakersfield to Asphalto	48.057	23	6.297	41.760	15.134	55	885,428	14,204	47	175,737	13.719	
Collis to Fresno	15.154	7	1.425	13.729	5.098	14	78,276	3.939	5	10,000	1.117	
Berenda to Raymond	21,000	76	7.950	13,050	3,428	33	789,630	14,671	22	87,469	2,901	
Stockton to Milton	25,820	24	3.790	22,021	2,058	9	384,700	21,801	7	17,700	1,961	
Peters to Merced	59,262	37	8.236	51,026	19,218	33	422,055	22,694	37	352,444	17,350	
Avon to San Ramon	20,269	31	5.659	14,610	3,493	12	498,238	15,345	7	41,365	1,431	
Near Martinez to Armona	193,275	32	15.170	178,105	59,083	175	690,300	80,783	143	461,435	53,409	

Fresno to P'oso.....	102,275	30	11,165	91,110	20,438	108	637,559	43,584	95	513,455	38,253
Home Junction to Soldiers' Home.....	2,971	7	1,218	1,753	---	2	208,021	2,604	1	30,482	0,367
Fresno to Pollasky.....	24,112	48	4,789	19,313	4,363	32	217,600	13,496	18	150,094	6,253
Mojave to Needles.....	242,507	199	45,443	197,064	21,229	22	3,010,700	86,685	36	5,283,500	134,393
Totals.....	1,824,816	1,938	362,581	1,462,235	317,824	890	24,379,380	800,687	793	21,895,286	706,305

DESCRIPTION OF ROAD.

Date When the Road or Portions Thereof Were Opened for Public Use.	Date of Opening.
From San Francisco to Menlo Park	October 17, 1863.
From San Francisco to San José	January 16, 1864.
From San Francisco to Perrys	January 11, 1869.
From San Francisco to Gilroy	March 13, 1869.
From San Francisco to Pajaro	November 27, 1871.
From San Francisco to Salinas	November 1, 1872.
From San Francisco to Soledad	August 12, 1873.
From Baden to South San Francisco Station	August 31, 1892.
From San Bruno toward San Francisco	August 31, 1892.
From Carnadero to Hollister	July 31, 1870.
From Carnadero to Tres Pinos	August 12, 1873.
Southerly:	
From Soledad to Kings	July 20, 1886.
From Soledad to San Ardo	August 20, 1886.
From Soledad to San Miguel	October 18, 1886.
From Soledad to Paso Robles	October 31, 1886.
From Soledad to Templeton	March 16, 1886.
From Soledad to Santa Margarita	January 13, 1889.
Northerly:	
From Saugus to Santa Paula	February 8, 1887.
From Saugus to San Buenaventura	May 18, 1887.
From Saugus to Carpenteria	July 1, 1887.
From Saugus to Santa Barbara	August 19, 1887.
From Saugus to Ellwood	December 21, 1887.
From Alcalde to Huron	July 14, 1888.
From Huron to Goshen	February 1, 1877.
From Goshen to Tipton	July 25, 1872.
From Goshen to Delano	July 14, 1873.
From Goshen to 10 miles south of Lerdo	August 1, 1874.
From Goshen to Summer	October 26, 1874.
Branch from Bakersfield to Asphalto	February 1, 1893.
From Goshen to Caliente	April 26, 1875.
From Goshen to Keenes	May 26, 1876.
From Goshen to Mojave	August 9, 1876.
From Goshen to Tunnel	September 6, 1876.
From Tunnel to San Fernando	January 1, 1876.
From San Fernando to Los Angeles	April 15, 1874.
From San Fernando to Spadra	April 15, 1874.
Branch from Ontario to Chino	February 17, 1891.
Branch from Declez to Declezville	December 31, 1892.
Branch from Redlands Junction to Crafton	March 14, 1892.
From San Fernando to Colton	July 16, 1875.
From San Fernando to Indio	May 29, 1876.
From Indio to Dos Palmas	March 8, 1876.
From San Fernando to Pilot Knob	April 29, 1877.
From San Fernando to east bank of Colorado River, near Yuma	May 23, 1877.
From Mojave to Calico	November 13, 1882.
From Mojave to Amboy	February 12, 1883.
From Mojave to Goffs	March 19, 1883.
From Mojave to Needles	July 1, 1883.
From Mojave to junction with A. & P. R. R.	August 9, 1883.
From Los Angeles to Wilmington	October 26, 1869.
From Los Angeles to San Pedro	August 15, 1882.
From Hillsdale to Almaden	November 16, 1886.
From Pajaro to Santa Cruz	June 4, 1881.
From Aptos to New Monte Vista	June 28, 1890.
From Castroville to Borden	January 11, 1880.
From Castroville to Monterey	September 12, 1881.
From Castroville to Lake Magella	August 1, 1889.
Branch from Avon to San Ramon	June 7, 1891.
From Martinez to Tracy	September 3, 1873.
From Martinez to Newman	July 1, 1888.
From Martinez to Los Baños	November 1, 1889.
From Martinez to Armona	August 28, 1891.
From Fresno to Porterville	July 1, 1888.
From Fresno to Poso	December 24, 1890.
From Collis to Fresno	July 1, 1892.
From Pollasky to Fresno	October 1, 1892.
From Berenda to Raymond	May 1, 1886.
From Florence to Nietos	April 15, 1874.

DESCRIPTION OF ROAD—Continued.

Date When the Road or Portions Thereof Were Opened for Public Use.	Date of Opening.
From Florence to Anaheim.....	January 14, 1875.
From Florence to Santa Ana.....	December 17, 1877.
From Miraflores to Tustin.....	September 15, 1888.
From Los Angeles to Santa Monica.....	December —, 1875.
From Los Angeles to Soldiers' Home.....	April 15, 1893.
From Studebaker to Whittier.....	March 16, 1888.
From Thenard to Long Beach.....	February 20, 1888.
From Stockton to Milton.....	February —, 1871.
From Peters to Oakdale.....	February —, 1871.
From Peters to Merced and extension.....	February 2, 1891.

LANDS GRANTED BY THE UNITED STATES GOVERNMENT.

To What Railroad Company.	Acres per Mile.	Number of Miles.
Southern Pacific of California.....	12,800	942

On account of conflicting and overlapping grants, adverse claims, arbitrary restrictions, and desert lands not worth the cost of survey, it is impossible to state the quantity of lands that will inure to the Southern Pacific Railroad Company, or to estimate the value thereof.

LANDS OR PROPERTY DONATED BY STATES, COUNTIES, ETC.

State of California donated half interest in 60 acres of land at Mission Bay, San Francisco, with improvements.

City of Los Angeles donated 19 acres in city of Los Angeles, with improvements.

Right of way included in contract for construction of road.

SUBJECTS REPORTED UPON BY LESSEE.

All details under the following headings are reported upon by the Southern Pacific Company, the lessee of the road of this company:

- Property Operated.
- Earnings from Operation.
- Operating Expenses.
- Rentals Paid.
- Contracts, Agreements, Etc.
- Employés and Salaries.
- Passenger and Freight, and Train Mileage.
- Freight Traffic Movement.
- Description of Equipment.
- Mileage of Road Operated.
- Renewals of Rails and Ties.
- Consumption of Fuel by Locomotives.
- Accidents to Persons.
- Bridges, Trestles, Tunnels, Etc.
- Telegraph.

STATE OF CALIFORNIA, }
 City and County of San Francisco. } ss.

We, the undersigned, Charles F. Crocker, President, and J. L. Willcutt, Secretary, of the Southern Pacific Railroad Company, on our oath, do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

CHARLES F. CROCKER,
 President.
 J. L. WILLCUTT,
 Treasurer.

Subscribed and sworn to before me, this twenty-ninth day of August, 1893.

E. B. RYAN,
 Notary Public.

CENTRAL PACIFIC RAILROAD COMPANY.

[For 18 months ending June 30, 1893.]

HISTORY.

1. Name of common carrier making this report: Central Pacific Railroad Company.
 2. Date of organization: August 22, 1870.
 3. Under the laws of what Government, State, or Territory organized: Incorporated under the laws of the State of California and of the United States. California: General railroad law of 1861, approved May 20, 1861. United States: 12 Stat. 489; 13 Stat. 356; 14 Stat. 239.
 4. Names of the constituent companies:
 - I. *Central Pacific Railroad Company*. Consolidated June 23, 1870.
Central Pacific Railroad Company of California, chartered June 23, 1861; amended October 8, 1864.
Western Pacific Railroad Company, chartered December 13, 1862----- } Western Pacific Railroad Company, consolidated November 2, 1869.
San Francisco Bay Railroad Company, chartered September 25, 1865----- }
 - II. *California and Oregon Railroad Company*. Consolidated December 18, 1869.
California and Oregon Railroad Company, chartered June 30, 1865----- } California and Oregon Railroad Company, consolidated January 16, 1868.
Marysville Railroad Company, chartered November 29, 1867----- }
Yuba Railroad Company, chartered November 17, 1862----- }
 - III. *San Francisco, Oakland, and Alameda Railroad Co.* Consolidated June 29, 1870.
San Francisco and Alameda Railroad Company, chartered March 25, 1863--- } San Francisco and Alameda Railroad Company, consolidated October 15, 1868.
San Francisco, Alameda, and Stockton Railroad Co., chartered Dec. 8, 1863--- }
San Francisco and Oakland Railroad Company, chartered October 21, 1861. }
 - IV. *San Joaquin Valley Railroad Company*. Chartered February 5, 1868.
- The above four roads were consolidated August 22, 1870, under the name of the Central Pacific Railroad Company.
5. Authority: General railroad laws of California.
 6. Not reorganized.
 7. Carrier operating the road of this company: Southern Pacific Company.

ORGANIZATION.

Names of Directors.	Post Office Address.
C. P. Huntington	23 Broad Street, New York.
H. E. Huntington	San Francisco.
T. H. Hubbard	23 Broad Street, New York.
Charles F. Crocker	San Francisco.
A. N. Towne	San Francisco.
G. L. Lansing	San Francisco.
H. A. Cummings	San Francisco.
C. E. Brotherton	London.
(Vacancy)	

Date of expiration of terms of Directors: April 10, 1894.

Number of stockholders at date of last election: 1,681.

Last meeting of stockholders for election of Directors: April 11, 1893.

Post Office address of general office: Fourth and Townsend Streets, San Francisco, Cal., and No. 23 Broad Street, New York City, N. Y.

Post Office address of operating office: Fourth and Townsend Streets, San Francisco, Cal.

CAPITAL STOCK.

The total par value of capital stock authorized is \$100,000,000, divided into shares of a par value of \$100 each. The total amount issued and outstanding is \$68,000,000.

During the eighteen months a dividend of 3 per cent, amounting to \$2,018,265, was declared. Dividends paid are on \$67,275,500 capital stock, \$724,500 being owned by the company.

Manner of payment for capital stock: Number of shares issued, 680,000; cash realized on amount issued, \$68,000,000. There have been so many consolidations that it is impossible to correctly trace the manner of payment for all the capital stock. It was all issued for cash, or its equivalent in material, labor, or service.

OFFICERS.

Title.	Name.	Location of Office.
President	(Vacancy)	
First Vice-President	C. P. Huntington	23 Broad Street, New York.
Second Vice-President	Charles F. Crocker	San Francisco.
Third Vice-President	A. N. Towne	San Francisco.
Secretary and Auditor	W. W. Thompson	San Francisco.
Treasurer	H. E. Huntington	San Francisco.
Assistant Treasurer	H. A. Cummings	San Francisco.
General Solicitor	William F. Herrin	San Francisco.
Chief Engineer	William Hood	San Francisco.
Land Commissioner	William H. Mills	San Francisco.

Operating officers reported by Southern Pacific Company, lessee.

FUNDED DEBT.

Class of Bond or Obligation, and Date of Issue and Maturity.	Amount of Authorized Issue.	Amount Outstanding.
C. P. R. R. first mortgage, A—July 1, 1865; July 1, 1895	\$3,000,000 00	\$2,995,000 00
C. P. R. R. first mortgage, B—July 1, 1866; July 1, 1896	1,000,000 00	1,000,000 00
C. P. R. R. first mortgage, C—July 1, 1866; July 1, 1896	1,000,000 00	1,000,000 00
C. P. R. R. first mortgage, D—July 1, 1866; July 1, 1896	1,390,000 00	1,383,000 00
C. P. R. R. first mortgage, E—Jan. 1, 1867; Jan. 1, 1897	4,000,000 00	3,997,000 00
C. P. R. R. first mortgage, F—Jan. 1, 1868; Jan. 1, 1898	4,000,000 00	3,999,000 00
C. P. R. R. first mortgage, G—Jan. 1, 1868; Jan. 1, 1898	4,000,000 00	3,999,000 00
C. P. R. R. first mortgage, H—Jan. 1, 1868; Jan. 1, 1898	4,000,000 00	3,999,000 00
C. P. R. R. first mortgage, I—Jan. 1, 1868; Jan. 1, 1898	3,525,000 00	3,511,000 00
W. P. R. R. old issue—Dec. 1, 1865; Dec. 1, 1895	1,970,000 00	{ *111,000 00
W. P. R. R. first mortgage, A—July 1, 1869; July 1, 1899	765,000 00	{ 1,859,000 00
W. P. R. R. first mortgage, B—July 1, 1869; July 1, 1899		{ 765,000 00
California and Oregon, A—January 1, 1868, extended to January 1, 1918	6,000,000 00	5,982,000 00
California and Oregon, B—January 1, 1872, extended to January 1, 1918	7,200,000 00	4,358,000 00
California and Oregon, B—January 1, 1872; January 1, 1892		6,000 00
San Joaquin Valley—October 1, 1870; October 1, 1900	6,080,000 00	6,080,000 00
C. P. Land Grant—Oct. 1, 1870, extended to Oct. 1, 1900	10,000,000 00	{ 2,908,000 00
50-year bonds of 1936—October 1, 1886; October 1, 1936	16,000,000 00	{ 56,000 00
50-year bonds of 1939—April 1, 1889; April 1, 1939		{ 11,000,000 00
Totals	\$73,930,000 00	\$59,008,000 00

Interest on above bonds (paid by Southern Pacific Company, lessee):

Class of Bond.	Rate.	When Payable.	Amount Accrued.	Amount Paid.
C. P. R. R. first mortgage	6	Jan.—July.	\$2,329,470 00	\$2,338,740 00
W. P. R. R. bonds (old issue)	6	June—Dec.		
W. P. R. R. first mortgage, series A and B.	6	Jan.—July.	236,160 00	268,350 00
California and Oregon, series A	5	Jan.—July.	448,650 00	449,390 00
California and Oregon, series B.	5, 6	Jan.—July.	326,850 00	216,225 00
San Joaquin Valley	6	April—Oct.	547,200 00	545,340 00
C. P. Land Grant	5	April—Oct.	236,825 00	249,125 00
50-year bonds of 1936	6	April—Oct.	5,040 00	5,040 00
50-year bonds of 1939	5	April—Oct.	825,000 00	823,800 00
Totals			\$4,965,185 00	\$5,081,440 00

*\$111,000 of W. P. R. R. bonds, series A, are held to take up or exchange for those of old issue, outstanding.

†\$642,000 Land Grant bonds redeemed during the year.

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.		Current Liabilities Accrued to and Including June 30, 1893.	
Cash	\$975,829 13	Loans and bills payable	\$1,500,000 00
Bills receivable	49,665 34	Audited vouchers and accounts	250,086 22
Due from solvent companies and individuals	1,921,969 74	Sinking funds uninvested	1,320,101 43
Due from U. S. Government over all requirements	1,068,161 67	Dividends not called for	66,475 00
		Matured interest coupons unpaid (including coupons due July 1)	6,050 00
		Trustees land-grant mortgage	465,904 64
		Balance—cash assets	407,008 59
Total	\$4,015,625 88	Total	\$4,015,625 88

RECAPITULATION.

Account.	Total Amount Outstanding.
Capital stock	\$68,000,000 00
Funded debt bonds	59,008,000 00
United States bonds	27,855,680 00
Total	\$154,863,680 00

Capital stock and funded debt cover railroads, telegraph lines, rolling stock, ferry and river steamers, etc., also all lands granted by the United States. The amount per mile of road, therefore, cannot be correctly stated.

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS.

Total cost construction, equipment, etc., to December 31, 1891, \$168,963,326 83; total cost to June 30, 1893, \$170,799,030 67; net additions during eighteen months, \$1,835,703 84. Impossible to give details, the road being leased by Southern Pacific Company.

INCOME ACCOUNT.

Income from lease of road	\$1,360,000 00	
Sinking fund:		
Requirements (paid by lessee)	\$185,000 00	
Interest on investment	361,076 29	
	546,076 29	
Dividends on stocks owned	412 50	
Interest on bonds owned	21,634 95	
Land sales and interest	238,124 83	
United States requirements (paid by lessee)	577,048 33	
Total income		\$2,743,296 90
Deductions from income:		
Sinking fund	\$546,076 29	
United States requirement	577,048 33	
Land sales, etc., applicable to redemption of land bonds	238,124 83	
Total deductions from income		1,361,249 45
Net income		\$1,382,047 45
Dividends—common stock: February, 1892, 1 per cent; August, 1892, 1 per cent; February, 1893, 1 per cent	\$2,018,265 00	
Locomotive betterments and renewals (1885-92), proportion payable	57,287 30	
Expenses incurred prior to lease of April 1, 1885	4,040 00	
Total		2,079,592 30
Deficit from operations of 18 months ending June 30, 1893		\$697,544 85
Surplus on January 1, 1892		3,407,858 34
Surplus on June 30, 1893		\$2,710,313 49

STOCKS OWNED.

Name.	Par Value.
16,800 shares Newport News and Mississippi Valley Co.	\$1,680,000 00
275 shares Chesapeake and Ohio Railway Co.	27,500 00
34,495 shares Coos Bay (Oregon) Coal Co.	3,449,500 00
7,245 shares Central Pacific Railroad Co.	724,500 00
River transportation lines	160,000 00
233 shares Colfax and Forest Hill Commercial Co.	4,660 00
Total	\$6,046,160 00

Cost to company, \$1,510,709 22.

The stock of the river transportation lines yielded an income of \$21,600. The Colfax and Forest Hill stock paid 15 cents per share, amounting to \$34 95. Total income from above stock, \$21,634 95.

BONDS OWNED.

Fractional United States bond; amount held, \$120, bearing 6 per cent interest; interest is collected by lessee.

Chesapeake and Ohio Railway general mortgage bonds; amount held, \$55,000 (sold in February, 1893). Income received, \$412 50.

GENERAL BALANCE SHEET.

Assets.		Liabilities.	
Cost of road and equipment.	\$170,799,030 67	Capital stock	\$68,000,000 00
Stocks of other companies owned	1,510,709 22	Funded debt	59,008,000 00
Bonds of other companies owned	120 00	United States subsidy bonds	27,855,680 00
Other permanent investments	19,945 82	Income:	
Cash and current assets	407,008 59	For sinking funds of company	16,102,288 96
Materials and supplies	10,131,965 42	For redemption of land bonds	10,242,490 15
Land contracts—deferred payments on time	1,049,992 88	For United States requirements	13,086,783 27
United States requirements, paid in full	13,086,783 27	General income	2,710,313 49
Total	\$197,005,555 87	Total	\$197,005,555 87

FINANCIAL OPERATIONS FOR THE EIGHTEEN MONTHS.

Resources.		Appropriation of Resources.	
Net income from lease	\$1,360,000 00	Interest on funded debt	} Paid by lessee.
Net income from other properties	22,047 45	Other interest	
Net amount from sales of lands, etc.	238,124 83	Taxes	
Net amount from sales of securities	46,285 87	Rentals	
Net amount decrease of cash assets	3,716,395 16	Dividends	\$2,018,265 00
Net amount decrease of other assets	137,809 47	Reduction of funded debt	2,136,000 00
United States requirements (from lessee)	577,048 33	Reduction of floating debt	1,229,300 40
Sinking fund requirements (from lessee)	185,000 00	Sinking fund debt	549,076 29
Sinking fund—fund used	2,136,000 00	Equipment debt	1,480,303 84
Sinking fund—earnings	361,000 00	Increase of other assets	131 94
Total	\$8,779,787 40	Other expenditures	416,727 30
		United States requirements	577,048 33
		Land Grant Fund	375,934 30
		Total	\$8,779,787 40

SECURITY FOR FUNDED DEBT.

Class of Bond or Obligation.	What Road Mortgaged.	Miles.
C. P. R. R. first mortgage bonds, A-D.....	Sacramento to California and Nevada State line.....	139.76
C. P. R. R. first mortgage bonds, E-I.....	California and Nevada State line to 5 miles west of Ogden.....	597.74
W. P. R. R. bonds, old issue.....	San José, 100 miles eastwardly.....	123.16
W. P. R. R. first mortgage bonds, A.....	San José to Brighton.....	24.00
W. P. R. R. first mortgage bonds, B.....	Niles to Oakland.....	
California and Oregon first mortgage bonds, A and B.....	Roseville to California and Oregon State line.....	296.50
San Joaquin Valley bonds.....	Lathrop to Goshen.....	146.08
C. P. R. R. land grant bonds.....	All lands granted by U. S. unsold October 1, 1870.	
C. P. R. R. 50-year bonds of 1936.....	All property.	

Also, all equipment is mortgaged.

CHARACTERISTICS OF ROAD.

Working Divisions or Branches.	Length—Miles.	Alignment.		
		Number of Curves.	Aggregate Length of Curved Line—Miles.....	Length of Straight Line—Miles.....
San José to five miles west of Ogden.....	858.98	1,136	282.00	576.98
Roseville to Oregon State line.....	296.50	695	99.67	196.83
Lathrop to Goshen.....	146.08	14	8.92	137.16
Oakland local line.....	4.84	7	.78	4.06
Alameda local line.....	11.46	21	3.75	7.71
San Francisco to Niles.....	27.46	9	7.05	20.41
	1,345.32			
Northern Railway: Sacramento to Brighton.....	5.64			
Union Pacific Railway: Ogden to five miles west.....	5.00			
Ferry San Francisco Bay: San Francisco to Oakland.....	3.69			
Totals.....	1,359.65	1,882	402.17	943.15

Working Divisions or Branches.	Profile.						
	Length of Level Line—Miles.....	Number of Ascending Grades	Sum of Ascents of Ascending Grades—Feet.....	Aggregate Length of Ascending Grades—Miles.....	Number of Descending Grades.	Sum of Descents of Descending Grades—Feet.....	Aggregate Length of Descending Grades—Miles.....
San José to five miles west of Ogden.....	141.07	1,164	14,546.10	410.32	844	10,401.00	307.59
Roseville to Oregon State line.....	43.09	289	5,674.12	176.93	112	2,965.60	76.48
Lathrop to Goshen.....	23.91	95	449.44	79.99	54	188.80	42.18
Oakland local line.....	1.86	2	21.00	2.05	1	23.00	.93
Alameda local line.....	3.38	36	74.14	5.46	30	50.90	2.62
San Francisco to Niles.....	9.60	6	236.40	10.85	6	135.00	7.01
Totals.....	222.91	1,592	21,001.20	685.60	1,047	13,764.30	436.81

IMPORTANT CHANGES DURING THE EIGHTEEN MONTHS.

June 30, 1892, .63 of a mile of Alameda local line was taken up.

The trustees of the land grant mortgage have redeemed, during the year, bonds amounting to \$642,000, at par.

January 1, 1892, the California and Oregon Division bonds, series B, matured. An agreement was made whereby \$4,358,000 of said bonds were extended to January 1, 1918. Of the remaining \$1,500,000, \$1,494,000 have been redeemed, leaving \$6,000 that bears no interest.

DATE WHEN THE ROAD WAS OPENED FOR PUBLIC USE.

Eastward from Sacramento—	
To Newcastle	November 1, 1864.
To Auburn	May 14, 1865.
To Clipper Gap	June 19, 1865.
To Colfax	September 11, 1865.
To Dutch Flat	July 5, 1866.
To Alta	July 11, 1866.
To Cisco	December 3, 1866.
To Truckee	April 3, 1868.
To Reno	June 19, 1868.
To Wadsworth	July 22, 1868.
To Browns	August 21, 1868.
To Oreana	September 20, 1868.
To Winnemucca	October 1, 1868.
To Argenta	November 19, 1868.
To Elko	January 25, 1869.
To Carlin	March 15, 1869.
To Terrace	May 27, 1869.
To Promontory	May 29, 1869.
To Ogden	May 29, 1869.
Westward from Sacramento—	
To Galt	May 15, 1869.
To Lodi	August 4, 1869.
To Stockton	August 14, 1869.
To San José	September 15, 1869.
To Alameda Wharf	September 8, 1869.
To San Francisco	About December 1, 1869.
Northward from Roseville Junction—	
To Lincoln	October 24, 1867.
To Wheatland	October 28, 1867.
To Yuba	September 19, 1868.
To Marysville	June 1, 1869.
To Nelson	May 31, 1870.
To Chico	July 2, 1870.
To Sesma	July 11, 1871.
To Tehama	August 28, 1871.
To Red Bluff	December 6, 1871.
To Redding	September 1, 1872.
To Delta	September 1, 1884.
To Gibson	June 8, 1886.
To Hazel Creek	July 16, 1886.
To Dunsmuir	August 23, 1886.
To McCloud	November 14, 1886.
To Edgewood	January 1, 1887.
To Montague	February 8, 1887.
To Hornbrook	May 1, 1887.
To Coles	June 1, 1887.
To California and Oregon State line	October 5, 1887.
Southward from Lathrop—	
To Modesto	November 8, 1870.
To Merced	January 25, 1872.
To Sycamore	April 1, 1872.
To Fresno	May 28, 1872.
To Goshen	August 1, 1872.

LANDS OR PROPERTY, INCLUDING RIGHT OF WAY, DONATED BY STATES, COUNTIES, ETC.

Sacramento City donated 20 $\frac{1}{2}$ acres in slough at Sacramento.

Oakland Water Front Company donated land along Oakland water front.

State of California donated one half interest in Mission Bay lands, San Francisco.

No donation of lands or property other than as specified has ever been made to this company, except lands for right of way, stations, shops, and storehouses. In most instances, the lands for right of way, stations, etc., were procured by the contractors.

GRANTS OR DONATIONS IN BONDS.

Character of Bonds.		Interest Payable—By Whom.			Amount of Bonds.
San Francisco County bonds		San Francisco County			\$400,000 00
San Francisco County bonds		San Francisco County			250,000 00
Bonds Disposed of.	Amount of Bonds.	Cash Realized.	Discount.	Interest Accrued.	
San Francisco County bonds* ..	\$400,000 00	\$321,752 75	\$78,247 25	\$27,865 00	
San Francisco County bonds† ..	250,000 00	175,000 00	75,000 00	-----	

*The above 400 bonds were issued to the Central Pacific Railroad Company, as a compromise of a claim of the company against the City and County of San Francisco, but were not a donation.

†The above 250 bonds were issued to the Western Pacific Railroad Company under the same circumstances as the 400 which were issued to the Central Pacific Railroad Company.

LANDS GRANTED BY THE UNITED STATES GOVERNMENT.

To What Railroad Company.	Acres per Mile.	Number of Miles.	Total No. of Acres.
Central Pacific Railroad Company†	12,800	742.00	9,497,600
Western Pacific Railroad Company*	12,800	123.38	1,579,264
California and Oregon Railroad Company†	12,800	291.00	3,724,800
Total	-----	-----	14,801,664

*The Western Pacific Railroad Company had disposed of its lands prior to its consolidation with this company.

†Owing to adverse claims, desert lands, etc., it is impossible to approximately estimate the quantity and value of these lands.

APPLICATION OF AMOUNT PLACED IN HANDS OF TRUSTEES FOR REDEMPTION OF BONDS.

	Bonds Redeemed.	Amount.	Cost.	Total Received by Trustees.
To December 31, 1891	6,450	\$6,450,000 00	\$6,477,450 85	\$8,844,013 82
During year	642	642,000 00	642,000 00	375,934 30
Totals	7,092	\$7,092,000 00	\$7,119,450 85	\$9,219,948 12
Cash from sales not placed in hands of trustees				529,082 62
Total net receipts as above stated				\$9,749,030 74
			Balance on Hand.	Prem. on Bonds Redeemed.
To December 31, 1891			\$2,366,562 97	\$27,450 85
During year			*266,065 70	-----
Totals			\$2,100,497 27	\$27,450 85

* Loss.

SUBJECTS REPORTED UPON BY LESSEE.

Information under the following headings is reported by the Southern Pacific Company, the lessee of the road of this company:

Property Operated.
 Earnings from Operation.
 Operating Expenses.
 Rentals Paid.
 Contracts, Agreements, Etc.
 Employés and Salaries.
 Passenger and Freight, and Train Mileage.
 Freight Traffic Movement.
 Description of Equipment.
 Mileage of Road Operated.
 Renewals of Rails and Ties.
 Consumption of Fuel by Locomotives.
 Accidents to Persons.
 Bridges, Trestles, Tunnels, Telegraph, Etc.

STATE OF CALIFORNIA, }
 City and County of San Francisco. } ss.

We, the undersigned, A. N. Towne, Vice-President, and William M. Thompson, Secretary, of the Central Pacific Railroad Company, on our oath, do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

A. N. TOWNE,
 Vice-President.
 WILLIAM M. THOMPSON,
 Secretary.

Subscribed and sworn to before me, this eleventh day of September, 1893.

E. B. RYAN,
 Notary Public.

SOUTH PACIFIC COAST RAILWAY COMPANY.

[For 18 months ending June 30, 1893.]

HISTORY.

1. Name of common carrier making this report: South Pacific Coast Railway Company.
2. Date of organization: May 21, 1887.
3. Under laws of what Government, State, or Territory organized: General railroad laws of the State of California.
4. Names of constituent companies:

Name of Company.	Date of Incorporation.
Santa Cruz and Felton Railroad Company	November 12, 1874.
South Pacific Coast Railway Company	March 29, 1876.
Bay and Coast Railroad Company	May 2, 1877.
Oakland Township Railroad Company	January 7, 1881.
San Francisco and Colorado River Railroad Company	January 16, 1883.
Felton and Pescadero Railroad Company	June 13, 1883.
Alameda Branch Railroad Company	April 16, 1887.

5. Date of consolidation: May 21, 1887. Authority: General railroad laws of California.
7. Carrier operating the road of this company: Southern Pacific Company.

ORGANIZATION.

Names of Directors.	Post Office Address.
W. E. Brown	San Francisco.
C. F. Crocker	San Francisco.
W. V. Huntington	San Francisco.
A. N. Towne	San Francisco.
N. T. Smith	San Francisco.
C. P. Huntington	New York.
(Vacancy)	

Date of expiration of terms of Directors: April 11, 1894.

Number of stockholders at date of last election: 8.

Last meeting of stockholders for election of Directors: April 12, 1893.

Post Office address of general and operating offices: Fourth and Townsend Streets, San Francisco:

OFFICERS.

Title.	Name.	Location of Office.
President	(Vacancy)	
Vice-President	C. F. Crocker	San Francisco.
Secretary	W. V. Huntington	San Francisco.
Treasurer	N. T. Smith	San Francisco.

Operating officers are reported by Southern Pacific Company, lessee.

CAPITAL STOCK.

The total par value of authorized capital stock is \$6,000,000, divided into shares of a par value of \$100 each. The total amount issued and outstanding is \$6,000,000. No dividends were declared.

Owing to consolidation, details of the manner of payment for capital stock cannot be shown. There were 60,000 shares issued, and the total cash realized was \$6,000,000.

FUNDED DEBT.

In July, 1887, first mortgage bonds to the amount of \$5,500,000 were issued to pay for the road. The entire issue is now outstanding. These bonds are to run fifty years, and bear 4 per cent interest, payable in January and July. The amount of interest accruing during the eighteen months was \$330,000, which was paid by lessee.

RECAPITULATION.

Account.	Amount Outstanding.
Capital stock.....	\$6,000,000 00
Funded debt.....	5,500,000 00
Total.....	\$11,500,000 00

Capital stock and funded debt cover railroad, telegraph lines, rolling stock, ferry steamers, etc. The amount per mile of railroad cannot be correctly stated.

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS.

Total cost of construction, equipment, etc., to December 31, 1891, \$11,500,000; total cost to June 30, 1893, \$11,500,000. Impossible to show details, as the road is leased to Southern Pacific Company.

INCOME ACCOUNT.

The lessee of this company's property receives all revenue and pays all expenses.

STOCKS AND BONDS OWNED.

This company owns neither stocks nor bonds.

GENERAL BALANCE SHEET.

Assets.	Liabilities.
Cost of road and equipment..\$11,500,000 00	Capital stock..... \$6,000,000 00
	Funded debt..... 5,500,000 00
Total.....\$11,500,000 00	Total..... \$11,500,000 00

IMPORTANT CHANGES DURING EIGHTEEN MONTHS.

There have been no important changes during the time covered by this report.

SECURITY FOR FUNDED DEBT.

Class of Bond or Obligation.	What Road Mortgaged.	Miles.
First mortgage bonds.....	Alameda Mole to Santa Cruz.....	77.60
	Newark to Centreville.....	3.00
	Campbells to New Almaden.....	9.60
	Felton to Boulder Creek.....	7.30
	Felton Junction to Old Felton.....	1.70
	Alameda Point to Fourteenth Street, Oakland.....	1.80
	Alameda and Oakland (second tracks).....	8.96

Also, all equipment is mortgaged.

DATE WHEN THE ROAD WAS OPENED FOR PUBLIC USE.

From Santa Cruz to Felton.....	October 13, 1875.
From Alameda Point to Los Gatos.....	June 1, 1878.
From Los Gatos to Alma.....	August 1, 1878.
From Alma to Wrights.....	May 1, 1879.
From Wrights to Felton.....	May 15, 1880.
From Alameda Point to Twelfth and Webster Streets, Oakland.....	May 30, 1881.
From Newark to Centreville.....	February 18, 1882.
From Alameda Mole to Alameda Point.....	March 15, 1884.
From Felton Junction to Boulder Creek.....	May 1, 1885.
From Campbells to New Almaden.....	June 15, 1886.

CHARACTERISTICS OF ROAD.

Working Divisions or Branches.	Length, Miles.	Alignment.		
		Number of Curves.	Aggregate Length of Curved Line —Miles.....	Length of Straight Line—Miles.....
San Francisco to Santa Cruz.....	77.60	217	18.01	59.59
Alameda Junction to Fourteenth Street, Oakland.....	1.80	5	.45	1.35
Newark to Centreville.....	3.00	3	.50	2.50
Campbells to New Almaden.....	9.60	7	3.10	6.50
Felton to Boulder Creek.....	7.30	37	3.60	3.70
Felton Junction to Old Felton.....	1.70	15	.76	.94
	101.00			
Ferry—San Francisco to Alameda.....	3.00			
Totals.....	104.00	284	26.42	74.58

Working Divisions or Branches.	Profile.						
	Length of Level Lane—Miles.....	Number of As- cending Grades.	Sum of Ascents of Ascending Grades—Feet.....	Aggregate Length of Ascending Grades—Miles.....	Number of De- scending Grades.	Sum of Descents of Descending Grades—Feet.....	Aggregate Length of Descending Grades—Miles.....
San Francisco to Santa Cruz.....	28.98	20	910.0	27.70	20	910.0	20.92
Alameda Junction to Fourteenth Street, Oakland.....	1.18	1	58.9	.62			
Newark to Centreville.....	2.61	3	7.8	.26	3	3.9	.13
Campbells to New Almaden.....	2.00	7	9.2	4.59	5	9.0	3.01
Felton to Boulder Creek.....	1.00	12	280.5	5.10	6	49.2	1.20
Felton Junction to Old Felton.....		1	5.1	1.70			
Totals.....	35.77	44	1,271.5	39.97	34	972.1	25.26

TELEGRAPH.

This company has 151 miles of telegraph line (185.40 miles of wire), operated by the Southern Pacific Company, lessee.

SUBJECTS REPORTED UPON BY LESSEE.

Information regarding the following subjects is contained in the report of the Southern Pacific Company, the lessee of this road:

Property Operated.
Earnings from Operation.
Operating Expenses.
Rentals Paid.
Contracts, Agreements, Etc.
Employés and Salaries.
Passenger and Freight, and Train Mileage.
Freight Traffic Movement.
Description of Equipment.
Mileage of Road Operated.
Renewals of Rails and Ties.
Consumption of Fuel by Locomotives.
Accidents to Persons.
Bridges, Trestles, Tunnels, Etc.

STATE OF CALIFORNIA,
City and County of San Francisco. } ss.

We, the undersigned, Chas. F. Crocker, Vice-President, and W. V. Huntington, Secretary, of the South Pacific Coast Railway Company, on our oath, do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

CHAS. F. CROCKER,
Vice-President.
W. V. HUNTINGTON,
Secretary.

Subscribed and sworn to before me, this twenty-sixth day of September, 1893.

E. B. RYAN,
Notary Public.

CALIFORNIA PACIFIC RAILROAD COMPANY.

[For 18 months ending June 30, 1893.]

HISTORY.

1. Name of common carrier making this report: California Pacific Railroad Company.
2. Date of organization: December 23, 1869.
3. Under what laws organized: General railroad laws of the State of California, approved May 20, 1861.
4. Names of the constituent companies: San Francisco and Marysville Railroad Company, incorporated October 26, 1857; Sacramento and San Francisco Railroad Company, incorporated December 2, 1864; California Pacific Railroad Company, incorporated January 6, 1865; California Pacific Extension Railroad Company, incorporated April 5, 1869; Napa Valley Railroad Company, incorporated March 2, 1864.
5. Date of consolidation: December 23, 1869. Authority: General railroad laws of the State of California.
7. Carrier operating the road of this company: Southern Pacific Company.

ORGANIZATION.

Names of Directors.	Post Office Address.
C. P. Huntington	New York.
T. H. Hubbard	New York.
H. E. Huntington	San Francisco.
C. F. Crocker	San Francisco.
N. T. Smith	San Francisco.
J. L. Willcutt	San Francisco.
George Crocker	San Francisco.

Date of expiration of terms of Directors: April 11, 1894.

Number of stockholders at date of last election: 123.

Last meeting of stockholders for election of Directors: April 12, 1893.

Post Office address of general and operating office: Fourth and Townsend Streets, San Francisco, Cal.

OFFICERS.

Title.	Name.	Location of Office.
President	Thos. H. Hubbard	New York.
Vice-President	N. T. Smith	San Francisco.
Secretary	W. V. Huntington	San Francisco.
Treasurer	J. L. Willcutt	San Francisco.

Operating officers are reported by Southern Pacific Company, lessee.

CAPITAL STOCK.

The total par value of authorized capital stock is \$12,000,000, divided into shares of the par value of \$100 each. The total amount issued and outstanding is \$12,000,000. No dividends were declared.

Owing to consolidation, details as to the manner of payment for capital stock cannot be shown. There are 120,000 shares issued; cash realized, \$12,000,000.

FUNDED DEBT.

Class of Bond or Obligation, and Date of Issue and Maturity.	Authorized Issue.	Amount Issued.
First mortgage bonds—January 1, 1867; January 1, 1912.....	\$2,250,000 00	\$2,232,000 00
Second mortgage bonds—August 9, 1871; January 1, 1911.....	1,600,000 00	1,595,000 00
Third mortgage bonds, Series A—July 1, 1875; July 1, 1905.....	2,000,000 00	1,998,500 00
Third mortgage bonds, Series B—July 1, 1875; July 1, 1905..	1,000,000 00	1,000,000 00
Totals	\$6,850,000 00	\$6,825,500 00

The bonds were issued to contractors for construction; also to take up bonds of prior issue.

Interest upon above bonds, as follows:

Class of Bond or Obligation.	Rate.	When Payable.	Interest Accrued.	Interest Paid.
First mortgage bonds.....	4½	Jan. and July	\$150,660 00	\$150,772 50
Second mortgage bonds.....	4½	Jan. and July	107,662 50	107,505 00
Third mortgage bonds, Series A.....	6	Jan. and July	180,000 00	178,785 00
Third mortgage bonds, Series B.....	3	Jan. and July	45,000 00	44,985 00
Totals.....			\$483,322 50	\$482,047 50

The second mortgage bonds, maturing January 1, 1891, were extended to January 1, 1911, with the exception of 5, redeemed, and the interest thereon was reduced from 6 per cent to 4½ per cent per annum.

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.	Current Liabilities Accrued to and Including June 30, 1893.
Due from solvent companies and individuals.....	Matured interest coupons unpaid (including coupons due July 1).....
Unadjusted.....	Miscellaneous.....
	Balance—cash assets.....
Total.....	Total.....

RECAPITULATION.

Account.	Total Amount Outstanding.
Capital stock.....	\$12,000,000 00
Funded debt.....	6,825,500 00
Total.....	\$18,825,500 00

Capital stock and funded debt cover railroad, rolling stock, wharves, etc. The amount per mile of road cannot be correctly stated.

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS.

Total cost of construction, equipment, etc., to December 31, 1891, \$19,536,644 03; total cost to June 30, 1893, \$19,536,644 03. Impossible to show details, as road is operated by Southern Pacific Company, lessee.

INCOME ACCOUNT.

Income from lease of road.....		\$900,000 00
Deductions from income:		
Salaries and maintenance of organization.....	\$1,920 35	
Interest on funded debt accrued.....	483,322 50	
Interest and discount on floating debt.....	5,250 00	
Total deductions from income.....		490,492 85
Net income.....		\$409,507 15
Surplus December 31, 1891.....		1,057,225 77
Surplus June 30, 1893.....		\$1,466,732 92

STOCKS AND BONDS OWNED.

This company does not own any stocks or bonds.

GENERAL BALANCE SHEET.

Assets.		Liabilities.	
Cost of road and equipment.....	\$19,536,644 03	Capital stock.....	\$12,000,000 00
Cash and current assets.....	755,588 89	Funded debt.....	6,825,500 00
		Surplus from operation.....	1,466,732 92
Total.....	\$20,292,232 92	Total.....	\$20,292,232 92

IMPORTANT CHANGES DURING EIGHTEEN MONTHS.

There were no important changes made in the road of this company during the period covered by this report.

SECURITY FOR FUNDED DEBT.

Class of Bond or Obligation.	What Road Mortgaged.	Miles.
First and second mortgage bonds, and third mortgage bonds (Series A and B).....	Vallejo to Sacramento.....	60.39
	Napa Junction to Calistoga.....	34.48
	Davisville to Knight's Landing.....	18.64

Also, all equipment is mortgaged.

CHARACTERISTICS OF ROAD.

Working Divisions or Branches.	Length—Miles.	Alignment.		
		Number of Curves	Aggregate Length of Curved Line—Miles.....	Length of Straight Line—Miles.....
Vallejo to Sacramento.....	60.39	27	6.45	53.94
Napa Junction to Santa Rosa.....	34.48	34	7.30	27.18
Davisville to Knight's Landing.....	18.57	5	.83	17.74
	113.44			
Ferry across Carquinez Straits, Vallejo Junction to Vallejo....	2.00			
Totals.....	115.44	66	14.58	98.86

CHARACTERISTICS OF ROAD—Continued.

Working Division or Branches.	Profile.						
	Length of Level Line—Miles.....	Number of Ascending Grades.	Sum of Ascents of Ascending Grades—feet.....	Aggregate Length of Ascending Grades—Miles....	Number of Descending Grades.	Sum of Descents of Descending Grades—feet.....	Aggregate Length of Descending Grades—Miles.....
Vallejo to Sacramento	16.32	40	454.5	21.63	41	436.9	22.44
Napa Junction to Santa Rosa.....	.78	65	492.1	21.85	35	205.2	11.85
Davisville to Knight's Landing.....	4.80	14	50.9	7.17	13	60.4	6.60
Totals.....	21.90	119	997.5	50.65	89	702.5	40.89

DATE WHEN ROAD WAS OPENED FOR PUBLIC USE.

The road was opened for public use in the years 1868 and 1869, while in the hands of the contractors, who turned the road over to the railroad company in January, 1870. No data is at hand to show the various dates of opening for business.

LANDS OR PROPERTY, INCLUDING RIGHT OF WAY, DONATED BY STATES, COUNTIES, ETC.

The lands for right of way, stations, etc., were, in most instances, procured by the contractors.

SUBJECTS REPORTED UPON BY LESSEE.

The Southern Pacific Company, as lessee of the road, includes in its report, information contained under the following headings:

- Property Operated.
- Earnings from Operation.
- Operating Expenses.
- Rentals Paid.
- Contracts, Agreements, Etc.
- Employés and Salaries.
- Passenger and Freight, and Train Mileage.
- Freight Traffic Movement.
- Description of Equipment.
- Mileage of Road Operated.
- Renewals of Rails and Ties.
- Consumption of Fuel by Locomotives.
- Accidents to Persons.
- Bridges, Trestles, Tunnels, Telegraph, Etc.

STATE OF CALIFORNIA, }
County of San Francisco. } ss.

We, the undersigned, N. T. Smith, Vice-President, and W. V. Huntington, Secretary, of the California Pacific Railroad Company, on our oath, do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

N. T. SMITH,
Vice-President.
W. V. HUNTINGTON,
Secretary.

Subscribed and sworn to before me, this twelfth day of September, 1893.

E. B. RYAN,
Notary Public.

NORTHERN RAILWAY COMPANY.

[For 12 months ending June 30, 1893.]

HISTORY.

1. Name of common carrier making this report: Northern Railway Company.
2. Date of organization: May 15, 1858.
3. Under what laws organized: State of California general railroad laws of 1861, approved May 20, 1861.
4. Names of the constituent companies:

Name of Company.	Date of Incorporation.
Northern Railway Company	July 19, 1871.
Amador Branch Railroad Company	July 3, 1875.
Berkeley Branch Railroad Company	September 25, 1876.
Vaca Valley and Clear Lake Railroad Company	February 19, 1877.
Sacramento and Placerville Railroad Company	April 19, 1877.
Sacramento Valley Railroad Company	August 4, 1882.
Folsom and Placerville Railroad Company	September 29, 1876.
San Joaquin and Sierra Nevada Railroad Company	March 28, 1882.
West Side and Mendocino Railroad Company	September 2, 1886.
Santa Rosa and Carquinez Railroad Company	March 25, 1887.
Shingle Springs and Placerville Railroad Company	May 9, 1887.
Woodland, Capay, and Clear Lake Railroad Company	July 7, 1887.
Winters and Ukiah Railroad Company	August 9, 1887.

5. Date of consolidation: May 15, 1888. Authority: General railroad laws of California.
7. Carrier operating the road of this company: Southern Pacific Company.

ORGANIZATION.

Names of Directors: C. F. Crocker, Geo. Crocker, W. V. Huntington, N. T. Smith, all of San Francisco, Cal. There is one vacancy.

Date of expiration of terms of Directors: April 11, 1894.

Number of stockholders at date of last election: 164.

Last meeting of stockholders for election of Directors: April 12, 1893.

Post Office address of general and operating office: Fourth and Townsend Streets, San Francisco.

OFFICERS.

Title.	Name.	Location of Office.
President	C. F. Crocker	San Francisco.
Vice-President	Geo. Crocker	San Francisco.
Secretary	W. V. Huntington	San Francisco.
Treasurer	N. T. Smith	San Francisco.

Operating officers are reported by Southern Pacific Company, lessee.

CAPITAL STOCK.

The total par value of authorized capital stock is \$26,175,000, divided into shares of a par value of \$100 each. The total amount issued and outstanding is \$12,806,000. No dividends were declared.

Owing to consolidation, details as to manner of payment for capital stock cannot be shown. There were 128,960 shares issued; cash realized, \$12,806,000.

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.	Current Liabilities Accrued to and Including June 30, 1893.
Due from solvent companies and individuals	Sinking funds uninvested
\$1,665,321 09	Balance—cash assets
Total	Total
\$1,665,321 09	\$59,114 23
	1,606,206 86
	\$1,665,321 09

FUNDED DEBT.

Class of Bond or Obligation, and Date of Issue and Maturity.	Authorized Issue.	Amount Issued and Outstanding.
Northern Railway first mortgage 30-year bonds—January 1, 1877; January 1, 1907.....	\$6,300,000 00	\$5,156,000 00
Northern Railway first mortgage 50-year bonds—October 1, 1888; October 1, 1938.....	21,000,000 00	4,751,000 00
Totals	\$27,300,000 00	\$9,907,000 00

Class of Bond or Obligation.	Rate.	When Payable.	Interest Accrued During 18 Months.	Interest Paid During 18 Months.
Northern Railway first mortgage 30-year bonds.....	6	Jan. and July	\$464,040 00	\$465,570 00
Northern Railway first mortgage 50-year bonds.....	5	April and Oct.	356,325 00	355,075 00
San Joaquin and Sierra Nevada Railroad first mortgage bonds.....			720 00	1,170 00
Totals.....			\$821,085 00	\$821,815 00

The Northern Railway first mortgage 30-year and 50-year bonds were issued to contractors in payment for construction; also, exchanged for bonds of lines consolidated with Northern Railway.

RECAPITULATION.

Account.	Total Amount Outstanding.
Capital stock.....	\$12,896,000 00
Funded debt.....	9,907,000 00
Floating debt, balance of.....	None.
Total.....	\$22,803,000 00

Capital stock and funded debt cover railroad, telegraph line, rolling stock, ferry steamers, etc. Amount per mile of road cannot be correctly shown.

COST OF PERMANENT IMPROVEMENTS.

Item.	Expenditures During 18 Months Charged to Income Account as Permanent Improvements.	Credits—Property and Material Sold.	Differences or Net Additions to Property, etc.
Construction:			
Right of way and other real estate.....	\$835 25	\$536 25	\$299 00
Fences.....	2,153 90		2,153 90
Bridges and trestles.....	4,171 12		4,171 12
Other superstructure.....	206 37		206 37
Buildings, furniture, and fixtures.....	13,869 13	777 60	13,091 53
Telegraph line.....	692 42		692 42
Sidings and yard extensions.....	14,508 57	924 62	13,583 95
Water supply.....	1,335 64	15 63	1,320 01
Other items.....	64 83		64 83
Total construction.....	\$37,887 23	\$2,254 10	\$35,633 13
Equipment:			
Passenger cars.....	\$5,215 55		\$5,215 55
Combination cars.....	1,028 44	\$12 00	1,016 44
Freight cars.....	5,424 53		5,424 53
Total equipment.....	\$11,668 52	\$12 00	\$11,656 52
Grand total cost permanent improvements.....	\$49,555 75	\$2,266 10	\$47,289 65

COST OF ROAD EQUIPMENT, AND PERMANENT IMPROVEMENTS.

Total cost construction, equipment, etc., to December 31, 1891, \$24,653,332 93; total cost to June 30, 1893, \$24,70,622 57; net additions, \$47,239 65.
It is impossible to show details.

INCOME ACCOUNT.

Income from lease of road	\$616,156 45	
Interest earned as sinking fund	12,697 66	
Total income		\$628,854 11
Deductions from income:		
Salaries and maintenance of organization		
Interest on funded debt accrued		
Interest and discount on floating debt		
Sinking fund requirements	\$52,697 65	
Total deductions from income		52,697 66
Net income		\$576,156 45
Surplus on December 31, 1891		2,735,761 00
Surplus on June 30, 1893		\$3,311,917 45

STOCKS AND BONDS OWNED.

This company does not own any bonds or stocks.

FINANCIAL OPERATIONS FOR EIGHTEEN MONTHS.

Resources.		Appropriation of Resources.	
Net income from lease	\$616,156 45	Reduction of funded debt	\$12,000 00
Net increase floating debt	7,372 66	Sinking fund	52,697 66
Sinking fund earnings	12,697 66	Permanent improvements	35,633 13
		Equipment	11,656 52
		Increase of cash assets	524,239 46
Total	\$636,226 77	Total	\$636,226 77

IMPORTANT CHANGES DURING THE EIGHTEEN MONTHS.

During January, 1893, the San Joaquin and Sierra Nevada Railroad bonds, amounting to \$12,000, and which matured January 1, 1893, were redeemed.

SECURITY FOR FUNDED DEBT.

Class of Bond or Obligation.	What Road Mortgaged.	Miles.
Northern Railway first mortgage 30-year 6 per cent bonds	West Oakland to near Martinez	31.03
	Port Costa to Suisun	16.34
	Woodland to Tehama	100.86
	West Oakland to Delaware Street (double track)	4.15
	West Oakland to Port Costa	26.74
	Galt to Ione	27.20
Northern Railway first mortgage 50-year 5 per cent bonds	Sixteenth Street, Oakland, to Berrymans	5.38
	Napa Junction to Santa Rosa	36.95
	Willows to Fruto	16.84
	Sacramento to Placerville	59.28
	Elmira to Rumsey (double track)	51.39
Shell Mound to near Berrymans	1.54	

Also, all equipment is mortgaged.

GENERAL BALANCE SHEET.

Assets.	Liabilities.
Cost of road and equipment. \$24,700,622 58	Capital stock \$12,896,000 00
Cash and current assets 1,606,206 86	Funded debt..... 9,907,000 00
Materials and supplies 320,811 23	Income used for sink'g funds 512,723 22
	Surplus from operation..... 3,311,917 45
Total \$26,627,640 67	Total \$26,627,640 67

CHARACTERISTICS OF ROAD.

Working Divisions or Branches.	Length, Miles.	Alignment.		
		Number of Curves.	Aggregate Length of Curved Lane—Miles.....	Length of Straight Lane—Miles.....
West Oakland to near Martinez	31.04	49	14.20	16.84
Oakland, Sixteenth Street, to Berrymans.....	5.39	7	90	4.49
Oakland, Sixteenth Street, to Delaware Street	4.15	3	1.79	2.36
Benicia to Suisun	16.33	7	2.23	14.10
Woodland to Tehama	100.84	13	4.83	96.01
Willows to Fruto	16.84	48	5.76	11.08
Napa Junction to Santa Rosa	36.95	77	11.53	25.42
Elmira to Rumsey.....	51.39	70	9.54	41.85
Galt to Ione.....	27.21	28	4.85	22.36
Sacramento to Placerville	59.73	154	22.94	36.79
Valley Springs to Bracks	39.85	67	8.53	31.32
	389.72			
Ferry across Carquinez Straits, Port Costa to Benicia	1.00			
Totals.....	390.72	523	87.10	302.62
Less, to agree with operating mileage.....	.34			
	390.38			

Working Divisions or Branches.	Profile.						
	Length of Level Line—Miles.....	Number of Ascending Grades.....	Sum of Ascents of Ascending Grades—Feet.....	Aggregate Length of Ascending Grades—Miles.....	Number of Descending Grades.....	Sum of Descents of Descending Grades—Feet.....	Aggregate Length of Descending Grades—Miles.....
West Oakland to near Martinez.....	16.68	14	61.9	6.93	15	66.1	7.43
Oakland, Sixteenth St., to Berrymans.....	.65	3	246.6	4.43	3	2.8	.31
Oakland, Sixteenth St. to Delaware St. ....	.73	4	17.3	1.87	4	15.1	1.55
Benicia to Suisun	13.09	12	8.0	1.74	14	11.0	1.50
Woodland to Tehama	18.83	60	485.1	52.10	50	319.9	29.91
Willows to Fruto	1.41	8	510.9	14.76	5	16.3	.67
Napa Junction to Santa Rosa	6.41	31	545.3	16.88	33	446.5	13.66
Elmira to Rumsey.....	7.39	42	668.0	29.33	37	285.7	14.17
Galt to Ione.....	4.71	40	366.6	16.83	19	122.6	5.67
Sacramento to Placerville.....	2.68	139	2,639.4	44.38	50	698.1	12.67
Valley Springs to Bracks	6.80	21	696.9	31.27	8	34.4	1.78
Totals.....	79.38	374	6,246.0	221.02	238	2,018.5	89.32

TELEGRAPH.—This company has 266.18 miles of line (322.89 miles of wire), which is operated by the Southern Pacific Company, lessee of the road.

DATE WHEN ROAD WAS OPENED FOR PUBLIC USE.

From Woodland to Williams	July 1, 1876.
From Williams to Willows	October 3, 1878.
From Willows to Orland	July 31, 1882.
From Orland to Tehama	September 27, 1882.
From West Oakland to Shell Mound	August 17, 1886.
From Shell Mound to Martinez	January 9, 1878.
From Benicia to Suisun	December 23, 1879.
From Sacramento to Folsom	February 22, 1856.
From Folsom to Shingle Springs	January 20, 1865.
From Shingle Springs to Placerville	May 29, 1888.
From Elmira to Vacaville	January 25, 1869.
From Vacaville to Winters	August 26, 1875.
From Winters to Madison	May 1, 1877.
From Madison to Rumsey	July 1, 1888.
From Shell Mound to Berkeley	August 16, 1876.
From Berkeley to Berrymans	July 1, 1878.
From Galt to Ione	December 4, 1876.
From Bracks to Lockeford	August —, 1882.
From Lockeford to Clement	September —, 1882.
From Clement to Wallace	October —, 1882.
From Wallace to Benson	September —, 1884.
From Benson to Valley Springs	April —, 1885.
From Napa Junction to Santa Rosa	May 31, 1888.
From Willows to Fruto	July 1, 1888.

LANDS OR PROPERTY, INCLUDING RIGHT OF WAY, DONATED BY STATES, COUNTIES, ETC.

The lands for right of way, stations, etc., were in most instances procured by the contractors.

SUBJECTS REPORTED UPON BY LESSEE.

Information upon the following subjects is reported by the Southern Pacific Company, lessee of the road of this company:

- Property Operated.
- Earnings from Operation.
- Operating Expenses.
- Rentals Paid.
- Contracts, Agreements, Etc.
- Employés and Salaries.
- Passenger and Freight, and Train Mileage.
- Freight Traffic Movement.
- Description of Equipment.
- Mileage of Road Operated.
- Renewals of Rails and Ties.
- Consumption of Fuel by Locomotives.
- Accidents to Persons.
- Bridges, Trestles, Tunnels, Etc.

STATE OF CALIFORNIA, }
 City and County of San Francisco. } ss.

We, the undersigned, Charles F. Crocke, President, and W. V. Huntington, Secretary, of the Northern Railway Company, on our oath, do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

CHARLES F. CROCKER,
 President.
 W. V. HUNTINGTON,
 Secretary.

Subscribed and sworn to before me, this twenty-sixth day of September, 1893.

E. B. RYAN,
 Notary Public.

NORTHERN CALIFORNIA RAILWAY COMPANY.

[For 18 months ending June 30, 1893.]

HISTORY.

1. Name of common carrier making this report: Northern California Railway Company.
2. Date of organization: September 3, 1888.
3. Under what laws organized: General railway laws of the State of California.
6. Name of original corporation, and laws under which it was organized: Originally chartered under name of California Northern Railroad Company, June 29, 1860. On January 1, 1885, it was transferred to the Northern California Railroad Company, whose charter dates September 6, 1884. It was transferred to the existing corporation January 28, 1889.
7. Carrier operating the road of this company: Southern Pacific Company.

ORGANIZATION.

Names of Directors: Charles F. Crocker, W. E. Brown, F. S. Douty, H. E. Huntington, and N. D. Rideout, all of San Francisco.

Date of expiration of terms of Directors: January, 1894.

Number of stockholders at date of last election: 5.

Last meeting of stockholders for election of Directors: May 22, 1889.

Post Office address of general and operating office: San Francisco.

OFFICERS.

Title.	Name.	Location of Office.
President	Charles F. Crocker	San Francisco.
Vice-President	H. E. Huntington	San Francisco.
Secretary and Treasurer	F. S. Douty	San Francisco.

Operating officers are reported by Southern Pacific Company, lessee.

CAPITAL STOCK.

The total par value of authorized capital stock is \$1,280,000, divided into shares of a par value of \$100 each. The total amount issued and outstanding is \$1,280,000. No dividends were declared.

Owing to reorganizations the present management is unable to give the details as to the manner of payment for capital stock. There were 12,800 shares issued; cash realized, \$1,280,000.

FUNDED DEBT.

In June, 1889, first mortgage bonds, to the amount of \$1,100,000, were authorized to be issued; amount issued, \$945,000; cash realized upon amount issued, \$945,000. These bonds are to run forty years; bear 5 per cent interest, payable semi-annually, in June and December. The amount of interest accruing during the eighteen months covered by this report was \$70,875; amount paid (by lessee), \$70,875.

RECAPITULATION.

Account.	Amount Outstanding.	Miles.	Amount per Mile of Road.
Capital stock	\$1,280,000 00	53 $\frac{6}{10}$	\$23,835 00
Bonds	945,000 00		17,600 00
Totals	\$2,225,000 00	53 $\frac{6}{10}$	\$41,435 00

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS.

Total cost of construction, equipment, etc., to June 30, 1893, \$2,225,000. It is impossible to give details.

INCOME ACCOUNT.

The road of the Northern California Railway Company is operated by the Southern Pacific Company, which receives all revenue and pays all expenses. The income account is therefore included in the report of that company.

FINANCIAL OPERATIONS FOR THE EIGHTEEN MONTHS.

Resources.		Appropriation of Resources.	
Net income from lease	\$900,000 00	Interest on funded debt paid ..	\$483,322 50
Net increase floating debt	6,525 00	Other interest paid	5,250 00
		Increase of cash assets	416,032 15
		Other expenditures	1,920 35
Total	\$906,525 00	Total	\$906,525 00

GENERAL BALANCE SHEET.

Assets.		Liabilities.	
Cost of road and equipment ..	\$2,225,000 00	Capital stock	\$1,280,000 00
		Funded debt	945,000 00
Total	\$2,225,000 00	Total	\$2,225,000 00

SECURITY FOR FUNDED DEBT.

As security for the first mortgage 5 per cent bonds, the roadway from Oroville to Knight's Landing (a distance of 53.6 miles), together with the rolling stock, was mortgaged.

CHARACTERISTICS OF ROAD.

Oroville to Knight's Landing: Length, 53.6 miles; number of curves, 63; aggregate length of curved line, 9.03 miles; length of straight line, 44.57 miles; length of level line, 18.54 miles; number of ascending grades, 74; sum of ascents, 338.1 feet; aggregate length of ascending grades, 26.79 miles; number of descending grades, 44; sum of descents, 179.3 feet; aggregate length of descending grades, 8.27 miles.

DATE WHEN THE ROAD WAS OPENED FOR PUBLIC USE.

From Marysville to Oroville..... February, 1864
 From Marysville to Knight's Landing..... February, 1864

SUBJECTS REPORTED UPON BY LESSEE.

The Southern Pacific Company, as lessee of the Northern California Railway, includes in its report, information upon the following subjects:

- Property Operated.
- Earnings from Operation.
- Operating Expenses.
- Rentals Paid.
- Contracts, Agreements, Etc.
- Employees and Salaries.
- Passenger and Freight, and Train Mileage.
- Freight Traffic Movement.
- Description of Equipment.
- Mileage of Road Operated.
- Renewals of Rails and Ties.
- Consumption of Fuel by Locomotives.
- Accidents to Persons.
- Bridges, Trestles, Tunnels, Etc.

STATE OF CALIFORNIA, }
 County of San Francisco. } ss.

We, the undersigned, Charles F. Crocker, President, and F. S. Douty, Secretary and Treasurer, of the Northern California Railway Company, on our oath, do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same

and declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

CHARLES F. CROCKER,
President.
F. S. DOUTY,
Secretary and Treasurer.

Subscribed and sworn to before me, this twelfth day of December, 1893.

E. B. RYAN,
Notary Public.

SOUTHERN CALIFORNIA RAILWAY COMPANY.

[For 18 months ending June 30, 1893.]

HISTORY.

1. Name of common carrier making this report: Southern California Railway Company.
2. Date of organization: November 7, 1889.
3. Under what laws organized: Under the general statutes of California.
4. Names of the constituent companies:

Name.	Date of Incorporation.
California Southern Railroad Company	Jan. 10, 1882.
California Central Railway Company	May 20, 1887.
Redondo Beach Railway Company	April 23, 1888.
San Bernardino and Eastern Railway Company	Aug. 11, 1890.
Santa Fe and Santa Monica Railway Company	April 4, 1892.

By articles of agreement dated June 8, 1892, the San Bernardino and Eastern Railway Company and the Santa Fe and Santa Monica Railway Company were consolidated with the Southern California Railway Company. Said articles of agreement effecting such consolidation were filed with the Secretary of State of the State of California, on June 27, 1892. The name of the consolidated company is Southern California Railway Company.

5. Charters filed with Secretary of the State of California, November 7, 1889, and June 27, 1892.

ORGANIZATION.

Names of Directors.	Post Office Address.
J. W. Reinhart	Boston, Mass.
George C. Magoun	New York City.
John J. McCook	New York City.
K. H. Wade	Los Angeles, Cal.
H. W. Hellman	Los Angeles, Cal.
D. Freeman	Los Angeles, Cal.
T. D. Stimson	Los Angeles, Cal.
Richard Egan	Capistrano, Cal.
Bryant Howard	San Diego, Cal.
L. C. Waite	Riverside, Cal.
J. N. Victor	San Bernardino, Cal.

Date of expiration of terms of Directors: November 2, 1893.
 Number of stockholders at date of last election: 338.
 Last meeting of stockholders for election of Directors: November 3, 1892.
 Post Office address of general office: Boston, Mass., and Los Angeles, Cal.
 Post Office address of operating office: Los Angeles, Cal.

OFFICERS.

Title.	Name.	Location of Office.
Chairman of the Board	George C. Magoun	New York.
President	J. W. Reinhart	Boston.
Vice-President	D. B. Robinson	Chicago.
General Auditor	W. K. Gillett	Chicago.
Secretary	L. C. Deming	Boston.
Treasurer, Asst. Sec'y, and Tax Com.	F. H. Pattee	Los Angeles.
Assistant Treasurer	George L. Goodwin	Boston.
General Solicitor	George R. Peck	Topeka.
Solicitor	W. J. Hunsaker	Los Angeles.
Cashier	G. Holterhoff, Jr.	Los Angeles.
Comptroller	J. P. Whitehead	Boston.
Auditor	H. C. Whitehead	Los Angeles.
Assistant Auditor	W. A. Burroughs	Boston.
General Manager	K. H. Wade	Los Angeles.
Chief Engineer	F. T. Perris	San Bernardino.
Superintendent	W. B. Beamer	San Bernardino.
General Counsel	John J. McCook	New York.
Superintendent of Telegraph	W. A. McGovern	San Bernardino.
Passenger Traffic Manager	W. F. White	Chicago.
Freight Traffic Manager	J. A. Hanley	Chicago.
General Passenger Agent	H. G. Thompson	Los Angeles.
Assistant General Passenger Agent	H. K. Gregory	Los Angeles.
General Ticket Agent	S. B. Hynes	Los Angeles.
General Baggage Agent	P. Walsh	Topeka.
Division Baggage Agent	H. Isaacs	Los Angeles.

PROPERTY OPERATED.

Name.	Terminals.	Description.	Miles of Line.
Southern California Rail- way Company	Barstow to National City	Main line	210.61
	San Bernardino to Los Angeles	Main line	61.91
	Los Angeles to Los Angeles Junction	Main line	83.10
	East Riverside to Orange	Main line	40.68
	Perris to San Jacinto	Branch line	19.38
	Escondido Junction to Escondido	Branch line	21.23
	San Bernardino to Mentone	Branch line	12.50
	Ballona Junction to Santa Monica Junction	Branch line	12.46
	Santa Monica Junction to Santa Monica	Branch line	5.42
	Inglewood to Redondo Beach	Branch line	10.81
Highland Junction to Mentone	Branch line	12.88	
Total			490.98

CAPITAL STOCK.

Description.	Par Value of Shares.	Par Value Authorized.	Amount Issued and Outstanding.	Dividends Declared During 18 Mos.
Capital stock—Common	\$100 00	\$9,325,000 00	\$6,732,000 00	None.
Preferred	100 00	8,000,000 00	6,072,000 00	None.
Total		\$17,325,000 00	\$12,804,000 00	

Manner of payment for capital stock:

	Number of Shares Issued.
Issued for consolidation—Common	67,320
Preferred	60,720
Total	128,040

The common stock was issued, share for share, for capital stock of California Central Railway Company and Redondo Beach Railway Company.
The preferred stock was issued, share for share, for capital stock of California Southern Railroad Company.

FUNDED DEBT.

Class of Bond or Obligation, and Date of Issue and Maturity.	Authorized Issue.	Amount Issued and Outstanding.
California Southern Railroad Company first mortgage bonds—January 12, 1882; January 1, 1932.....	\$3,101,000 00	\$1,000 00
California Southern Railroad Company first mortgage bonds—January 1, 1886; January 1, 1926.....	2,106,000 00	2,056,000 00
California Central Railway Company first mortgage bonds—June 1, 1887; June 1, 1932.....	6,457,000 00	6,457,000 00
Redondo Beach Railway Company first mortgage bonds—June 1, 1888; June 1, 1932.....	270,000 00	270,000 00
California Southern Railroad Company income bonds—March 1, 1886; March 1, 1926.....	3,505,000 00	{ 3,497,000 00 *3,740 00
Totals	\$15,439,000 00	\$12,284,740 00

Class of Bond or Obligation.	Rate.	Payable.	Interest Accrued Dur- ing 18 Mos.	Interest Paid During 18 Mos.
California Southern Railroad Company first mortgage bonds†.....				
California Southern Railroad Company first mortgage bonds.....	6	Jan. and July.	\$185,040 00	None.
California Central Railway Company first mortgage bonds.....	6	June and Dec.	229,320 00	None.
Redondo Beach Railway Company first mortgage bonds.....	6	June and Dec.	9,720 00	None.
California Southern Railroad Company income bonds.....	6	Mar. and Sept.	None.	If earned.
Total			\$424,080 00	

*Scrip.

†Bonds called for exchange—no interest charged.

The California Southern Railroad Company first mortgage bonds of 1882 were sold in blocks to the amount of \$3,101,000, together with \$3,036,000 California Southern Railroad Company capital stock, for \$3,324,000.

The California Central Railway Company first mortgage bonds were issued, together with \$5,051,000 capital stock, under contract for construction of road.

The Redondo Beach Railway Company first mortgage bonds were issued, together with \$275,000 capital stock, for the construction of the road of that company.

The California Southern Railroad Company registered income bonds were issued in exchange for that company's first mortgage bonds of 1882 and in payment of accrued interest thereon.

Accrued interest on funded debt: The interest on \$2,548,000 California Central Railway Company first mortgage bonds and \$108,000 Redondo Beach Railway first mortgage bonds only has accrued, the remaining bonds of those companies participating in the income bonds equally with the California Southern Railroad Company registered income bonds from date of consolidation, November 1, 1889, in accordance with agreement of A. T. & S. F. R. R. Co., owner of said bonds, with the security holders of the California Southern Railroad Company.

CURRENT ASSETS AND LIABILITIES. (December 31, 1892.)

Cash and Current Assets Available for Payment of Current Liabilities.		Current Liabilities Accrued to and Including December 31, 1892.	
Cash	\$56,996 07	Loans and bills payable	\$100,000 00
Bills receivable	3,941 65	Audited vouchers and accounts	104,008 76
Due from agents	24,953 98	Wages and salaries	94,837 64
Due from solvent companies and individuals	245,594 18	Net traffic balances due to other companies	63,097 85
Balance—current liabilities	987,343 37	Matured interest coupons unpaid (including coupons due January 1)	956,885 00
Total	\$1,318,829 25	Total	\$1,318,829 25

CURRENT ASSETS AND LIABILITIES. (June 30, 1893.)

Cash and Current Assets Available for Payment of Current Liabilities.		Current Liabilities Accrued to and Including June 30, 1893.	
Cash	\$67,276 54	Loans and bills payable	\$100,000 00
Bills receivable	1,691 65	Audited vouchers and accounts	85,430 87
Due from agents	35,109 02	Wages and salaries	109,506 01
Due from solvent companies and individuals	647,777 20	Net traffic balances due to other companies	169,172 97
Balance—current liabilities	810,500 44	Matured interest coupons unpaid (including coupons due July 1)	1,098,245 00
Total	\$1,562,354 85	Total	\$1,562,354 85

RECAPITULATION. (December 31, 1892.)

Account.	Amount Outstanding.	Miles of Road.	Amount per Mile of Road.
Capital stock	\$12,804,000 00	490.98	{ \$26,078 45 25,020 86 2,010 96
Funded debt	12,284,740 00		
Floating debt—balance	987,343 37		
Totals	\$26,076,083 37	490.98	\$53,110 27

RECAPITULATION. (June 30, 1893.)

Account.	Total Amount Outstanding.	Miles of Road.	Amount per Mile of Road.
Capital stock	\$12,804,000 00	490.98	{ \$26,078 45 25,020 86 1,650 78
Bonds	12,284,740 00		
Floating debt—balance	810,500 44		
Totals	\$25,899,240 44	490.98	\$52,750 09

PERMANENT IMPROVEMENTS FOR THE YEAR ENDING DECEMBER 31, 1892.

Item.	Expenditures Included in Operating Expenses.	Expenditures Included in Construction or Equipment Account.	Total Expendi- tures.
Construction:			
Right of way and other real estate	\$10,156 60	\$8,126 96	\$18,283 56
Fences	2,352 10	2,209 02	4,561 12
Grading and bridge and culvert masonry	2,779 96	21,291 91	24,071 87
Bridges and trestles	4,484 53	15,957 64	20,442 17
Rails		62,997 13	62,997 13
Ties		22,477 79	22,477 79
Other superstructure	364 44	2,289 54	2,653 98
Buildings, furniture, and fixtures	10,932 99	9,702 48	20,635 47
Shop machinery and tools	198 67	48 96	247 63
Engineering expenses		3,952 28	3,952 28
Telegraph line	8 00	442 64	450 64
Wharfing, etc.	85 01		85 01
Sidings and yard extensions	6,537 33	15,892 08	22,429 41
Other items	32,867 39	31,874 96	64,742 35
Total construction	\$70,597 00	\$197,263 39	\$267,860 39
Equipment:			
Freight cars	\$1,113 60		\$1,113 60
Other cars of all classes	1,549 33		1,549 33
Floating equipment	800 00	Cr. \$5,500 00	Cr. 4,700 00
Total equipments	\$3,462 93	\$5,500 00	Cr. \$2,037 07
Grand total cost improvements	\$74,059 93	\$191,763 39	\$265,823 32

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS. (December 31, 1892.)

Item.	Net Additions During Year.	Total Cost to Dec. 31, 1891.	Total Cost to Dec. 31, 1892.
Construction:			
Right of way and other real estate	\$8,126 96	\$34,714 35	\$42,841 31
Fences	2,209 02	26,089 40	28,293 42
Grading and bridge and culvert masonry	21,291 91	1,448,254 77	1,469,546 68
Bridges and trestles	15,957 64	331,090 49	347,048 13
Rails	62,997 13	1,280,167 59	1,343,164 72
Ties	22,477 79	330,120 96	352,598 75
Buildings, furniture, and fixtures	9,702 48	286,078 86	295,781 34
Shop machinery and tools	48 96	156,922 34	156,971 30
Engineering expenses	3,952 28	146,088 35	150,040 63
Discount on securities sold for construction		3,629,022 75	3,629,022 75
Telegraph line	442 64	13,042 79	13,485 43
Wharfing, etc.		221,286 71	221,286 71
Sidings and yard extensions	15,892 08	147,869 71	163,761 79
Road built by contract		16,059,587 27	16,059,587 27
Other items	34,164 50	523,329 16	557,493 66
Total construction	\$197,263 39	\$24,633,665 50	\$24,830,928 89
Equipment:			
Locomotives		\$227,019 83	\$227,019 83
Passenger cars		59,739 73	59,739 73
Baggage, express, and postal cars		12,139 57	12,139 57
Combination cars		22,806 57	22,806 57
Freight cars		106,741 65	106,741 65
Floating equipment	Cr. \$5,500 00	43,898 03	38,398 03
Total equipment	Cr. \$5,500 00	\$472,345 38	\$466,845 38
Grand total cost construction, equipment, etc.	\$191,763 39	\$25,106,010 88	\$25,297,774 27

The cost per mile of road chargeable to construction is \$50,574 22; chargeable to equipment, \$950 84; total cost per mile of road, \$51,525 06.

* COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS. (June 30, 1893.)

Item.	Expenditures Included in Income Account.	Expenditures Included in Cost of Property.	Total Expenditures.	Total Cost to Dec. 31, 1892.	Total Cost to June 30, 1893.	Net Additions during 6 Months.
Construction:						
Right of way and other real estate	\$1,492 44	*\$432 67	\$1,059 77	\$42,841 31	\$42,408 64	*\$432 67
Fences	851 48		851 48	28,298 42	28,298 42	
Grading, and bridge and culvert masonry	586 17	39 95	506 12	1,469,546 68	1,469,586 63	39 95
Bridges and trestles	3,398 92	1,052 46	4,451 38	347,048 13	348,100 59	1,052 46
Rails				1,343,164 72	1,343,164 72	
Ties				352,598 75	352,598 75	
Other superstructure	181 79	4 83	186 62			
Buildings, furniture, and fixtures	27,808 53	*172 84	27,635 69	295,781 34	295,608 50	*172 84
Shop machinery and tools				156,971 30	156,971 30	
Engineering expenses				150,040 63	150,040 63	
Discount on securities sold for construction.				3,629,022 75	3,629,022 75	
Telegraph line		705 44	705 44	13,485 43	14,190 87	705 44
Wharfing, etc.	*100 00		*100 00	221,286 71	221,286 71	
Sidings and yard extensions	30 32		30 32	163,761 79	163,761 79	
Road built by contract				16,059,587 27	16,059,587 27	
Other items	12,220 34	78 94	12,299 28	557,498 66	557,577 43	83 77
Total construction	\$46,439 99	\$1,276 11	\$47,716 10	\$24,830,928 89	\$24,832,205 00	\$1,276 11
Equipment:						
Locomotives	\$242 84		\$242 84	\$227,019 83	\$227,019 83	
Passenger cars	6,721 68		6,721 68	59,739 73	59,739 73	
Baggage, express, and postal cars				12,139 57	12,139 57	
Combination cars				22,806 57	22,806 57	
Freight cars	61 56		61 56	106,741 65	106,741 65	
Floating equipment				38,398 03	38,398 03	
Total equipment	\$7,026 08		\$7,026 08	\$406,845 38	\$406,845 38	
Grand total cost construction, equipment, etc.	\$53,466 07	\$1,276 11	\$54,742 18	\$25,297,774 27	\$25,299,050 38	\$1,276 11

* Deductions.

Cost per mile chargeable to construction, \$50,576 82; chargeable to equipment, \$950 84; total cost per mile, \$51,527 66.

INCOME ACCOUNT. (For 12 months ending December 31, 1892.)

Gross earnings from operation	\$2,138,814 46	
Less operating expenses.....	1,590,133 35	
Income from operation		\$548,681 11
Miscellaneous income—less expenses.....		14,060 43
Total income		\$562,741 54
Deductions from income:		
Interest on funded debt accrued.....	\$232,720 00	
Taxes	68,900 45	
Permanent improvements.....	74,059 93	
Total deductions from income.....		425,680 38
Net income		\$137,061 16
Surplus from operations of year ending December 31, 1892.....	\$137,061 16	
Deficit December 31, 1891	868,249 18	
Deficit December 31, 1892		\$731,188 02

INCOME ACCOUNT. (For 6 months ending June 30, 1893.)

Gross earnings from operation	\$1,236,623 12	
Less operating expenses.....	887,141 89	
Income from operation		\$349,481 23
Deductions from income:		
Interest on funded debt accrued.....	\$141,360 00	
Interest on interest-bearing current liabilities accrued, not otherwise provided for	1,819 37	
Taxes	36,000 00	
Permanent improvements.....	53,466 07	
Total deductions from income		232,645 44
Net income		\$116,835 79
Deficit on December 31, 1892.....	\$731,188 02	
Surplus from operations of year ending June 30, 1893.....	116,835 79	
Deficit on June 30, 1893		\$614,352 23

STOCKS OWNED.

Name.	Par Value.
Marine Railway and Dry Dock Company, 100 shares	\$10,000 00
San Antonio Water Company, 6 shares	600 00
Santa Ana Valley Irrigation Company, 4½ shares.....	22 50
Total.....	\$10,622 50

No income was derived from the above stocks.

MISCELLANEOUS INCOME. (For 12 months ending December 31, 1892.)

Item.	Net Miscellane- ous Income.
Profit on contract for erection of depot and improvement of depot grounds at Perris	\$10,000 00
Miscellaneous profits.....	4,060 43
Total.....	\$14,060 43

SECURITY FOR FUNDED DEBT.

Class of Bond or Obligation.	What Road Mortgaged.	Miles.	What Equipment Mortgaged.
California Southern Railroad Company first mortgage (1882).....	San Bernardino to National City	129.59	..... All.
California Southern Railroad Company first mortgage (1886).....	Barstow to National City.....	210.61	..... All.
California Central Railway Company first mortgage.....	San Bernardino to Los Angeles.....	251.26	..... All.
	Los Angeles to Los Angeles Junction.....		
	East Riverside to Orange		
	Perris to San Jacinto		
	Escondido Junction to Escondido		
Redondo Beach Railway Company first mortgage..	San Bernardino to Mentone	10.81	..... None.
	Ballona Junc. to Santa Monica Junc.		
	Inglewood to Redondo Beach		

EARNINGS FROM OPERATION. (For 12 months ending December 31, 1892.)

Item.	Total Receipts.	Deductions.	Actual Earnings.
Passenger revenue	\$862,795 95		
Less tickets redeemed		\$1,520 89	
Excess fares refunded.....		592 33	
Other repayments.....		225 60	
Total deductions		\$2,338 82	
Total passenger revenue			\$860,457 13
Mail.....			56,730 57
Express			40,700 00
Extra baggage and storage.....			24,367 56
Other items			9,220 64
Total passenger earnings.....			\$991,475 90
Freight revenue	\$1,097,356 73		
Less overcharge to shippers.....		\$45,574 34	
Other repayments.....		7,105 91	
Total deductions		\$52,680 25	
Total freight revenue			\$1,044,676 48
Other items			76,539 04
Total freight earnings.....			\$1,121,215 52
Total passenger and freight earnings.....			\$2,112,691 42
Other earnings from operation:			
Switching charges—balance	\$8,074 32		
Telegraph companies	6,505 35		
Rents from tracks, yards, and terminals.....	5,918 53		
Other sources (Santa Fe wharf).....	5,624 84		
Total other earnings			26,123 04
Total gross earnings from operation			\$2,138,814 46

EARNINGS FROM OPERATION. (For 6 months ending June 30, 1893.)

Item.	Total Receipts.	Deductions, Etc.	Actual Earnings.
Passenger revenue	\$487,290 20		
Less tickets redeemed		\$924 38	
Excess fares refunded		923 89	
Other repayments		380 77	
Total deductions		\$2,229 04	
Total passenger revenue			\$485,061 16
Mail			29,291 94
Express			21,975 28
Extra baggage and storage			12,327 55
Other items			2,776 86
Total passenger earnings			\$551,432 79
Freight revenue	\$680,620 03		
Less overcharge to shippers		\$50,342 00	
Other repayments		19,277 26	
Total deductions		\$69,619 26	
Total freight revenue			611,000 77
Other items			60,639 82
Total freight earnings			\$671,640 59
Total passenger and freight earnings			\$1,223,073 38
Other earnings from operation:			
Switching charges—balance	\$4,255 62		
Telegraph companies	4,037 71		
Rents from tracks, yards, and terminals	3,427 99		
Other sources (Santa Fe wharf)	1,828 42		
Total other earnings			13,549 74
Total gross earnings from operation			\$1,236,623 12

FINANCIAL OPERATIONS FOR THE YEAR ENDING DECEMBER 31, 1892.

Resources.		Appropriation of Resources.	
Net income from operation...	\$548,681 11	Interest on funded debt accrued	\$282,720 00
Net income from other rail-road sources	14,060 43	Taxes	68,900 45
Net increase floating debt	31,864 64	Permanent improvements	70,597 00
Net amount from sales of securities, etc.	898 88	Equipment	2,037 07
Net amount decrease of other assets	32,423 37	Constructing new road	197,263 39
		Securities purchased	7 35
		Increase of cash assets	9,709 61
		Decrease sundry accrued liabilities	767 70
Total	\$627,928 43	Total	\$627,928 43

FINANCIAL OPERATIONS FOR SIX MONTHS ENDING JUNE 30, 1893.

Resources.		Appropriation of Resources.	
Net income from operation	\$349,481 23	Interest on funded debt accrued	\$141,360 00
Net increase floating debt	243,525 60	Other interest paid	1,819 37
Net amount decrease of other assets	29,287 65	Taxes	36,000 00
Increase of sundry accrued liabilities	33,281 87	Permanent improvements	46,439 99
		Equipment	7,026 08
		Constructing new road	1,276 11
		Securities purchased	3 00
		Other properties purchased	1,283 27
		Increase of cash assets	420,368 53
Total	\$655,576 35	Total	\$655,576 35

GENERAL BALANCE SHEET. (December 31, 1892.)

Assets.		Liabilities.	
Cost of road	\$24,830,928 89	Capital stock	\$12,804,000 00
Cost of equipment	466,845 38	Funded debt	12,284,740 00
Stocks of other companies owned	14,628 15	Current liabilities	1,318,829 25
Cash and current assets	331,485 88	Accrued interest on funded debt not yet payable	13,280 00
Other assets:		Accrued liabilities not yet due	15,255 59
Materials and supplies	95,198 69	Canceled bonds C. S. R. R. Co.	50,000 00
Sundries	15,829 83		
Profit and loss	731,188 02		
Total	\$26,486,104 84	Total	\$26,486,104 84

GENERAL BALANCE SHEET. (June 30, 1893.)

Assets.		Liabilities.	
Cost of road	\$24,832,205 00	Capital stock	\$12,804,000 00
Cost of equipment	466,845 38	Funded debt	12,284,740 00
Stocks of other companies owned	14,631 15	Current liabilities	1,562,354 85
Lands owned	1,283 27	Accrued interest on funded debt not yet payable	13,280 00
Cash and current assets	751,854 41	Accrued liabilities not yet due	48,537 46
Other assets:		Canceled bonds, California Southern Railroad Co.	50,000 00
Materials and supplies	75,665 01		
Sundries	6,075 86		
Deficit from operation	614,352 23		
Total	\$26,762,912 31	Total	\$26,762,912 31

IMPORTANT CHANGES DURING THE EIGHTEEN MONTHS.

Extension of Road:

On January 17, 1892, the remaining portion of the San Bernardino and Eastern Railway, from East Highland to Mentone, was opened; a distance of 3.69 miles.

On June 13, 1892, the Santa Fe and Santa Monica Railway, from Santa Monica Junction, near Mesner, to Santa Monica, was opened; a distance of 5.42 miles.

Less abandoned line— 9.11 miles.

On June 13, 1892, the portion of the Los Angeles and Santa Monica Railway from Santa Monica Junction to Ballona was abandoned; a distance of 2.59 miles.

Net extension 6.52 miles.

By articles of agreement dated June 8, 1892, the San Bernardino and Eastern Railway Company and the Santa Fe and Santa Monica Railway Company were consolidated with the Southern California Railway Company; said articles of agreement effecting such consolidation were filed with Secretary of State of California, June 27, 1892. Name of consolidated company: Southern California Railway Company.

OPERATING EXPENSES. (For 12 months ending December 31, 1892.)

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of way and structures:			
Repairs of roadway	\$94,256 05	\$52,520 67	\$146,776 72
Renewals of rails	1,332 32	771 12	2,103 44
Renewals of ties	7,023 34	3,831 96	10,855 30
Repairs of bridges and culverts	24,187 57	13,099 88	37,287 45
Repairs of fences, road-crossings, signs, and cattle guards	780 87	426 14	1,207 01
Repairs of buildings	12,702 79	7,138 96	19,841 75
Repairs of docks and wharves		1,244 89	1,244 89
Repairs of telegraph	1,517 38	861 76	2,379 14
Other expenses	8,332 96	4,645 35	13,028 31
Totals	\$150,183 28	\$84,540 73	\$234,724 01
Maintenance of equipment:			
Repairs and renewals of locomotives	\$44,403 05	\$24,636 03	\$69,039 08
Repairs and renewals of passenger cars	23,585 18		23,585 18
Repairs and renewals of freight cars		34,547 55	34,547 55
Repairs and renewals of ferry-boats, tugs, floats, and barges		211 80	211 80
Shop machinery, tools, etc.	1,255 93	687 37	1,943 30
Other expenses	2,832 08	1,575 53	4,407 61
Totals	\$72,076 24	\$61,658 28	\$133,734 52
Conducting transportation:			
Wages of enginemen, firemen, and round-housemen	\$92,763 01	\$46,241 47	\$139,004 48
Fuel for locomotives	211,544 77	172,916 72	384,461 49
Water supply for locomotives	7,488 95	4,155 75	11,644 70
All other supplies for locomotives	4,490 70	3,057 57	7,548 27
Wages of other trainmen	66,705 25	45,594 93	112,300 18
All other train supplies	27,747 09	6,103 56	33,850 65
Wages of switchmen, flagmen, and watchmen	25,035 54	13,920 62	38,956 16
Expense of telegraph, including train dispatchers and operators	21,365 67	11,885 28	33,250 95
Wages of station agents, clerks, and laborers	46,826 00	57,837 58	104,663 58
Station supplies	3,311 88	1,857 32	5,169 20
Car mileage—balance	72,616 69	55,927 89	128,544 58
Loss and damage	3,344 92	10,235 38	13,580 30
Injuries to persons	1,290 05	2,823 50	4,113 55
Barges, floats, tugs, ferry-boats, expenses of, including wages, fuel, and supplies		1,278 62	1,278 62
Other expenses	5,165 08	6,400 82	11,565 90
Totals	\$589,695 60	\$440,237 01	\$1,029,932 61
General expenses:			
Salaries of officers	\$15,103 40	\$8,408 12	\$23,511 52
Salaries of clerks	31,070 59	31,461 48	62,532 07
General office expenses and supplies	5,163 36	2,851 09	8,014 45
Agencies, including salaries and rent	16,907 76	8,391 95	25,299 71
Advertising	17,032 85	296 97	17,329 82
Commissions	5,522 68		5,522 68
Insurance	3,880 30	2,159 37	6,039 67
Expense of traffic associations	210 72	13,189 51	13,400 23
Rents for tracks, yards, and terminals	287 10	212 40	499 50
Legal expenses	9,885 64	5,618 90	15,504 54
Stationery and printing	8,431 24	5,574 79	14,006 03
Other general expenses	51 78	30 21	81 99
Totals	\$113,547 42	\$78,194 79	\$191,742 21
Recapitulation of expenses:			
Maintenance of way and structures	\$150,183 28	\$84,540 73	\$234,724 01
Maintenance of equipment	72,076 24	61,658 28	133,734 52
Conducting transportation	589,695 60	440,237 01	1,029,932 61
General expenses	113,547 42	78,194 79	191,742 21
Grand totals	\$925,502 54	\$664,630 81	\$1,590,133 35
Percentage of operating expenses to earnings.	93.35	59.28	74.35

OPERATING EXPENSES. (For 6 months ending June 30, 1893.)

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of way and structures:			
Repairs of roadway.....	\$57,745 61	\$37,003 54	\$91,749 15
Renewals of rails.....	60 84	39 73	100 57
Renewals of ties.....	6,135 18	3,928 68	10,063 86
Repairs of bridges and culverts.....	13,457 42	8,396 73	21,854 15
Repairs of fences, road-crossings, signs, and cattle guards.....	337 07	258 67	645 74
Repairs of buildings.....	3,443 01	2,210 04	5,653 05
Repairs of docks and wharves.....		1,140 08	1,140 08
Repairs of telegraph.....	636 68	406 40	1,043 08
Other expenses.....	4,401 64	2,799 29	7,200 93
Totals.....	\$86,267 45	\$56,183 16	\$142,450 61
Maintenance of equipment:			
Repairs and renewals of locomotives.....	\$18,085 63	\$11,504 16	\$29,589 79
Repairs and renewals of passenger cars.....	15,841 12		15,841 12
Repairs and renewals of freight cars.....		19,369 31	19,369 31
Shop machinery, tools, etc.....	454 98	287 27	742 25
Other expenses.....	1,354 13	861 84	2,215 97
Totals.....	\$35,735 86	\$32,022 58	\$67,758 44
Conducting transportation:			
Wages of enginemen, firemen, and round-housemen.....	\$49,275 69	\$28,933 72	\$78,209 41
Fuel for locomotives.....	119,068 42	114,852 06	233,920 48
Water supply for locomotives.....	3,868 26	2,479 40	6,347 66
All other supplies for locomotives.....	2,449 78	1,871 89	4,321 67
Wages of other trainmen.....	35,385 47	29,108 84	64,494 31
All other train supplies.....	13,491 21	3,149 23	16,640 44
Wages of switchmen, flagmen, and watchmen.....	12,514 55	7,980 18	20,494 73
Expense of telegraph, including train dispatchers and operators.....	10,526 70	6,716 75	17,243 45
Wages of station agents, clerks, and laborers.....	23,317 53	34,639 76	57,957 29
Station supplies.....	1,533 31	972 53	2,505 84
Car mileage—balance.....	34,232 99	32,769 77	67,002 76
Loss and damage.....	3,616 93	4,703 44	8,320 37
Injuries to persons.....	1,752 53	689 79	2,442 32
Other expenses.....	1,540 51	2,894 61	4,435 12
Totals.....	\$312,573 88	\$271,761 97	\$584,335 85
General expenses:			
Salaries of officers.....	\$7,256 72	\$4,828 22	\$12,084 94
Salaries of clerks.....	15,806 52	17,108 37	32,914 89
General office expenses and supplies.....	2,929 99	1,955 13	4,885 12
Agencies, including salaries and rent.....	8,447 38	4,727 09	13,174 47
Advertising.....	7,359 36	88 43	7,447 79
Commissions.....	3,528 58		3,528 58
Insurance.....	1,540 49	972 01	2,512 50
Expense of traffic associations.....	48 07	1,052 27	1,100 34
Rents for tracks, yards, and terminals.....	120 00	101 28	221 28
Legal expenses.....	5,179 93	3,244 03	8,423 96
Stationery and printing.....	3,756 01	2,547 11	6,303 12
Totals.....	\$55,973 05	\$36,623 94	\$92,596 99
Recapitulation of expenses:			
Maintenance of way and structures.....	\$86,267 45	\$56,183 16	\$142,450 61
Maintenance of equipment.....	35,735 86	32,022 58	67,758 44
Conducting transportation.....	312,573 88	271,761 97	584,335 85
General expenses.....	55,973 05	36,623 94	92,596 99
Grand totals.....	\$490,550 24	\$396,591 65	\$887,141 89
Percentage of operating expenses to earnings.....	88.96	59.05	71.74

CONTRACTS, AGREEMENTS, ETC.

1. Express with Wells, Fargo & Co.'s Express.
2. Mails with United States Government Post Office Department.
3. Sleeping car, etc., with Pullman Palace Car Company.
4. Telegraph with Western Union Telegraph Company.

EMPLOYÉS AND SALARIES. (For 12 months ending December 31, 1892.)

Class.	Number.	Total Yearly Compensation.	Average Daily Compensation.
General officers	7	\$31,000 00	\$12 10
General office clerks	75	67,670 00	2 56
Station agents*	93	52,300 00	2 32
Other station men*	134	77,700 00	2 05
Enginemen	48	71,600 00	4 62
Firemen	51	43,650 00	2 78
Conductors	36	49,320 00	3 89
Other trainmen	87	65,400 00	2 68
Machinists	56	36,790 00	2 70
Carpenters†	70	62,370 00	2 80
Other shopmen	120	69,860 00	1 99
Section foremen	63	47,850 00	2 20
Other trackmen	305	123,610 00	1 77
Switchmen, flagmen, and watchmen	40	41,470 00	2 57
Telegraph operators and dispatchers	15	13,190 00	3 03
All other employés and laborers	143	86,650 00	2 19
Total	1,343	\$940,430 00	\$2 46

*53 Station Agents and other station employés are also telegraph operators, and are not classed with telegraph operators.

† Includes car-builders and repairers.

EMPLOYÉS AND SALARIES. (For 6 months ending June 30, 1893.)

Class.	Number.	Total Compensation for Six Months.	Average Daily Compensation.
General officers	8	\$15,426 00	\$12 12
General office clerks	79	34,871 00	2 60
Station agents*	94	27,731 00	2 44
Other station men*	155	42,399 00	2 05
Enginemen	56	40,456 00	4 56
Firemen	55	24,530 00	2 75
Conductors	43	28,516 00	3 85
Other trainmen	93	37,172 00	2 68
Machinists	66	20,647 00	2 73
Carpenters†	77	31,303 00	2 78
Other shopmen	130	35,478 00	1 98
Section foremen	63	23,959 00	2 21
Other trackmen	441	70,268 00	1 78
Switchmen, flagmen, and watchmen	42	22,165 00	2 68
Telegraph operators and dispatchers	13	6,738 00	3 11
All other employés and laborers	142	41,689 00	2 06
Total	1,557	\$503,398 00	\$2 47

*55 station agents and other station employés are also telegraph operators, but are not included under latter heading.

† Includes car-builders and repairers.

PASSENGER AND FREIGHT, AND TRAIN MILEAGE. (For 12 months ending December 31, 1892.)

Item.	Tonnage, Passengers, etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue.....	926,302	
Number of passengers carried one mile.....	33,049,052	
Average distance carried—miles.....	35.68	
Total passenger revenue.....		\$860,457 13
Average amount received from each passenger.....		93
Average receipts per passenger per mile.....		02.604
Estimated cost of carrying each passenger one mile.....		02.800
Passenger earnings per mile of road.....		2,019 38
Passenger earnings per train mile.....		1 13
Freight traffic:		
Number of tons carried of freight earning revenue.....	421,708	
Number of tons carried one mile.....	38,128,264	
Average distance haul of one ton—miles.....	90.41	
Total freight revenue.....		1,044,676 48
Average amount received for each ton of freight.....		2 48
Average receipts per ton per mile.....		02.740
Estimated cost of carrying one ton one mile.....		01.743
Freight earnings per mile of road.....		2,283 63
Freight earnings per train mile—north or east.....		2 90
Freight earnings per train mile—south or west.....		2 11
Passenger and freight:		
Passenger and freight earnings.....		2,112,691 42
Passenger and freight earnings per mile of road.....		4,303 01
Expenses per mile of road.....		3,259 06
Total earnings per mile of road, including mails, express, etc.....		4,356 21
Train mileage:		
Miles run by passenger trains.....	851,301	
Miles run by freight trains.....	363,292	
Miles run by mixed trains.....	109,851	
Total mileage trains earning revenue.....	1,324,444	
Miles run by switching trains.....	238,164	
Miles run by construction and other trains.....	31,834	
Grand total train mileage.....	1,594,442	
Mileage of loaded freight cars—north or east.....	2,269,485	
Mileage of loaded freight cars—south or west.....	1,786,440	
Mileage of empty freight cars—north or east.....	735,074	
Mileage of empty freight cars—south or west.....	1,263,550	
Average number of freight cars in train.....	16	
Average number of loaded cars in train.....	10	
Average number of empty cars in train.....	6	
Average number of tons of freight in train.....	35	
Average number of tons of freight in each loaded car.....	3.5	

PASSENGER AND FREIGHT, AND TRAIN MILEAGE. (For 6 months ending June 30, 1893.)

Item.	Tonnage, Passengers, etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue.....	511,071	
Number of passengers carried one mile.....	17,582,036	
Average distance carried—miles.....	34.40	
Total passenger revenue.....		\$485,061 16
Average amount received from each passenger.....		95
Average receipts per passenger per mile.....		02.759
Estimated cost of carrying each passenger one mile.....		02.790
Passenger earnings per mile of road.....		1,123 13
Passenger earnings per train mile.....		1 19
Freight traffic:		
Number of tons carried of freight earning revenue.....	277,093	
Number of tons carried one mile.....	23,881,150	
Average distance haul of one ton—miles.....	86.18	
Total freight revenue.....		611,000 77
Average amount received for each ton of freight.....		2 21
Average receipts per ton per mile.....		02.559
Estimated cost of carrying one ton one mile.....		01.661
Freight earnings per mile of road.....		1,367 96
Freight earnings per train mile—north or east.....		3 16
Freight earnings per train mile—south or west.....		1 75
Passenger and freight:		
Passenger and freight earnings.....		1,223,073 38
Passenger and freight earnings per mile of road.....		2,491 09
Expenses per mile of road.....		1,806 88
Total earnings per mile of road, including mails, express, etc.....		2,518 68
Train mileage:		
Miles run by passenger trains.....	449,930	
Miles run by freight trains.....	228,075	
Miles run by mixed trains.....	57,231	
Total mileage trains earning revenue.....	735,236	
Miles run by switching trains*.....	130,465	
Miles run by construction and other trains.....	13,000	
Grand total train mileage.....	878,701	
Mileage of loaded freight cars—north or east.....	1,582,234	
Mileage of loaded freight cars—south or west.....	912,226	
Mileage of empty freight cars—north or east.....	356,561	
Mileage of empty freight cars—south or west.....	995,333	
Average number of freight cars in train.....	18	
Average number of loaded cars in train.....	11	
Average number of empty cars in train.....	7	
Average number of tons of freight in train.....	39	
Average number of tons of freight in each loaded car.....	3.6	

* Mileage of switch engine used for switch train mileage.

MILEAGE OF ROAD OPERATED.

Line in Use.	Main Line.	Branches and Spurs.	Total Mileage Operated.	New Line Constructed.	Steel Rails.
Miles of single track.....	396.30	94.68	490.98	6.52	490.98
Miles of yard track and sidings.....	71.07	11.29	82.36	-----	82.36
Total mileage operated (all tracks).....	467.37	105.97	573.34	6.52	573.34

The entire mileage is in the State of California.

RENEWALS OF RAILS AND TIES.

Steel rails laid during year, 144¹³⁵⁰/₂₂₄₀ tons; average price per ton at distributing point, \$46 27.

Number of cross ties laid during year ending December 31, 1892, 25,003; average price at distributing point, 43 cents.

New ties laid during six months ending June 30, 1893: Cross, 23,220; average price at distributing point, 38 cents.

FREIGHT TRAFFIC MOVEMENT. (For 12 months ending December 31, 1892.)

Commodity.	Originating on this Road—Tons.	Received from Connecting Roads—Tons.	Total Freight Tonnage.	Per Cent.
Products of agriculture:				
Grain.....	18,695	2,484	21,179	5.00
Flour.....	2,876	2,041	4,917	1.17
Other mill products.....	5,258	268	5,526	1.32
Hay.....	8,375	1,059	9,434	2.24
Fruit and vegetables.....	44,891	11,116	59,007	13.99
Products of animals:				
Live stock.....	3,579	1,651	5,230	1.24
Dressed meats.....	337	61	398	.09
Other packing-house products.....	196	3,960	4,156	.99
Poultry, game, and fish.....	219	1,042	1,261	.30
Wool.....	1,630	113	1,743	.41
Hides and leather.....	662	62	724	.17
Products of mines:				
Anthracite coal.....	-----	259	259	.06
Bituminous coal.....	3,110	57,514	60,624	14.38
Coke.....	-----	418	418	.10
Ores.....	221	86	307	.07
Stone, sand, and other like articles.....	22,931	2,625	25,556	6.06
Products of forest:				
Lumber.....	27,985	56,030	84,015	19.93
Manufactures:				
Petroleum and other oils.....	2,108	6,699	8,807	2.09
Sugar.....	336	461	797	.19
Iron—pig and bloom.....	27	176	203	.05
Iron and steel rails.....	-----	243	243	.06
Other castings and machinery.....	1,309	1,883	3,192	.76
Bar and sheet metal.....	2,128	6,610	8,738	2.07
Cement, brick, and lime.....	26,873	10,622	37,495	8.89
Agricultural implements.....	293	1,542	1,835	.43
Wagons, carriages, tools, etc.....	314	1,437	1,751	.42
Wines, liquors, and beers.....	3,395	2,423	5,818	1.38
Household goods and furniture.....	2,710	4,135	6,845	1.62
Merchandise.....	34,708	15,881	50,589	12.00
Miscellaneous: other commodities not mentioned above.....	4,654	5,987	10,641	2.52
Total tonnage.....	222,820	198,888	421,708	100.00

FREIGHT TRAFFIC MOVEMENT. (For 6 months ending June 30, 1893.)

Commodity.	Originating on this Road—Tons.	Received from Connecting Roads—Tons.	Total Freight Tonnage.	Per Cent.
Products of agriculture :				
Grain	13,830	1,075	14,905	5.38
Flour	1,441	1,436	2,877	1.04
Other mill products	2,796	141	2,937	1.06
Hay	4,019	164	4,183	1.51
Fruit and vegetables	50,265	11,975	62,240	22.46
Products of animals :				
Live stock	3,139	505	3,644	1.31
Dressed meats	25	60	85	.03
Other packing-house products	87	1,680	1,767	.63
Poultry, game, and fish	109	320	429	.15
Wool	564	94	658	.23
Hides and leather	417	71	488	.18
Products of mines :				
Anthracite coal		21	21	.01
Bituminous coal	1,040	28,522	29,562	16.67
Coke		103	103	.04
Ores	72		72	.03
Stone, sand, and other like articles	10,953	148	11,101	4.01
Products of forest :				
Lumber	20,378	43,418	63,796	23.02
Manufactures :				
Petroleum and other oils	1,107	6,076	7,183	2.59
Sugar	134	317	451	.16
Iron—pig and bloom	76	28	104	.04
Other castings and machinery	1,299	1,141	2,440	.88
Bar and sheet metal	1,218	3,634	4,852	1.75
Cement, brick, and lime	14,757	7,357	22,114	7.98
Agricultural implements	315	1,284	1,599	.58
Wagons, carriages, tools, etc.	117	1,063	1,180	.43
Wines, liquors, and beers	1,938	1,652	3,590	1.29
Household goods, and furniture	1,163	2,060	3,223	1.17
Merchandise	17,904	9,427	27,331	9.87
Miscellaneous: other commodities not mentioned above	1,311	2,847	4,158	1.50
Total tonnage	150,474	126,619	277,093	100.00

ACCIDENTS TO PERSONS. (For 12 months ending December 31, 1892.)

Kind of Accident.	Employés.		Passengers.		Others Not Trespassing.		Total Injured and Killed.
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	
Coupling and uncoupling		9					9
Derailments				3			3
Other causes	1	56	1		4	4	66
Totals	1	65	1	3	4	4	78

ACCIDENTS TO PERSONS. (For 6 months ending June 30, 1893.)

Kind of Accident.	Employés.		Passengers.		Others not Trespassing.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Coupling and uncoupling	1	12				
Collisions					1	
Other causes			26	1	1	5
Totals	1	38	1	2	5	3

DESCRIPTION OF EQUIPMENT.

Item.	Number at End of 18 Mos.	With Train Brake.	With Automatic Coupler.
Locomotives:			
Passenger	12	12	-----
Freight	8	8	-----
Switching	1	1	-----
Total locomotives	21	21	-----
Cars in passenger service:			
Second-class passenger cars	9	9	9
Combination passenger cars	7	7	7
Baggage, express, and postal cars	3	3	3
Official car	1	1	1
Totals	20	20	20
Cars in freight service:			
Box cars	43	43	-----
Flat cars	99	99	-----
Coal cars	30	30	-----
Totals	172	172	-----
Cars in company's service:			
Cinder and gravel cars	16	16	-----
Derrick cars, 1; pile drivers, 2; total	3	3	-----
Boarding cars	5	5	-----
Totals	24	24	-----
Total cars owned	216	216	20

All rolling stock is equipped with Westinghouse air brake, and the Miller automatic coupler is used on cars in passenger service.

CONSUMPTION OF FUEL BY LOCOMOTIVES. (For 12 months ending December 31, 1892.)

Locomotives.	Anthracite Coal—Tons.	Hardwood—Cords.	Total Fuel Consumed—Tons.*	Miles Run.	Average Pounds Consumed per Mile.
Passenger	23,724 ⁵⁰⁰ / ₂₀₀₀	3561 ¹³ / ₁₆	23,962 ¹⁶⁸ / ₂₀₀₀	965,692	50
Freight	22,612 ⁵⁰⁰ / ₂₀₀₀	340 ⁶ / ₁₆	22,839 ³³⁴ / ₂₀₀₀	535,605	85
Switching	3,768 ¹⁵⁰⁰ / ₂₀₀₀	56 ¹⁴ / ₁₆	3,806 ¹⁸² / ₂₀₀₀	233,164	32
Construction	635 ¹⁵⁰⁰ / ₂₀₀₀	91 ¹⁶ / ₁₆	642 ¹¹⁶ / ₂₀₀₀	38,117	34
Totals	50,741 ⁴⁰⁰ / ₂₀₀₀	7631 ¹⁴ / ₁₆	51,250 ⁹⁰⁰ / ₂₀₀₀	1,777,578	58

* One and one half cords of wood equal a ton of coal.

Average cost of coal at distributing point, \$7 65 per ton; average cost of wood at distributing point, \$4 53 per cord.

CONSUMPTION OF FUEL BY LOCOMOTIVES. (For 6 months ending June 30, 1893.)

Locomotives.	Anthracite Coal—Tons.	Hard Wood—Cords.	Total Fuel Consumed—Tons.*	Miles Run.	Average Pounds Consumed per Mile.
Passenger	14,856 ¹ / ₂	145	14,953 ³³² / ₂₀₀₀	504,302	59
Freight	15,976	154 ¹⁴ / ₁₆	16,079 ³³⁸ / ₂₀₀₀	322,738	100
Switching	2,452 ¹ / ₂	23 ¹⁴ / ₁₆	2,468 ³³² / ₂₀₀₀	130,465	38
Construction	285	21 ¹⁶ / ₁₆	286 ¹⁶⁶ / ₂₀₀₀	15,360	37
Totals	33,570	326 ⁸ / ₁₆	33,787 ⁸⁸⁸ / ₂₀₀₀	972,865	69

* One and one half cords of wood equal one ton of coal.

The average cost of coal at distributing point is \$7 02 per ton; of wood, \$4 06 per cord.

CHARACTERISTICS OF ROAD.

Working Divisions or Branches.	Length— Miles.	Alignment.		
		Number of Curves.	Aggregate Length of Curved Line— Miles.....	Length of Straight Line—Miles.....
National City to San Bernardino	129.61	292	39.10	90.51
San Bernardino to Barstow	81.00	154	20.30	60.70
San Bernardino to Los Angeles.....	61.91	64	10.70	51.21
Los Angeles to Los Angeles Junction.....	83.10	85	13.10	70.00
East Riverside to Orange	40.63	52	9.50	31.18
Perris to San Jacinto.....	19.33	4	1.90	17.43
Escondido Junction to Escondido	21.23	54	8.70	12.53
San Bernardino to Highland Junction, via Mentone.....	25.38	32	8.40	16.98
Ballona Junction to Santa Monica.....	17.88	24	2.80	15.08
Inglewood to Redondo Beach.....	10.81	20	3.90	6.91
Totals.....	490.98	781	118.40	372.58

Working Divisions or Branches.	Profile.						
	Length of Level Line—Miles.....	Number of As- cending Grades.	Sum of Ascents of Ascending Grades—Feet.....	Aggregate Length of Descending Grades—Miles.....	Number of De- scending Grades.	Sum of Descents of Descending Grades—Feet.....	Aggregate Length of Descending Grades—Miles.....
National City to San Bernardino	28.01	35	691	76.80	17	1,631	24.80
San Bernardino to Barstow	8.50	11	854	29.10	30	1,824	43.40
San Bernardino to Los Angeles.....	3.90	12	749	17.70	12	1,555	40.31
Los Angeles to Los Angeles Junction	18.30	31	886	26.80	31	965	38.00
East Riverside to Orange	9.00	16	131	5.00	16	896	26.68
Perris to San Jacinto	2.28	7	213	12.20	6	127	4.90
Escondido Junction to Escon- dido	2.63	10	909	14.10	10	309	4.50
San Bernardino to Highland Junction, via Mentone .....	.70	6	734	12.68	7	676	12.00
Ballona Junction to Santa Monica	5.38	5	113	3.10	6	267	9.40
Inglewood to Redondo Beach..	2.71	4	147	6.10	3	52	2.00
Totals.....	81.41	137	9,427	203.58	138	8,332	205.99

BRIDGES, TRESTLES, TELEGRAPH, ETC.

Bridges: Iron, 2; wooden, 10.

Trestles: Aggregate length, 63,109 feet.

Gauge of track: 4 feet 8½ inches.

Telegraph: Miles of line, 491.3; miles of wire, 631.2; owned and operated by this company, jointly with Western Union Telegraph Company.

Number of stations on all roads operated by this company in California: 149.

This report differs somewhat from previous reports in regard to wooden bridges and trestles, as herein all short span structures (whether resting on piles or frame bents) are considered as trestles, and only the Howe truss bridges are classed as wooden bridges; also, all structures less than 15 feet in length are considered as open culverts, and are not included in this statement.

DATE WHEN THE ROAD WAS OPENED FOR PUBLIC USE.

From National City to Fallbrook.....	January 2, 1882.
From Fallbrook to Temecula.....	March 27, 1882.
From Temecula to 105-mile siding.....	April 24, 1882.
From 105-mile siding to 109-mile siding.....	July 10, 1882.
From 109-mile siding to 116-mile siding.....	July 28, 1882.
From 116-mile siding to East Riverside.....	August 12, 1882.
From East Riverside to Colton.....	August 21, 1882.
From Colton to San Bernardino.....	September 13, 1883.
From San Bernardino to Barstow.....	November 15, 1885.
From Los Angeles to Pasadena.....	September 17, 1885.
From Pasadena to Olivewood.....	October 7, 1885.
From Olivewood to Lamanda Park.....	November 7, 1885.
From East Riverside to Riverside.....	January 8, 1886.
From Riverside to Arlington.....	March 15, 1886.
From Lamanda Park to San Bernardino.....	May 31, 1887.
From Arlington to Rincon.....	June 27, 1887.
From Rincon to Santa Ana.....	September 15, 1887.
From Los Angeles to Port Ballona.....	September 23, 1887.
From Santa Ana to San Juan.....	November 30, 1887.
From Escondido Junction to Escondido.....	December 31, 1887.
From San Bernardino to Mentone.....	February 1, 1888.
From Inglewood to Redondo Beach.....	April 16, 1888.
From Perris to San Jacinto.....	April 30, 1888.
From Ballona Junction to Orange.....	August 12, 1888.
From San Juan to Los Angeles Junction.....	August 12, 1888.
From Highland Junction to East Highland.....	August 17, 1891.
From East Highland to Mentone.....	January 17, 1892.
From Santa Monica Junction to Santa Monica.....	June 13, 1892.

GRANTS OR DONATIONS, IN BONDS OR MONEY, FROM STATES, COUNTIES, ETC.

Character of Donation.	Total.
Cash to Escondido Division.....	\$110,000 00
Cash and lands to San Jacinto Division.....	55,000 00

LANDS OR PROPERTY, INCLUDING RIGHT OF WAY, DONATED BY STATES, COUNTIES, ETC.

San Diego Division; depot grounds, etc., 258.05 acres; right of way, average width 100 feet, 129.6 miles.
 San Bernardino Division; depot grounds, etc., 67.59 acres; right of way, average width 100 feet, 81 miles.
 Los Angeles Division; depot grounds, etc., 47.41 acres; right of way, average width 100 feet, 34.9 miles.
 Coast Division; depot grounds, etc., 62.20 acres; right of way, average width 100 feet, 74.7 miles.
 Riverside Division; depot grounds, etc., 49.23 acres; right of way, average width 100 feet, 38.7 miles.
 San Jacinto Valley Division; depot grounds, etc., 25.07 acres; right of way, average width 100 feet, 19.4 miles.
 Escondido Division; depot grounds, etc., 29.04 acres; right of way, average width 100 feet, 20.1 miles.
 San Bernardino Valley Division; depot grounds, etc., 14.31 acres; right of way, average width 50 feet, 11.8 miles.
 Ballona Division; depot grounds, etc., 4.28 acres; right of way, average width 40 feet, 14.4 miles.
 Santa Monica Division; depot grounds, etc., 12.12 acres; right of way, average width 60 feet, 5.4 miles.
 Redondo Division; depot grounds, etc., 5.28 acres; right of way, average width 106 feet, 10.8 miles.

STATE OF ILLINOIS, }
 County of Cook. } ss.

We, the undersigned, J. W. Reinhart, President, and W. K. Gillett, General Auditor, of the Southern California Railway Company, on our oath, do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made

before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

J. W. REINHART,
President.
W. K. GILLETT,
General Auditor.

Subscribed and sworn to before me, this twenty-seventh day of October, 1893.

EDGAR P. H. WEST,
Notary Public.

SAN FRANCISCO AND NORTH PACIFIC RAILWAY COMPANY.

[For 18 months ending June 30, 1893.]

HISTORY.

1. Name of common carrier making this report: San Francisco and North Pacific Railway Company.

2. Date of organization: March 19, 1889.

3. Under what laws: Laws of California.

4. Names of the constituent companies: San Francisco and North Pacific Railroad Company, organized June 29, 1877; San Francisco and San Rafael Railroad Company; Sonoma Railroad Company, organized July 24, 1878; Marin and Napa Railroad Company; Cloverdale and Ukiah Railroad Company. All these companies were chartered under the Civil Code of California, and sold, assigned, and transferred to the San Francisco and North Pacific Railway Company all their roadway, depot grounds, stations, rolling stock, and other material, on March 19, 1889.

5. Date and authority for consolidation: The San Francisco and North Pacific Railroad Company was formed by the consolidation of the Sonoma and Marin Railroad Company, organized November 13, 1874; the Fulton and Guerneville Railroad Company, organized May 23, 1876; and the reorganization of the San Francisco and Humboldt Bay Railroad Company.

The San Francisco and North Pacific Railway Company was formed in March, 1889, by transfer from the following companies: San Francisco and North Pacific Railroad Company, Sonoma Valley Railroad Company, Marin and Napa Railroad Company, Cloverdale and Ukiah Railroad Company, and San Francisco and San Rafael Railroad Company.

The San Francisco and North Pacific Railway Company issued \$6,000,000 stock, and \$4,000,000 first mortgage 5 per cent, 30-year, \$1,000 bonds, due January 1, 1919, interest payable, commencing July 1, 1889, on the 1st of January and 1st of July. The mortgage further provides for an additional issue of \$500,000 on extension, at the rate of not exceeding \$25,000 per mile of railroad in excess of 160 miles already constructed. Provision is made for a sinking fund of \$25,000 per annum, for purchase of bonds in the market, at not exceeding 110 and interest.

The San Francisco and North Pacific Railroad Company (one of the said companies), 108.5 miles, was incorporated June 29, 1877, and formed by the consolidation of the Sonoma and Marin Railroad, chartered November 13, 1874, and the Fulton and Guerneville Railroad, chartered May 23, 1877. Road opened from Donahue to Santa Rosa, 23 miles, January 1, 1870; to Windsor, 9 miles, March 1, 1871; to Grants, 4 miles, April 10, 1871; to Healdsburg, 2 miles, July 1, 1871, and to Cloverdale, 18 miles, April 18, 1872. The Guerneville branch was opened May 29, 1876, and the Petaluma branch June 2, 1879. Included in the main line was a section of 9 miles (Point Tiburon to San Rafael), leased.

The Sonoma Valley Railroad (also one of said companies), 21.43 miles, was incorporated July 24, 1878; road opened August 23, 1880. The Sonoma and Santa Rosa Railroad was opened August 15, 1882. The two companies were consolidated during 1885.

ORGANIZATION.

Names of Directors: Arthur W. Foster, P. N. Lilienthal, Sidney V. Smith, Andrew Markham, Alfred L. Seligman, Russell J. Wilson, and Henry T. Scott, all of San Francisco. Number of stockholders at date of last election: 9.

Last meeting of stockholders for election of Directors: Third Tuesday in January, but it was postponed and held on April 27, 1893.

Post Office address of general and operating office: Mutual Life building, corner of Sansome and California Streets, San Francisco.

OFFICERS.

Title.	Name.	Location of Office.
President	Arthur W. Foster	San Francisco.
Vice-President	P. N. Lilienthal	San Francisco.
Secretary and Comptroller	Thos. Mellersh	San Francisco.
Treasurer	Alfred L. Seligman	San Francisco.
Cashier	Geo. C. Hickox	San Francisco.
General Solicitor	Sidney V. Smith	San Francisco.
General Manager	H. C. Whiting	San Francisco.
Chief Engineer	F. K. Zook	San Rafael.
General Superintendent	W. G. Corbaley	San Rafael.
General Freight, Ticket, and Baggage Agent	R. X. Ryan	San Francisco.
Assistant General Freight, Passenger, and Ticket Agent	W. J. McMullin	San Francisco.

PROPERTY OPERATED.

Name.	Terminals.	Description.	Miles.
San Francisco and North Pacific Railway	Tiburon to Ukiah	Main line	106.00
	Donahue to junction with main line	Branch line	5.56
	Fulton to Meekers	Branch line	20.88
	Santa Rosa to Sebastopol	Branch line	6.25
	Ignacio to Glen Ellen	Branch line	26.63
Total			165.32

CAPITAL STOCK.

The total par value of authorized capital stock is \$6,000,000, divided into shares of a par value of \$100 each. The total amount issued and outstanding is \$6,000,000.

Manner of payment for capital stock: Issued for construction, 60,000 shares; cash realized on amount issued, \$6,000,000. This stock was issued by San Francisco and North Pacific Railway Company in payment for the several properties acquired March 19, 1889, and reorganized.

FUNDED DEBT.

On January 1, 1889, first mortgage bonds were authorized to be issued to the amount of \$4,500,000; of this amount \$4,188,000 was issued. The cash realized cannot be stated correctly. The bonds mature in 1919, and bear 5 per cent interest, payable in January and July of each year. Amount of interest accruing from December 31, 1892, to June 30, 1893, was \$312,550 14, all of which has been paid.

CURRENT ASSETS AND LIABILITIES. (December 31, 1892.)

Cash and Current Assets Available for Payment of Current Liabilities.	Current Liabilities Accrued to and Including December 31, 1892.
Cash	Audited vouchers and accounts
Due from agents	Wages and salaries
Due from solvent companies and individuals	Balance—cash assets
Other cash assets (excluding "materials and supplies")	
Total	Total

CURRENT ASSETS AND LIABILITIES. (June 30, 1893.)

Cash and Current Assets Available for Payment of Current Liabilities.		Current Liabilities Accrued to and Including June 30, 1893.	
Cash	\$62,621 72	Audited vouchers and accounts	\$67,673 74
Due from agents	8,565 05	Wages and salaries	23,666 97
Due from solvent companies and individuals	19,206 22		
Balance—current liabilities	947 74		
Total	\$91,340 73	Total	\$91,340 97

RECAPITULATION. (December 31, 1892.)

Account.	Amount Outstanding.	Miles of Road.	Amount per Mile of Road.
Capital stock	\$6,000,000 00	165.32	\$36,293 85
Bonds	4,188,000 00		25,332 65
Totals	\$10,188,000 00	165.32	\$61,626 50

\$24,000 worth of bonds redeemed July 1, 1889; \$26,000 worth of bonds redeemed July 1, 1890; \$26,000 worth of bonds redeemed July 1, 1891; \$26,000 worth of bonds redeemed July 1, 1892.

RECAPITULATION. (June 30, 1893.)

Account.	Amount Outstanding.	Miles of Road.	Amount per Mile of Road.
Capital stock	\$6,000,000 00	165.32	\$36,293 25
Funded debt	4,188,000 00		25,332 65
Floating debt	947 74		5 75
Totals	\$10,188,947 74	165.32	\$61,631 65

\$24,000 worth of bonds were redeemed July 1, 1889; \$26,000 worth of bonds were redeemed July 1, 1890; \$26,000 worth of bonds were redeemed July 1, 1891; \$26,000 worth of bonds were redeemed July 1, 1892.

EARNINGS FROM OPERATION. (For 12 months ending December 31, 1892.)

Item.	Total Receipts.	Deductions, Etc.	Actual Earnings.
Passenger revenue	\$434,462 55	\$1,100 00	\$433,362 55
Less deductions			
Total passenger revenue			17,397 89
Mail			16,259 38
Express			1,449 45
Extra baggage and storage			1,620 00
Other items			
Total passenger earnings			\$470,089 27
Freight revenue	\$384,214 76	\$2,922 28	381,292 48
Less deductions			
Total freight revenue			\$851,381 75
Total passenger and freight earnings			
Other earnings from operation:			
Rents from tracks, yards, and terminals	\$16,406 25		
Other sources	1,345 53		
Total other earnings			17,751 78
Total gross earnings from operation			\$869,133 53

EARNINGS FROM OPERATION. (For 6 months ending June 30, 1893.)

Item.	Total Receipts.	Deductions, Etc.	Actual Earnings.
Passenger revenue.....	\$199,546 47		
Less deductions.....		\$450 00	
Total passenger revenue.....			\$199,096 47
Mail.....			8,695 38
Express.....			9,179 71
Extra baggage and storage.....			846 95
Other items.....			810 00
Total passenger earnings.....			\$218,628 51
Freight revenue.....	\$157,688 11		
Less overcharge to shippers and other repayments.....		\$547 65	
Total freight revenue.....			157,140 46
Total passenger and freight earnings.....			\$375,768 97
Other earnings from operation:			
Rents from tracks, yards, and terminals.....	\$7,584 85		
Other sources.....	1,129 11		
Total other earnings.....			8,713 96
Total gross earnings from operation.....			\$384,482 93

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS. (December 31, 1892.)

Item.	Permanent Improvements During Year.	Total Cost to Dec. 31, 1891.	Total Cost to Dec. 31, 1892.
Construction:			
Right of way.....	\$4,925 00	\$18,812 45	\$23,737 45
Fences.....		5,519 90	5,519 90
Grading, and bridge and culvert masonry.....	11,750 63	19,441 74	31,192 37
Bridges and trestles.....	26,108 72	5,696 79	31,805 51
Rails.....	4,543 61	61,381 35	65,924 96
Ties.....	1,017 20	8,040 61	9,057 81
Other superstructure.....		2,877 05	2,877 05
Buildings, furniture, and fixtures.....	4,099 35	16,337 53	20,436 88
Shop machinery and tools.....		2,875 75	2,875 75
Engineering expenses.....	1,402 75	3,208 80	4,611 55
Interest during construction.....	4,500 00	16,541 47	21,041 47
Telegraph line.....		34 50	34 50
Wharfing, etc.....	1,610 00	22,244 54	23,854 54
Sidings and yard extensions.....	Cr. 216 77	13,775 98	13,559 21
Road built by contract.....		15,556 51	15,556 51
Purchase of constructed road.....		29,930 08	29,930 08
Other items.....		89,678 24	89,678 24
Total construction.....	\$59,740 49	\$331,953 29	\$391,693 78
Equipment:			
Passenger cars.....		\$26,406 42	\$26,406 42
Baggage, express, and postal cars.....	\$2,061 10		2,061 10
Freight cars.....	14,025 89	979 60	15,005 49
Other cars of all classes.....		317 34	317 34
Total equipment.....	\$16,086 99	\$27,703 36	\$43,790 35
Purchase price of property under consolidation, but not segregated.....		10,000,000 00	10,000,000 00
Grand total cost of construction, equipment, etc.....	\$75,827 48	\$10,359,656 65	\$10,435,484 13

Cost per mile, \$63,123.

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS. (June 30, 1893.)

Item.	Permanent Improvements During 6 Mos.	Total Cost to Dec. 31, 1892.	Total Cost to June 30, 1893.
Construction:			
Right of way	\$624 00	\$23,737 45	\$24,361 45
Fences		5,519 90	5,519 90
Grading, and bridge and culvert masonry		31,192 37	31,192 37
Bridges and trestles		31,805 51	31,805 51
Rails		65,924 96	65,924 96
Ties		9,057 81	9,057 81
Other superstructure		2,877 05	2,877 05
Buildings, furniture, and fixtures	321 21	20,436 88	20,758 09
Shop machinery and tools		2,875 75	2,875 75
Engineering expenses		4,611 55	4,611 55
Interest during construction		21,041 47	21,041 47
Telegraph line		34 50	34 50
Wharfing, etc.		23,854 54	23,854 54
Sidings and yard extensions		13,559 21	13,559 21
Road built by contract		15,556 51	15,556 51
Purchase of constructed road		29,930 08	29,930 08
Other items		89,678 24	89,678 24
Total construction	\$945 21	\$391,693 78	\$392,638 99
Equipment:			
Passenger cars		\$26,406 42	\$26,406 42
Baggage, express, and postal cars		2,061 10	2,061 10
Freight cars	\$666 97	15,005 49	15,672 46
Other cars of all classes		317 34	317 34
Total equipment	\$666 97	\$43,790 35	\$44,457 32
Purchase price of property under consolidation, but not segregated		10,000,000 00	10,000,000 00
Grand total cost construction, equipment, etc.	\$1,612 18	\$10,435,484 13	\$10,437,096 31

INCOME ACCOUNT. (For 12 months ending December 31, 1892.)

Gross earnings from operation	\$869,133 53	
Less operating expenses	556,269 08	
Income from operation		\$312,864 45
Deductions from income:		
Interest on funded debt accrued	\$207,017 64	
Taxes	26,236 66	
Total deductions from income		233,254 30
Net income		\$79,610 15
Other payments from net income (bonds redeemed)		25,000 00
Surplus from operations of year ending Dec. 31, 1892		\$54,610 15

INCOME ACCOUNT. (For 6 months ending June 30, 1893.)

Gross earnings from operation	\$384,482 93	
Less operating expenses	274,528 81	
Income from operation		\$109,954 12
Deductions from income:		
Interest on funded debt accrued	\$105,532 50	
Taxes	11,256 17	
Total deductions from income		116,788 67
Deficit for six months ending June 30, 1893		\$6,834 55

OPERATING EXPENSES. (For 12 months ending December 31, 1892.)

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of way and structures:			
Repairs of roadway.....	\$39,132 18	\$32,017 23	\$71,149 41
Renewals of rails.....	7,332 70	5,999 48	13,332 18
Renewals of ties.....	10,883 04	8,904 31	19,787 35
Repairs of bridges and culverts.....	11,378 16	9,309 31	20,687 47
Repairs of fences, road-crossings, signs, and cattle guards.....	2,479 95	2,029 05	4,509 00
Repairs of buildings.....	4,078 89	3,337 19	7,416 08
Repairs of docks and wharves.....	2,835 66	2,311 09	5,146 75
Repairs of telegraph.....	516 87	422 90	939 77
Other expenses.....	4,411 29	3,610 23	8,021 52
Totals.....	\$83,048 74	\$67,940 79	\$150,989 53
Maintenance of equipment:			
Repairs and renewals of locomotives.....	\$6,705 88	\$5,486 63	\$12,192 51
Repairs and renewals of passenger cars.....	5,744 76	4,700 25	10,445 01
Repairs and renewals of freight cars.....	4,907 94	4,015 59	8,923 53
Repairs and renewals of ferry-boats, tugs, floats, and barges.....	7,328 11	5,995 71	13,323 82
Shop machinery, tools, etc.....	1,754 32	1,435 36	3,189 68
Other expenses.....	2,589 35	2,118 46	4,707 81
Totals.....	\$29,030 36	\$23,752 00	\$52,782 36
Conducting transportation:			
Wages of enginemen, firemen, and round-housemen.....	\$13,060 03	\$10,685 47	\$23,745 50
Fuel for locomotives.....	34,324 24	28,083 37	62,407 61
Water supply for locomotives.....	1,239 29	1,013 98	2,253 27
All other supplies for locomotives.....	781 54	639 45	1,420 99
Wages of other trainmen.....	13,195 99	10,796 71	23,992 70
All other train supplies.....	3,056 44	2,500 73	5,557 17
Wages of switchmen, flagmen, and watchmen.....	1,810 98	1,481 73	3,292 71
Expense of telegraph, including train dispatchers and operators.....	1,473 56	1,205 65	2,679 21
Wages of station agents, clerks, and laborers.....	18,666 84	15,272 89	33,939 73
Station supplies.....	1,715 98	1,404 01	3,119 99
Switching charges—balance.....	2,455 88	2,009 37	4,465 25
Car mileage—balance.....	529 43	433 17	962 60
Loss and damage.....	984 56	805 56	1,790 12
Injuries to persons.....	641 70	525 05	1,166 75
Barges, floats, tugs, ferry-boats, expenses of, including wages, fuel, and supplies.....	36,695 16	30,023 32	66,718 48
Other expenses.....	2,206 31	1,805 18	4,011 49
Totals.....	\$132,837 93	\$108,685 64	\$241,523 57
General expenses:			
Salaries of officers.....	\$17,342 85	\$14,189 62	\$31,532 47
Salaries of clerks.....	7,450 50	6,095 88	13,546 38
General office expenses and supplies.....	2,200 00	1,800 00	4,000 00
Advertising.....	14,527 35	3,631 83	18,159 18
Insurance.....	2,667 50	2,182 50	4,850 00
Rents for tracks, yards, and terminals.....	11,434 50	9,355 50	20,790 00
Rents not otherwise provided for.....	4,529 39	3,705 88	8,235 27
Other general expenses.....	5,423 17	4,437 15	9,860 32
Totals.....	\$65,575 26	\$45,398 36	\$110,973 62
Recapitulation of expenses:			
Maintenance of way and structures.....	\$83,048 74	\$67,940 79	\$150,989 53
Maintenance of equipment.....	29,030 36	23,752 00	52,782 36
Conducting transportation.....	132,837 93	108,685 64	241,523 57
General expenses.....	65,575 26	45,398 36	110,973 62
Grand totals.....	\$310,492 29	\$245,776 79	\$556,269 08
Percentage of operating expenses to earnings.....	35.72	28.28	64.00

OPERATING EXPENSES. (For 6 months ending June 30, 1893.)

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of way and structures:			
Repairs of roadway	\$23,544 18	\$17,049 24	\$40,593 42
Renewals of rails	2,233 83	1,617 60	3,851 43
Renewals of ties	4,882 41	3,535 54	8,417 95
Repairs of bridges and culverts	5,871 01	4,251 42	10,122 43
Repairs of fences, road-crossings, signs, and cattle guards	1,203 75	871 68	2,075 43
Repairs of buildings	2,333 71	1,689 92	4,023 63
Repairs of docks and wharves	1,985 25	1,437 59	3,422 84
Repairs of telegraph	46 73	33 83	80 56
Other expenses	2,484 11	1,798 86	4,282 97
Totals	\$44,584 98	\$32,285 68	\$76,870 66
Maintenance of equipment:			
Repairs and renewals of locomotives	\$4,601 75	\$3,332 31	\$7,934 06
Repairs and renewals of passenger cars	3,451 86	2,499 62	5,951 48
Repairs and renewals of freight cars	3,334 59	2,414 71	5,749 30
Repairs and renewals of ferry-boats, tugs, floats, and barges	1,256 85	910 13	2,166 98
Shop machinery, tools, etc.	1,543 80	1,117 92	2,661 72
Other expenses	1,905 32	1,379 71	3,285 03
Totals	\$16,094 17	\$11,654 40	\$27,748 57
Conducting transportation:			
Wages of engineers, firemen, and round-housemen	\$7,309 51	\$5,293 09	\$12,602 60
Fuel for locomotives	17,831 98	12,912 81	30,744 79
Water supply for locomotives	560 31	405 74	966 05
All other supplies for locomotives	451 80	327 16	778 96
Wages of other trainmen	6,598 22	4,778 03	11,376 25
All other train supplies	1,658 50	1,200 98	2,859 48
Wages of switchmen, flagmen, and watchmen	453 80	328 61	782 41
Expense of telegraph, including train dispatchers and operators	777 75	563 20	1,340 95
Wages of station agents, clerks, and laborers	9,647 31	6,985 98	16,633 29
Station supplies	875 06	633 66	1,508 72
Switching charges—balance	1,172 03	848 66	2,020 75
Car mileage—balance	128 34	92 93	221 27
Loss and damage	479 33	347 10	826 43
Injuries to persons	145 00	105 00	250 00
Barges, floats, tugs, ferry-boats, expenses of, including wages, fuel, and supplies	17,763 98	12,863 56	30,627 52
Other expenses	678 06	491 01	1,169 02
Totals	\$66,530 96	\$48,177 58	\$114,708 54
General expenses:			
Salaries of officers	\$8,332 42	\$6,033 82	\$14,366 24
Salaries of clerks	4,069 61	2,946 95	7,016 56
General office expenses and supplies	1,160 00	840 00	2,000 00
Advertising	7,039 37	1,759 84	8,799 21
Insurance	1,695 67	1,227 89	2,923 56
Rents for tracks, yards, and terminals	6,308 95	4,568 55	10,877 50
Rents not otherwise provided for	2,213 65	1,602 98	3,816 63
Stationery and printing	3,132 78	2,268 56	5,401 34
Totals	\$33,952 45	\$21,248 59	\$55,201 04
Recapitulation of expenses:			
Maintenance of way and structures	\$44,584 98	\$32,285 68	\$76,870 66
Maintenance of equipment	16,094 17	11,654 40	27,748 57
Conducting transportation	66,530 96	48,177 58	114,708 54
General expenses	33,952 45	21,248 59	55,201 04
Grand totals	\$161,162 56	\$113,366 25	\$274,528 81
Percentage of operating expenses to earnings.	41.91	29.49	71.40

FINANCIAL OPERATIONS FOR THE YEAR ENDING DECEMBER 31, 1892.

Resources.		Appropriation of Resources.	
Net income from operation	\$312,864 45	Interest on funded debt paid ..	\$207,017 64
Net amount realized from bonds issued	64,000 00	Taxes	26,236 66
Net increase of floating debt	12,097 96	Sinking fund	25,000 00
Net decrease of other assets	4,554 34	Permanent improvements	75,827 48
Sinking fund paid	26,000 00	Increase of cash assets	81,228 83
		Increase of other assets	4,206 14
Total	\$419,516 75	Total	\$419,516 75

FINANCIAL OPERATIONS FOR THE SIX MONTHS ENDING JUNE 30, 1893.

Resources.		Appropriation of Resources.	
Net income from operation ..	\$109,954 12	Interest on funded debt paid ..	\$105,532 50
Net increase floating debt	21,812 62	Taxes	11,256 17
Net amount decrease of cash assets	18,830 49	Sinking fund	25,000 00
Net amount decrease of other assets	4,208 63	Permanent improvements	1,612 18
		Increase of other assets	11,405 01
Total	\$154,805 86	Total	\$154,805 86

STOCKS AND BONDS OWNED.

This company does not own any stocks or bonds.

GENERAL BALANCE SHEET. (December 31, 1892.)

Assets.	Liabilities.
Cost of road and equipment ..	Capital stock
\$10,000,000 00	\$6,000,000 00
Other permanent investments ..	Funded debt
435,484 13	4,188,000 00
Cash and current assets	Current liabilities
81,452 21	69,528 11
Materials and supplies	Sinking fund paid
41,900 37	102,000 00
Sinking fund	Profit and loss
527 36	221,503 92
Sundries	
21,667 96	
Total	Total
\$10,581,032 03	\$10,581,032 03

GENERAL BALANCE SHEET. (June 30, 1893.)

Assets.	Liabilities.
Cost of road and equipment ..	Capital stock
\$10,000,000 00	\$6,000,000 00
Other permanent investments ..	Funded debt
437,096 31	4,188,000 00
Cash and current assets	Floating debt
90,392 99	91,340 73
Materials and supplies	Sinking fund
40,385 74	102,000 00
Sinking fund	Surplus from operation to date
25,527 36	214,669 37
Sundries	
2,607 70	
Total	Total
\$10,596,010 10	\$10,596,010 10

IMPORTANT CHANGES DURING THE EIGHTEEN MONTHS.

A further extension of about 1½ miles, from Guerneville, to reach the timber belt, was finished in the fall of 1892.

Mortgage bonds were issued for extension at Guerneville, as above, at \$25,000 per mile.

EMPLOYÉS AND SALARIES. (For 12 months ending December 31, 1892.)

Class.	Number.	Number of Days Worked.	Total Yearly Compensation.	Average Daily Compensation.
General officers	5	365	\$26,208 35	\$14 36
Superintendent	1	365	3,775 00	10 34
Attorneys	2	365	6,900 00	9 45
Chief Engineer	1	365	3,600 00	9 86
Master Mechanic	1	365	2,400 00	6 58
General office clerks	13	365	15,149 50	3 19
Soliciting agents	2	365	2,880 00	3 95
Station agents	34	365	26,447 55	2 13
Other station men	13	365	8,689 00	1 83
Enginemen	11	365	14,302 10	3 56
Firemen	11	365	7,819 30	1 94
Conductors	10	365	11,665 85	3 20
Other trainmen	14	365	10,864 40	2 13
Machinists	12	310	11,023 65	2 96
Carpenters (in shops and B. & B. dept.)	32	310	33,043 35	3 33
Other shopmen	27	310	19,947 75	2 38
Roadmaster	2	365	2,461 50	3 37
Section foremen	27	310	19,696 45	2 35
Other trackmen	99	310	54,723 25	1 78
Switchmen, flagmen, and watchmen	2	365	1,550 00	2 12
Telegraph operators and dispatchers	1	365	1,080 00	2 95
Employés—account floating equipment	29	365	28,639 72	2 70
All other employés and laborers	25	310	13,394 95	1 73
Storekeepers	2	365	1,906 25	2 61
	376	330	\$328,167 92	\$2 64
Employed in building extension below Guerneville (temporary service only)	21	310	12,713 60	1 95
Totals	397	330	\$340,881 52	\$2 60

EMPLOYÉS AND SALARIES. (For 6 months ending June 30, 1893.)

Class.	Number.	Number of Days Worked.	Total Six Months Compensation.	Average Daily Compensation.
General officers	4	182	\$11,866 64	\$16 26
Superintendent	1	182	1,800 00	9 86
Attorney	1	182	3,225 00	17 68
Chief Engineer	1	182	1,800 00	9 86
Master Mechanic	1	182	1,150 00	6 30
General office clerks	14	182	7,866 00	3 08
Soliciting agents	2	182	1,440 00	3 94
Station agents	34	182	13,354 80	2 16
Other station men	11	182	3,630 25	1 80
Enginemen	11	182	6,964 60	3 46
Firemen	11	182	3,967 20	1 98
Conductors	10	182	5,620 20	3 08
Other trainmen	13	182	5,321 05	2 24
Machinists	14	155	5,390 35	2 48
Carpenters (in shops and B. & B. dept.)	35	155	16,149 60	2 98
Other shopmen	24	155	10,160 75	2 74
Roadmaster	1	182	1,160 00	6 36
Section foremen	27	155	9,980 45	2 38
Other trackmen	100	155	29,338 25	1 90
Switchmen, flagmen, and watchmen	2	182	776 00	2 12
Telegraph operators and dispatchers	1	182	750 00	4 10
Employés—account floating equipment	29	182	14,188 95	2 68
All other employés and laborers	22	155	5,237 60	1 56
Storekeepers	2	155	900 00	2 46
Totals	371	165	\$162,087 69	\$2 64

SECURITY FOR FUNDED DEBT.

Class of Bond or Obligation.	What Road Mortgaged.	Miles.
San Francisco and North Pacific Railway Company first mortgage bonds	Tiburon to Ukiah	106.00
	Donahue to junction with main line	5.56
	Fulton to Meekers	20.88
	Ignacio to Glen Ellen	26.63
	Santa Rosa to Sebastopol	6.25
Total		165.32

All equipment and other property are also mortgaged.

PASSENGER AND FREIGHT, AND TRAIN MILEAGE. (For 12 months ending December 31, 1892.)

Item.	Tonnage, Passengers, Etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue	941,197	
Number of passengers carried one mile	20,605,178	
Average distance carried—miles	21.89	
Total passenger revenue		\$433,362 55
Average amount received from each passenger		46.04
Average receipts per passenger per mile		02.10
Estimated cost of carrying each passenger one mile		01.56
Passenger earnings per mile of road		2,621 35
Passenger earnings per train mile		1 73
Freight traffic:		
Number of tons carried of freight earning revenue	152,422	
Number of tons carried one mile	8,283,236	
Average distance haul of one ton—miles	54.34	
Total freight revenue		381,292 48
Average amount received for each ton of freight		2 50
Average receipts per ton per mile		04.60
Estimated cost of carrying one ton one mile		02.96
Freight earnings per train mile		3 49
Passenger and freight:		
Passenger and freight revenue		814,655 03
Passenger and freight revenue per mile of road		4,927 74
Expenses per mile of road		3,304 81
Total earnings per mile of road, including mails, express, etc.		5,257 28
Train mileage:		
Miles run by passenger trains	238,012	
Miles run by freight trains	71,939	
Miles run by mixed trains	49,741	
Total mileage trains earning revenue	359,692	
Miles run by switching trains	27,627	
Miles run by construction and other trains	16,526	
Grand total train mileage	403,845	
Mileage of loaded freight cars—north	532,633	
Mileage of loaded freight cars—south	676,862	
Mileage of empty freight cars—north	233,621	
Mileage of empty freight cars—south	93,579	
Average number of freight cars in train	24	
Average number of loaded cars in train	16	
Average number of empty cars in train	8	
Average number of tons of freight in train	65	
Average number of tons of freight in each loaded car	5	

PASSENGER AND FREIGHT, AND TRAIN MILEAGE. (For 6 months ending June 30, 1893.)

Item.	Tonnage, Passengers, Etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue.....	449,532	
Number of passengers carried one mile.....	9,856,592	
Average distance carried—miles.....	21.92	
Total passenger revenue.....		\$199,096 47
Average amount received from each passenger.....		44.29
Average receipts per passenger per mile.....		02.02
Estimated cost of carrying each passenger one mile.....		01.64
Passenger earnings per mile of road.....		1,204 30
Passenger earnings per train mile.....		1 57
Freight traffic:		
Number of tons carried of freight earning revenue.....	78,112	
Number of tons carried one mile.....	3,253,075	
Average distance haul of one ton—miles.....	41.52	
Total freight revenue.....		157,140 46
Average amount received for each ton of freight.....		2 01
Average receipts per ton per mile.....		04.83
Estimated cost of carrying one ton one mile.....		03.48
Freight earnings per mile of road.....		950 52
Freight earnings per train mile.....		3 02
Passenger and freight:		
Passenger and freight earnings.....		356,236 93
Passenger and freight earnings per mile of road.....		2,154 82
Expenses per mile of road.....		1,660 59
Total earnings per mile of road, including mails, express, etc.....		2,325 70
Train mileage:		
Miles run by passenger trains.....	120,262	
Miles run by freight trains.....	33,481	
Miles run by mixed trains.....	24,685	
Total mileage trains earning revenue.....	178,428	
Miles run by switching trains.....	24,970	
Miles run by construction and other trains.....	5,525	
Grand total train mileage.....	208,923	
Mileage of loaded freight cars—north.....	244,419	
Mileage of loaded freight cars—south.....	137,751	
Mileage of empty freight cars—north.....	186,820	
Mileage of empty freight cars—south.....	55,678	
Average number of freight cars in train.....	24	
Average number of loaded cars in train.....	16	
Average number of empty cars in train.....	8	
Average number of tons of freight in train.....	65	
Average number of tons of freight in each loaded car.....	5	

CONTRACTS, AGREEMENTS, ETC.

1. Express with Wells, Fargo & Co.
2. Mails with United States Post Office Department.
3. California Transfer Company, to handle baggage.
4. Telegraph with Western Union Telegraph Company.
5. News privilege with P. M. Clarkson.

MILEAGE OF ROAD OPERATED.

Line in Use.	Main Line.	Branches and Spurs.	Total Mileage Operated.	New line Constructed.	Iron Rails.	Steel Rails.
Miles of single track.....	106	59.32	165.32	3.07	50.97	114.35
Miles of yard track and sidings.....			26.51		26.51	
Total mileage operated.....	106	59.32	191.83	3.07	77.48	114.35

The entire mileage is in California.

RENEWALS OF RAILS AND TIES.

Rails laid during eighteen months: Iron, 275 tons (replacing); steel, 407 tons. Average price per ton at distributing point, \$32 for iron, and \$42 for steel.

New ties laid during eighteen months: Redwood, 58,085. Average price at distributing point, 35 cents.

FREIGHT TRAFFIC MOVEMENT. (For 12 months ending December 31, 1892.)

Commodity.	Originating on this Road—Tons.	Per Cent.
Products of agriculture:		
Grain.....	5,286	3.47
Flour.....	3,113	2.04
Other mill products.....	4,908	3.22
Hay.....	2,730	1.79
Canned fruit.....	5,261	3.45
Dried fruit.....	2,061	1.35
Fruit and vegetables.....	11,367	7.45
Hops.....	1,111	.73
Other products.....	1,171	.77
Products of animals:		
Live stock.....	5,427	3.57
Dressed meats.....	1,045	.69
Other packing-house products.....	4,631	3.04
Poultry, game, and fish.....	541	.37
Wool.....	644	.42
Hides and leather.....	364	.24
Products of mines:		
Coke and coal.....	1,182	.77
Basalt blocks.....	13,493	8.86
Stone, sand, and other like articles.....	1,129	.75
Other products.....	792	.52
Products of forest:		
Lumber.....	15,306	10.05
Wood, 14,171; tan bark, 3,118; other, 5,708.....	22,997	15.09
Charcoal.....	2,876	1.88
Manufactures:		
Petroleum and other oils.....	1,130	.74
Castings and machinery.....	493	.32
Cement, brick, and lime.....	3,233	2.12
Agricultural implements.....	117	.07
Wagons, carriages, tools, etc.....	765	.50
Wines, liquors, and beers.....	17,729	11.63
Household goods and furniture.....	1,584	1.03
Other manufactures.....	9,049	5.94
Merchandise.....	6,241	4.09
Miscellaneous: other commodities not mentioned above.....	4,634	3.04
Total tonnage.....	152,422	100.00

FREIGHT TRAFFIC MOVEMENT. (For 6 months ending June 30, 1893.)

Commodity.	Originating on this Road— Tons.	Per Cent.
Products of agriculture :		
Grain	2,678	4.50
Flour	1,587	2.67
Other mill products	2,262	3.80
Hay	1,083	1.82
Canned fruit	881	1.48
Dried fruit	380	.64
Green fruit and vegetables	1,284	2.16
Hops	134	.23
Other products	144	.24
Products of animals :		
Live stock	2,390	4.02
Dressed meats	608	1.02
Other packing-house products	2,753	4.63
Poultry, game, and fish	254	.43
Wool	235	.40
Hides and leather	144	.24
Products of mines :		
Basalt blocks	864	1.45
Coke and coal	870	1.46
Stone, sand, and other like articles	80	.14
Other products	461	.78
Products of forest :		
Lumber	7,195	12.10
Charcoal, 407; wood, 6,657; tan bark, 238	7,302	12.28
Other products	1,800	3.03
Manufactures :		
Petroleum and other oils	522	.88
Castings and machinery	218	.37
Cement, brick, and lime	1,562	2.63
Agricultural implements	78	.13
Wagons, carriages, tools, etc.	306	.51
Wines	11,054	18.57
Household goods and furniture	706	1.20
Liquor and beer	1,000	1.70
Other manufactures	3,899	6.56
Merchandise	1,990	3.35
Miscellaneous : other commodities not mentioned above	2,723	4.58
Total tonnage	59,447	100.00

ACCIDENTS TO PERSONS.

Kind of Accident.	Passengers Injured.	Empolyés Injured.	Others Not Trespassing.	
			Killed.	Injured.
Coupling and uncoupling		3		
Other causes	2	5	3	8
Totals	2	8	3	8

DESCRIPTION OF EQUIPMENT.

Item.	Added During 18 Mos.	Total at End of 18 Mos.
Locomotives		18
Cars in passenger service:		
First-class passenger cars		34
Second-class passenger cars		3
Combination passenger cars		4
Sleeping cars (special)		1
Baggage, express, and postal cars	1	5
Other cars in passenger service		7
Total		54
Cars in freight service:		
Box cars	24	127
Flat cars		262
Stock cars		13
Total		402
Cars in company's service:		
Gravel cars		13
Caboose cars		2
Other road cars		67
Total		82
Total cars owned		556

Also steamers Ukiah, Donahue, and Tiburon.

Locomotives have Westinghouse brake attached; cars in passenger service have Westinghouse brake and Miller automatic coupler; cars in freight service have ordinary train-brake.

CONSUMPTION OF FUEL BY LOCOMOTIVES. (For 12 months ending December 31, 1892.)

Locomotives.	Coal—Tons.	Wood—Cords.	Total Fuel Consumed—Tons.	Miles Run.	Average Pounds Consumed per Mile.
Passenger	4,556	7,262	8,187	238,012	45.41
Freight				71,939	
Switching				27,627	
Construction				16,526	
Mixed				49,741	
Totals	4,556	7,262	8,187	403,845	45.41

As engines perform all kinds of service, the consumption of fuel cannot be classified.

CONSUMPTION OF FUEL BY LOCOMOTIVES. (For 6 months ending June 30, 1893.)

Locomotives.	Coal—Tons.	Wood—Cords.	Total Fuel Consumed—Tons.	Miles Run.	Average Pounds Consumed per Mile.
Passenger	3,459	1,841	4,379	120,262	46.95
Freight				33,481	
Switching				24,970	
Construction				5,525	
Mixed				24,685	
Totals	3,459	1,841	4,379	208,923	46.95

Engines performed all kinds of service, so consumption of fuel cannot be correctly classified.

CHARACTERISTICS OF ROAD.

Working Divisions or Branches.	Length. Miles.	Alignment.		
		Number of Curves.	Aggregate Length of Curved Line —Miles—	Length of Straight Line—Miles—
Main line—Tiburon to Ukiah.....	106.00	188	25.34	80.66
Branches—Donahue to junction with main line	5.56	5	0.84	4.72
Fulton to Meekers	20.88	84	8.76	9.78
Santa Rosa to Sebastopol	6.25	6	0.92	5.33
Ignacio to Glen Ellen	26.63	46	5.21	21.42
Total	165.32			

Working Divisions or Branches.	Profile.						
	Length of Level Line—Miles—	Number of As- cending Grades—	Sum of Ascents of Ascending Grades—Feet—	Aggregate Length of Ascending Grades—Miles—	Number of De- scending Grades.	Sum of Descents of Descending Grades—Feet—	Aggregate Length of Descending Grades—Miles—
Main line—Tiburon to Ukiah ..	29.76	44	1,176.3	48.89	35	570.3	27.35
Branches—Donahue to junc- tion with main line	2.44	7	20.5	1.48	5	19.5	1.64
Fulton to Meekers	8.31	13	92.1	3.47	16	159.0	6.76
Santa Rosa to Sebastopol	1.36	1	30.0	0.15	11	90.0	4.74
Ignacio to Glen Ellen	11.55	15	292.6	11.31	14	81.6	3.77

BRIDGES, TRESTLES, TUNNELS, TELEGRAPH, ETC.

Bridges: Iron, 2; wooden, 7; combination, 3; total, 12; aggregate length, 1,942 $\frac{2}{10}$ feet.
Trestles: Aggregate length, 38,049 $\frac{8}{10}$ feet.

Tunnels: Aggregate length, 98,985 feet; minimum length, 248 feet; maximum length, 1,851 feet.

Gauge of track: 4 feet 8 $\frac{1}{2}$ inches.

Telegraph: Operated by this company, 106 miles of line, 212 miles of wire.

Number of stations on all roads owned and operated by this company in California, 61, including flag stations.

DATE WHEN THE ROAD WAS OPENED FOR PUBLIC USE.

From Donahue to Santa Rosa	January 1, 1870.
From Santa Rosa to Windsor	March 1, 1871.
From Windsor to Grants	April 10, 1871.
From Grants to Healdsburg	July 1, 1871.
From Healdsburg to Cloverdale	April 15, 1872.
From Fulton to Guerneville	May 29, 1876.
From Petaluma to San Rafael	June 2, 1879.
From Sonoma Landing to Sonoma	August 23, 1880.
From Sonoma to Glen Ellen	August 15, 1882.
From San Rafael to Tiburon	May 1, 1884.
From Ignacio to Sears Point	June 1, 1888.
From Cloverdale to Ukiah	May 1, 1889.
From Santa Rosa to Sebastopol	February 17, 1890.
From Guerneville to Meekers	November 1, 1892.

GRANTS OR DONATIONS, IN BONDS OR MONEY, FROM STATE, COUNTIES, ETC.

County of Sonoma, in 1872, donated \$3,000 per mile to build the road.

APPLICATION OF AMOUNT PLACED IN HANDS OF TRUSTEES FOR REDEMPTION OF BONDS.

	Bonds Redeemed.	Amount.	Cost.	Total Received by Trustees.	Balance on Hand.	Discount or Premium.
To December 31, 1891 ..	76	\$76,000 00	\$73,140 00	\$75,000 00	\$1,397 50	\$1,860 00
During year 1892	26	26,000 00	25,832 50	25,000 00	527 36	832 50
Totals	102	\$102,000 00	\$98,972 50	\$100,000 00	\$527 36	\$1,027 50

STATE OF CALIFORNIA,
City and County of San Francisco. } ss.

We, the undersigned, A. W. Foster, President, and Thomas Mellersh, Secretary and Controller, of the San Francisco and North Pacific Railway Company, on our oath, do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

A. W. FOSTER,
President.
THOMAS MELLERSH,
Secretary and Controller.

Subscribed and sworn to before me, this thirteenth day of September, 1893.

E. H. THARP,
Notary Public in and for the City and County of San Francisco.

NORTH PACIFIC COAST RAILROAD COMPANY.

[For 18 months ending June 30, 1893.]

HISTORY.

1. Name of common carrier making this report: North Pacific Coast Railroad Company.
2. Date of organization: December 16, 1871.
3. Under what laws organized: Laws of United States Government, and under the general incorporation laws of the State of California, relative to railroad companies, approved May 20, 1861.
4. Original corporation.

ORGANIZATION.

Names of Directors: Wm. Steel, C. Dunervaud, A. Borel, C. DeGuigné, J. B. Stetson, J. C. Coleman, and A. H. Small, all of San Francisco, California.
Date of expiration of terms of Directors: August 14, 1893.
Total number of stockholders at date of last election: 12.
Date of last meeting of stockholders for election of Directors: February 13, 1893.
Post Office address of general and operating office: 14 Sansome Street, San Francisco, California.

OFFICERS.

Title.	Name.	Location of Office.
Chairman of the Board and President	William Steel	14 Sansome St., San Francisco.
Secretary	F. B. Latham	14 Sansome St., San Francisco.
Treasurer	London and San Francisco Bank (limited)	14 Sansome St., San Francisco.
Solicitor	Charles Page	14 Sansome St., San Francisco.
Auditor	F. B. Latham	14 Sansome St., San Francisco.
Traffic Manager	W. F. Russell	14 Sansome St., San Francisco.
Superintendent	E. H. Shoemaker	Sausalito, Marin County.
General Passenger and Ticket Agent	F. B. Latham	14 Sansome St., San Francisco.

PROPERTY OPERATED.

Name.	Terminals.	Description.	Miles.
North Pacific Coast Railroad..	San Francisco to Cazadero....	Main line.....	86.75
	San Anselmo to San Rafael ..	Branch line....	2.00
	Bay Junction to Mill Valley..	Branch line....	1.75
San Rafael and San Quentin Railroad	San Rafael to San Quentin ...	Leased line ...	3.50
Total			94.00

CAPITAL STOCK.

The total par value of authorized capital stock is \$3,000,000, divided into shares of a par value of \$100 each. The total amount issued and outstanding is \$2,500,000. No dividends were declared.

Manner of payment for capital stock: Number of shares issued for cash, 25,000; total cash realized, \$2,500,000.

FUNDED DEBT.

Class of Bond or Obligation, and Date of Issue and Maturity.	Amount of Authorized Issue.	Amount Now Outstanding.	Cash Realized on Amount Outstanding.
First mortgage—Nov. 14, 1881; Nov. 1, 1901....	\$600,000 00	\$590,000 00	\$590,000 00
Second mortgage—Nov. 14, 1881; Nov. 1, 1901....	500,000 00	7,000 00	7,000 00
First mortgage—Jan. 2, 1883; Jan. 2, 1889.....	150,000 00	150,000 00	150,000 00
General—July 1, 1892; July 1, 1912.....	1,500,000 00	743,000 00	743,000 00
Totals	\$2,750,000 00	\$1,490,000 00	\$1,490,000 00

Class of Bond or Obligation.	Rate.	When Payable.	Interest Accrued during 18 Mos.	Interest Paid during 18 Mos.
First mortgage.....	6	May 1 and Nov. 1	\$53,100 00	\$53,100 00
Second mortgage.....	6	May 1 and Nov. 1	12,905 00	12,905 00
First mortgage.....	5	Jan. 2 and July 2	11,250 00	11,250 00
General	5	Jan. 1 and July 1	37,150 00	18,575 00
Totals.....			\$114,405 00	\$95,830 00

SECURITY FOR FUNDED DEBT.

Class of Bond or Obligation.	What Road Mortgaged.	Miles.
First and second mortgage bonds and general mortgage bonds	San Francisco to Shops.....	7
	Corte Madera to Cazadero	74¾
	San Anselmo to San Rafael	2
First mortgage bonds.....	Shops to Corte Madera	5

Class of Bond or Obligation.	Equipment Mortgaged.	Income Mortgaged.	Securities Mortgaged.
First and second mortgage bonds and general mortgage bonds.....	All.	None.	5,958 acres land in Sonoma County.
First mortgage bonds	None.	None.	None.

FLOATING DEBT AND CURRENT LIABILITIES. (December 31, 1892.)

Liabilities Accruing up to and Including December 31, 1892.	Cash Assets Available for Payment of Floating Debt and Current Liabilities.
Audited vouchers and accounts \$35,123 06	Cash \$14,603 64
Wages and salaries 15,057 98	Due from agents 5,285 55
Matured interest coupons unpaid (including coupons due January 1) 22,325 00	Due from solvent companies and individuals 20,183 72
Miscellaneous 48,170 25	Balance—floating debt 80,603 38
Total \$120,676 29	Total \$120,676 29

Amount of interest and discount paid during year upon floating debt and current liabilities, \$429 15.

FLOATING DEBT AND CURRENT LIABILITIES. (June 30, 1893.)

Liabilities Accruing up to and Including June 30, 1893.	Cash Assets Available for Payment of Floating Debt and Current Liabilities.
Audited vouchers and accounts \$33,501 97	Cash \$16,154 60
Wages and salaries 15,095 92	Due from agents 8,579 32
Matured interest coupons unpaid (including coupons due July 1) 28,325 00	Due from solvent companies and individuals 3,849 96
Miscellaneous 51,325 00	Balance—floating debt 99,664 01
Total \$128,247 89	Total \$128,247 89

Amount of interest and discount paid during six months upon floating debt and current liabilities, \$144 03.

RECAPITULATION. (December 31, 1892.)

Account.	Total Amounts.	Miles of Road.	Amount per Mile of Road.
Capital stock \$2,500,000 00	} 90½ }	}	\$27,624 30
Funded debt 1,490,000 00			
Floating debt, balance of 80,603 38			
Totals \$4,070,603 38	90½		\$44,979 03

RECAPITULATION. (June 30, 1893.)

Account.	Total.	Miles of Road.	Amount per Mile of Road.
Capital stock \$2,500,000 00	} 90½ }	}	\$27,624 30
Funded debt 1,490,000 00			
Floating debt, balance of 99,664 01			
Totals \$4,089,664 01	90½		\$45,189 65

COST OF ROAD AND EQUIPMENT. (December 31, 1892.)

Total cost to December 31, 1891, \$3,193,516 35; net additions during year, \$82,141 01; total cost to December 31, 1892, \$3,275,657 36; cost per mile, \$36,195 11.

COST OF ROAD AND EQUIPMENT. (June 30, 1893.)

Total cost to December 31, 1892, \$3,275,657 36; net additions during six months, \$20,313 65; total cost to June 30, 1893, \$3,295,971 01; cost per mile, \$36,419 56.

PERMANENT IMPROVEMENTS FOR THE YEAR ENDING DECEMBER 31, 1892.

Item.	Expenditures Not Included in Operating Expenses.
Construction:	
Purchase of constructed road	\$57,000 00
Other items	864 13
Total construction	\$57,864 13
Equipment:	
Passenger cars	\$21,134 03
Freight cars	3,142 85
Total equipment	\$24,276 88
Grand total construction and equipment	\$82,141 01

PERMANENT IMPROVEMENTS FOR SIX MONTHS ENDING JUNE 30, 1893.

Item.	Expenditures not included in Operating Expenses.
Construction:	
Engineering expenses	\$46 00
Purchase of constructed road	17,399 67
Other items	631 09
Total construction	\$18,076 76
Equipment:	
Passenger cars	2,236 89
Grand total construction and equipment	\$20,313 65

FINANCIAL OPERATIONS FOR THE YEAR ENDING DECEMBER 31, 1892.

Resources.		Appropriation of Resources.	
Net income from operation...	\$103,342 34	Interest on funded debt paid..	\$74,170 00
Receipts from other sources..	13,750 91	Other interest paid	429 15
Increase of funded debt.....	250,000 00	Taxes	7,377 05
		Rentals	2,300 00
		Reduction of floating debt...	195,892 74
		Permanent improvements...	57,864 13
		Equipment	24,276 88
		Other expenditures	4,783 30
Total	\$367,093 25	Total	\$367,093 25

FINANCIAL OPERATIONS FOR SIX MONTHS ENDING JUNE 30, 1893.

Resources.		Appropriation of Resources.	
Net income from operation...	\$56,080 80	Interest on funded debt paid..	\$40,235 00
Net increase floating debt.....	14,301 16	Other interest paid	144 03
		Taxes	3,600 00
		Permanent improvements...	17,399 67
		Equipment	2,236 89
		Other properties purchased..	677 09
		Other expenditures	6,089 28
Total	\$70,381 96	Total	\$70,381 96

STOCKS AND BONDS OWNED—MISCELLANEOUS INCOME.

This company does not own any stocks or bonds, and has no miscellaneous income.

INCOME ACCOUNT. (For 12 months ending December 31, 1892.)

Gross earnings from operation	\$420,941 86	
Less operating expenses	317,599 52	
Income from operation		\$103,342 34
Deductions from income:		
Interest on funded debt accrued during year	\$74,170 00	
Interest and discount on floating debt paid during year	429 15	
Taxes	7,377 05	
Rentals	2,300 00	
Other deductions	97,254 63	
Total deductions from income		181,530 83
Deficit		\$78,188 49
Deficit on December 31, 1891		714,238 34
Deficit on December 31, 1892		\$792,426 83

INCOME ACCOUNT. (For 6 months ending June 30, 1893.)

Gross earnings from operation	\$200,550 49	
Less operating expenses	144,469 69	
Income from operation		\$56,080 80
Deductions from income:		
Interest on funded debt accrued during six months	\$40,235 00	
Interest and discount on floating debt paid during six months	144 03	
Taxes	3,600 00	
Other deductions	6,089 28	
Total deductions from income		50,168 31
Net income		\$6,012 49
Deficit on December 31, 1892		792,426 83
Deficit on June 30, 1893		\$786,414 34

GENERAL BALANCE SHEET. (December 31, 1892.)

Assets.		Liabilities.	
Cost of road and equipment ..	\$3,275,657 36	Capital stock	\$2,500,000 00
Cash items	40,072 91	Funded debt	1,490,000 00
Materials and supplies	8,489 19	Floating debt	120,676 29
Deficit from operation	792,426 83	Accrued interest on funded debt not yet payable	5,970 00
Total	\$4,116,646 29	Total	\$4,116,646 29

GENERAL BALANCE SHEET. (June 30, 1893.)

Assets.		Liabilities.	
Cost of road and equipment ..	\$3,295,971 01	Capital stock	\$2,500,000 00
Cash items	28,583 88	Funded debt	1,490,000 00
Materials and supplies	7,278 66	Floating debt	128,247 89
Deficit from operation	786,414 34		
Total	\$4,118,247 89	Total	\$4,118,247 89

OPERATING EXPENSES. (For 12 months ending December 31, 1892.)

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of way and structures:			
Repairs of roadway.....	\$24,946 35	\$24,946 88	\$49,893 23
Renewals of rails.....	80 50	80 50	161 00
Renewals of ties.....	962 85	962 88	1,925 73
Repairs of bridges and culverts.....	4,857 87	4,861 09	9,718 96
Repairs of fences, road-crossings, signs, and cattle guards.....	474 97	475 09	950 06
Repairs of buildings.....	705 61	711 08	1,416 99
Repairs of docks and wharves.....	584 22	584 28	1,168 50
Other expenses.....	1 02	1 01	2 03
Totals.....	\$32,613 69	\$32,622 81	\$65,236 50
Maintenance of equipment:			
Repairs and renewals of locomotives.....	\$5,268 96	\$5,271 47	\$10,540 43
Repairs and renewals of passenger cars.....	3,639 69		3,639 69
Repairs and renewals of freight cars.....		5,257 61	5,257 61
Repairs and renewals of ferry-boats, tugs, floats, and barges.....	8,229 88	3,022 72	11,252 60
Shop machinery, tools, etc.....	578 69	611 00	1,189 69
Other expenses.....	682 69	682 71	1,365 40
Totals.....	\$18,399 91	\$14,845 51	\$33,245 42
Conducting transportation:			
Wages of enginemen, firemen, and round-housemen.....	\$12,712 99	\$6,079 00	\$18,791 99
Fuel for locomotives.....	25,419 00	10,561 00	35,980 00
Water supply for locomotives.....	802 20	802 36	1,604 56
All other supplies for locomotives.....	671 07	671 20	1,342 27
Wages of other trainmen.....	8,479 90	6,291 05	14,770 95
All other train supplies.....	287 66	211 35	499 01
Wages of switchmen, flagmen, and watchmen.....	668 00	1,388 00	2,056 00
Expense of telegraph, including train dispatchers and operators.....	623 50	623 50	1,247 00
Wages of station agents, clerks, and laborers.....	9,339 61	20,736 52	30,076 13
Station supplies.....	654 98	742 91	1,397 89
Loss and damage.....	347 60	398 25	745 85
Injuries to persons.....	638 01	952 87	1,590 88
Barges, floats, tugs, ferry-boats, expenses of, including wages, fuel, and supplies.....	45,622 03	20,182 88	65,804 91
Other expenses.....	430 65	10 00	440 65
Totals.....	\$106,697 20	\$69,650 89	\$176,348 09
General expenses:			
Salaries of officers.....	\$7,286 57	\$7,286 58	\$14,573 15
Salaries of clerks.....	1,624 00	1,624 00	3,248 00
General office expenses and supplies.....	119 65	119 65	239 30
Advertising.....	3,998 86	106 45	4,105 31
Insurance.....	1,200 00	1,200 00	2,400 00
Rents of buildings, tracks, yards, and terminals.....	5,610 00	5,614 60	11,224 60
Legal expenses.....	1,125 00	775 00	1,900 00
Stationery and printing.....	2,511 18	1,032 96	3,544 14
Other general expenses.....	645 64	889 37	1,535 01
Totals.....	\$24,120 90	\$18,648 61	\$42,769 51
Recapitulation of expenses:			
Maintenance of way and structures.....	\$32,613 69	\$32,622 81	\$65,236 50
Maintenance of equipment.....	18,399 91	14,845 51	33,245 42
Conducting transportation.....	106,697 20	69,650 89	176,348 09
General expenses.....	24,120 90	18,648 61	42,769 51
Grand total.....	\$181,831 70	\$135,767 82	\$317,599 52
Percentage of operating expenses to earnings.....			75.45

OPERATING EXPENSES. (For 6 months ending June 30, 1893.)

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of way and structures:			
Repairs of roadway.....	\$8,476 25	\$8,476 88	\$16,953 53
Renewals of rails.....	126 35	126 35	252 70
Renewals of ties.....	252 90	252 90	505 80
Repairs of bridges and culverts.....	1,973 65	1,973 82	3,947 47
Repairs of fences, road-crossings, signs, and cattle guards.....	75 39	75 46	150 85
Repairs of buildings.....	446 47	446 57	893 04
Repairs of docks and wharves.....	767 28	767 28	1,534 56
Totals.....	\$12,118 69	\$12,119 26	\$24,237 95
Maintenance of equipment:			
Repairs and renewals of locomotives.....	\$2,122 80	\$1,994 20	\$4,117 00
Repairs and renewals of passenger cars.....	2,023 10		2,023 10
Repairs and renewals of freight cars.....		1,621 08	1,621 08
Repairs and renewals of ferry-boats, tugs, floats, and barges.....	4,312 04	1,597 81	5,909 85
Shop machinery, tools, etc.....	263 36	263 42	526 78
Other expenses.....	423 44	422 71	846 15
Totals.....	\$9,144 74	\$5,899 22	\$15,043 96
Conducting transportation:			
Wages of enginemen, firemen, and round-housemen.....	\$5,535 84	\$2,867 49	\$8,403 33
Fuel for locomotives.....	11,339 24	5,172 37	16,511 61
Water supply for locomotives.....	287 40	287 51	574 91
All other supplies for locomotives.....	246 66	246 72	493 38
Wages of other trainmen.....	4,223 45	3,369 80	7,593 25
All other train supplies.....	171 62	129 77	301 39
Wages of switchmen, flagmen, and watchmen.....	352 00	712 00	1,064 00
Expense of telegraph, including train dispatchers and operators.....	340 00	340 00	680 00
Wages of station agents, clerks, and laborers.....	4,700 44	9,806 82	14,507 26
Station supplies.....	401 07	409 03	810 10
Loss and damage.....	95 50	162 70	258 20
Injuries to persons.....	170 23	83 74	253 97
Barges, floats, tugs, ferry-boats, expenses of, including wages, fuel, and supplies.....	22,785 43	10,017 21	32,802 64
Other expenses.....	1,087 40		1,087 40
Totals.....	\$51,736 28	\$33,605 16	\$85,341 44
General expenses:			
Salaries of officers.....	\$2,975 00	\$2,975 00	\$5,950 00
Salaries of clerks.....	886 00	886 00	1,772 00
General office expenses and supplies.....	78 89	78 78	157 67
Advertising.....	1,540 65	34 60	1,575 25
Insurance.....	600 00	600 00	1,200 00
Rents of buildings, tracks, yards, and terminals.....	2,805 00	2,805 00	5,610 00
Legal expenses.....	944 77	944 78	1,889 55
Stationery and printing.....	797 47	324 13	1,121 60
Other general expenses.....	292 58	277 69	570 27
Totals.....	\$10,920 36	\$8,925 98	\$19,846 34
Recapitulation of expenses:			
Maintenance of way and structures.....	\$12,118 69	\$12,119 26	\$24,237 95
Maintenance of equipment.....	9,144 74	5,899 22	15,043 96
Conducting transportation.....	51,736 28	33,605 16	85,341 44
General expenses.....	10,920 36	8,925 98	19,846 34
Grand totals.....	\$83,920 07	\$60,549 62	\$144,469 69
Percentage of operating expenses to earnings.....			72.03

EARNINGS FROM OPERATION. (For 12 months ending December 31, 1892.)

Item.	Actual Earnings.
Passenger revenue	\$214,463 07
Mail	6,668 07
Express	16,089 27
Extra baggage and storage	438 25
Total passenger earnings	\$237,658 66
Freight revenue	176,266 40
Total passenger and freight earnings	\$413,925 06
Other earnings from operation	7,016 80
Total gross earnings from operation	\$420,941 86

EARNINGS FROM OPERATION. (For 6 months ending June 30, 1893.)

Item.	Actual Earnings.
Passenger revenue	\$103,281 20
Mail	3,333 90
Express	2,933 92
Extra baggage and storage	37 95
Other items	3,964 46
Total passenger earnings	\$120,551 43
Freight revenue	78,370 36
Total passenger and freight earnings	\$198,921 79
Rentals of buildings, tracks, yards, and terminals	1,628 70
Total gross earnings from operation	\$200,550 49

RENTALS PAID. (For 12 months ending December 31, 1892.)

Name of Road.	Cash.
San Rafael and San Quentin	Nominal.
Northwestern Railroad of California	\$1,850 00
San Francisco, Tamalpais, and Bolinas Railroad	450 00
Total	\$2,300 00

RENTALS PAID. (For 6 months ending June 30, 1893.)

Item.	Cash.
Rents paid for leased roads:	
San Rafael and San Quentin Railroad	Nominal.
Other rentals paid:	
In San Francisco	\$4,860 00
In San Quentin	750 00
Total	\$5,610 00

CONTRACTS, AGREEMENTS, ETC.

1. Express with Wells, Fargo & Co.
2. United States mails from San Francisco to Cazadero, San Quentin, and Mill Valley.
3. Transportation of freight and passengers with San Francisco and North Pacific Railway Company.
4. Telegraph with Western Union Telegraph Company. We furnish agents and do their business "free" when one agent can attend to it; when it goes beyond that, they furnish their own agent and operator.

IMPORTANT CHANGES DURING THE EIGHTEEN MONTHS.

Bought San Francisco, Tamalpais, and Bolinas Railroad, 1.75 miles.
 Bought Northwestern Railroad of California, 7.50 miles.
 Retired 493 second mortgage bonds, of \$1,000 each.
 Issued 743 general mortgage bonds, of \$1,000 each.

EMPLOYÉS AND SALARIES.

Class.	Number.	Total Yearly Compensation.	Average Daily Compensation.
General officers	5	\$9,837 65	\$6 55
General office clerks	5	3,243 00	2 12
Station agents	23	15,311 80	1 91
Other station men	20	15,029 50	2 76
Enginemen	7	10,819 75	3 85
Firemen	7	5,843 20	2 15
Conductors	7	8,545 95	2 89
Other trainmen	7	6,168 38	1 87
Machinists	3	1,981 13	2 80
Carpenters	1	1,191 61	3 75
Other shopmen	19	15,172 15	2 18
Section foremen	13	11,740 32	2 31
Other trackmen	105	45,443 96	1 55
Switchmen, flagmen, and watchmen	5	2,056 00	1 36
Telegraph operators and dispatchers	2	1,247 00	3 15
Employés—account floating equipment	30	27,614 40	2 91
Totals	259	\$181,250 80	\$1 78

PASSENGER, FREIGHT, AND TRAIN MILEAGE. (For 12 months ending December 31, 1892.)

Item.	Tonnage, Passengers, Etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue	1,185,145	
Number of passengers carried one mile	15,475,120	
Average distance carried—miles	13.058	
Total passenger revenue		\$214,463 07
Amount received from each passenger		18.096
Average receipts per passenger per mile		01.386
Cost of carrying each passenger one mile		01.175
Passenger earnings per mile of road		2,528 28.362
Passenger earnings per train mile		97.102
Freight traffic:		
Number of tons carried of freight earning revenue	95,236	
Number of tons carried one mile	4,407,385	
Average distance haul of one ton—miles	46.279	
Total freight revenue		176,266 40
Amount received for each ton of freight		1 86.134
Average receipts per ton per mile		03.999
Cost of carrying one ton one mile		03.080
Freight earnings per mile of road		1,875 17.447
Freight earnings per train mile		1 66.171
Passenger and freight:		
Passenger and freight earnings		413,925 06
Passenger and freight earnings per mile of road		4,403 45.809
Expenses per mile of road		3,378 71.829
Total earnings per mile of road, including mails, express, etc.		4,478 10.489
Train mileage:		
Miles run by passenger trains	244,751	
Miles run by freight trains	106,075	
Total mileage trains earning revenue	350,826	
Miles run by construction and other trains	25,453	
Total train mileage	376,281	

PASSENGER, FREIGHT, AND TRAIN MILEAGE. (For 6 months ending June 30, 1893.)

Item.	Tonnage, Passengers, Etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue.....	584,566	
Number of passengers carried one mile.....	7,618,273	
Average distance carried—miles.....	130.24	
Total passenger revenue.....		\$103,281 20
Amount received from each passenger.....		17.668
Average receipts per passenger per mile.....		01.355
Cost of carrying each passenger one mile.....		01.101
Passenger earnings per mile of road.....		1,282 46.202
Passenger earnings per train mile.....		1 07.332
Freight traffic:		
Number of tons carried of freight earning revenue.....	42,944	
Number of tons carried one mile.....	1,854,093	
Average distance haul of one ton—miles.....	43.175	
Total freight revenue.....		78,370 36
Amount received for each ton of freight.....		1 82.494
Average receipts per ton per mile.....		14.227
Cost of carrying one ton one mile.....		03.265
Freight earnings per mile of road.....		832 66.340
Freight earnings per train mile.....		1 39.666
Passenger and freight:		
Passenger and freight earnings.....		198,921 79
Passenger and freight earnings per mile of road.....		2,116 18.926
Expense per mile of road.....		1,536 91.159
Total earnings per mile of road, including mails, ex- press, etc.....		2,133 51.585
Train mileage:		
Miles run by passenger trains.....	112,316	
Miles run by freight trains.....	56,110	
Total mileage trains earning revenue.....	168,426	
Miles run by construction and other trains.....	5,595	
Total train mileage.....	174,021	

FREIGHT TRAFFIC MOVEMENT. (For 12 months ending December 31, 1892.)

Commodity.	Originating on this Road—Tons.	Per Cent.
Products of agriculture:		
Grain.....	1,039	1.09
Flour.....	19	.02
Hay.....	614	.65
Fruit and vegetables.....	2,278	2.40
Products of animals:		
Live stock.....	2,623	2.75
Dressed meats.....	840	.88
Poultry, game, and fish.....	19	.02
Hides and leather.....	907	.95
Products of forest:		
Bark.....	1,650	1.73
Wood.....	26,213	27.53
Lumber.....	25,470	26.74
Charcoal.....	1,076	1.13
Merchandise.....	32,488	34.11
Total tonnage.....	95,236	100.00

FREIGHT TRAFFIC MOVEMENT. (For 6 months ending June 30, 1893.)

Commodity.	Originating on this Road— Tons.	Per Cent.
Products of agriculture:		
Grain	137	.32
Flour	19	.04
Hay	291	.67
Fruit and vegetables	2,511	5.85
Products of animals:		
Live stock	1,561	3.64
Dressed meats	479	1.11
Poultry, game, and fish	6	.01
Hides and leather	264	.61
Products of forest:		
Bark	186	.43
Lumber	7,260	16.91
Wood	13,401	31.20
Charcoal	549	1.23
Manufactures:		
Wines, liquors, and beers	63	.15
Miscellaneous: other commodities not mentioned above	16,217	37.78
Total tonnage	42,944	100.00

DESCRIPTION OF EQUIPMENT.

Item.	Total Owned.
Locomotives:	
Passenger	9
Freight	3
Total	12
Cars in passenger service:	
First-class passenger cars	27
Second-class passenger cars	1
Combination passenger cars	5
Baggage, express, and postal cars	3
Other cars in passenger service	2
Total	38
Cars in freight service:	
Box cars	43
Flat cars	298
Stock cars	12
Total	353
Cars in company's service:	
Caboose cars	2
Total cars owned	393

All the locomotives are equipped with the Westinghouse train-brake, and all the cars in passenger service are equipped with Westinghouse train-brake and Miller automatic coupler.

MILEAGE OF ROAD OPERATED.

Line in Use.	Main Line.	Branches.	Leased.	Total Mileage.	Iron Rails.	Steel Rails.
Length of single track	80.75	3.75	3.50	88.00	41.25	46.75
Length of yard track, sidings, and spurs	12.00			12.00	12.00	
Aggregate length of all tracks	92.75	3.75	3.50	100.00	53.25	46.75

The entire mileage is in California.

RENEWALS OF RAILS AND TIES.

The company made no renewals of rails or ties during the period covered by this report.

CONSUMPTION OF FUEL BY LOCOMOTIVES. (For 12 months ending December 31, 1892.)

Locomotives.	Coal— Tons.	Wood— Cords.	Total Fuel Consumed— Tons.	Miles Run.	Average lbs. Consumed per Mile.
Passenger	1,947	3,408	3,651	244,751	29.83
Freight	71	3,342	1,742	106,075	32.84
Construction	25	648	349	25,455	27.42
Totals	2,043	7,398	5,742	376,281	-----

Average cost at distributing point: coal, \$7 81 per ton; wood, \$3 00 per cord.

CONSUMPTION OF FUEL BY LOCOMOTIVES. (For 6 months ending June 30, 1893.)

Locomotives.	Coal— Tons.	Wood— Cords.	Total Fuel Consumed— Tons.	Miles Run.	Average lbs. Consumed per Mile.
Passenger	860.50	1,628.50	1,674.75	112,316	29.82
Freight	41.25	1,621.00	851.75	56,110	30.36
Construction	-----	137.50	68.75	5,595	24.57
Totals	901.75	3,387.00	2,595.25	174,021	84.75

Average cost at distributing point: coal, \$7 50 per ton; wood, \$3 per cord.

ACCIDENTS.

Persons.	Killed.	Injured.	Kind of Accident.	Killed.	Injured.
Passengers	-----	5	Derailments	-----	4
Employés	1	1			
Other persons	2	-----			
Totals	3	6	Totals	3	6

BRIDGES, TUNNELS, TELEGRAPH, ETC.

Bridges: Wooden, 12; combination, 1.

Tunnels: 5; maximum length, 2,627 feet; minimum length, 400 feet; aggregate length of tunnels, 7,341 feet.

Gauge of track: 3 feet.

Telegraph: Line operated by this company, 88 miles.

Number of stations on all roads operated and owned by this company in California, 55.

DATE WHEN THE ROAD WAS OPENED FOR PUBLIC USE.

From Sausalito to Tomales	January 11, 1875.
From Tomales to Howards	October 16, 1876.
From Howards to Tyrone	April 2, 1877.
From Tyrone to Duncans	May 15, 1877.
From Duncans to Cazadero	April 11, 1886.
From Bay Junction to Mill Valley	May 1, 1890.

GRANTS OR DONATIONS, IN BONDS OR MONEY, FROM STATES, COUNTIES, ETC.

On May 5, 1876, Marin County issued bonds, to the amount of \$160,000, to aid the construction of the road. The bonds are due May 5, 1896, and bear 7 per cent interest, payable semi-annually. The entire issue was disposed of, and \$144,208 was realized—a discount of \$15,972.

STATE OF CALIFORNIA, }
 City and County of San Francisco. } ss

William Steel, President of the North Pacific Coast Railroad Company, being duly sworn, deposes and says, that the statements contained in the foregoing have been compiled and prepared by the proper officers of said company, from its books and records, under his direction and supervision; that he, the deponent, has carefully examined the same, and that as now furnished by him to the Board of Railroad Commissioners, they are, in all respects, just, correct, complete, and true, to the best of his knowledge, and, as he verily believes, the same contain a true and full exhibit of the condition and affairs of said company on the thirty-first day of December, 1892, and the thirtieth day of June, 1893.

WM. STEEL,
 President.

Subscribed and sworn to before me, this eighteenth day of August, 1893.

GEO. T. KNOX,
 Notary Public.

PACIFIC COAST RAILWAY COMPANY.

[For 12 months ending November 30, 1892.]

HISTORY.

1. Name of common carrier making this report: Pacific Coast Railway Company.
2. Date of organization: September 22, 1882.
3. Under what laws organized: Laws of State of California.
4. Names of the constituent companies: Consolidation of the San Luis Obispo and Santa Maria Valley Railroad, incorporated April 22, 1875, and the Pacific Coast Railroad, incorporated April 18, 1882.

ORGANIZATION.

Names of Directors.	Post Office Address.
George C. Perkins	Oakland.
John L. Howard	Oakland.
S. G. Murphy	San Francisco.
T. R. Hayes	Oakland.
William Morris	San Francisco.
S. V. Smith	San Rafael.
W. H. Starbuck	New York.
F. A. Prince	New York.
C. B. Tedcastle	New York.

Date of expiration of terms of Directors: December 22, 1892.
 Total number of stockholders at date of last election: 10.
 Date of last meeting of stockholders for election of Directors: December 22, 1891.
 Post Office address of general office: No. 10 Market Street, San Francisco.
 Post Office address of operating office: San Luis Obispo, Cal.

OFFICERS.

Title.	Name.	Location of Office.
President	Geo. C. Perkins	San Francisco.
Vice-President	John L. Howard	San Francisco.
Secretary	Edwin Goodall	San Francisco.
Treasurer	Oregon Improvement Co.	San Francisco.
General Counsel	Wilcoxon & Bouldin	San Luis Obispo.
Accountant	F. C. Cherry	San Luis Obispo.
Superintendent	C. O. Johnson	San Luis Obispo.
General Freight, Passenger, Ticket, and Baggage Agent	C. O. Johnson	San Luis Obispo.
General Agents	Goodall, Perkins & Co.	San Francisco.

PROPERTY OPERATED.

The Pacific Coast Railway Company operates by main line from Port Harford to Los Olivos, a distance of 76.1 miles.*

CAPITAL STOCK.

The total par value of authorized capital stock is \$1,370,400, divided into shares of a par value of \$100 each. The total amount issued and outstanding is \$1,370,400.

Manner of payment for capital stock: Issued for construction, 13,704 shares; cash realized on amount issued, \$1,370,400.

FUNDED DEBT.

In November, 1882, first mortgage bonds were issued by the company to the amount of \$1,370,000; cash realized on amount issued, \$2,603,900. These bonds mature in 1912, and bear 6 per cent interest, payable semi-annually. The amount of interest accruing during year was \$82,200, which was paid in full.

As security for these first mortgage bonds, the roadway from Port Harford to Los Olivos, a distance of 76.1 miles, is mortgaged.

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.		Current Liabilities Accrued.	
Due from agents.....	\$2,070 72	Bills payable.....	\$12,509 93
Due from solvent companies and individuals.....	11,101 70	Audited vouchers and accounts and Nov. S. Dfts.	3,983 62
Other cash assets (excluding "materials and supplies")....	16,498 24	Miscellaneous.....	2,290 66
		Balance—cash assets.....	10,886 45
Total.....	\$29,670 66	Total.....	\$29,670 66

INCOME ACCOUNT.

Gross earnings from operation.....	\$182,219 12
Less expenses.....	114,245 63
Income from operation.....	\$67,973 49
Taxes.....	6,245 51

EARNINGS FROM OPERATION.

Item.	Total Receipts.	Deductions, Etc.	Actual Earnings.
Passenger revenue.....	\$33,595 07		
Less excess fares refunded.....		\$46 35	
Total passenger revenue.....			\$33,548 72
Mail.....			4,498 81
Express.....			561 23
Total passenger earnings.....			\$38,608 76
Freight revenue.....	\$110,771 27		
Less overcharge to shippers.....		\$822 98	
Total freight earnings.....			109,948 29
Total passenger and freight earnings.....			\$148,557 05
Other earnings from operation:			
Rents from tracks, yards, and terminals.....	\$8,560 24		
Other sources.....	25,101 83		
Total other earnings.....			33,662 07
Total gross earnings from operation.....			\$182,219 12

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS.

Net additions during year, \$3,244 85; total cost to November 30, 1891, \$2,972,827 98; total cost to November 30, 1892, \$2,976,072 83; cost per mile, \$39,107 39.

OPERATING EXPENSES.

Item.	Total.
Maintenance of way and structures:	
Repairs of roadway.....	\$29,367 50
Repairs of bridges and culverts.....	3,211 61
Repairs of fences, road-crossings, signs, and cattle guards.....	1,900 71
Repairs of buildings.....	2,190 36
Repairs of docks and wharves.....	3,730 80
Repairs of telegraph.....	497 78
Other expenses.....	711 97
Warehouse.....	2,138 72
Wharf.....	11,298 82
Total.....	\$55,048 27
Maintenance of equipment:	
Repairs and renewals of locomotives.....	\$9,298 58
Repairs and renewals of passenger cars.....	2,430 39
Repairs and renewals of freight cars.....	3,328 25
Shop machinery, tools, etc.....	857 21
Total.....	\$15,914 43
Conducting transportation:	
Wages of enginemen, firemen, and roundhousemen.....	\$5,589 52
Fuel for locomotives.....	12,151 59
Water supply for locomotives.....	491 80
All other supplies for locomotives.....	396 29
Wages of other trainmen.....	4,013 22
All other train supplies.....	1,076 15
Wages of station agents, clerks, and laborers.....	8,347 02
Loss and damage.....	485 95
Other expenses.....	569 63
Total.....	\$33,121 17
General expenses:	
Salaries of officers.....	\$8,266 52
Advertising.....	456 44
Legal expenses.....	236 25
Other general expenses.....	5,670 91
Insurance.....	1,777 15
Total.....	\$16,407 27
Recapitulation of expenses:	
Maintenance of way and structures.....	\$55,048 27
Maintenance of equipment.....	15,914 43
Conducting transportation.....	33,121 17
General expenses.....	16,407 27
Grand total.....	\$120,491 14
Percentage of operating expenses to earnings.....	66 $\frac{1}{10}$

CONTRACTS, AGREEMENTS, ETC.

Wells, Fargo & Co.'s Express: To transport their freight and treasure over this company's lines, between all stations, at first-class rates.

United States Government, Post Office Department: To carry mails, route 46,041, San Luis to Los Olivos, and route 46,040, San Luis Obispo to Port Harford.

Pacific Coast Steamship Company: To sell coupon tickets over their lines, and they to sell them over this company's line.

Western Union Telegraph Company: This company furnishes telegraph operators for the transaction of their business over wires constructed by telegraph company along line of railroad.

EMPLOYÉS AND SALARIES.

Class.	Number.	Total Yearly Compensation.	Average Daily Compensation.
General agent	1	\$3,800 25	\$12 18
Superintendent	1	3,000 00	8 33
Accountant	1	1,620 00	5 17
Master mechanic	1	1,600 00	4 76
General office clerks	4	1,690 36	1 89
Station agents	8	5,061 07	1 94
Other station men	3	1,214 26	1 48
Enginemmen	3	2,593 63	3 75
Firemen	4	1,534 25	1 94
Conductors	2	1,784 27	2 98
Other trainmen	5	1,750 19	1 63
Machinists	3	2,575 33	3 41
Carpenters	4	3,416 28	3 10
Other shopmen	7	2,601 98	1 86
Section foremen	7	5,040 00	2 00
Other trackmen	45	14,410 13	1 32
Switchmen, flagmen, and watchmen	1	360 00	1 00
All other employés and laborers	34	7,413 65	1 54
Totals	134	\$61,465 65	\$2 01

PASSENGER, FREIGHT, AND TRAIN MILEAGE.

Item.	Tonnage, Passengers, Etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue	39,227	
Number of passengers carried one mile	905,851	
Total passenger revenue		\$33,548 72
Average amount received from each passenger		85.52
Average receipts per passenger per mile		03.70
Estimated cost of carrying each passenger one mile		03.49
Passenger earnings per mile of road		441 42
Passenger earnings per train mile		91.86
Freight traffic:		
Number of tons carried of freight earning revenue	80,955	
Number of tons carried one mile	1,974,449	
Average distance haul of one ton—miles	22	
Total freight revenue		109,943 29
Average amount received for each ton of freight		1 35.81
Average receipts per ton per mile		05.86
Estimated cost of carrying one ton one mile		03.62
Freight earnings per mile of road		1,446 69
Freight earnings per train mile		3 02.43
Passenger and freight:		
Passenger and freight earnings		143,497 01
Passenger and freight earnings per mile of road		1,883 12
Expenses per mile of road		1,357 50
Total earnings per mile of road, including mails, express, etc.		1,888 12
Train mileage:		
Miles run by passenger trains	49,568	
Miles run by freight trains	36,354	
Total mileage trains earning revenue	85,922	
Miles run by construction and other trains	21,474	
Total train mileage	107,396	
Mileage of loaded freight cars—north or east	138,579	
Mileage of loaded freight cars—south or west	74,228	
Mileage of empty freight cars—north or east	31,107	
Mileage of empty freight cars—south or west	71,444	
Average number of freight cars in train	15	
Average number of loaded cars in train	8	
Average number of empty cars in train	7	
Average number of tons of freight in train	72	
Average number of tons of freight in each loaded car	9	

FREIGHT TRAFFIC MOVEMENT.—(Company's material excluded.)

Commodity.	Originating on this Road—Tons.	Received from Connecting Roads—Tons.	Total Freight Tonnage.	
			Whole Tons.	Per Cent.
Products of agriculture :				
Grain	12	19,351	19,363	29.68
Butter		1,382	1,382	2.12
Cheese	5	100	105	.16
Products of animals :				
Live stock	23	3,678	3,701	5.66
Wool		90	90	.13
Hides and leather	5	98	103	.15
Products of mines and forests :				
Wood	46	3,699	3,745	5.73
Coal	678	21	699	1.07
Asphaltum		249	249	.38
Lumber	8,183	1,291	9,474	14.50
Bituminous rock		14,790	14,790	22.64
Manufactures :				
Agricultural implements	76	9	85	.13
Merchandise	7,823	3,706	11,529	17.65
Totals	16,851	48,464	65,315	100.00

DESCRIPTION OF EQUIPMENT.

Item.	Total at End of Year.
Locomotives :	
Passenger	2
Freight	3
Total locomotives	5
Cars in passenger service :	
First-class passenger cars	4
Second-class passenger cars	3
Baggage, express, and postal cars	2
Total	9
Cars in freight service :	
Box cars	23
Flat cars	185
Stock cars	12
Total	220
Cars in company's service :	
Gravel cars	2
Derrick cars	1
Caboose cars	2
Other road cars	13
Total	18
Total cars owned	227

Equipped with Westinghouse air brake: 2 passenger locomotives, 1 freight locomotive, 4 first-class passenger cars, 3 second-class passenger cars, 2 baggage cars, 7 box cars, 4 stock cars, and utility car.

Equipped with Miller coupler: all cars in passenger service.

RENEWALS OF RAILS AND TIES.

New rails laid during year: Iron, 1,118 tons; steel, 224,340 tons. Average price per ton at distributing point, \$50 for steel.

New ties laid during year: Redwood, 6,747. Average price at distributing point, 35 cents.

MILEAGE OF ROAD OPERATED.

Line in Use.	Total Mileage Operated.	Iron Rails.	Steel Rails.
Miles of single track	76 $\frac{1}{10}$	7 $\frac{3}{10}$	68 $\frac{8}{10}$
Miles of yard track and sidings	4 $\frac{4}{10}$	4 $\frac{4}{10}$	-----
Total mileage operated	80 $\frac{5}{10}$	11 $\frac{7}{10}$	68 $\frac{8}{10}$

The entire mileage is in California.

CONSUMPTION OF FUEL BY LOCOMOTIVES.

Locomotives.	Coal—Tons.	Wood—Cords.	Miles Run.
Passenger	20	1,035	49,568
Freight	13	690	36,354
Switching	6 $\frac{33}{100}$	345 $\frac{3}{8}$	21,474
Totals	39 $\frac{33}{100}$	2,070 $\frac{3}{8}$	107,396

STATE OF CALIFORNIA,
City and County of San Francisco. } ss.

The undersigned, John L. Howard, Vice-President of the Pacific Coast Railway Company, on oath says that the foregoing return has been prepared, under his direction, from the original books, papers, and records of said company; that he has carefully examined the same, and declares the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of his knowledge, information, and belief; and he further says that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

JOHN L. HOWARD,
Vice-President.

Subscribed and sworn to before me, this ninth day of December, 1893.

JAS. L. KING,
Notary Public, City and County of San Francisco.

ATLANTIC AND PACIFIC RAILROAD COMPANY—WESTERN DIVISION.

ALBUQUERQUE, N. M., October 11, 1893.

To the honorable Board of Railroad Commissioners of the State of California, San Francisco, California:

GENTLEMEN: Pursuant to the understanding reached at a conference had between the honorable Board of Railroad Commissioners and William C. Hazledine, the then solicitor of this company, on the 10th day of February, 1887, I have the honor to submit attached hereto a report of the Atlantic and Pacific Railroad Company for the year and a half ending June 30, 1893, which I have had compiled as nearly as possible in the form prescribed by your Board, from the report made by our company to the Secretary of the Interior of the United States, as provided for in the Act incorporating this company.

In submitting this report I desire to call your attention to the position assumed by this company, which is, that being a Federal corporation created by the supreme legislative authority of the nation, and being by that Act constituted a Federal agency, fully empowered to fix and determine our own rates of fares and freights, and being required to make an annual report to the Secretary of the Interior, according to a form prescribed by his department, we do not believe that we could be lawfully required or legally compelled to make any report to your honorable Board; but being willing and anxious to aid you, so far as may be, in the performance of your duties, we take pleasure in hand-

ing you as full a report as can conveniently be compiled from the one furnished the Secretary of the Interior as aforesaid, hoping and believing it will give you generally such information as you may require; at the same time protesting that in making this report, we do not do so under compulsion, but voluntarily, not intending thereby to waive any rights the Atlantic and Pacific Railroad Company has or may have under its Federal charter, or otherwise, but hereby expressly reserving to it every right and immunity from State control, or otherwise, it may have as a national corporation, Federal agency, and interstate railroad.

Respectfully submitted.

C. N. STERRY,
General Attorney.

HISTORY.

1. Name of common carrier making this report: Atlantic and Pacific Railroad Company.
3. Under what laws organized: Act of Congress of the United States, approved July 27, 1866.

ORGANIZATION.

Names of Directors.	Post Office Address.
George C. Magoun	New York.
J. W. Reinhart	Boston.
Thomas Baring	New York.
John J. McCook	New York.
Wm. Libbey	New York.
Robt. Harris	New York.
Benj. P. Cheney	Boston.
Alden Speare	Boston.
D. B. Robinson	Chicago.
Geo. R. Peck	Chicago.
J. A. Williamson	Chicago.
Samuel Hays	St. Louis.

OFFICERS.

Title.	Name.	Location of Office.
Chairman of the Board	George C. Magoun	New York
President	J. W. Reinhart	Boston.
Vice-President	D. B. Robinson	Chicago.
Secretary and Treasurer	H. W. Gardiner	Boston.
General Solicitor	George R. Peck	Chicago.
General Attorney	C. N. Sterry	Albuquerque.
General Counsel	Jno. J. McCook	New York.
Auditor-General	W. K. Gillett	Chicago.
Auditor	W. W. Pope	Albuquerque.
General Superintendent	F. R. Gabel	Albuquerque.
Superintendent of Transportation	Jno. Denair	Albuquerque.
Superintendent of Telegraph	Andrew Smith	Albuquerque.
General Passenger, Freight, and Ticket Agent	W. A. Bissell	San Francisco.
General Agent	H. S. Van Slyck	Albuquerque.
Assistant General Passenger and Ticket Agent	C. H. Speare	San Francisco.
Land Commissioner	J. A. Williamson	Chicago.

DEDUCTIONS FROM INCOME. (For 12 months ending December 31, 1892.)

Taxes	\$36,264 00
Other deductions	16,415 49
Total deductions from income	\$52,679 49

DEDUCTIONS FROM INCOME. (For 6 months ending June 30, 1893.)

Taxes	\$18,132 00
Other deductions (locomotives and cars).....	9,315 16
Total deductions from income.....	\$27,447 16

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS. (December 31, 1892.)

Item.	Total Cost to Dec. 31, 1891.	Total Cost to Dec. 31, 1892.	Net Additions During Year.
Construction :			
Fences	\$626 30	\$626 30	-----
Grading, and bridge and culvert masonry	808 84	808 84	-----
Bridges and trestles	5,818 44	5,818 44	-----
Rails	2,968 93	2,968 93	-----
Ties	689 50	689 50	-----
Buildings, furniture, and fixtures	25,117 13	26,398 58	\$1,281 45
Shop machinery and tools	3,940 04	3,940 04	-----
Engineering expenses	1,529 22	1,850 68	321 46
Sidings and yard extensions	8,622 30	8,764 38	142 08
Other items	10,125 70	10,125 70	-----
Total construction	\$60,246 40	\$61,991 39	\$1,744 99
Equipment :			
Locomotives	\$15,776 88	\$31,620 40	\$15,843 72
Passenger cars, sleeping, parlor, and dining cars, baggage, express, and postal cars, combination cars, and freight cars	129,257 45	152,777 21	23,519 76
Machinery and tools	856 01	936 19	80 18
Total equipment	\$145,890 14	\$185,333 80	\$39,443 66
Grand total cost construction, equipment, etc.	\$206,136 54	\$247,325 19	\$41,188 65

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS. (June 30, 1893.)

Item.	Total Cost to Dec. 31, 1892.	Total Cost to June 30, 1893.	Net Additions During 6 Mos.
Construction :			
Fences	\$626 30	\$626 30	-----
Grading, and bridge and culvert masonry	808 84	808 84	-----
Bridges and trestles	5,818 44	5,818 44	-----
Rails	2,968 93	52,759 45	\$49,790 52
Ties	689 50	689 50	-----
Buildings, furniture, and fixtures	26,398 58	26,260 57	Cr. 138 01
Shop machinery and tools	3,940 04	3,940 04	-----
Engineering expenses	1,850 68	1,850 68	-----
Sidings and yard extensions	8,764 38	12,599 50	3,835 12
Other items	10,125 70	10,125 70	-----
Total construction	\$61,991 39	\$115,479 02	\$53,487 63
Equipment :			
Locomotives	\$31,620 40	\$51,688 97	\$20,068 57
Passenger cars, sleeping, parlor, and dining cars, baggage, express, and postal cars, combination cars, and freight cars	152,777 21	166,387 13	13,609 92
Machinery and tools	936 19	2,041 76	1,105 57
Total equipment	\$185,333 80	\$220,117 86	\$34,784 06
Grand total cost construction, equipment, etc.	\$247,325 19	\$335,596 88	\$88,271 69

OPERATING EXPENSES. (For 12 months ending December 31, 1892.)

Item.	Chargeable to Passenger Traffic	Chargeable to Freight Traffic.	Total.
Maintenance of way and structures:			
Repairs of roadway	\$54,243 66	\$67,079 66	\$121,323 32
Renewals of rails	10,057 39	12,437 34	22,494 73
Renewals of ties	17,678 11	21,861 40	39,539 51
Repairs of bridges and culverts	6,726 28	8,317 97	15,044 25
Repairs of fences, road-crossings, signs, and cattle guards	17 22	21 29	38 51
Repairs of buildings	4,043 97	5,000 93	9,044 90
Repairs of telegraph	1 45	2 80	4 25
Other expenses	2,121 69	2,623 77	4,745 46
Totals	\$74,774 99	\$92,470 48	\$167,245 47
Maintenance of equipment:			
Repairs and renewals of locomotives	\$34,757 52	\$42,982 40	\$77,739 92
Repairs and renewals of passenger cars	13,903 12	-----	13,903 12
Repairs and renewals of freight cars	-----	49,746 35	49,746 35
Other expenses	2,024 55	2,503 63	4,528 18
Totals	\$50,685 19	\$95,232 38	\$145,917 57
Conducting transportation:			
Wages of enginemen, firemen, and round-housemen	\$37,043 51	\$45,809 34	\$82,852 85
Fuel for locomotives	29,564 54	36,560 57	66,125 11
Water supply for locomotives	8,453 22	10,453 55	18,906 77
All other supplies for locomotives	2,088 42	2,582 62	4,671 04
Wages of other trainmen	21,872 57	27,048 40	48,920 97
All other train supplies	3,771 75	4,664 28	8,436 03
Wages of switchmen, flagmen, and watchmen	5,922 37	7,323 81	13,246 18
Expense of telegraph, including train dispatchers and operators	6,248 55	7,727 19	13,975 74
Wages of station agents, clerks, and laborers	8,294 16	10,256 85	18,551 01
Station supplies	450 69	557 35	1,008 04
Car mileage—balance	25,707 09	31,790 31	57,497 40
Loss and damage	271 60	5,796 47	6,068 07
Injuries to persons	640 30	747 31	1,351 61
Other expenses	15,140 38	18,723 14	33,863 52
Totals	\$165,433 15	\$210,041 19	\$375,474 34
General expenses:			
Salaries of officers	\$2,200 19	\$2,720 83	\$4,921 02
Salaries of clerks	4,153 16	5,135 95	9,289 11
General office expenses and supplies	802 01	991 80	1,793 81
Agencies, including salaries and rent	8,330 50	10,301 80	18,632 30
Advertising	3 02	3 74	6 76
Insurance	2,132 74	2,637 42	4,770 16
Rents for tracks, yards, and terminals	509 43	629 99	1,139 42
Legal expenses	2,362 48	2,921 52	5,284 00
Stationery and printing	322 26	398 52	720 78
Other general expenses	1,506 23	1,862 66	3,368 89
Totals	\$22,322 02	\$27,604 23	\$49,926 25
Recapitulation of expenses:			
Maintenance of way and structures	\$74,774 99	\$92,470 48	\$167,245 47
Maintenance of equipment	50,685 19	95,232 38	145,917 57
Conducting transportation	165,433 15	210,041 19	375,474 34
General expenses	22,322 02	27,604 23	49,926 25
Grand totals	\$313,215 35	\$425,348 28	\$738,563 63
Percentage of operating expenses to earnings	-----	-----	84.54

OPERATING EXPENSES. (For 6 months ending June 30, 1893.)

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of way and structures:			
Repairs of roadway	\$36,732 82	\$56,261 67	\$92,994 49
Renewals of rails	11,933 12	18,277 32	30,210 44
Renewals of ties	9,369 41	14,350 62	23,720 03
Repairs of bridges and culverts	3,026 48	4,635 50	7,661 98
Repairs of fences, road-crossings, signs, and cattle guards	19 89	30 46	50 35
Repairs of buildings	1,836 87	2,813 44	4,650 31
Other expenses	1,001 26	1,533 57	2,534 83
Totals	\$40,053 61	\$61,347 94	\$101,401 55
Maintenance of equipment:			
Repairs and renewals of locomotives	\$17,524 11	\$26,840 73	\$44,364 84
Repairs and renewals of passenger cars	9,661 90		9,661 90
Repairs and renewals of freight cars		29,001 49	29,001 49
Other expenses	921 83	1,411 91	2,333 74
Totals	\$28,107 84	\$57,254 13	\$85,361 97
Conducting transportation:			
Wages of enginemen, firemen, and round-housemen	\$19,012 68	\$29,120 70	\$48,133 38
Fuel for locomotives	15,977 09	24,471 24	40,448 33
Water supply for locomotives	4,087 96	6,261 30	10,349 26
All other supplies for locomotives	916 00	1,403 00	2,319 00
Wages of other trainmen	11,579 60	17,735 84	29,315 44
All other train supplies	1,029 98	1,577 57	2,607 55
Wages of switchmen, flagmen, and watchmen	3,156 05	4,833 95	7,990 00
Expense of telegraph, including train dispatchers and operators	2,826 98	4,329 94	7,156 92
Wages of station agents, clerks, and laborers	4,086 65	6,259 30	10,345 95
Station supplies	245 00	375 25	620 25
Car mileage—balance	15,801 25	24,201 92	40,003 17
Loss and damage	1,108 84	1,698 34	2,807 18
Injuries to persons	1 18	1 82	3 00
Other expenses	5,399 03	8,269 40	13,668 43
Totals	\$85,228 29	\$130,539 57	\$215,767 86
General expenses:			
Salaries of officers	\$1,585 18	\$2,427 94	\$4,013 12
Salaries of clerks	1,779 32	2,725 29	4,504 61
General office expenses and supplies	217 66	333 38	551 04
Agencies, including salaries and rent	2,983 13	4,569 09	7,552 22
Advertising	25 20	38 60	63 80
Insurance	927 98	1,421 35	2,349 33
Expense of stock yards and elevators	59	91	1 50
Rents for tracks, yards, and terminals	260 58	399 11	659 69
Legal expenses	1,560 67	2,390 40	3,951 07
Stationery and printing	141 98	217 46	359 44
Other general expenses	465 17	712 48	1,177 65
Totals	\$9,947 46	\$15,236 01	\$25,183 47
Recapitulation of expenses:			
Maintenance of way and structures	\$40,053 61	\$61,347 94	\$101,401 55
Maintenance of equipment	28,107 84	57,254 13	85,361 97
Conducting transportation	85,228 29	130,539 57	215,767 86
General expenses	9,947 46	15,236 01	25,183 47
Grand totals	\$163,337 20	\$264,377 65	\$427,714 85
Percentage of operating expenses to earnings			88.30

RENTALS PAID.

For the twelve months ending December 31, 1892, there was paid \$16,415 49 for rent of locomotives and cars.

For six months ending June 30, 1893, there was paid \$9,375 16 for rent of locomotives and cars.

EMPLOYÉS AND SALARIES. (For 12 months ending December 31, 1892.)

Class.	Number.	Total Yearly Compensation.	Average Daily Compensation.
General officers.....	3	\$3,142 88	-----
General office clerks.....	26	8,745 11	\$3 04
Station agents.....	4	2,940 00	2 04
Other station men.....	13	10,072 00	2 15
Enginemen.....	39	61,171 68	4 36
Firemen.....	69	49,959 60	2 01
Conductors.....	26	43,852 32	4 68
Other trainmen.....	44	43,959 84	2 78
Machinists.....	21	19,954 56	3 04
Carpenters.....	22	17,312 40	2 52
Other shopmen.....	24	20,657 76	2 75
Section foremen.....	27	21,300 00	2 53
Other trackmen.....	237	77,703 96	1 05
Switchmen, flagmen, and watchmen.....	7	7,724 48	2 86
Telegraph operators and dispatchers.....	12	12,954 96	3 00
All other employés and laborers.....	56	42,952 68	2 13
Totals.....	630	\$443,907 23	-----

EMPLOYÉS AND SALARIES. (For 6 months ending June 30, 1893.)

Class.	Number.	Total Compensation.	Average Daily Compensation.
General officers.....	3	\$1,571 44	-----
General office clerks.....	26	4,405 00	\$3 04
Station agents.....	4	1,503 25	2 09
Other station men.....	13	5,110 00	2 18
Enginemen.....	37	28,171 00	4 88
Firemen.....	63	24,503 75	2 49
Conductors.....	26	21,651 00	4 62
Other trainmen.....	47	23,262 25	2 75
Machinists.....	20	9,502 35	3 05
Carpenters.....	23	8,932 25	2 49
Other shopmen.....	21	9,301 65	2 84
Section foremen.....	27	10,650 00	2 53
Other trackmen.....	290	46,007 90	1 02
Switchmen, flagmen, and watchmen.....	7	3,662 24	2 86
Telegraph operators and dispatchers.....	12	6,533 25	3 02
All other employés and laborers.....	65	23,201 60	2 29
Totals.....	684	\$227,968 93	-----

EARNINGS FROM OPERATION. (For 12 months ending December 31, 1892.)

Item.	Actual Earnings.
Passenger revenue.....	\$183,812 17
Mail.....	35,766 09
Express.....	39,564 96
Extra baggage and storage.....	2,009 93
Total passenger earnings.....	\$261,153 15
Freight revenue.....	599,317 55
Total passenger and freight earnings.....	\$860,470 70
Other earnings from operation.....	13,157 94
Total gross earnings from operation.....	\$873,628 64

EARNINGS FROM OPERATION. (For 6 months ending June 30, 1893.)

Item.	Actual Earnings.
Passenger revenue	\$123,391 91
Mail	17,963 23
Express	24,777 56
Extra baggage and storage	1,125 27
Total passenger earnings	\$167,257 97
Freight revenue	306,796 64
Total passenger and freight earnings	\$474,054 63
Other earnings from operation	10,338 38
Total gross earnings from operation	\$484,393 01

PASSENGER AND FREIGHT, AND TRAIN MILEAGE. (For 12 months ending Dec. 31, 1892.)

Item.	Tonnage, Passengers, Etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue	48,340	
Number of passengers carried one mile	8,901,535	
Average distance carried—miles	184	
Total passenger revenue		\$183,812 17
Average amount received from each passenger		3 80
Average receipts per passenger per mile		02.06
Estimated cost of carrying each passenger one mile		03.52
Passenger earnings per mile of road		1,036 32
Passenger earnings per train mile		86.29
Freight traffic:		
Number of tons carried of freight earning revenue	246,513	
Number of tons carried one mile	49,622,030	
Average distance haul of one ton—miles	201	
Total freight revenue		599,317 55
Average amount received for each ton of freight		2 43
Average receipts per ton per mile		01.21
Estimated cost of carrying one ton one mile		00.86
Freight earnings per mile of road		2,378 24
Freight earnings per train mile		1 60.13
Passenger and freight:		
Passenger and freight revenue		860,470 70
Passenger and freight revenue per mile of road		3,414 56
Expenses per mile of road		2,930 81
Total earnings per mile of road, including mails, express, etc.		3,466 79
Train mileage:		
Miles run by passenger trains	302,628	
Miles run by freight trains	374,278	
Total mileage trains earning revenue	676,906	
Miles run by switching trains	109,925	
Miles run by construction and other trains	5,250	
Grand total train mileage	792,081	
Mileage of loaded freight cars—north or east	2,826,871	
Mileage of loaded freight cars—south or west	4,194,568	
Mileage of empty freight cars—north or east	1,886,151	
Mileage of empty freight cars—south or west	904,663	
Average number of freight cars in train	17	
Average number of loaded cars in train	12	
Average number of empty cars in train	5	
Average number of tons of freight in train	71	
Average number of tons of freight in each loaded car	6	

PASSENGER AND FREIGHT, AND TRAIN MILEAGE. (For 6 months ending June 30, 1893.)

Item.	Tonnage, Passengers, Etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue.....	32,935	
Number of passengers carried one mile.....	6,250,891	
Average distance carried—miles.....	190	
Total passenger revenue.....		\$123,391 91
Average amount received from each passenger.....		3 75
Average receipts per passenger per mile.....		01.97
Estimated cost of carrying each passenger one mile.....		02.61
Passenger earnings per mile of road.....		663 72
Passenger earnings per train mile.....		01.11
Freight traffic:		
Number of tons carried of freight earning revenue.....	144,825	
Number of tons carried one mile.....	27,950,720	
Average distance haul of one ton—miles.....	193	
Total freight revenue.....		306,796 66
Average amount received for each ton of freight.....		2 12
Average receipts per ton per mile.....		01.10
Estimated cost of carrying one ton one mile.....		00.94
Freight earnings per mile of road.....		1,217 45
Freight earnings per train mile.....		01.34
Passenger and freight:		
Passenger and freight earnings.....		474,054 63
Passenger and freight earnings per mile of road.....		1,881 17
Expenses per mile of road.....		1,697 28
Total earnings per mile of road, including mail, express, etc.....		1,922 19
Train mileage:		
Miles run by passenger trains.....	150,126	
Miles run by freight trains.....	229,679	
Total mileage trains earning revenue.....	379,805	
Miles run by switching trains.....	53,400	
Miles run by construction and other trains.....	5,050	
Grand total train mileage.....	438,255	
Mileage of loaded freight cars—north or east.....	1,870,045	
Mileage of loaded freight cars—south or west.....	2,205,632	
Mileage of empty freight cars—north or east.....	855,224	
Mileage of empty freight cars—south or west.....	517,603	
Average number of freight cars in train.....	18	
Average number of loaded cars in train.....	13	
Average number of empty cars in train.....	5	
Average number of tons of freight in train.....	69	
Average number of tons of freight in each loaded car.....	5	

MILEAGE OF ROAD OPERATED IN CALIFORNIA.

Line in Use.	Main Line.	Line Operated Under Lease.	Total Mileage Operated.	Steel Rails.
Miles of single track.....	9.912	242.37	252.282	252.282
Miles of yard track and sidings.....		19.373	19.373	19.373
Total mileage operated.....	9.912	261.743	271.655	271.655

RENEWALS OF RAILS AND TIES.

New rails laid during eighteen months: 2,999¹/₂ tons steel rails.
 New ties laid during eighteen months: Pine and redwood, 130,648. Average price at distributing point, 53 cents.

ACCIDENTS TO PERSONS.

Kind of Accident.	Employés Killed.	Employés Injured.	Passengers Injured.	Others Not Trespassing Injured.
Derailements	1	11	1	.....
Collisions .....	.....	.....	.....	1
Other causes	2	3	6	.....
Totals	3	14	7	1

FREIGHT TRAFFIC MOVEMENT. (For 12 months ending December 31, 1892.)

Commodity.	Originating on this Road—Tons.	Received from Connecting Roads—Tons.	Total Freight Tonnage.	Per Cent.
Products of agriculture :				
Grain	31	3,425	3,456	1.40
Flour	45	1,607	1,652	.67
Other mill products	13	2,218	2,231	.91
Hay	85	2,798	2,883	1.17
Tobacco .....	.....	210	210	.09
Cotton .....	.....	28	28	.01
Fruit and vegetables	15	29,860	29,875	12.12
Products of animals :				
Live stock	117	6,908	7,025	2.85
Dressed meats	2	20	22	.01
Other packing-house products .....	.....	6,557	6,557	2.66
Poultry, game, and fish .....	.....	271	271	.11
Wool .....	.....	2,126	2,126	.86
Hides and leather	13	253	266	.11
Products of mines and forest :				
Anthracite coal .....	.....	324	324	.13
Bituminous coal .....	.....	47,927	47,927	19.44
Coke .....	.....	49	49	.02
Ores	743	205	948	.38
Stone, sand, and other like articles	5	5,534	5,539	2.25
Salt .....	.....	319	319	.13
Lumber	85	18,634	18,719	7.59
Borax	5,648	75	5,723	2.32
Manufactures :				
Petroleum and other oils	1	8,378	8,379	3.40
Sugar .....	.....	8,591	8,591	3.48
Iron—pig and bloom .....	.....	46	46	.02
Iron and steel rails .....	.....	604	604	.25
Other castings and machinery	5	6,395	6,400	2.60
Bar and sheet metal	1	5,100	5,101	2.07
Cement, brick, and lime .....	.....	514	514	.21
Agricultural implements .....	.....	3,261	3,261	1.32
Wagons, carriages, tools, etc.	28	3,606	3,634	1.47
Wines, liquors, and beers	1	7,985	7,986	3.24
Household goods and furniture	57	5,586	5,643	2.29
Merchandise	257	54,365	54,622	22.16
Miscellaneous: other commodities not mentioned above	74	5,508	5,582	2.26
Total tonnage	7,226	239,287	246,513	100.00

FREIGHT TRAFFIC MOVEMENT. (For 6 months ending June 30, 1893.)

Commodity.	Originating on this Road—Tons.	Received from Connecting Roads—Tons.	Total Freight Tonnage.	Per Cent.
Products of agriculture:				
Grain	13	1,804	1,817	1.26
Flour	19	772	791	.55
Other mill products		1,335	1,335	.91
Hay	12	2,325	2,337	1.61
Tobacco		47	47	.03
Fruit and vegetables	8	31,744	31,752	21.92
Products of animals:				
Live stock	26	1,059	1,085	.75
Dressed meats		82	82	.06
Other packing-house products		2,896	2,896	2.00
Poultry, game, and fish		92	92	.06
Wool		330	330	.23
Hides and leather	10	218	228	.16
Products of mines and forest:				
Bituminous coal	2	18,834	18,836	13.01
Coke	1	32	33	.02
Ores	1,443	120	1,563	1.08
Stone, sand, and other like articles		1,219	1,219	.84
Borax	3,193	12	3,205	2.21
Lumber	55	15,354	15,409	10.64
Salt	5	84	89	.06
Manufactures:				
Petroleum and other oils	2	8,810	8,812	6.08
Sugar	2	10,029	10,031	6.93
Iron—pig and bloom		23	23	.02
Iron and steel rails	1	489	490	.34
Other castings and machinery	24	3,378	3,402	2.36
Bar and sheet metal		2,293	2,293	1.58
Cement, brick, and lime	3	315	318	.22
Agricultural implements		2,221	2,221	1.53
Wagons, carriages, tools, etc.	8	1,790	1,798	1.24
Wines, liquors, and beers	8	4,459	4,467	3.09
Household goods and furniture	46	2,896	2,942	2.03
Hardware	1	1,567	1,568	1.08
Merchandise	148	22,690	22,838	15.77
Miscellaneous: other commodities not mentioned above	19	457	476	.33
Total tonnage	5,049	139,776	144,825	100.00

CONSUMPTION OF FUEL BY LOCOMOTIVES. (For 12 months ending December 31, 1892.)

Locomotives.	Coal—Tons.	Wood—Cords.	Total Fuel Consumed—Tons.	Miles Run.	Average lbs. Consumed per Mile.
Passenger	14,592	7	14,595½	308,566	94
Freight	25,320	23	25,331½	426,931	119
Switching	4,127		4,127	109,925	75
Construction	464		464	9,083	102
Totals	44,503	30	44,518	854,505	104

Average cost at distributing point: \$1 49 per ton for coal; \$1 00 per cord for wood.

CONSUMPTION OF FUEL BY LOCOMOTIVES. (For 6 months ending June 30, 1893.)

Locomotives.	Coal— Tons.	Wood— Cords.	Total Fuel Consumed— Tons.	Miles Run.	Average lbs. Consumed per Mile.
Passenger.....	8,007	41	8,027½	158,536	101
Freight.....	17,141	99	17,190½	250,315	137
Switching.....	904	5	906½	53,400	34
Construction.....	401	2	402	10,956	73
Totals.....	26,453	147	26,526½	473,207	112

Average cost at distributing point, \$1 52 per ton for coal; 66½ cents per cord for wood.

DESCRIPTION OF EQUIPMENT.

Item.	Added During 18 Mos.	Total at End of 18 Mos.	With Train Brake.	With Automatic Coupler.
Locomotives:				
Passenger, freight, and switching.....		45	45	
Cars in passenger service:				
Second-class passenger cars.....		8	8	8
Baggage, express, and postal cars.....		8	8	8
Other cars in passenger service.....		2	2	2
Totals.....		18	18	18
Cars in freight service:				
Flat cars.....	6	125	17	
Stock cars.....		338		
Coal cars.....		71		
Tank cars.....		244		
Totals.....	6	778	17	
Cars in company's service:				
Water and oil tanks.....	19	109	5	
Derrick cars.....		2		
Caboose cars.....	4	46	31	
Other road cars.....		70		
Totals.....	23	227	71	
Cars contributed to fast freight line service.....		41	41	
Total cars owned.....	29	1,064	112	
Cars leased.....		1,384	1,384	700
Grand total cars.....	29	2,448	1,496	718

The Westinghouse train brake is used exclusively. On the cars in passenger service the Miller automatic coupler is used. On the leased cars the Dowling coupler is used.

CHARACTERISTICS OF ROAD.

Colorado River, near Needles, to Mojave: Length, 252.282 miles; number of curves, 208; aggregate length of curved line, 46.3 miles; length of straight line, 205.982 miles; length of level line, 19.3 miles; number of ascending grades, 381; sum of ascents, 5,276.1 feet; aggregate length of ascending grades, 135.4 miles; number of descending grades, 170; sum of descents, 3,015 feet; aggregate length of descending grades, 86.2 miles.

Bridges: Wooden, 627.

Trestles: Length, 23,690 feet.

Gauge of track: 4 feet 8½ inches.

Telegraph: Miles of line, 252.282; miles of wire, 433.014. Name of operating company, Western Union Telegraph Company.

Number of stations on all roads operated by this company in California, 27.

TERRITORY OF NEW MEXICO,)
County of Bernalillo. (

C. N. Sterry, General Attorney for the Atlantic and Pacific Railroad Company (Western Division), being duly sworn, deposes and says that the statements, tables, and answers contained in the foregoing report have been compiled and prepared under his supervision from the report of said company to the honorable Secretary of the Interior

of the United States, in accordance with an understanding had with the said Railroad Commissioners on February 10, 1887, by William C. Hazledine, the then solicitor of said company, and that, to the best of his knowledge, and as he verily believes, the same contains a true and full exhibit of the condition and affairs of said company on the thirty-first day of December, 1892, and the thirtieth day of June, 1893, as the same are shown by said report of said Secretary of the Interior.

C. N. STERRY.

Subscribed and sworn to before me, this thirteenth day of October, A. D. 1893.

KARL A. SNYDER,

United States Commissioner, District of New Mexico.

CARSON AND COLORADO RAILWAY COMPANY.

[For year ending June 30, 1893.]

HISTORY.

1. Name of common carrier making this report: Carson and Colorado Railway Company.
2. Date of organization: February 27, 1892.
3. Under what laws organized: Laws of State of California.
4. Names of the constituent companies: Carson and Colorado Railroad Company, incorporated in Nevada, May 10, 1880; Carson and Colorado Railroad Company (Second Division), incorporated in Nevada, November 3, 1881; Carson and Colorado Railroad Company (Third Division), incorporated in California, November 21, 1881.
5. Date of consolidation: August 2, 1892. Authority: By unanimous action of the stockholders.

ORGANIZATION.

Names of Directors.	Post Office Address.
D. O. Mills .....	..... New York.
George Whittell .....	..... San Francisco.
William A. Randol .....	..... San Francisco.
James M. Allen .....	..... San Francisco.
S. Prentiss Smith .....	..... San Francisco.
W. S. Wood .....	..... San Francisco.
John W. C. Maxwell .....	..... San Francisco.
H. M. Yerrington .....	..... Carson City, Nev.
D. A. Bender .....	..... Carson City, Nev.

Date of expiration of terms of Directors: When successor is elected and qualified.
 Total number of stockholders at date of last election: This was initial election.
 Date of last meeting of stockholders for election of Directors: This was initial election.
 Post Office address of general office: San Francisco.
 Post Office address of operating office: Carson City, Nev.

OFFICERS.

Title.	Name.	Location of Office.
Chairman of the Board	The President .....	.....
President	H. M. Yerrington .....	..... Carson City, Nev.
Vice-President	George Whittell .....	..... San Francisco.
Secretary	D. A. Bender .....	..... Carson City, Nev.
Treasurer	S. Prentiss Smith .....	..... San Francisco.
Assistant Treasurer	Agency Bank of California .....	..... Virginia City, Nev.
General Counsel	W. S. Wood .....	..... San Francisco.
Auditor and Paymaster	George T. Mills .....	..... Carson City, Nev.
Chief Engineer	W. H. Kirk .....	..... Carson City, Nev.
General Superintendent	H. M. Yerrington .....	..... Carson City, Nev.
Assistant Superintendent	Robert J. Laws .....	..... Hawthorne, Nev.
Superintendent of Telegraph	A. M. Ardery .....	..... Carson City, Nev.
General Freight, Passenger, and Ticket Agent	D. A. Bender .....	..... Carson City, Nev.
General Baggage Agent	A. D. Bender .....	..... Carson City, Nev.

PROPERTY OPERATED.

Name.	Terminals.	Miles.
Carson and Colorado Railway	{ Mound House, Nev., to Keeler, Inyo County, Cal. Junction, Nev., to Candelaria, Nev.	293 7
Total		300

CAPITAL STOCK.

The total par value of authorized capital stock is \$6,300,000, divided into shares of a par value of \$100 each. The total amount issued and outstanding is \$4,380,000. No dividends were declared during year.

The capital stock was issued in exchange for the issued capital stock of the—
 Carson and Colorado Railroad Company, Nevada incorporation 22,500 shares.
 Carson and Colorado Railroad Company, second division, Nevada incorporation 5,100 shares.
 Carson and Colorado Railroad Company, third division, California incorporation 16,200 shares.

Total 43,800 shares.

Which three companies have sold their respective properties to this company—Colorado and Carson Railway Company.

FUNDED DEBT.

In 1892, the company authorized first mortgage bonds to the amount of \$3,500,000 to be issued, to run fifty years. The amount issued and now outstanding is \$2,000,000, upon which full value was realized. The bonds bear four per cent interest, payable in January and July. The amount of interest accruing during the year was \$80,000; amount paid, \$79,669.

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.	Current Liabilities Accrued to and Including June 30, 1893.
Cash	Credits
Due from agents	Balance—cash assets
Due from solvent companies and individuals	
Total	Total

RECAPITULATION.

Account.	Total Amount Outstanding.	Miles of Road.	Amount per Mile of Road.
Capital stock issued	\$4,380,000 00	300	\$14,600 00
Funded debt	2,000,000 00		6,666 66
Totals	\$6,380,000 00	300	\$21,266 66

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS.

Total cost of construction, equipment, etc. (in capital stock and bonds), \$6,380,000; cost per mile of road, \$21,266 66.

Unable to furnish the information called for, as this company purchased the railroad, equipments, and all other property of the Carson and Colorado Railroad Company, Carson and Colorado Railroad Company (Second Division), and Carson and Colorado Railroad Company (Third Division), the consideration being \$4,380,000 of its capital stock and \$2,000,000 of bonds.

INCOME ACCOUNT.

Gross earnings from operation.....	\$213,408 77	
Less operating expenses.....	138,450 37	
Income from operation.....		\$74,958 40
Deductions from income:		
Interest on funded debt accrued.....	\$80,000 00	
Taxes.....	27,701 72	
Total deductions from income.....		107,701 72
Deficit from operations of year ending June 30, 1893.....		\$32,743 32

EARNINGS FROM OPERATION.

Item.	Actual Earnings.
Passenger revenue.....	\$40,884 84
Mail.....	14,827 20
Express.....	3,219 71
Extra baggage and storage.....	561 91
Other items.....	859 57
Total passenger earnings.....	\$60,353 23
Freight revenue.....	153,055 54
Total passenger and freight earnings.....	\$213,408 77

STOCKS AND BONDS OWNED—MISCELLANEOUS INCOME.

This company owns neither stocks nor bonds, and has no miscellaneous income.

FINANCIAL OPERATIONS FOR THE YEAR.

Resources.	Appropriation of Resources.
Net income from operation..... \$74,958 40	Interest on funded debt paid \$79,669 00
	Taxes..... 27,701 72

GENERAL BALANCE SHEET.

Assets.	Liabilities.
Cost of road and equipment.. \$6,380,000 00	Capital stock..... \$4,380,000 00
Cash and current assets..... 13,622 61	Funded debt..... 2,000,000 00
Materials and supplies..... 13,835 07	Accrued interest on funded
Deficit from operation..... 32,743 32	debt, not paid..... 331 00
	Accounts credit..... 11,054 03
	Profit and loss..... 48,815 97
Total..... \$6,440,201 00	Total..... \$6,440,201 00

SECURITY FOR FUNDED DEBT.

Class of Bond or Obligation.	What Road Mortgaged.	Miles.
First mortgage 50-year 4 per cent bonds; in amount, \$2,000,000.....	Mound House, Nev., to Keeler, Cal.; Junction, Nev., to Candelaria, Nev..	293 7

Also, all equipment and all income are mortgaged.

PROPERTY OPERATED.

Name.	Terminals.	Miles.
Carson and Colorado Railway	{ Mound House, Nev., to Keeler, Inyo County, Cal. ----- Junction, Nev., to Candelaria, Nev. -----	293 7
Total	-----	300

CAPITAL STOCK.

The total par value of authorized capital stock is \$6,300,000, divided into shares of a par value of \$100 each. The total amount issued and outstanding is \$4,380,000. No dividends were declared during year.

The capital stock was issued in exchange for the issued capital stock of the—
 Carson and Colorado Railroad Company, Nevada incorporation ----- 22,500 shares.
 Carson and Colorado Railroad Company, second division, Nevada incorporation ----- 5,100 shares.
 Carson and Colorado Railroad Company, third division, California incorporation ----- 16,200 shares.

Total ----- 43,800 shares.

Which three companies have sold their respective properties to this company—
 Colorado and Carson Railway Company.

FUNDED DEBT.

In 1892, the company authorized first mortgage bonds to the amount of \$3,500,000 to be issued, to run fifty years. The amount issued and now outstanding is \$2,000,000, upon which full value was realized. The bonds bear four per cent interest, payable in January and July. The amount of interest accruing during the year was \$80,000; amount paid, \$79,669.

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.	Current Liabilities Accrued to and Including June 30, 1893.
Cash ----- \$9,544 73	Credits ----- \$11,054 03
Due from agents ----- 637 10	Balance—cash assets ----- 2,568 53
Due from solvent companies and individuals ----- 3,440 78	
Total ----- \$13,622 61	Total ----- \$13,622 61

RECAPITULATION.

Account.	Total Amount Outstanding.	Miles of Road.	Amount per Mile of Road.
Capital stock issued -----	\$4,380,000 00	300	\$14,600 00
Funded debt -----	2,000,000 00		6,666 66
Totals -----	\$6,380,000 00	300	\$21,266 66

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS.

Total cost of construction, equipment, etc. (in capital stock and bonds), \$6,380,000; cost per mile of road, \$21,266 66.

Unable to furnish the information called for, as this company purchased the railroad, equipments, and all other property of the Carson and Colorado Railroad Company, Carson and Colorado Railroad Company (Second Division), and Carson and Colorado Railroad Company (Third Division), the consideration being \$4,380,000 of its capital stock and \$2,000,000 of bonds.

INCOME ACCOUNT.

Gross earnings from operation.....	\$213,408 77	
Less operating expenses.....	138,450 37	
Income from operation.....		\$74,958 40
Deductions from income:		
Interest on funded debt accrued.....	\$80,000 00	
Taxes.....	27,701 72	
Total deductions from income.....		107,701 72
Deficit from operations of year ending June 30, 1893.....		\$32,743 32

EARNINGS FROM OPERATION.

Item.	Actual Earnings.
Passenger revenue.....	\$40,884 84
Mail.....	14,827 20
Express.....	3,219 71
Extra baggage and storage.....	561 91
Other items.....	859 57
Total passenger earnings.....	\$60,353 23
Freight revenue.....	153,055 54
Total passenger and freight earnings.....	\$213,408 77

STOCKS AND BONDS OWNED—MISCELLANEOUS INCOME.

This company owns neither stocks nor bonds, and has no miscellaneous income.

FINANCIAL OPERATIONS FOR THE YEAR.

Resources.	Appropriation of Resources.
Net income from operation..... \$74,958 40	Interest on funded debt paid \$79,669 00
	Taxes..... 27,701 72

GENERAL BALANCE SHEET.

Assets.	Liabilities.
Cost of road and equipment.. \$6,380,000 00	Capital stock..... \$4,380,000 00
Cash and current assets..... 13,622 61	Funded debt..... 2,000,000 00
Materials and supplies..... 13,835 07	Accrued interest on funded
Deficit from operation..... 32,743 32	debt not paid..... 331 00
	Accounts credit..... 11,054 03
	Profit and loss..... 48,815 97
Total..... \$6,440,201 00	Total..... \$6,440,201 00

SECURITY FOR FUNDED DEBT.

Class of Bond or Obligation.	What Road Mortgaged.	Miles.
First mortgage 50-year 4 per cent bonds ; in amount, \$2,000,000.....	Mound House, Nev., to Keeler, Cal.. Junction, Nev., to Candelaria, Nev..	293 7

Also, all equipment and all income are mortgaged.

DESCRIPTION OF EQUIPMENT.

Item.	Total at End of Year.
Locomotives:	
Passenger and freight	8
Cars in passenger service:	
First-class passenger cars	3
Combination passenger cars	4
Baggage, express, and postal cars	2
Total	9
Cars in freight service:	
Box cars	62
Flat cars	103
Ore cars	19
Total	231
Total cars owned	240

MILEAGE OF ROAD OPERATED.

Line in Use.	Main Line.	Branches and Spurs.	Total Mileage Operated.
Miles of single track	300	7.25	307.25
Miles of yard track and sidings			12.44
Total mileage operated	300	7.25	319.69

MILEAGE OF LINE BY STATES.

State.	Main Line.	Branches and Spurs.
Nevada	192	7.25
California	108	
Totals	300	7.25

RENEWALS OF RAILS AND TIES.

New rails laid during year: None.
 New ties laid during year: Pine, 1,736; redwood, 3,735. Average price at distributing point: pine, 50 cents; redwood, 38 cents.

CONSUMPTION OF FUEL BY LOCOMOTIVES.

The locomotives on mixed trains, in running 162,249 miles, burned 3,683 cords of nut pine, equal to 4,604 tons of fuel. This is an average of 30.26 pounds per mile. The wood cost \$7 50 per cord; total cost, \$27,622 50.

CHARACTERISTICS OF ROAD.

Mound House, Nev., to Keeler, Cal.: Length, 293 miles; number of curves, 576; aggregate length of curved line, 51.80 miles; length of straight line, 242.20 miles; length of level line, 50.80 miles; number of ascending grades, 189; sum of ascents, 3,312.68 feet; aggregate length of ascending grades, 68 miles; number of descending grades, 113; sum of descents, 4,252.88 feet; aggregate length of descending grades, 176 miles.

Junction, Nev., to Candelaria, Nev.: Length, 7 miles; number of curves, 50; aggregate length of curved line, 3.40 miles; length of straight line, 3.60 miles; number of ascending grades, 1; sum of ascents, 511.74 feet; aggregate length of ascending grades, 4.54 miles; number of descending grades, 1; sum of descents, 178.64 feet; aggregate length of descending grades, 1.96 miles.

Bridges: Wooden, 2; combination, 1; aggregate length, 601.10 feet; minimum length, 191.06 feet; maximum length, 210 feet.
 Trestles: 1; length, 238 feet.
 Gauge of track: 3 feet.
 Telegraph: Miles of line, 300; operated by Western Union Telegraph Company.
 Number of stations on all roads operated by this company in California, 6.

DATE WHEN THE ROAD WAS OPENED FOR PUBLIC USE.

From Mound House, Nev., to Candelaria, Nev. March, 1882.
 From Junction, Nev., to Keeler, Cal. August, 1883.

STATE OF NEVADA, }
 County of Ormsby. } ss.

We, the undersigned, H. M. Yerrington, President, and D. A. Bender, Secretary, of the Carson and Colorado Railway Company, on our oath, do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

H. M. YERRINGTON,
 President.
 D. A. BENDER,
 Secretary.

Subscribed and sworn to before me, this sixteenth day of September, 1893.

FRANK E. MURPHY,
 Notary Public.

NEVADA-CALIFORNIA-OREGON RAILWAY.

[For year ending December 31, 1892.]

HISTORY.

1. Name of common carrier making this report: Moran Brothers, by E. Gest, Manager. Office, principal place of business, and address: Reno, Washoe County, Nevada.
2. Date of organization: Not a corporation. First 31 miles from Reno held under deed from United States Court, District of Nevada, dated November 21, 1884; since extended 48 miles by Moran Brothers.
3. Under what laws organized: Articles of copartnership of Moran Brothers on record in Lassen County, California. The right of Moran Brothers to build and operate a railroad in California was sustained by the Supreme Court of California in bank—Charles Moran et al. vs. A. E. Ross, appellant (No. 12,658), May 6, 1889.
7. Carrier operating the road of this company: Moran Brothers, bankers, 68 William Street, New York, through Erasmus Gest, their attorney in fact, who is its Custodian, Manager, and Chief Engineer.

ORGANIZATION.

Names of Directors: There are none.
 Total number of stockholders at date of last election: There are none; therefore, neither elections nor meetings of Directors.
 Post Office address of general and operating office: Reno, Nevada.

OFFICERS.

Title.	Name.	Location of Office.
Cashier and Auditor.....	Frank R. Lewis.....	...Reno, Nevada.
Custodian, General Manager, and Chief Engineer..	Erasmus Gest .....	...Reno, Nevada.
Master of Transportation.....	John M. Fulton.....	...Reno, Nevada.

PROPERTY OPERATED.

The Nevada-California-Oregon Railway (so called) extends from Reno, in Nevada, to Amedee, in California, a distance of 79 miles.

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.		Current Liabilities Accrued to and Including December 31, 1892.	
Cash	\$2,052 66	Loans and bills payable.....	\$6,103 20
Bills receivable	4,000 00	Audited vouchers and ac-	
Due from agents	1,456 98	counts	2,533 33
Due from solvent companies		Wages and salaries	5,330 86
and individuals.....	751 43	Net traffic balances due to	
Balance—current liabilities...	6,370 92	other companies	665 60
Total	\$14,632 99	Total	\$14,632 99

PERMANENT IMPROVEMENTS FOR THE YEAR.

Item.	Total Expenditures.	Credits—Prop-erty and Material Sold.	Differences or Net Additions to Property, Etc.
Construction :			
Right of way	\$3,164 00		\$3,164 00
Other real estate	320 75	\$604 25	dif., 283 50
Grading, and bridge and culvert masonry, and bridges and trestles.....	26,191 40	82 39	26,109 01
Rails	7,733 43		7,733 43
Other superstructure	2,096 00		2,096 00
Buildings, furniture, and fixtures	1,693 83	150 00	1,543 83
Engineering expenses	6,805 66	60 00	6,745 66
Sidings and yard extensions	109 30		109 30
Other items	106 50		106 50
Total construction	\$48,220 87	\$896 64	\$47,324 23
Equipment :			
Passenger cars	\$3,979 82		\$3,979 82
Baggage, express, and postal cars	1,329 31		1,329 31
Freight cars	4,825 37		4,825 37
Total equipment	\$10,134 50		\$10,134 50
Grand total construction and equipment ...	\$58,355 37	\$896 64	\$57,458 73

INCOME ACCOUNT.

Gross earnings from operation	\$74,585 87	
Less operating expenses	50,239 79	
Income from operation		\$24,346 08
Deductions from income :		
Rents	\$220 00	
Taxes	2,717 85	
Total deductions from income.....		2,937 85
Nominal net income.....		\$21,408 23
Nominal surplus December 31, 1891.....		50,209 85
Nominal surplus December 31, 1892 (nine years).....		\$71,618 08

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS.

Item.	Net Additions During Year.	Total Cost to Dec. 31, 1891.	Total Cost to Dec. 31, 1892.	Cost per Mile.
Construction:				
Right of way	\$3,164 00	\$3,827 50	\$6,991 50	\$88 50
Other real estate	loss, 283 50	12,564 80	12,281 30	155 46
Grading, and bridge and cul- vert masonry, and bridges and trestles	26,109 01	123,843 91	149,952 92	1,898 14
Rails	7,733 43	172,456 93	180,190 36	2,280 89
Ties		28,587 90	28,587 90	361 87
Other superstructure	2,096 00	30,840 50	32,936 50	416 92
Buildings, furniture, and fix- tures	1,543 83	31,864 02	33,407 85	422 88
Shop machinery and tools		1,382 71	1,382 71	17 50
Engineering expenses	6,745 66	12,579 84	19,325 50	244 63
Sidings and yard extensions	109 30	3,933 03	4,042 33	51 17
Road built by contract		9,405 00	9,405 00	119 05
Purchase of constructed road		377,735 28	377,735 28	4,781 46
Other items	106 50	45,224 46	45,330 96	573 81
Total construction	\$47,324 23	\$854,245 88	\$901,570 11	\$11,412 28
Equipment:				
Locomotives		\$28,964 00	\$28,964 00	\$366 63
Passenger cars	\$3,979 82	2,597 59	6,577 41	83 26
Baggage, express, and postal cars	1,329 31		1,329 31	16 82
Combination cars		7,602 02	7,602 02	96 23
Freight cars	4,825 37	14,028 57	18,853 94	238 66
Other cars of all classes		4,316 38	4,316 38	54 64
Total equipment	\$10,134 50	\$57,508 56	\$67,643 06	\$856 24
Grand total cost construc- tion, equipment, etc.	\$57,458 73	\$911,754 44	\$969,213 17	\$12,268 52

EARNINGS FROM OPERATION.

Item.	Total Receipts.	Actual Earnings.
Passenger revenue		\$20,821 85
Mail	\$5,085 49	
Express	654 93	
Extra baggage and storage	175 57	
		5,915 99
Total passenger earnings		\$26,737 84
Freight revenue	\$46,229 35	
Other freight earnings	472 05	
Total freight earnings		46,701 40
Total passenger and freight earnings		\$73,439 24
Other earnings from operation:		
Switching charges—balance	\$15 00	
Rents from tracks, yards, and terminals	1,001 48	
Other sources	130 15	
Total other earnings		1,146 63
Total gross earnings from operation		\$74,585 87

OPERATING EXPENSES.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of way and structures:			
Repairs of roadway	\$1,357 34	\$7,572 56	\$8,929 90
Renewals of rails	76 42	426 36	502 78
Renewals of ties	714 04	3,933 56	4,697 60
Repairs of bridges and culverts	49 30	275 01	324 31
Repairs of fences, road-crossings, signs, and cattle guards	10 77	60 09	70 86
Repairs of buildings	198 82	198 82	397 64
Extra expenses	206 22	206 22	412 44
Extraordinary expenses	320 78	1,789 60	2,110 38
Totals	\$2,933 69	\$14,512 22	\$17,445 91
Maintenance of equipment:			
Repairs and renewals of locomotives	\$679 45	\$3,790 63	\$4,470 08
Repairs and renewals of passenger cars	889 75	-----	889 75
Repairs and renewals of freight cars	-----	2,065 07	2,065 07
Shop machinery, tools, etc.	54 31	303 02	357 33
Other expenses	131 70	131 70	263 40
Totals	\$1,755 21	\$6,290 42	\$8,045 63
Conducting transportation:			
Wages of enginemen, firemen, and round-housemen	\$732 76	\$3,338 14	\$4,070 90
Fuel for locomotives	907 26	4,133 05	5,040 31
Water supply for locomotives	71 49	325 69	397 18
All other supplies for locomotives	66 37	302 36	368 73
Wages of other trainmen	397 59	1,811 26	2,208 85
All other train supplies	7 29	33 20	40 49
Wages of station agents, clerks, and laborers	910 22	4,146 53	5,056 75
Station supplies	28 97	131 97	160 94
Loss and damage	-----	19 60	19 60
Other expenses	136 25	154 83	291 08
Totals	\$3,258 20	\$14,396 63	\$17,654 83
General expenses:			
Salaries of officers	\$1,830 00	\$1,830 00	\$3,660 00
Salaries of clerks	246 76	1,124 14	1,370 90
General office expenses and supplies	267 74	267 74	535 48
Advertising	226 75	226 75	453 50
Legal expenses	268 87	268 88	537 75
Stationery and printing	66 92	304 87	371 79
Other general expenses	29 52	134 48	164 00
Totals	\$2,936 56	\$4,156 86	\$7,093 42
Recapitulation of expenses:			
Maintenance of way and structures	\$2,933 69	\$14,512 22	\$17,445 91
Maintenance of equipment	1,755 21	6,290 42	8,045 63
Conducting transportation	3,258 20	14,396 63	17,654 83
General expenses	2,936 56	4,156 86	7,093 42
Grand totals	\$10,883 66	\$39,356 13	\$50,239 79

Percentage of operating expenses to earnings, 67.358 per cent.

FINANCIAL OPERATIONS FOR THE YEAR.

Resources.	Appropriation of Resources.
Net income from operation	Taxes
Net increase floating debt	Rentals
Net amount decrease of cash assets	Permanent improvements
Receipts from other sources	Equipment
	Increase of other assets—stores
Total	Total

GENERAL BALANCE SHEET.

Assets.		Liabilities.	
Cost of road	\$901,570 11	Current liabilities	\$6,371 92
Cost of equipment	67,643 06	From proprietor's pockets	901,674 08
Materials and supplies	26,277 66	Profit and loss:	
		Surplus from operation	71,618 08
		Surplus from other business investments	15,826 75
Total	\$995,490 83	Total	\$995,490 83

RENTALS PAID.

To the Southern Pacific Company a rental of \$220 is paid for terminal right of way at Reno, Nevada.

IMPORTANT CHANGES DURING THE YEAR.

Important Notice.—This report for the year 1892 is the last and final report of Moran Brothers, bankers, etc., New York, to the Railroad Commissioners of California, because of the facts, viz.: At midnight, December 31, 1892, the Moran Brothers surrendered possession, control, and management of the so-called Nevada-California-Oregon Railroad to, and did, by deed dated January 1, 1893, duly signed by Charles Moran, D. Comyn Moran, and Amedee D. Moran, citizens of New York, composing the banking firm in that city of Moran Brothers, 68 William Street, convey all the realty, rights of way, road-bed, tracks, rolling stock, tools, machines, water-rights, water stations, depots, shop buildings, office fixtures, etc., making up and composing the railway lying in Washoe County, Nevada, and in Sierra and Lassen Counties, California, to the "Nevada-California-Oregon Railway," an organization in pursuance of the statutes of Nevada, evidenced by certificate, dated April 2, 1888, of John M. Dormer, Secretary of State, under the great seal of Nevada.

CONTRACTS, AGREEMENTS, ETC.

1. Wells, Fargo & Co.'s Express. Regular rate to Chat, 50 cents per 100 pounds; regular rate to Amedee, \$1 per 100 pounds; special rate to Chat, 25 cents per 100 pounds; special rate to Amedee, 50 cents per 100 pounds.
2. Mail according to Government rules.
3. No sleeping, parlor, or dining cars on the road.
4. No contracts with freight or transportation companies or lines.
5. No contracts with other railroad companies.
6. No contracts with steamship companies.
7. No telegraph line along the road.
8. No other contracts.

EMPLOYÉS AND SALARIES.

Class.	Number.	Total Yearly Compensation.	Average Daily Compensation.
General officers	2	\$3,660 00	\$5 00
General office clerks	2	1,565 90	2 29
Station agents	3	2,493 20	2 27
Other station men	4	2,298 05	1 67
Enginemen	3	3,568 50	3 80
Firemen	3	2,069 15	2 27
Conductors	2	2,136 55	3 27
Machinists	1	676 28	2 55
Carpenters	3	3,076 15	3 26
Other shopmen	2	1,317 10	2 00
Section foremen	3	2,682 50	2 50
Other trackmen	21	13,032 85	1 97
All other employés and laborers	27	17,969 07	2 15
Totals	76	\$56,545 30	\$2 38

E. Gest, General Manager, etc., is not included, not being, so far, a salaried officer.

PASSENGER AND FREIGHT, AND TRAIN MILEAGE.

Item.	Tonnage, Passengers, Etc.	Revenue and Rates.
Passenger traffic :		
Number of passengers carried earning revenue.....	7,795	
Number of passengers carried one mile.....	481,187	
Average distance carried—miles.....	61.74	
Total passenger revenue.....		\$20,821 85
Average amount received from each passenger.....		2 67.118
Average receipts per passenger per mile.....		04.327
Estimated cost of carrying each passenger one mile.....		02.261
Passenger earnings per mile of road.....		260 27
Passenger earnings per train mile.....		51.166
Freight traffic :		
Number of tons carried of freight earning revenue.....	14,588	
Number of tons carried one mile.....	884,711	
Average distance haul of one ton—miles.....	60.646	
Total freight revenue.....		46,229 35
Average amount received for each ton of freight.....		3 16.899
Average receipts per ton per mile.....		05.225
Estimated cost of carrying one ton one mile.....		04.448
Freight earnings per mile of road.....		577 86
Freight earnings per train mile—north.....		94.336
Freight earnings per train mile—south.....		82.594
Passenger and freight :		
Passenger and freight revenue.....		67,051 20
Passenger and freight revenue per mile of road.....		917 99
Expenses per mile of road.....		627 99.736
Total earnings per mile of road, including mails, express, etc.....		932 32.337
Train mileage :		
Miles run by mixed trains.....	52,257	
Miles run by switching trains.....	3,274	
Miles run by construction and other trains.....	7,370	
Grand total train mileage.....	62,901	
Mileage of loaded freight cars—north.....	61,481	
Mileage of loaded freight cars—south.....	85,010	
Mileage of empty freight cars—north.....	47,355	
Mileage of empty freight cars—south.....	21,558	
Average number of freight cars in train.....	6.120	
Average number of loaded cars in train.....	3.922	
Average number of empty cars in train.....	2.197	
Average number of tons of freight in train.....	22.170	
Average number of tons of freight in each loaded car.....	5.264	

RENEWALS OF TIES.

New ties laid during year: White pine, 19,853. Average price at distributing point, 23⁶/₁₀ cents.

CONSUMPTION OF FUEL BY LOCOMOTIVES.

Locomotives.	Wood.		Miles Run.	Average lbs. Consumed per Mile.
	Cords.	Tons.		
Passenger and freight (mixed).....	1,240	620	52,257	23.728
Switching.....	80	40	3,274	24.434
Construction.....	141	70½	7,370	19.131
Totals.....	1,461	730½	62,901	23.540

Average cost of wood at distributing point, \$3.786 per cord.

FREIGHT TRAFFIC MOVEMENT—(Company's material excluded).

Commodity.	Originating on this Road—Tons.	Received from Connecting Roads—Tons.	Total Freight Tonnage.	Per Cent.
Products of agriculture :				
Grain	490	15	505	3.46
Flour	282	69	351	2.41
Other mill products	51	42	93	.64
Hay	86	-----	86	.59
Tobacco	3	52	55	.38
Fruit and vegetables	360	92	452	3.10
General farm products	246	43	289	1.98
Products of animals :				
Live stock	4,423	8	4,431	30.37
Dressed meats	57	-----	57	.39
Other packing-house products	8	62	70	.48
Poultry, game, and fish	10	13	23	.16
Wool	325	-----	325	2.23
Hides and leather	21	7	28	.19
Products of mines :				
Bituminous coal	4	17	21	.14
Coke	-----	5	5	.03
Ores	-----	1	1	.01
Stone, sand, and other like articles	-----	2	2	.01
Products of forest :				
Cordwood	2,433	-----	2,433	16.68
Lumber	2,071	35	2,106	14.44
Manufactures :				
Petroleum and other oils	10	132	142	.97
Sugar	20	310	330	2.26
Iron and hardware	38	387	425	2.91
Other castings and machinery	23	106	129	.88
Bar and sheet metal	1	41	42	.29
Cement, brick, and lime	55	7	62	.43
Agricultural implements	7	79	86	.59
Wagons, carriages, tools, etc.	13	105	118	.81
Wines, liquors, and beers	66	213	279	1.91
Household goods and furniture	75	150	225	1.54
Explosives	1	20	21	.14
Merchandise	115	1,012	1,127	7.73
Chemicals and drugs	1	51	52	.36
Miscellaneous	69	148	217	1.49
Total tonnage	11,364	3,224	14,588	100.00

MILEAGE OF ROAD OPERATED.

Line in Use.	Total Mileage Operated.	Iron Rails.	Steel Rails.
Miles of single track	79.00	26.50	52.50
Miles of yard track and sidings	3.62	3.62	-----
Total mileage operated	82.62	30.12	52.50

Main line in Nevada, 28.14 miles ; main line in California, 50.86 miles.

CHARACTERISTICS OF ROAD.

Reno, Nev., to Amedee, Cal. : Length, 79 miles ; number of curves, 284 ; aggregate length of curved line, 21.70 miles ; length of straight line, 57.30 miles ; length of level line, 18.86 miles ; number of ascending grades, 11 ; sum of ascents, 1,176 feet ; aggregate length of ascending grades, 11.84 miles ; number of descending grades, 15 ; sum of descents, 1,672 feet ; aggregate length of descending grades, 48.30 miles.

Bridges : There are no truss bridges—trestles only.

Trestles : In Nevada, 1,442 linear feet, in spans of 12 feet ; in California, 772 linear feet, in spans of 12 feet ; total, 2,214 linear feet.

Tunnels : There are no tunnels.

Gauge of track : 3 feet.

Telegraph : No telegraph.

Number of stations on all roads operated by this company in California : 2.

DESCRIPTION OF EQUIPMENT.

Item.	Added During Year.	Total at End of Year.
Locomotives:		
Freight (strictly)		1
Mixed service		3
Totals		4
Cars in passenger service:		
First-class passenger cars	2	2
Second-class passenger cars		2
Combination passenger cars		1
Baggage, express, and postal cars	2	2
Totals	4	7
Cars in freight service:		
Box cars	2	7
Flat cars	1	16
Stock cars	5	15
Totals	8	38
Cars in company's service:		
Gravel cars (dumps)		10
Pile hammers and steam shovel		2
Caboose cars		2
Living cars		8
Totals		22
Total cars owned	12	67

DATE WHEN ROAD WAS OPENED FOR PUBLIC USE.

From Reno, Nev., to Chat, Cal.	March 2, 1885
From Chat to Camp Ham, Cal.	March 1, 1888
From Camp Ham to Doyle, Cal.	June 6, 1888
From Doyle to Liegan, Cal.	September 10, 1888
From Liegan to Amedee, Cal.	November 17, 1890

GRANTS OR DONATIONS, IN BONDS OR MONEY, FROM STATES, COUNTIES, ETC.

The road has been built without any aid from the General Government, State, county, municipality, or individual. The funds came wholly from the pockets of the Messrs. Moran.

LANDS OR PROPERTY, INCLUDING RIGHT OF WAY, DONATED BY STATES, COUNTIES, ETC.

Instead of free right of way, Messrs. Moran were compelled, in several cases, to pay exorbitantly, or go into court and condemn. This, too, where there was no actual damage and the ground appropriated was in its natural state.

STATE OF NEVADA, }
County of Washoe, } ss.

We, the undersigned, Erasmus Gest, Manager, and Frank R. Lewis Cashier and Auditor, of the Nevada-California-Oregon Railway, on our oath, do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

E. GEST,
Manager.
F. R. LEWIS,
Cashier and Auditor.

Subscribed and sworn to before me, this thirtieth day of September, 1893.

HENRY B. RULE,
Notary Public in and for Washoe County, Nevada.

LOS ANGELES TERMINAL RAILWAY COMPANY.

[For 18 months ending June 30, 1893.]

HISTORY.

1. Name of common carrier making this report: Los Angeles Terminal Railway Company.
2. Date of organization: January 2, 1891.
3. Under what laws organized: Under the general corporation laws of the State of California.
4. This is a consolidated company, formed from the Los Angeles and Glendale, the Los Angeles, Pasadena, and Glendale, and the Los Angeles Terminal.
5. Date of consolidation: January 2, 1891, under authority of the general laws of California.

ORGANIZATION.

Names of Directors.	Post Office Address.
G. B. Leighton	St. Louis, Missouri.
T. E. Gibbon	Los Angeles, California.
W. H. Workman	Los Angeles, California.
D. McFarland	Los Angeles, California.
T. B. Burnett	Los Angeles, California.

Date of expiration of terms of Directors: Second Tuesday in March, 1894.

Total number of stockholders at date of last election: 21.

Date of last meeting of stockholders for election of Directors: Second Tuesday in March, 1893.

Post Office address of general and operating office: Los Angeles, California.

OFFICERS.

Title.	Name.	Location of Office.
President	G. B. Leighton	St. Louis, Mo.
Vice-President	T. B. Burnett	Los Angeles, Cal.
Secretary	W. Wincup	Los Angeles, Cal.
Treasurer	T. B. Burnett	Los Angeles, Cal.
Cashier and Auditor	Fred. K. Rule	Los Angeles, Cal.
General Solicitor	T. E. Gibbon	Los Angeles, Cal.
General Manager	T. B. Burnett	Los Angeles, Cal.
Superintendent	W. Wincup	Los Angeles, Cal.
Superintendent of Telegraph	J. O. Dodge	Los Angeles, Cal.
General Freight, Passenger, Ticket, and Baggage Agent	W. Wincup	Los Angeles, Cal.

PROPERTY OPERATED.

Name.	Terminals.	Description.	Miles.
Los Angeles Terminal Railway	Los Angeles to East San Pedro ..	Main line ..	27.5
	Los Angeles to Altadena	Main line ..	16.2
	Los Angeles to Verdugo	Branch	9.9
San Gabriel Valley Rapid Transit Ry	Los Angeles to Monrovia	Leased	17.1
Total			70.7

This company operated Pasadena Railway (from Pasadena to Altadena, six miles) to August 1st on lease, at which date said railway was purchased by this company, and became part of the main line of the Los Angeles Terminal Railway.

Began operating San Gabriel Valley Rapid Transit Railway on lease June 12, 1892.

CAPITAL STOCK.

The total par value of authorized capital stock is \$3,000,000, divided into shares of a par value of \$100 each. The total amount issued and outstanding is \$3,000,000. No dividends were declared during eighteen months.

The manner of payment for capital stock is as follows :

	Number of Shares Issued.	Realized on Amount Issued.
Issued for cash	150	\$15,000 00
Issued for construction	29,850	2,985,000 00
Total	30,000	\$3,000,000 00

FUNDED DEBT.

On the 15th of July, 1891, first mortgage bonds were authorized to be issued to the amount of \$1,500,000. The entire amount was issued and is now outstanding. The bonds mature in 1931, and bear 5 per cent interest, payable semi-annually, in January and July. The amount of interest accruing during the eighteen months covered by this report was \$112,500, which was paid.

CURRENT ASSETS AND LIABILITIES. (December 31, 1892.)

Cash and Current Assets Available for Payment of Current Liabilities.		Current Liabilities Accrued to and Including December 31, 1892.	
Cash	\$2,298 20	Loans and bills payable	\$21,233 00
Due from agents	337 11	Audited vouchers and accounts	6,420 14
Due from solvent companies and individuals	23,322 98	Wages and salaries	6,689 85
Other cash assets (excluding "materials and supplies") ..	3,559 86	Net traffic balances due other companies	6 75
Balance—current liabilities ..	4,831 59		
Total	\$34,349 74	Total	\$34,349 74

CURRENT ASSETS AND LIABILITIES. (June 30, 1893.)

Cash and Current Assets Available for Payment of Current Liabilities.		Current Liabilities Accrued to and Including June 30, 1893.	
Cash	\$4,257 48	Loans and bills payable	\$20,983 00
Due from agents	1,240 27	Audited vouchers and accounts	12,573 67
Due from solvent companies and individuals	5,524 01	Wages and salaries	6,612 85
Balance—current liabilities ..	35,269 74	Balance—cash assets	6,121 98
Total	\$46,291 50	Total	\$46,291 50

Amount of interest and discount paid during six months upon floating debt and current liabilities, \$825 01.

RECAPITULATION.

Account.	Total Amount Outstanding.	Miles of Road.	Amount per Mile of Road.
Capital stock	\$3,000,000 00	53.6	\$55,970 14
Bonds	1,500,000 00	47.6	31,512 60
Equipment trust obligation	35,269 74	53.6	658 01
Totals	\$4,535,269 74		\$88,140 75

SECURITY FOR FUNDED DEBT.

Class of Bond or Obligation.	What Road Mortgaged.	Miles.
First mortgage bonds.....	Los Angeles to East San Pedro.....	27.5
	Los Angeles to Pasadena.....	10.2
	Los Angeles to Verdugo.....	9.9

All equipment is also mortgaged.

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS.

Item.	Permanent Improvements During Six Months Ending June 30, 1893.
Construction:	
Right of way.....	\$669 23
Grading, and bridge and culvert masonry.....	984 50
Bridges and trestles.....	956 50
Buildings.....	2,950 39
Engineering expenses.....	309 61
Wharfing, etc.....	175 23
Sidings and yard extensions.....	819 87
Purchase of constructed road.....	19,227 22
Total construction.....	\$26,092 55

Entire road and equipment to December 31, 1892, built and furnished by contract for the sum of \$4,500,000; net additions during six months ending June 30, 1893, \$26,092 55; total cost to June 30, 1893, \$4,526,092 55; cost per mile, \$84,442 02.

INCOME ACCOUNT. (For 12 months ending December 31, 1892.)

Gross earnings from operation.....	\$137,120 06
Less operating expenses.....	145,989 34
Loss from operation.....	\$8,869 28
Interest on funded debt accrued.....	75,000 00
Rents.....	5,980 73
Taxes.....	2,596 43
Total loss.....	\$92,446 44
Less charged construction, per agreement.....	92,446 44

INCOME ACCOUNT. (For 6 months ending June 30, 1893.)

Gross earnings from operation.....	\$86,127 27	
Less operating expenses.....	83,584 58	
Income from operation.....	\$2,542 69	
Miscellaneous income—less expenses.....	37,500 00	
Total income.....		\$40,042 69
Deductions from income:		
Interest on funded debt accrued.....	\$37,500 00	
Rents.....	3,455 85	
Taxes.....	2,663 46	
Total deductions from income.....		43,619 31
Net loss, June 30, 1893.....		\$3,576 62

OPERATING EXPENSES.

Item.	For 12 Months Ending Dec. 31, 1892.	For 6 Months Ending June 30, 1893.
Maintenance of way and structures :		
Repairs of roadway	\$20,301 92	\$11,775 43
Repairs of bridges and culverts	1,225 12	687 94
Repairs of fences, road-crossings, signs, and cattle guards	35 19	-----
Repairs of buildings	151 92	382 23
Repairs of docks and wharves	10 45	65 78
Damage by floods		2,358 43
Totals	\$21,724 60	\$15,269 81
Maintenance of equipment :		
Repairs and renewals of locomotives	\$5,424 80	\$3,637 96
Repairs and renewals of passenger cars	4,221 61	3,705 71
Repairs and renewals of freight cars	904 20	507 96
Other expenses		25 91
Totals	\$10,550 61	\$7,877 54
Conducting transportation :		
Wages of enginemen, firemen, and roundhousemen	\$15,830 43	\$7,900 25
Fuel for locomotives	46,624 62	24,098 08
Water supply for locomotives	634 40	513 40
All other supplies for locomotives	1,141 29	488 26
Wages of other trainmen	10,132 72	5,374 45
All other train supplies	660 54	202 25
Wages of switchmen, flagmen, and watchmen	3,269 70	1,705 00
Expense of telegraph, including train dispatchers and operators	1,152 39	420 35
Wages of station agents, clerks, and laborers	12,065 50	6,931 49
Station supplies	1,448 48	735 76
Car mileage—balance		87 94
Loss and damage	478 60	228 02
Injuries to persons	599 35	436 05
Totals	\$94,047 02	\$49,121 30
General expenses :		
Salaries of officers		\$4,700 00
Salaries of clerks	\$7,400 00	1,390 00
General office expenses and supplies	1,680 00	56 25
Agencies, including salaries and rent, and advertising	557 42	1,863 47
Commissions	3,837 45	-----
Insurance	882 94	566 58
Legal expenses	2,571 00	449 30
Stationery and printing	1,602 83	991 42
Other general expenses	1,135 47	1,298 91
Totals	\$19,667 11	\$11,315 93
Recapitulation of expenses :		
Maintenance of way and structures	\$21,724 60	\$15,269 81
Maintenance of equipment	10,550 61	7,877 54
Conducting transportation	94,047 02	49,121 30
General expenses	19,667 11	11,315 93
Grand totals	\$145,989 34	\$83,584 58
Percentage of operating expenses to earnings	106.46	97.04

RENTALS PAID.

Name of Road.	For 12 Months Ending Dec. 31, 1892.	For 6 Months Ending June 30, 1893.
Rents paid for leased roads :		
Pasadena Ry., January 1 to August 1, 1892	\$1,400 00	-----
S. G. V. R. T. Ry.	2,829 71	\$3,210 35
Other rentals paid	1,751 02	245 50
Totals	\$5,980 73	\$3,455 85

EARNINGS FROM OPERATION. (For 12 months ending December 31, 1892.)

Item.	Actual Earnings.
Passenger revenue.....	\$98,748 44
Freight revenue.....	34,747 06
Total passenger and freight earnings	\$133,495 50
Other earnings from operation:	
Car mileage—balance	2,546 64
Other sources	1,077 92
Total gross earnings from operation	\$137,120 06

EARNINGS FROM OPERATION. (For 6 months ending June 30, 1893.)

Item.	Actual Earnings.
Passenger revenue.....	\$53,828 90
Mail	209 75
Total passenger earnings	\$54,038 65
Freight revenue.....	31,505 65
Total passenger and freight earnings	\$85,544 30
Other earnings from operation:	
Car mileage—balance	118 53
Other sources	464 44
Total gross earnings from operation	\$86,127 27

FINANCIAL OPERATIONS.

Resources.	Appropriation of Resources.
Receipts from other sources..... \$37,500 00	Interest on funded debt paid \$37,500 00
	Other interest paid
	Taxes
	Rentals
	Permanent improvements.....
	Other properties purchased

GENERAL BALANCE SHEET. (December 31, 1892.)

Assets.	Liabilities.
Cost of road and equipment.. \$4,500,000 00	Capital stock
Cash and current assets..... 29,518 15	Funded debt.....
Other assets..... 4,831 59	Current liabilities.....
Total..... \$4,534,349 74	Total

GENERAL BALANCE SHEET. (June 30, 1893.)

Assets.	Liabilities.
Cost of road and equipment.. \$4,526,092 55	Capital stock.....
Cash and current assets..... 11,021 76	Funded debt.....
Other assets..... 5,600 57	Current liabilities.....
Deficit from operation..... 3,576 62	
Total..... \$4,546,291 50	Total

PASSENGER AND FREIGHT, AND TRAIN MILEAGE. (For 12 months ending Dec. 31, 1892.)

Item.	Tonnage, Pas- sengers, etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue	434,729	
Total passenger revenue		\$98,748 44
Average amount received from each passenger		22.07
Passenger earnings per mile of road		1,396 72
Freight traffic:		
Number of tons carried of freight earning revenue	24,749	
Total freight revenue		34,747 06
Average amount received for each ton of freight		1 40
Freight earnings per mile of road		491 47
Passenger and freight:		
Passenger and freight earnings		133,495 50
Passenger and freight earnings per mile of road		1,888 19
Expenses per mile of road		2,064 91
Total earnings per mile of road, including mail, express, etc.		1,939 46
Train mileage:		
Miles run by passenger trains	213,875	
Miles run by freight trains	4,722	
Total mileage trains earning revenue	218,597	
Miles run by switching trains	19,216	
Miles run by construction and other trains	8,823	
Grand total train mileage	246,636	
Mileage of loaded freight cars	65,088	
Mileage of empty freight cars	39,983	

PASSENGER AND FREIGHT, AND TRAIN MILEAGE. (For 6 months ending June 30, 1893.)

Item.	Tonnage, Pas- sengers, etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue	224,502	
Total passenger revenue		\$53,328 90
Average amount received from each passenger		23.98
Freight traffic:		
Number of tons carried of freight earning revenue	29,816	
Total freight revenue		31,505 65
Average amount received for each ton of freight		1 05
Freight earnings per mile of road		445 62
Passenger and freight:		
Passenger and freight revenue		85,334 55
Passenger and freight earnings per mile of road		1,209 96
Expenses per mile of road		1,182 24
Total earnings per mile of road, including mail and express		1,218 21
Train mileage:		
Miles run by passenger trains	102,230	
Miles run by freight trains	2,323	
Total mileage trains earning revenue	104,553	
Miles run by switching trains	16,082	
Miles run by construction and other trains	2,340	
Grand total train mileage	122,970	
Mileage of loaded freight cars	50,854	
Mileage of empty freight cars	34,753	

FREIGHT TRAFFIC MOVEMENT.

There has been no record kept of the movement of freight over this road.

IMPORTANT CHANGES DURING EIGHTEEN MONTHS.

On June 12, 1892, this company leased the San Gabriel Valley Rapid Transit Railway, extending from Los Angeles to Monrovia, a distance of 17.1 miles. This lease expired June 12, 1893, and the road was surrendered.

On August 1, 1892, this company purchased the Pasadena Railway, extending from Pasadena to Altadena, a distance of 6 miles, which it had previously operated under lease.

CONTRACTS, AGREEMENTS, ETC.

United States mail is carried between Los Angeles and Long Beach.

Have an agreement with the Southern California Railway Company for division of freight earnings on business from San Pedro to points on the road of that company.

Have an agreement with the Pacific Coast Steamship Company, regarding ocean business delivered to this company at San Pedro.

Have an agreement with the Western Union Telegraph Company, concerning maintenance of telegraph lines on line of railway.

EMPLOYÉS AND SALARIES. (For 12 months ending December 31, 1892.)

Class.	Number.	Total Yearly Compensation.	Average Daily Compensation.
General officers.....	5	\$10,600 00	\$5 80
General office clerks.....	3	2,280 00	2 09
Station agents.....	12	5,638 34	1 28
Other station men.....	5	1,457 15	79
Enginemen.....	6	7,015 80	3 00
Firemen.....	6	3,992 75	1 75
Conductors.....	7	6,052 65	2 50
Other trainmen.....	6	3,428 55	1 67
Machinists, carpenters, and other shopmen.....	22	16,304 40	2 03
Section foremen.....	6	4,680 00	2 50
Other trackmen.....	28	15,489 55	1 75
Switchmen, flagmen, and watchmen.....	9	3,269 70	99
Telegraph operators and dispatchers.....	1	1,030 00	2 82
Totals.....	116	\$81,238 89	\$1 94

EMPLOYÉS AND SALARIES. (For 6 months ending June 30, 1893.)

Class.	Number.	Total Compensation.	Average Daily Compensation.
General officers.....	5	\$5,300 00	\$6 00
General office clerks.....	3	1,170 00	2 15
Station agents.....	11	2,661 75	1 33
Other station men.....	6	1,372 70	1 22
Enginemen.....	7	3,579 70	3 00
Firemen.....	7	2,097 59	1 75
Conductors.....	7	3,232 95	2 50
Other trainmen.....	6	1,846 30	1 67
Machinists, carpenters, and other shopmen.....	23	8,320 82	2 03
Section foremen.....	6	390 00	2 50
Other trackmen.....	40	11,473 08	1 75
Switchmen, flagmen, and watchmen.....	8	1,705 00	1 10
Telegraph operators and dispatchers.....	1	540 00	3 00
Totals.....	130	\$43,689 89	\$2 00

CONSUMPTION OF FUEL BY LOCOMOTIVES.

The locomotives consumed 8,985.499 tons of coal in the eighteen months covered by this report. This is an average of about 47 pounds per mile traveled.

ACCIDENTS TO PERSONS.

There were 16 employés, 2 passengers, and 6 other persons injured on the road of this company during the eighteen months covered by this report. There were no fatal accidents. The employés were hurt in coupling and uncoupling cars.

DESCRIPTION OF EQUIPMENT.

Item.	Total.
Locomotives:	
Passenger	7
Freight	1
Total locomotives	8
Cars in passenger service:	
First-class passenger cars	13
Second-class passenger cars	1
Combination passenger cars	6
Total	20
Cars in freight service:	
Box cars	36
Flat cars	74
Coal cars	40
File driver	1
Total	151
Cars in company's service:	
Caboose cars	2
Total cars owned	173

All rolling stock is equipped with the Westinghouse air-brake.
 Fitted with automatic coupler: 20 cars in passenger service, and 2 flat cars, with Miller patent; 36 box cars, 72 flat cars, 40 coal cars, and 2 caboose cars, with Safford patent.

CHARACTERISTICS OF ROAD.

Working Divisions or Branches.	Length, Miles.	Alignment.		
		Number of Curves.	Aggregate Length of Curved Line— Miles	Length of Straight Line—Miles.....
Los Angeles to East San Pedro	27.5	31	5.5	22.0
Los Angeles to Pasadena	9.9	50	4.0	5.9
Pasadena to Altadena	5.7	8	1.6	4.1
Glendale Junction to Verdugo	7.1	23	1.6	5.5
Monrovia Junction to Monrovia	16.8			

Working Divisions or Branches.	Profile.						
	Length of Level Line—Miles.....	Number of As- cending Grades.	Sum of Ascents of Ascending Grades—Feet.....	Aggregate Length of Ascending Grades—Miles	Number of De- scending Grades.	Sum of Descents of Descending Grades—Feet.....	Aggregate Length of Descending Grades—Miles.....
Los Angeles to East San Pedro	6.9	14	60.4	3.4	41	318.3	17.2
Los Angeles to Pasadena	0.5	103	596.5	9.0	9	15.1	0.4
Pasadena to Altadena	0.5	41	503.9	4.4	9	28.9	0.8
Glendale Junction to Verdugo	0.4	50	439.6	6.1	4	30.5	0.7

MILEAGE OF ROAD OPERATED.

Line in Use.	Main Line.	Branches and Spurs.	Line Operated Under Lease.	Total Mileage Operated.	Steel Rails.
Miles of single track.....	43.1	7.1	16.8	67.0	67.0
Miles of yard track, sidings, and spurs	7.4	0.3	1.0	8.7	8.7
Total mileage operated	50.5	7.4	17.8	75.7	75.7

The entire mileage is operated in California.

The leased line is the road of the San Gabriel Valley Rapid Transit Company, which was operated by the Los Angeles Terminal Railway Company until June 12, 1893, when the road was surrendered to its owners.

BRIDGES, TRESTLES, TELEGRAPH, ETC.

Bridges: One Howe truss on leased line.

Trestles: Los Angeles Terminal Railway, 5,422 linear feet; San Gabriel Valley Rapid Transit Railway, 1,881 linear feet. Total, 7,303 linear feet.

Gauge of track: 4 feet 8½ inches.

Telegraph: Miles of line, 37; operated by Western Union Telegraph Company and this company, jointly.

Number of stations on all roads operated by this company in California, 9.

DATE WHEN ROAD WAS OPENED FOR PUBLIC USE.

From Los Angeles to Glendale.....	March, 1888.
From Los Angeles to Pasadena.....	March, 1890.
From Los Angeles to East San Pedro.....	November, 1891.
From Pasadena to Altadena.....	January, 1888.
From Glendale to Verdugo.....	July, 1889.

STATE OF CALIFORNIA, }
 County of Los Angeles. } ss.

We, the undersigned, T. B. Burnett, Vice-President, and William Wincup, Secretary, of the Los Angeles Terminal Railway Company, on our oath, do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

T. B. BURNETT,
 President.
 W. WINCUP,
 Secretary.

Subscribed and sworn to before me, this twenty-ninth day of August, 1893.

W. J. COX,
 Notary Public in and for Los Angeles County, California.

COLUSA AND LAKE RAILROAD COMPANY.

[For 18 months ending June 30, 1893.]

HISTORY.

1. Name of common carrier making this report: Colusa and Lake Railroad Company.
2. Date of organization: November 27, 1886.
3. Under what laws organized: Laws of the State of California.
4. Names of constituent companies: Colusa Railroad Company, incorporated July 23, 1885; Colusa and Lake Railroad Company, incorporated June 8, 1886.
5. Date of consolidation: November 27, 1886.

ORGANIZATION.

Names of Directors.	Post Office Address.
W. P. Harrington	Colusa.
E. W. Jones	Colusa.
E. A. Harrington	Colusa.
Geo. Hagar	Colusa.
J. W. Goad	Colusa.
P. Peterson	Sites.
John Sites	Sites.
John Boggs	Princeton.
J. H. Roberts	Sacramento.

Date of expiration of terms of Directors: First Monday in December, 1893.

Total number of stockholders at date of last election: 97.

Date of last meeting of stockholders for election of Directors: December 5, 1892.

Post Office address of general and operating office: Colusa.

OFFICERS.

Title.	Name.
Chairman of Board, and President	W. P. Harrington.
Vice-President	E. W. Jones.
Secretary	T. Harrington.
Treasurer	Colusa County Bank.
General Superintendent	E. A. Harrington.

PROPERTY OPERATED.

The Colusa and Lake Railroad Company operates a main line from Colusa to Sites, a distance of 22 miles.

CAPITAL STOCK.

The total par value of authorized capital stock is \$400,000, divided into shares of a par value of \$100 each. The total amount issued and outstanding is \$100,500.

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS.

Item.	Permanent Improvements During 18 Months.	Total Cost to Dec. 31, 1891.	Total Cost to June 30, 1893.
Construction		\$149,111 91	\$150,626 82
Rails	\$1,514 91		
Buildings, furniture, and fixtures		9,807 19	9,807 19
Total construction	\$1,514 91	\$158,919 10	\$160,434 01
Equipment		24,441 70	31,354 33
Locomotives	6,912 63		
Total cost construction, equipment, etc.	\$8,427 54	\$183,360 80	\$191,788 34

FUNDED DEBT.

In April, 1887, bonds were authorized to be issued to the amount of \$70,000, to be secured by a deed of trust. The entire amount was issued, and full cash value realized. The bonds mature in 1907, and bear 6 per cent interest, payable semi-annually, in April and October. The amount of interest accruing during the eighteen months covered by this report was \$6,300, which was paid.

INCOME ACCOUNT. (For 12 months ending December 31, 1892.)

Gross earnings from operation	\$25,508 68	
Less operating expenses	14,234 05	
Income from operation		\$11,274 63
Deductions from income:		
Interest on funded debt accrued	\$4,200 00	
Interest on interest-bearing current liabilities accrued, not otherwise provided for	146 89	
Taxes	892 92	
Other deductions	134 50	
Total deductions from income		5,374 31
Net income		\$5,900 32

INCOME ACCOUNT. (For 6 months ending June 30, 1893.)

Gross earnings from operation	\$8,071 58	
Less operating expenses	7,564 41	
Income from operation		\$507 17
Deductions from income:		
Interest on funded debt accrued	\$2,100 00	
Taxes	291 49	
Total deductions from income		2,391 49
Deficit		\$1,884 32

OPERATING EXPENSES.

The total expenses for operating the road from December 31, 1891, to December 31, 1892, was \$14,234 05; operating expenses from December 31, 1892, to June 30, 1893, was \$7,564 41.

EARNINGS FROM OPERATION. (For 12 months ending December 31, 1892.)

Item.	Total Receipts.	Deductions, Etc.	Actual Earnings.
Passenger revenue	\$15,385 87		
Less tickets redeemed		\$2,945 50	
Total passenger revenue			\$12,440 37
Mail			951 16
Express			480 00
Total passenger earnings			\$13,871 53
Freight revenue	\$12,145 16		
Less repayments		\$512 51	
Total freight revenue			11,632 65
Total passenger and freight earnings			\$25,504 18

EARNINGS FROM OPERATION. (For 6 months ending June 30, 1893.)

Item.	Total Receipts.	Deductions, Etc.	Actual Earnings.
Passenger revenue.....	\$5,377 75		
Less repayments.....		\$997 80	
Total passenger revenue.....			\$4,379 95
Mail.....			475 58
Express.....			240 00
Total passenger earnings.....			\$5,095 53
Freight revenue.....			2,976 05
Total passenger and freight earnings.....			\$8,071 58

FINANCIAL OPERATIONS. (For 12 months ending December 31, 1892.)

Resources.		Appropriation of Resources.	
Net income from operation...	\$11,274 63	Interest on funded debt paid..	\$4,200 00
Net amount decrease of cash assets.....	2,527 22	Other interest paid.....	146 89
		Taxes.....	892 92
		Permanent improvements...	1,514 91
		Equipment.....	6,912 63
Total.....	\$13,801 85	Total.....	\$13,801 85

FINANCIAL OPERATIONS. (For 6 months ending June 30, 1893.)

Resources.		Appropriation of Resources.	
Net income from operation...	\$507 17	Interest on funded debt paid..	\$2,100 00
Net amount decrease of cash assets.....	1,884 32	Taxes.....	291 49
Total.....	\$2,391 49	Total.....	\$2,391 49

GENERAL BALANCE SHEET. (December 31, 1892.)

Assets.		Liabilities.	
Cost of road.....	\$160,434 01	Capital stock.....	\$100,500 00
Cost of equipment.....	31,354 33	Funded debt.....	70,000 00
Other permanent investments	1,123 27	Profit and loss.....	24,071 63
Cash and current assets.....	1,660 02		
Total.....	\$194,571 63	Total.....	\$194,571 63

GENERAL BALANCE SHEET. (June 30, 1893.)

Assets.		Liabilities.	
Cost of road.....	\$160,434 01	Capital stock.....	\$100,500 00
Cost of equipment.....	31,354 33	Funded debt.....	70,000 00
Other permanent investments.	1,123 27	Surplus from operation.....	22,438 81
Cash and current assets.....	27 20		
Total.....	\$192,938 81	Total.....	\$192,938 81

CONTRACTS, AGREEMENTS, ETC.

The company has contracts for carrying United States mails at \$951 16 per year, and with Wells, Fargo & Co., for carrying their express, at \$480 per year.

PASSENGER AND FREIGHT, AND TRAIN MILEAGE. (For 12 months ending December 31, 1892.)

Item.	Tonnage, Passengers, Etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue.....	10,319	
Total passenger revenue.....		\$12,440 37
Freight traffic:		
Number of tons carried of freight earning revenue.....	12,782	
Total freight revenue.....		11,632 65

Way passengers are not included; they number about 4,000.

PASSENGER AND FREIGHT, AND TRAIN MILEAGE. (For 6 months ending June 30, 1893.)

Item.	Tonnage, Passengers, Etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue.....	4,046	
Total passenger revenue.....		\$4,379 95
Freight traffic:		
Number of tons carried of freight earning revenue.....	3,377	
Total freight revenue.....		2,976 05

Way passengers are not included; they number about 1,500.

FREIGHT TRAFFIC MOVEMENT.

The movement of freight for the twelve months ending December 31, 1892, was 12,782 tons, at least 75 per cent of which was grain. The movement for the six months ending June 30, 1893, was 3,377 tons.

DESCRIPTION OF EQUIPMENT.

Item.	Total.
Locomotives.....	3
Cars in passenger service:	
First-class passenger cars.....	2
Combination passenger cars.....	1
Baggage, express, and postal cars.....	2
Total.....	5
Cars in freight service:	
Box cars.....	4
Flat cars.....	20
Total.....	24
Total cars owned.....	29

During the past eighteen months the company added one locomotive to its rolling stock.

MILEAGE OF ROAD OPERATED.

Miles of single track, 22; miles of yard track and sidings, 1½; total mileage operated, 23½. The rails on the entire mileage are steel.

ACCIDENTS TO PERSONS.

During the eighteen months covered by this report there was but one accident resulting in injury to life or limb. One employé lost his life.

EMPLOYÉS AND SALARIES.

Class.	Number.	Total Yearly Compensation.
General officers	1	\$1,500 00
General office clerks	1	240 00
Station agents	2	420 00
Other station men	1	60 00
Enginemen	2	2,040 00
Firemen	1	600 00
Conductors	1	720 00
Other trainmen	1	720 00
Trackmen	10	3,900 00
Totals	20	\$10,200 00

BRIDGES, TRESTLES, ETC.

Bridges: Wooden, 2.
Trestles: 2; aggregate length, ½ mile.
Gauge of track: 3 feet.

STATE OF CALIFORNIA, }
County of Colusa. } ss.

We, the undersigned, W. P. Harrington, President, and T. Harrington, Secretary, of the Colusa and Lake Railroad Company, on our oath, do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

W. P. HARRINGTON,
President.
T. HARRINGTON,
Secretary.

Subscribed and sworn to before me, this tenth day of October, 1893.

J. W. GOAD,
Notary Public.

NEVADA COUNTY NARROW GAUGE RAILROAD COMPANY.

[For 18 months ending June 30, 1893.]

HISTORY.

1. Name of common carrier making this report: Nevada County Narrow Gauge Railroad Company.
2. Date of organization: April 4, 1874.
3. Under what laws organized: Laws of the State of California.

ORGANIZATION.

Names of Directors.	Post Office Address.
John F. Kidder	Grass Valley.
Peter Johnston	Grass Valley.
Edward H. Brown	Grass Valley.
George Fletcher	Grass Valley.
George D. McLean	Grass Valley.
Frank G. Beatty	Nevada City.
A. H. Parker	Nevada City.

Date of expiration of terms of Directors: April, 1894.
 Total number of stockholders at date of last election: 99.
 Date of last meeting of stockholders for election of Directors: April 5, 1893.
 Post Office address of general and operating office: Grass Valley, Cal.

OFFICERS.

Title.	Name.	Location of Office.
Chairman of the Board, and President.	John F. Kidder.....	Grass Valley.
Vice-President.....	Peter Johnston.....	Grass Valley.
Secretary and Auditor.....	George Fletcher.....	Grass Valley.
Treasurer.....	Edward H. Brown.....	Grass Valley.
General Manager and Chief Engineer.	John F. Kidder.....	Grass Valley.
General Superintendent.....	Edward H. Brown.....	Grass Valley.
General Freight, Passenger, Ticket, and Baggage Agent.....	George Fletcher.....	Grass Valley.

PROPERTY OPERATED.

The Nevada County Narrow Gauge Railroad is operated by main line from Colfax, a station on the Central Pacific Railroad, in Placer County, to Nevada City, in Nevada County, a distance of 22.50 miles.

CAPITAL STOCK.

The total par value of authorized capital stock is \$400,000, divided into shares of a par value of \$100 each. The total amount issued and outstanding is \$242,200. No dividends were declared.

Manner of payment for capital stock: Number of shares issued, 2,422; cash realized on amount issued, \$242,850. There were 2,440 shares issued for their full par value. Six hundred and fifty dollars was all that was received on 18 shares, and at delinquent sale the stock was bought in by company, the \$650 being put to profit and loss account.

FUNDED DEBT.

In 1876 bonds to the amount of \$325,000 were authorized to be issued, a mortgage being given upon the road and its equipments. The amount issued was \$260,000, upon which full cash value was realized. The bonds mature in 1896, and bear 8 per cent interest, payable semi-annually, in January and July. The amount of interest accruing during the eighteen months covered by this report was \$31,200, which was paid.

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.		Current Liabilities Accrued to and Including June 30, 1893.	
Cash.....	\$9,683 65	Loans and bills payable.....	\$3,000 00
Due from agents.....	2,357 81	Audited vouchers and accounts.....	2,167 85
Net traffic balances due from other companies.....	740 23	Wages and salaries.....	3,799 95
Balance—current liabilities.....	6,586 11	Matured interest coupons unpaid.....	10,400 00
Total.....	\$19,367 80	Total.....	\$19,367 80

RECAPITULATION.

Account.	Total Amount Outstanding.	Miles of Road.	Amount per Mile of Road.
Capital stock.....	\$242,200 00	22.50	\$10,764 44
Funded debt.....	260,000 00		11,555 55
Floating debt, balance of.....	9,416 48		418 50
Totals.....	\$511,616 48	22.50	\$22,738 49

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS.

Item.	Net Additions to Property.	Total Cost to Dec. 31, 1891.	Total Cost to June 30, 1893.	Cost per Mile.
Construction:				
Right of way, other real estate, and fences	\$6 90	\$25,772 37	\$25,779 27	\$1,145 75
Grading, and bridge and culvert masonry		245,024 88	245,024 88	10,889 99
Bridges and trestles.....		48,235 37	48,235 37	2,145 79
Rails, ties, and other superstructure		164,285 09	164,285 09	7,301 56
Buildings, furniture and fixtures, and shop machinery and tools.....	5,214 63	32,646 78	37,861 41	1,682 73
Engineering expenses.....		12,901 32	12,901 32	573 39
Other items		13,885 05	13,885 05	617 11
Total construction	\$5,221 53	\$542,750 86	\$547,972 39	\$24,354 32
Equipment:				
Locomotives		\$27,904 28	\$27,904 28	\$1,240 19
Passenger cars	\$99 80	9,298 42	9,398 42	417 70
Combination cars		6,216 76	6,216 76	276 30
Freight cars		31,334 22	31,334 22	1,392 63
Other cars of all classes		1,445 54	1,445 54	64 25
Total equipment.....	\$99 80	\$76,199 42	\$76,299 22	\$3,391 07
Grand total cost construction, equipment, etc.	\$5,321 33	\$618,950 28	\$624,271 61	\$27,745 39

INCOME ACCOUNT. (For 12 months ending December 31, 1892.)

Gross earnings from operation.....	\$89,979 47	
Less operating expenses.....	62,500 22	
Income from operation.....		\$27,479 25
Deductions from income:		
Interest on funded debt accrued.....	\$20,800 00	
Interest and discount on floating debt paid during year.....	375 00	
Taxes	2,409 60	
Other deductions	577 68	
Total deductions from income.....		24,162 28
Net income		\$3,316 97
Surplus on December 31, 1891.....	\$112,961 79	
Surplus for year ending December 31, 1892.....	3,894 65	
Surplus on December 31, 1892.....		\$116,856 44

INCOME ACCOUNT. (For 6 months ending June 30, 1893.)

Gross earnings from operation	\$43,454 71	
Less operating expenses.....	26,447 17	
Income from operation		\$17,007 54
Deductions from income:		
Interest on funded debt accrued.....	\$10,400 00	
Taxes	1,096 58	
Other deductions	4,743 65	
Total deductions from income.....		16,240 23
Net income		\$767 31
Surplus on December 31, 1892.....	\$116,856 44	
Surplus for six months ending on June 30, 1893.....	5,510 96	

FINANCIAL OPERATIONS FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1892.

Resources.		Appropriation of Resources.	
Net income from operation...	\$27,479 25	Interest on funded debt paid..	\$20,800 00
Net amount decrease of cash assets.....	883 50	Other interest paid.....	375 00
		Taxes.....	2,409 60
		Reduction of floating debt...	4,200 47
		Permanent improvements...	577 68
Total	\$28,362 75	Total	\$28,362 75

FINANCIAL OPERATIONS FOR THE SIX MONTHS ENDING JUNE 30, 1893.

Resources.		Appropriation of Resources.	
Net income from operation...	\$17,007 54	Interest on funded debt.....	\$10,400 00
Net amount decrease of other assets.....	2,063 06	Taxes.....	1,096 58
		Reduction of floating debt...	2,830 37
		Permanent improvements...	4,743 65
Total	\$19,070 60	Total	\$19,070 60

EARNINGS FROM OPERATION. (For 12 months ending December 31, 1892.)

Item.	Actual Earnings.
Passenger revenue.....	\$36,064 77
Mail	1,713 20
Express	2,651 39
Extra baggage and storage.....	758 85
Total passenger earnings	\$41,188 21
Freight revenue.....	\$46,365 21
Other freight earnings.....	2,426 05
Total freight earnings.....	\$48,791 26
Total passenger and freight earnings	\$89,979 47

EARNINGS FROM OPERATION. (For 6 months ending June 30, 1893.)

Item.	Actual Earnings.
Passenger revenue.....	\$17,622 99
Mail	856 60
Express	1,322 35
Extra baggage and storage.....	356 08
Total passenger earnings	\$20,158 02
Freight revenue	\$22,038 09
Other freight earnings	1,258 60
Total freight earnings.....	\$23,296 69
Total passenger and freight earnings	\$43,454 71

OPERATING EXPENSES. (For 12 months ending December 31, 1892.)

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of way and structures:			
Repairs of roadway, and renewals of rails and ties	\$5,089 41	\$9,451 76	\$14,541 17
Repairs of bridges and culverts	981 81	1,823 36	2,805 17
Repairs of fences, road-crossings, signs, and cattle guards	7 94	14 74	22 68
Repairs of buildings	297 46	552 42	849 88
Totals	\$6,376 62	\$11,842 28	\$18,218 90
Maintenance of equipment:			
Repairs and renewals of locomotives	\$1,232 47	\$7,288 87	\$3,521 34
Repairs and renewals of passenger cars	3,381 58	-----	3,381 58
Repairs and renewals of freight cars	-----	3,117 67	3,117 67
Shop machinery, tools, etc.	45 39	84 31	129 70
Totals	\$4,659 44	\$5,490 85	\$10,150 29
Conducting transportation:			
Wages of enginemen, firemen, and round- housemen	\$1,967 17	\$3,653 32	\$5,620 49
Fuel for locomotives	2,381 75	4,423 25	6,805 00
Water supply for locomotives	147 61	274 14	421 75
All other supplies for locomotives	77 10	143 19	220 29
Wages of other trainmen	1,543 88	2,867 20	4,411 08
All other train supplies	178 92	332 28	511 20
Wages of switchmen, flagmen, and watch- men	264 60	491 40	756 00
Wages of station agents, clerks, and laborers	2,292 57	4,257 63	6,550 20
Station supplies	247 59	459 80	707 39
Loss and damage	11 82	21 94	33 76
Injuries to stock	14 00	26 00	40 00
Totals	\$9,127 01	\$16,950 15	\$26,077 16
General expenses:			
Salaries of officers	\$2,100 00	\$3,900 00	\$6,000 00
General office expenses and supplies	45 03	83 62	128 65
Advertising	210 87	391 63	602 50
Insurance	331 40	615 45	946 85
Stationery and printing	131 55	244 32	375 87
Totals	\$2,818 85	\$5,235 02	\$8,053 87
Recapitulation of expenses:			
Maintenance of way and structures	\$6,376 62	\$11,842 28	\$18,218 90
Maintenance of equipment	4,659 44	5,490 85	10,150 29
Conducting transportation	9,127 01	16,950 15	26,077 16
General expenses	2,818 85	5,235 02	8,053 87
Grand totals	\$22,981 92	\$39,518 30	\$62,500 22
Percentage of operating expenses to earnings	-----	-----	69.45

OPERATING EXPENSES. (For 6 months ending June 30, 1893.)

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of way and structures:			
Repairs of roadway, and renewals of rails and ties	\$1,261 80	\$2,343 35	\$3,605 15
Repairs of bridges and culverts	141 89	263 52	405 41
Repairs of fences, road-crossings, signs, and cattle guards	5 05	9 37	14 42
Repairs of buildings	277 81	515 92	793 73
Totals	\$1,686 55	\$3,132 16	\$4,818 71
Maintenance of equipment:			
Repairs and renewals of locomotives	\$526 52	\$977 83	\$1,504 35
Repairs and renewals of passenger cars	1,560 09		1,560 09
Repairs and renewals of freight cars		994 51	994 51
Shop machinery, tools, etc.	19 48	36 19	55 67
Other expenses	18 74	34 82	53 56
Totals	\$2,124 83	\$2,043 35	\$4,168 18
Conducting transportation:			
Wages of enginemen, firemen, and round-housemen	\$998 73	\$1,854 77	\$2,853 50
Fuel for locomotives	1,102 50	2,047 50	3,150 00
Water supply for locomotives	89 06	165 39	254 45
All other supplies for locomotives	17 55	32 60	50 15
Wages of other trainmen	785 79	1,459 33	2,245 12
All other train supplies	31 50	58 50	90 00
Wages of switchmen, flagmen, and watchmen	140 70	261 30	4 02
Wages of station agents, clerks, and laborers	1,277 69	2,372 86	3,650 55
Station supplies	35 00	65 00	100 00
Loss and damage	1 61	3 00	4 61
Injuries to stock	12 25	22 75	35 00
Totals	\$4,492 38	\$8,343 00	\$12,835 38
General expenses:			
Salaries of officers	\$1,050 00	\$1,950 00	\$3,000 00
Advertising	198 76	201 99	310 75
Insurance	277 06	514 54	791 60
Stationery and printing	182 89	339 66	522 55
Totals	\$1,618 71	\$3,006 19	\$4,624 90
Recapitulation of expenses:			
Maintenance of way and structures	\$1,686 55	\$3,132 16	\$4,818 71
Maintenance of equipment	2,124 83	2,043 35	4,168 18
Conducting transportation	4,492 38	8,343 00	12,835 38
General expenses	1,618 71	3,006 19	4,624 90
Grand totals	\$9,922 47	\$16,524 70	\$26,447 17
Percentage of operating expenses to earnings			60.81

GENERAL BALANCE SHEET. (June 30, 1893.)

Assets.		Liabilities.	
Cost of road	\$547,972 39	Capital stock	\$242,200 00
Cost of equipment	76,299 22	Funded debt	260,000 00
Materials and supplies	6,881 90	Current liabilities	6,586 11
		Surplus from operation	122,367 40
Total	\$631,153 51	Total	\$631,153 51

CONTRACTS, AGREEMENTS, ETC.

Agreement with Wells, Fargo & Co. for transportation of general merchandise by passenger train, at double first-class rates. Fruit, fish, butter, vegetables, and ice at one and one half times first-class rates. Fare of messenger, \$75 per month.

United States mail contract, under laws for regulation of railway mail service, at \$75 24 per mile of road.

Agreement with Western Union Telegraph Company, giving them right of way for poles and wire on road, with free transportation for employes to repair line. The railroad company has use of line free between officers on road, and for railroad business to all points.

Agreement with Southern Pacific Company to conduct station business at Colfax, at the rate of \$200 per month.

PASSENGER AND FREIGHT, AND TRAIN MILEAGE. (For 12 months ending Dec. 31, 1892.)

Item.	Tonnage, Passengers, Etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue	45,144	
Number of passengers carried one mile	474,012	
Average distance carried—miles	10½	
Total passenger revenue		\$36,064 77
Average amount received from each passenger		79.89
Average receipts per passenger per mile		07.60
Estimated cost of carrying each passenger one mile		04.84
Passenger earnings per mile of road		1,830 58
Passenger earnings per train mile		3 16.58
Freight traffic:		
Number of tons carried of freight earning revenue	20,746	
Number of tons carried one mile	346,458	
Average distance haul of one ton—miles	16.7	
Total freight revenue		46,365 21
Average amount received for each ton of freight		2 23.49
Average receipts per ton per mile		13.37
Estimated cost of carrying one ton one mile		11.40
Freight earnings per mile of road		2,168 50
Freight earnings per train mile		1 29.29
Passenger and freight:		
Passenger and freight earnings		89,979 47
Passenger and freight earnings per mile of road		3,663 55
Train mileage:		
Miles run by passenger trains	5,760	
Miles run by freight trains	15,985	
Miles run by mixed trains	29,000	
Total mileage trains earning revenue	50,745	
Miles run by construction and other trains	1,615	
Grand total train mileage	52,360	
Average number of freight cars in train	4	
Average number of loaded cars in train	2	
Average number of empty cars in train	2	
Average number of tons of freight in train	25	
Average number of tons of freight in each loaded car	6½	

PASSENGER AND FREIGHT, AND TRAIN MILEAGE. (For 6 months ending June 30, 1893.)

Item.	Tonnage, Passengers, Etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue.....	22,070	
Number of passengers carried one mile.....	217,389	
Average distance carried—miles.....	9.85	
Total passenger revenue.....		\$17,622 99
Average amount received from each passenger.....		79.85
Average receipts per passenger per mile.....		08.11
Estimated cost of carrying each passenger one mile.....		04.56
Passenger earnings per mile of road.....		895 95
Passenger earnings per train mile.....		2 90.25
Freight traffic:		
Number of tons carried of freight earning revenue.....	9,922	
Number of tons carried one mile.....	173,635	
Average distance haul of one ton—miles.....	17½	
Total freight revenue.....		22,038 09
Average amount received for each ton of freight.....		2 32.19
Average receipts per ton per mile.....		13.26
Estimated cost of carrying one ton one mile.....		09.51
Freight earnings per mile of road.....		1,030 96
Freight earnings per train mile.....		1 26.73
Passenger and freight:		
Passenger and freight revenue.....		39,661 08
Passenger and freight revenue per mile of road.....		1,758 27
Expenses per mile of road.....		1,175 42
Total earnings per mile of road, including mails, express, etc.....		1,931 32
Train mileage:		
Miles run by passenger trains.....	3,346	
Miles run by freight trains.....	7,790	
Miles run by mixed trains.....	14,122	
Total mileage trains earning revenue.....	25,258	
Miles run by construction and other trains.....	1,285	
Grand total train mileage.....	26,543	
Average number of freight cars in train.....	4	
Average number of loaded cars in train.....	2	
Average number of empty cars in train.....	2	
Average number of tons of freight in train.....	25	
Average number of tons of freight in each loaded car.....	6½	

EMPLOYÉS AND SALARIES. (For 12 months ending December 31, 1892.)

Class.	Number.	Total Yearly Compensation.	Average Daily Compensation.
General officers.....	3	\$6,000 00	
Station agents.....	3	3,420 00	\$3 12
Other station men.....	5	3,155 65	1 75
Enginemen.....	2	2,618 64	3 90
Firemen.....	2	1,670 38	2 50
Conductors.....	2	2,618 50	3 95
Other trainmen.....	4	3,095 31	2 22
Machinists.....	1	1,072 51	3 75
Carpenters.....	2	2,030 74	3 90
Other shopmen.....	6	5,955 47	2 98
Section foremen.....	2	1,668 60	2 70
Other trackmen.....	15	7,520 94	1 56
Switchmen, flagmen, and watchmen.....	2	1,615 85	1 96
All other employés and laborers.....	2	742 55	1 99
Totals.....	51	\$43,485 14	

EMPLOYÉS AND SALARIES. (For 6 months ending June 30, 1893.)

Class.	Number.	Total Compensation for Six Months.	Average Daily Compensation.
General officers	3	\$3,000 00	-----
Station agents	3	1,770 00	\$3 24
Other station men	5	1,880 55	2 06
Enginemen	2	1,270 75	4 00
Firemen	2	802 50	2 50
Conductors	2	1,295 00	3 82
Other trainmen	4	1,730 37	2 17
Machinists	1	560 65	3 75
Carpenters	2	1,067 82	3 90
Other shopmen	4	2,046 38	3 31
Section foremen	2	832 95	2 70
Other trackmen	18	3,895 35	1 65
Switchmen, flagmen, and watchmen	1	362 00	2 00
All other employés and laborers	1	67 60	2 00
Totals	50	\$20,581 92	-----

FREIGHT TRAFFIC MOVEMENT.

The company does not keep an account of the quantity of the several kinds of freight hauled over its road.

DESCRIPTION OF EQUIPMENT.

Item.	Total Owned.
Locomotives:	
Passenger	2
Freight	1
Total locomotives	3
Cars in passenger service:	
First-class passenger cars	2
Combination passenger cars	2
Other cars in passenger service	1
Total	5
Cars in freight service:	
Box cars	20
Flat cars	27
Total	47
Cars in company's service	4
Total cars owned	56

The Westinghouse air-brake is used on locomotives and cars in passenger service.

MILEAGE OF ROAD OPERATED.

Line in Use.	Total Mileage Operated.	Iron Rails.	Steel Rails.
Miles of single track	22.50	12.50	10
Miles of yard track and sidings	4.00	4.00	-----
Total mileage operated (all tracks)	26.50	16.50	10

RENEWALS OF RAILS AND TIES.

† New rails laid during eighteen months: Steel, 104,300 tons; average price per ton at distributing point, \$56 62.

New ties laid during eighteen months: Cedar and pine, 8,000; average price at distributing point, 35 cents.

CONSUMPTION OF FUEL BY LOCOMOTIVES.

The locomotives consumed 2,844 cords of wood, which cost on an average \$3 50 per cord.

CHARACTERISTICS OF ROAD.

Colfax to Nevada City: Length, 22.50 miles; aggregate length of curved line, 12.26 miles; length of straight line, 10.24 miles; length of level line, $\frac{68}{100}$ of a mile; number of ascending grades, 8; sum of ascents, 1,158 feet; aggregate length of ascending grades, 12.16 miles; number of descending grades, 7; sum of descents, 1,049 feet; aggregate length of descending grades, 9.66 miles.

Bridges: Wooden, 2.

Trestles: Aggregate length, 5,176 feet.

Tunnels: 2; aggregate length, 810 feet; minimum length, 390 feet; maximum length, 420 feet.

Gauge of track: 3 feet.

Telegraph: Miles of line, 17; miles of wire, 17; operated by Western Union Telegraph Company.

Number of stations on all roads operated by this company in California, 3.

DATE WHEN THE ROAD WAS OPENED FOR PUBLIC USE.

From Colfax to Grass Valley April 17, 1876.
 From Colfax to Nevada City May 24, 1876.

STATE OF CALIFORNIA, }
 County of Nevada. } ss.

We, the undersigned, John F. Kidder, President, and Geo. Fletcher, Secretary, of the Nevada County Narrow Gauge Railroad Company, on our oath, do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

JOHN F. KIDDER,
 President.
 GEO. FLETCHER,
 Secretary.

Subscribed and sworn to before me, this fourteenth day of November, 1893.

A. BURROWS,
 Notary Public.

REDONDO RAILWAY COMPANY.

[For 18 months ending June 30, 1893.]

HISTORY.

1. Name of common carrier making this report: Redondo Railway Company.
2. Date of organization: April 1, 1889.
3. Under what laws organized: Laws of the State of California.

ORGANIZATION.

Names of Directors.	Post Office Address.
Geo. J. Ainsworth	Redondo Beach.
R. H. Thompson	Redondo Beach.
L. T. Garnsey	Los Angeles.
D. McFarland	Los Angeles.
W. H. Bonsall	Los Angeles.

Date of expiration of terms of Directors: January, 1894.
 Total number of stockholders at date of last election: 7.
 Date of last meeting of stockholders for election of Directors: January, 1893.
 Post Office address of general and operating office: Redondo Beach, Cal.

OFFICERS.

Title.	Name.	Location of Office.
Chairman of the Board, and President	George J. Ainsworth	Redondo Beach.
Vice-President	R. H. Thompson	Redondo Beach.
Secretary, Auditor, and Treasurer	S. P. Rees	Redondo Beach.
General Counsel	A. M. Stephens	Los Angeles.
Assistant Counsel	Sheldon Borden	Los Angeles.
Superintendent	J. N. Sutton	Los Angeles.
Chief Engineer	L. Friel	Los Angeles.
Superintendent of Telegraph	F. M. Burleigh	Los Angeles.
General Freight Agent	J. N. Sutton	Los Angeles.
Ticket Agent	J. M. Hatcher	Redondo Beach.
General Baggage Agent	B. B. Mallory	Los Angeles.

PROPERTY OPERATED.

The Redondo Railway is operated by main line from Redondo Beach to Los Angeles, a distance of 17.7 miles.

CAPITAL STOCK.

The total par value of authorized capital stock is \$500,000, divided into 5,000 shares of \$100 each. The total amount issued and outstanding is \$500,000. No dividends were declared.

Manner of payment for capital stock: Number of shares issued, 5,000; total cash realized, \$377,367 23.

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.	Current Liabilities Accrued to and Including June 30, 1893.
Due from agents \$70 00	Loans and bills payable \$25,000 00
Due from solvent companies and individuals 13,277 02	Audited vouchers and accounts 20,859 21
Balance—current liabilities 32,512 19	
Total \$45,859 21	Total \$45,859 21

Amount of interest and discount paid during eighteen months upon floating debt and current liabilities, \$2,666 71.

INCOME ACCOUNT.

Gross earnings from operation	\$101,116 54	
Less operating expenses	114,250 09	
Deficit from operation		\$13,133 55
Miscellaneous income—less expenses		50 00
Total deficit		\$13,083 55
Deductions from income:		
Interest on interest-bearing current liabilities accrued, not otherwise provided for	\$2,666 71	
Taxes	1,825 91	
Total deductions from income		4,492 62
Net loss		\$17,576 17
Surplus on December 31, 1891		\$20,506 74
Deficit from operations of 18 months ending June 30, 1893		17,576 17
Surplus on June 30, 1893		\$2,930 57

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS.

Item.	Expenditures During 18 Months.			Total Cost to December 31, 1891.	Total Cost to June 30, 1893.	Net Additions During Year.
	Differences or Net Additions to Property, etc.	Credits—Property and Material Sold.	Total Expenditures.			
Construction:						
Right of way	\$6 60	-----	\$6 60	\$24,735 92	\$24,742 52	\$6 60
Fences	14 05	-----	14 05	747 05	701 70	14 05
Grading, and bridge and culvert masonry.	619 45	-----	619 45	25,428 94	26,048 39	619 45
Bridges and trestles.	117 87	-----	117 87	453 01	570 88	117 87
Rails	41 21	-----	41 21	100,686 23	100,727 44	41 21
Ties	-----	-----	-----	25,158 81	25,158 81	-----
Other superstructure	657 95	-----	657 95	3,652 09	4,310 04	657 95
Buildings, furniture, and fixtures	2,462 78	\$70 58	2,533 36	14,483 98	16,946 76	2,462 78
Shop machinery and tools	425 13	-----	425 13	4,530 96	4,956 09	425 13
Telegraph line	-----	-----	-----	3,376 18	3,376 18	-----
Sidings and yard extensions	1,225 17	-----	1,225 17	4,545 76	5,770 93	1,225 17
Terminal facilities and elevators	-----	-----	-----	10,000 00	10,000 00	-----
Purchase of constructed road	-----	-----	-----	25,000 00	25,000 00	-----
Total construction	\$5,570 21	\$70 58	\$5,640 79	\$242,799 53	\$248,369 74	\$5,570 21
Equipment:						
Locomotives	\$4,844 17	-----	\$4,844 17	\$41,139 42	\$45,983 59	\$4,844 17
Passenger cars.	6,351 71	-----	6,351 71	26,889 47	33,241 18	6,351 71
Combination cars	1,800 00	-----	1,800 00	5,697 62	7,497 62	1,800 00
Freight cars	2,498 79	-----	2,498 79	17,193 75	19,692 54	2,498 79
Other cars of all classes	100 00	-----	100 00	561 44	661 44	100 00
Floating equipment	223 93	-----	223 93	-----	223 93	223 93
Total equipment	\$15,818 60	-----	\$15,818 60	\$91,481 70	\$107,300 30	\$15,818 60
Grand total cost construction, equipment, etc.	\$21,388 81	\$70 58	\$21,459 39	\$334,281 23	\$355,670 04	\$21,388 81

Cost per mile: Construction, \$1,403 22; equipment, \$606 21; total, \$2,009 43.

RECAPITULATION.

Account.	Total Amount Outstanding.	Miles of Road.	Amount per Mile of Road.
Capital stock	\$377,367 23	17.7	\$23,159 00
Equipment trust obligations	32,512 19		
Totals	\$409,879 42	17.7	\$23,159 00

EARNINGS FROM OPERATION.

Item.	Total Receipts.	Deductions, Etc.	Actual Earnings.
Passenger revenue			\$39,561 56
Mail			97 64
Total passenger earnings			\$39,659 20
Freight revenue	\$75,801 14		
Less overcharge to shippers		\$43 98	
Other repayments		21,854 05	
Total deductions		\$21,898 03	
Total freight revenue			53,903 11
Total passenger and freight earnings			\$93,562 31
Other earnings from operation :			
Switching charges—balance	\$3,067 55		
Telegraph companies	87 92		
Rents from tracks, yards, and terminals	4,398 76		
Total other earnings			7,554 23
Total gross earnings from operation			\$101,116 54

GENERAL BALANCE SHEET.

Assets.		Liabilities.	
Cost of road	\$248,369 74	Capital stock	\$377,367 23
Cost of equipment	107,300 30	Current liabilities	45,859 21
Lands owned	52,574 04	Surplus to December 31, 1891.	20,506 74
Cash and current assets	13,347 02		
Materials and supplies	2,034 23		
Sundries	2,531 68		
Loss from January 1, 1892, to June 30, 1893	17,576 17		
Total	\$443,733 18	Total	\$443,733 18

FINANCIAL OPERATIONS FOR EIGHTEEN MONTHS.

Resources.	Appropriation of Resources.		
Net amount realized from stock issued	\$16,821 40	Other interest paid	\$2,666 71
Net increase floating debt	21,141 31	Taxes	1,825 91
Net amount from sales of lands	1,486 29	Permanent improvements	5,570 21
Net amount decrease of other assets	1,353 56	Equipment	15,818 60
Receipts from other sources	50 00	Increase of cash assets	4,837 58
Total	\$43,852 56	Loss on operation from January 1, 1892, to June 30, 1893.	13,133 55
		Total	\$43,852 56

OPERATING EXPENSES.

Item.	Total.
Maintenance of way and structures:	
Repairs of roadway	\$13,871 85
Renewals of ties	950 02
Repairs of fences, road-crossings, signs, and cattle guards.....	19 22
Repairs of buildings.....	298 47
Other expenses	1,779 56
Total.....	\$16,919 15
Maintenance of equipment:	
Repairs and renewals of locomotives	\$4,025 18
Repairs and renewals of passenger cars.....	3,351 11
Repairs and renewals of freight cars.....	1,052 93
Shop machinery, tools, etc.....	516 73
Other expenses.....	1,779 53
Total.....	\$10,725 52
Conducting transportation:	
Wages of enginemen, firemen, and roundhousemen	\$14,750 01
Fuel for locomotives.....	20,407 31
Water supply for locomotives	482 69
All other supplies for locomotives.....	625 99
Wages of other trainmen	9,245 65
All other train supplies.....	493 32
Wages of switchmen, flagmen, and watchmen.....	2,975 80
Wages of station agents, clerks, and laborers	12,160 39
Station supplies.....	97 20
Loss and damage.....	383 30
Other expenses.....	7,118 25
Total.....	\$68,739 91
General expenses:	
Salaries of officers	\$8,167 83
Salaries of clerks.....	1,745 02
General office expenses and supplies	10 75
Advertising	1,471 42
Legal expenses	718 05
Stationery and printing.....	1,020 92
Other general expenses	4,730 72
Total.....	\$17,865 51
Recapitulation of expenses:	
Maintenance of way and structures.....	\$16,919 15
Maintenance of equipment	10,725 52
Conducting transportation.....	68,739 91
General expenses	17,865 51
Grand total	\$114,250 09

CONTRACTS, AGREEMENTS, ETC.

Contract with the United States Government to transport mails to and from Los Angeles to Redondo Beach.

Contract with Pacific Postal Telegraph Company over our lines free, we receiving 10 per cent of business originating at this point.

Agreement with Southern Pacific Company, Southern California Railway Company, Terminal Railway Company, Pacific Coast Steamship Company, and Wilmington Transportation Company to maintain rates.

MILEAGE OF ROAD OPERATED.

Miles of single track, $17\frac{7}{10}$; miles of yard track and sidings, $5\frac{3}{10}$; total mileage operated (all tracks), 23. All rails are steel (24 and 43 pounds.)

EMPLOYÉS AND SALARIES.

Class.	Number.	Total Yearly Compensation.	Average Daily Compensation.
General officers	5	\$5,600 00	\$17 22
General office clerks	3	1,200 00	3 34
Station agents	2	1,920 00	5 33
Other station men	5	3,240 00	9 00
Enginemen	3	3,240 00	9 00
Firemen	3	2,520 00	7 00
Conductors	3	3,240 00	9 00
Other trainmen	3	810 00	2 25
Machinists	1	1,080 00	3 00
Carpenters	1	1,080 00	3 00
Other shopmen	3	3,280 00	9 12
Section foremen	3	2,790 00	7 75
Other trackmen	14	8,820 00	24 50
Switchmen, flagmen, and watchmen	2	1,560 00	4 33
All other employés and laborers	5	3,000 00	8 34
Totals	56	\$43,380 00	-----

DESCRIPTION OF EQUIPMENT.

Item.	Added During 18 Months.	Total Number at End of 18 Months.	With Train Brake.	With Automatic Coupler.
Locomotives (passenger, freight, and switching)	2	6	6	-----
Motor	-----	1	-----	-----
Total locomotives	2	7	6	-----
Cars in passenger service:				
First-class passenger cars	5	16	16	16
Combination passenger cars	2	5	5	5
Other cars in passenger service	-----	1	-----	-----
Totals	7	22	21	21
Cars in freight service:				
Box cars	-----	16	12	-----
Flat cars	6	23	14	-----
Other cars	-----	6	6	-----
Totals	6	45	32	-----
Total cars owned	15	74	59	21

The Westinghouse train brake and Miller automatic coupler are used.

CHARACTERISTICS OF ROAD.

Redondo to Los Angeles: Length, 92,928 feet; number of curves, 23; aggregate length of curved line, 11,818 feet; length of straight line, 81,110 feet; length of level line, 14,350 feet; number of ascending grades, 27; sum of ascents, 305 feet; aggregate length of ascending grades, 40,100 feet; number of descending grades, 23; sum of descents, 181 feet; aggregate length of descending grades, 33,478 feet.

Gauge of track: 3 feet.

Number of stations on all roads operated by this company in California: 7 regular and 6 flag stations, as follows: Redondo Beach, Dominguez, Belvidere, Moneta, Sardena, Strawberry Park, Rosecrans, Summit, Sunnyside, Vermont Siding, Santa Fe Crossing, Golden, and Grand Avenue (Los Angeles).

Telephone: 18 miles of line; operated by this company and Pacific Postal Telegraph Company.

DATE WHEN ROAD WAS OPENED FOR PUBLIC USE.

The road was opened for public use in January, 1890.

PASSENGER AND FREIGHT, AND TRAIN MILEAGE.

Item.	Tonnage, Passengers, etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue	93,950	
Number of passengers carried one mile	182,631	
Total passenger revenue		\$39,561 56
Average amount received from each passenger		42.11
Passenger earnings per mile of road		2,235 12
Freight traffic:		
Total freight revenue		53,903 11
Freight earnings per mile of road		3,045 30
Passenger and freight:		
Passenger and freight earnings		93,464 67
Passenger and freight earnings per mile of road		5,280 42
Expenses per mile of road		6,450 00
Total earnings per mile of road, including mails, express, etc.		5,712 80
Average number of tons of freight in train	60	
Average number of tons of freight in each loaded car	10	

FREIGHT TRAFFIC MOVEMENT.

Commodity.	Originating on this Road—Tons.
Products of agriculture:	
Grain	2,004
Flour	276
Hay	31
Fruit and vegetables	1,465
Products of animals:	
Poultry, game, and fish	12
Products of mines:	
Bituminous coal	769
Products of forest:	
Lumber	12,364
Manufactures:	
Petroleum and other oils	529
Sugar	588
Iron—pig and bloom	57
Other castings and machinery	1,763
Cement, brick, and lime	953
Wines, liquors, and beers	190
Household goods and furniture	28
Merchandise	17,631
Total tonnage	38,660

LANDS OR PROPERTY, INCLUDING RIGHT OF WAY, DONATED BY STATES, COUNTIES, TOWNS, ETC.

By Whom Donated.	Description of Property.	Estimated Value.
Individuals	120 acres of land	\$34,000 00
Corporation	56 town lots	22,400 00
Total		\$56,400 00

STATE OF CALIFORNIA, }
 County of Los Angeles. } ss.

We, the undersigned, George J. Ainsworth, President, and S. P. Rees, Secretary, of the Redondo Railway Company, on our oath, do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same, and declare the same to be a com-

plete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

GEORGE J. AINSWORTH,
President.
S. P. REES,
Secretary.

Subscribed and sworn to before me, this sixteenth day of November, 1893.

W. H. HARRISON,
Notary Public in and for Los Angeles County, State of California.

SAN DIEGO, CUYAMACA, AND EASTERN RAILWAY COMPANY.

[For 18 months ending June 30, 1893.]

HISTORY.

1. Name of common carrier making this report: San Diego, Cuyamaca, and Eastern Railway Company.
2. Date of organization: March 6, 1888.
3. Under what laws organized: Laws of the State of California.

ORGANIZATION.

Names of Directors.	Post Office Address.
James S. Waterman	Brooklyn, N. Y.
Waldo S. Waterman	San Diego.
George J. Leovy	San Diego.
Joseph A. Allison	San Diego.
I. H. Barbour	San Diego.
S. M. Marshall	El Cajon.
C. R. Johnson	San Francisco.

Date of expiration of terms of Directors: January 2, 1894.

Date of last meeting of stockholders for election of Directors: January 3, 1893.

Post Office address of general and operating office: San Diego, Cal.

OFFICERS.

Title.	Name.	Location of Office.
President	James S. Waterman	San Diego.
Vice-President	George J. Leovy	San Diego.
Secretary and Treasurer	Waldo S. Waterman	San Diego.
General Counsel	George J. Leovy	San Diego.
Auditor	A. H. Kayser	San Diego.
General Manager	Waldo S. Waterman	San Diego.
Superintendent, and General Passenger, Ticket, and Freight Agent	A. E. Kinney	San Diego.

PROPERTY OPERATED.

The San Diego, Cuyamaca, and Eastern Railway is operated by main line from San Diego to Foster, a distance of 25.37 miles.

CAPITAL STOCK.

The total par value of authorized capital stock is \$7,000,000, divided into shares of a par value of \$100 each. The total amount issued and outstanding is \$769,000. No dividends were declared.

The capital stock outstanding was issued for construction of the road.

FUNDED DEBT.

Class of Bond or Obligation, Date of Issue and Maturity.	Amount of Authorized Issue.	Amount Issued and Now Outstanding.	Interest.			
			Rate.....	When Payable.	Total Accrued During 18 Months.	Paid During 18 Months.
First mortgage—July 1, 1888; July 1, 1918	\$550,000	\$550,000	6	Semi-annually..	\$49,500	None.

Car Trust Obligations, and Date of Issue and Maturity.	Outstanding June 30, 1893.	Interest.			
		When Payable.	Rate.	Total Accrued During 18 Months.	Paid During 18 Months.
Post, Martin & Co.—June 12, 1889; Aug. 1, 1894	\$3,614 39	.....	*	*	*
New York Equipment Co.—Dec. 16, 1890; Feb. 1, 1896	6,200 00	Monthly..	6	\$384 00	\$384 00
Totals	\$9,814 39	.....	.....	\$384 00	\$384 00

* Interest included in face of notes, which are being paid—one each month.

The bonds are secured by mortgage upon the roadway from San Diego to Lakeside, a distance of 22 miles.

FLOATING DEBT AND CURRENT LIABILITIES. (December 31, 1892.)

Liabilities Accruing up to and Including December 31, 1892.	Cash Assets Available for Payment of Floating Debt and Current Liabilities.
Loans and bills payable	Cash
Audited vouchers and accounts	Due from agents
	Due from solvent companies and individuals
Total	Total

Amount of interest and discount paid during year upon floating debt and current liabilities, \$241 95.

FLOATING DEBT AND CURRENT LIABILITIES. (June 30, 1893.)

Liabilities Accruing up to and Including June 30, 1893.	Cash Assets Available for Payment of Floating Debt and Current Liabilities.
Loans and bills payable	Cash
Audited vouchers and accounts	Due from agents
Wages and salaries	Due from solvent companies and individuals
Total	Total

Amount of interest and discount paid during six months upon floating debt and current liabilities, \$163.

RECAPITULATION.

Account.	Total Amounts.	Miles of Road.	Amount per Mile of Road.
Capital stock	\$769,000 00	22	\$34,954 54
Funded debt	550,000 00		25,000 00
Totals	\$1,319,000 00	22	\$59,954 54

PERMANENT IMPROVEMENTS FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1892.

Item.	Expenditures Included in Operating Expenses.	Expenditures Not Included in Operating Expenses.	Total Expenditures.	Credits—Property and Material Sold.	Differences or Net Additions to Property, Etc.
Construction:					
Buildings, furniture, and fixtures		\$531 00	\$531 00		\$531 00
Sidings and yard extensions	\$86 34	55 12	141 46		141 46
Betterment of track	1,052 12	20 00	1,072 12		1,072 12
Total construction	\$1,138 46	\$606 12	\$1,744 58		\$1,744 58
Equipment:					
Locomotives			\$8,771 45	\$7,048 00	1,723 45
Grand total construction and equipment					\$3,468 03

PERMANENT IMPROVEMENTS FOR THE SIX MONTHS ENDING JUNE 30, 1893.

Item.	Expenditures not Included in Operating Expenses.	Differences or Net Additions to Property, Etc.
Construction:		
Real estate	\$1,217 20	\$1,217 20
Fences	255 68	255 68
Buildings, furniture, and fixtures	300 97	300 97
Engineering expenses	500 00	500 00
Sidings and yard extensions	35 00	35 00
Other items	221 55	221 55
Total construction	\$2,530 40	\$2,530 40
Equipment:		
Locomotives	15 37	15 37
Grand total construction and equipment	\$2,545 77	\$2,545 77

COST OF ROAD AND EQUIPMENT. (December 31, 1892.)

Item.	Total Cost to Dec. 31, 1891.	Net Additions During Year.	Total Cost to Dec. 31, 1892.
Construction	\$550,430 00	\$1,744 58	\$552,174 58
Equipment:			
1 locomotive	\$10,741 20	\$1,723 45	\$12,464 65
4 passenger coaches	13,479 10		13,479 10
1 combination car	3,576 50		3,576 50
6 box cars and 8 flat cars	9,161 78		9,161 78
Total equipment	\$36,958 58	\$1,723 45	\$38,682 03
Grand total cost construction and equipment	\$587,388 58	\$3,468 03	\$590,856 61

COST OF ROAD AND EQUIPMENT. (June 30, 1893.)

Item.	Total Cost to Dec. 31, 1892.	Net Additions During 6 Mos.	Total Cost to June 30, 1893.
Construction	\$552,174 58	\$2,530 40	\$554,704 98
Equipment:			
1 locomotive	\$12,464 65	\$15 37	\$12,480 02
4 passenger cars	13,479 10		13,479 10
1 combination car	3,576 50		3,576 50
6 box cars and 8 flat cars	9,161 78		9,161 78
Total equipment	\$33,682 03	\$15 37	\$33,697 40
Grand total cost construction and equip- ment	\$590,856 61	\$2,545 77	\$593,402 38

INCOME ACCOUNT. (For 12 months ending December 31, 1892.)

Gross earnings from operation	\$37,452 67	
Less operating expenses	22,595 16	
Income from operation		\$14,857 51
Deductions from income:		
Interest and discount on floating debt paid during year ..	\$241 95	
Taxes	1,592 89	
Damages, principally accrued in 1890	991 45	
Total deductions from income		2,826 29
Net income		\$12,031 22

INCOME ACCOUNT. (For 6 months ending June 30, 1893.)

Gross earnings from operation	\$19,681 17	
Less operating expenses	12,872 46	
Income from operation		\$6,808 71
Deductions from income:		
Interest and discount on floating debt paid during 6 mos.	\$168 00	
Taxes	765 66	
Total deductions from income		933 60
Net income		\$5,875 05

EARNINGS FROM OPERATION. (For 12 months ending December 31, 1892.)

Item.	Actual Earnings.
Passenger revenue	\$17,587 32
Mail	412 20
Total passenger earnings	\$17,999 52
Freight revenue	19,380 00
Total passenger and freight earnings	\$37,379 52
Other earnings from operation	73 15
Total gross earnings from operation	\$37,452 67

EARNINGS FROM OPERATION. (For 6 months ending June 30, 1893.)

Item.	Actual Earnings.
Passenger revenue.....	\$9,898 45
Mail.....	94 19
Total passenger earnings.....	\$9,992 64
Freight revenue.....	9,660 78
Total passenger and freight earnings.....	\$19,653 42
Other earnings from operation.....	27 75
Total gross earnings from operation.....	\$19,681 17

GENERAL BALANCE SHEET.

Assets.		Liabilities.	
Cost of road.....	\$554,704 98	Funded debt.....	\$550,000 00
Cost of equipment.....	38,697 40	Car trusts.....	9,814 39
Materials and supplies.....	18 20		

FINANCIAL OPERATIONS FOR THE YEAR ENDING DECEMBER 31, 1892.

Resources.		Appropriation of Resources.	
Net income from operation...	\$12,031 22	Permanent improvements...	\$1,668 78
		Equipment, including sum paid car trusts.....	7,689 86
		Increase of cash assets.....	1,031 13
		Other expenditures.....	1,641 45
Total.....	\$12,031 22	Total.....	\$12,031 22

FINANCIAL OPERATIONS FOR THE SIX MONTHS ENDING JUNE 30, 1893.

Resources.		Appropriation of Resources.	
Net income from operation...	\$5,875 05	Permanent improvements...	\$2,530 40
Net increase floating debt....	600 00	Equipment.....	15 37
Payroll not paid.....	2 70	Increase of cash assets.....	805 51
		Increase of other assets.....	239 39
		Car trust notes paid.....	2,868 18
		Exchange paid.....	70
		Wood purchased and on hand	18 20
Total.....	\$6,477 75	Total.....	\$6,477 75

OPERATING EXPENSES. (For 12 months ending December 31, 1892.)

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of way and structures.....	\$1,354 90	\$1,354 89	\$2,709 79
Maintenance of equipment.....	500 00	500 00	1,000 00
Conducting transportation.....	7,513 07	7,513 08	15,026 15
General expenses.....	1,929 61	1,929 61	3,859 22
Totals.....	\$11,297 58	\$11,297 58	\$22,595 16
Percentage of operating expenses to earnings:			60.3

OPERATING EXPENSES. (For 6 months ending June 30, 1893.)

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of way and structures:			
Repairs of roadway	\$916 31	\$916 32	\$1,832 63
Repairs of bridges and culverts.....	127 17	127 16	254 33
Repairs of buildings	14 96	14 97	29 93
Totals	\$1,058 44	\$1,058 45	\$2,116 89
Maintenance of equipment:			
Repairs and renewals of locomotives	\$120 50	\$120 49	\$240 99
Repairs and renewals of passenger and freight cars	72 60	72 60	145 20
Totals	\$193 10	\$193 09	\$386 19
Conducting transportation:			
Wages of enginemen, firemen, and round-housemen	\$630 32	\$630 33	\$1,260 65
Fuel for locomotives	1,559 16	1,559 15	3,118 31
Water supply	32 91	32 92	65 83
All other supplies for locomotives (oil, waste, etc.)	34 00	33 99	67 99
Wages of other trainmen	493 50	493 50	987 00
All other train supplies	22 50	22 50	45 00
Wages of station agents, clerks, and laborers	559 50	559 50	1,119 00
Station supplies	5 95	5 95	11 90
Car mileage—balance	7 50	7 50	15 00
Loss and damage	6 70	6 70	13 40
Totals	\$3,352 04	\$3,352 04	\$6,704 08
General expenses:			
Salaries of officers	\$1,265 00	\$1,265 00	\$2,530 00
General office expenses and supplies	304 76	304 76	609 52
Advertising	129 23	129 24	258 47
Stationery and printing	133 66	133 65	267 31
Totals	\$1,832 65	\$1,832 65	\$3,665 30
Recapitulation of expenses:			
Maintenance of way and structures	\$1,058 44	\$1,058 45	\$2,116 89
Maintenance of equipment	193 10	193 09	386 19
Conducting transportation	3,352 04	3,352 04	6,704 08
General expenses	1,832 65	1,832 65	3,665 30
	\$6,436 23	\$6,436 23	\$12,872 46
Grand totals.....			
Percentage of operating expenses to earnings.....			65.4

EMPLOYÉES AND SALARIES. (For 12 months ending December 31, 1892.)

Class.	Number.	Total Yearly Compensation.	Average Daily Compensation.
General officers	3	\$3,180 00	\$2 90
General officers	2		
Roadmaster	1	840 00	2 30
Station agents	4	2,158 35	1 46
Other station men	1	660 00	1 81
Enginemen	1	1,095 00	3 00
Firemen	1	780 00	2 13
Conductors	1	1,020 00	2 80
Other trainmen	1	840 00	2 30
Section foremen	1	733 50	2 00
Other trackmen	4	2,352 00	1 75
Switchmen, flagmen, and watchmen	1	600 00	1 64
All other employées and laborers	1	50 60	2 10
Totals	22	\$14,309 45	\$1 81

EMPLOYÉS AND SALARIES. (For 6 months ending June 30, 1893.)

Class.	Number.	Total Compensation.	Average Daily Compensation.
General officers.....	4	\$2,530 00	\$3 34
General officer.....	1		
Roadmaster.....	1	420 00	2 30
Station agents.....	3	810 00	1 43
Other station men.....	1	330 00	1 81
Enginemen.....	1	564 00	3 00
Firemen.....	1	407 61	2 14
Conductors.....	1	515 80	2 80
Other trainmen.....	1	471 20	2 21
Section foremen.....	1	293 50	2 00
Other trackmen.....	6	1,631 00	1 75
Switchmen, flagmen, and watchmen.....	1	300 82	1 65
All other employés and laborers.....	1	80 00	3 48
Totals.....	23	\$8,353 93	\$2 00

At San Diego, the Auditor is also agent; is included with general officers.

DESCRIPTION OF EQUIPMENT.

Locomotive, 1. Cars in passenger service—first-class passenger cars, 4; combination passenger cars, 1; total, 5. Cars in freight service—box cars, 6; flat cars, 8; total, 14. Total cars owned, 19.

MILEAGE OF ROAD OPERATED.

Length of single track, 25.37 miles; length of yard track, sidings, and spurs, 1.20 miles; aggregate length of all tracks, 26.57 miles; steel rails, 26.57 miles. The entire mileage is in California.

CONSUMPTION OF FUEL BY LOCOMOTIVES.

From December 31, 1891, to December 31, 1892, the locomotives consumed 643 tons of coal in running 42,727 miles. This is an average of 33.7 pounds per mile. The average cost of coal at distributing point was \$8 75 per ton.

From December 31, 1892, to June 30, 1893, the locomotives consumed 361 tons of coal in running 18,940 miles—an average of 42.7 pounds per mile. The cost of coal was \$8 50 per ton.

PASSENGER, FREIGHT, AND TRAIN MILEAGE. (For 12 months ending December 31, 1892.)

	Tonnage, Pas- sengers, Etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue.....	36,640	
Number of passengers carried one mile.....	586,244	
Average distance carried—miles.....	16	
Total passenger revenue.....		\$17,587 32
Amount received from each passenger.....		48+
Average receipts per passenger per mile.....		03
Passenger earnings per mile of road.....		692 41-
Passenger earnings per train mile.....		41
Freight traffic:		
Number of tons carried of freight earning revenue.....	10,123	
Number of tons carried one mile.....	161,968	
Average distance hauled of one ton—miles.....	16	
Total freight revenue.....		19,380 00
Amount received for each ton of freight.....		1 91
Average receipts per ton per mile.....		12
Freight earnings per mile of road.....		763 00
Freight earnings per train mile.....		45
Passenger and freight:		
Passenger and freight earnings (does not include mail and miscellaneous earnings).....		36,967 32
Passenger and freight earnings per mile of road.....		1,455 41
Total earnings per mile of road, including mails, express, etc.....		1,474 51
Train mileage.....	42,727	

PASSENGER, FREIGHT, AND TRAIN MILEAGE. (For 6 months ending June 30, 1893.)

	Tonnage, Pas- sengers, Etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue	23,348	
Number of passengers carried one mile	401,014	
Average distance carried—miles	17.2	
Total passenger revenue		\$9,898 45
Amount received from each passenger		42
Average receipts per passenger per mile		02.47
Cost of carrying each passenger one mile		01.70
Passenger earnings per mile of road		389 70
Passenger earnings per train mile		52
Freight traffic:		
Number of tons carried of freight earning revenue	5,923	
Number of tons carried one mile	110,903	
Average distance haul of one ton—miles	18.7	
Total freight revenue		9,660 78
Amount received for each ton of freight		1 63
Average receipts per ton per mile		08.71
Cost of carrying one ton one mile		06.15
Freight earnings per mile of road		380 31
Freight earnings per train mile		51
Passenger and freight:		
Passenger and freight earnings		19,559 23
Passenger and freight earnings per mile of road		770 01
Expense per mile of road		536 93
Total earnings per mile of road, including mails, express, etc.		774 81
Total train mileage	18,940	
Mileage of loaded freight cars	15,270	
Mileage of empty freight cars	3,834	
Average number of freight cars in train	1½	
Average number of loaded cars in train	1	
Average number of empty cars in train	½	

FREIGHT TRAFFIC MOVEMENT. (Company's material excluded.)

Commodity.	Total Freight Tonnage.	
	For 12 Months Ending Dec. 31, 1892.	For 6 Months Ending June 30, 1893.
Products of agriculture:		
Grain and feed	933	232
Flour	232	71
Hay	1,316	500
Fruit and vegetables	2,502	489
Wool		4
Honey	16	1
Products of mines:		
Bituminous coal	46	22
Stone, sand, and other like articles	736	1,068
Products of forest:		
Lumber (including box shooks)	1,895	1,173
Wood	368	320
Manufactures:		
Cement, brick, and lime	101	172
Household goods and furniture	101	10
Pipe and drain tile	66	271
Merchandise	1,573	923
Miscellaneous: other commodities not mentioned above	238	672
Total tonnage	10,123	5,923

DATE WHEN ROAD WAS OPENED FOR PUBLIC USE.

From San Diego to Lakeside April 1, 1889.
 From Lakeside to Foster February 13, 1890.

CHARACTERISTICS OF ROAD.

San Diego to Foster: Length, 25.37 miles; number of curves, 51; aggregate length of curved line, 6.463 miles; length of straight track, 18.907 miles; length of level track, 5.53 miles; number of ascending grades, 65; sum of ascents, 821.35 feet; aggregate length of ascending grades, 12.955 miles; number of descending grades, 42; sum of descents, 311.5 feet; aggregate length of descending grades, 6.88 miles.

Bridges: Wooden, 30; aggregate length, 1,670 feet.

Gauge of track: 4 feet 8½ inches.

Telegraph: Operated by this company, 28 miles of line.

Number of stations on all roads operated by this company in California: 4 agent stations and 11 non-agent stations.

STATE OF CALIFORNIA,)
County of San Diego,) ss.

Waldo S. Waterman, Secretary of the San Diego, Cuyamaca, and Eastern Railway Company, being duly sworn, deposes and says, that the statements, tables, and answers contained in the foregoing have been compiled and prepared by the proper officers of said company, from its books and records, under his direction and supervision; that he, the deponent, has carefully examined the same, and that as now furnished by him to the Board of Railroad Commissioners, they are, in all respects, just, correct, complete, and true, to the best of his knowledge, and, as he verily believes, the same contain a true and full exhibit of the condition and affairs of said company on the thirty-first day of December, 1892, and the thirtieth day of June, 1893.

WALDO S. WATERMAN,
Secretary.

Subscribed and sworn to before me, this thirty-first day of July, 1893.

F. P. BRUNER,
Notary Public in and for San Diego County.

YREKA RAILROAD COMPANY.

[For 18 months ending June 30, 1893.]

HISTORY.

1. Name of common carrier making this report: Yreka Railroad Company.
2. Date of organization: May 28, 1888.
3. Under what laws organized: Laws of the State of California.

ORGANIZATION.

Names of Directors: J. Churchill, J. M. Walbridge, H. B. Gillis, Charles Iunker, and F. A. Autenrieth, all of Yreka, California.

Date of expiration of terms of Directors: May, 1894.

Total number of stockholders at date of last election: 190.

Date of last meeting of stockholders for election of Directors: May 1, 1893.

Post Office address of general and operating office: Yreka, California.

OFFICERS.

Title.	Name.	Location of Office.
Chairman of the Board, and President.	J. Churchill.....	Yreka, Cal.
Vice-President.....	J. M. Walbridge	Yreka, Cal.
Secretary	F. A. Autenrieth	Yreka, Cal.
Treasurer	Siskiyou County Bank.....	Yreka, Cal.
General Manager	J. Churchill.....	Yreka, Cal.
General Superintendent	F. A. Autenrieth.....	Yreka, Cal.
Superintendent of Telegraph, and General Freight, Passenger, and Ticket Agent.....	F. A. Autenrieth.....	Yreka, Cal.

PROPERTY OPERATED.

The Yreka Railroad is operated by main line from Montague, in Siskiyou County, to Yreka, in same county, a distance of 7.9 miles.

CAPITAL STOCK.

The total par value of authorized capital stock is \$100,000, divided into shares of a par value of \$25 each. The total amount issued and outstanding is \$99,075.

Manner of payment for capital stock: Issued for cash, 3,963 shares; realized on amount issued, \$49,575; cash raised by note, \$45,000; total cash realized, \$94,575.

FUNDED DEBT.

In 1890, a mortgage was authorized to be executed on the road and its equipment, and first mortgage bonds to the amount of \$45,000 were issued. The cash realized on the bonds issued was \$45,000. The bonds mature in 1895, and bear 7 per cent interest, payable quarterly. The amount of interest accruing during the eighteen months covered by this report was \$4,725, which was paid.

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS.

Item.	Total Cost to Dec. 31, 1892.	Net Additions During 18 Mos.
Construction:		
Right of way	\$1,775 00	-----
Other real estate	2,561 90	-----
Fences	1,107 37	-----
Grading, and bridge and culvert masonry	35,304 90	\$2,149 81
Bridges and trestles	3,271 10	-----
Rails	223 21	-----
Ties	22 50	-----
Other superstructure	40,330 92	-----
Buildings, furniture, and fixtures	1,360 50	1,132 23
Engineering expenses	6,485 20	-----
Terminal facilities and elevators	449 40	-----
Other items	5,699 25	-----
Total construction	\$98,591 25	\$3,282 04
Equipment	12,510 75	-----
Total cost construction, equipment, etc.	\$111,102 00	\$3,282 04

The total cost to June 30, 1893, is \$114,384 04, which is at the rate of \$14,478 88 per mile of road operated.

INCOME ACCOUNT. (For 12 months ending December 31, 1892.)

Gross earnings from operation	\$12,519 22
Less operating expenses	12,672 64
Deficit from operations of year ending December 31, 1892	\$153 42

INCOME ACCOUNT. (For 6 months ending June 30, 1893.)

Gross earnings from operation	\$5,255 50
Deductions from income:	
Interest on funded debt accrued	\$1,575 00
Interest on interest-bearing current liabilities accrued, not otherwise provided for	406 83
Rents	73 00
Taxes	250 40
Total deductions from income	\$2,305 23
Deficit from operations of six months ending June 30, 1893	\$191 69

EARNINGS FROM OPERATION. (For 12 months ending December 31, 1892.)

Item.	Actual Earnings.
Passenger revenue	\$7,450 87
Mail	438 84
Express	516 65
Total passenger earnings	\$8,406 36
Freight revenue	4,112 86
Total passenger and freight earnings	\$12,519 22

EARNINGS FROM OPERATION. (For 6 months ending June 30, 1893.)

Item.	Actual Earnings.
Passenger revenue	\$3,115 41
Mail	219 42
Express	240 87
Total passenger earnings	\$3,575 70
Freight revenue	1,789 51
Total passenger and freight earnings	\$5,365 21

FINANCIAL OPERATIONS FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1892.

Resources.	Appropriation of Resources.
Net income from operation (deducting improvements, \$992)	Interest on funded debt paid ..
\$978 60	Other interest paid
	Taxes
	Rentals
	Permanent improvements
	Section hands
	Trainmen
	Woodmen
	Sundry expenses
	Sundry expenses
	Error posting
Total	Total
\$978 60	\$12,672 64

APPROPRIATION OF RESOURCES FOR SIX MONTHS ENDING JUNE 30, 1893.

Interest on funded debt paid	\$1,575 00
Other interest paid	406 83
Taxes	250 40
Rentals	73 00
Permanent improvements	140 23
Sectionmen	739 65
Trainmen	1,727 90
Woodmen	100 00
Sundries	425 63
Total	\$5,438 64

PASSENGER AND FREIGHT, AND TRAIN MILEAGE. (For 12 months ending Dec. 31, 1892.)

Item.	Tonnage, Pas- sengers, Etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue	12,500	
Total passenger revenue		\$7,012 03
Average amount received from each passenger		56.7
Average receipts per passenger per mile		07.5
Passenger earnings per mile of road		887 60
Freight traffic:		
Number of tons carried of freight earning revenue	24,803.6	
Total freight revenue		4,112 86
Average amount received for each ton of freight		16.6
Freight earnings per mile of road		520 61
Passenger and freight:		
Passenger and freight revenue		11,124 89
Passenger and freight earnings per mile of road		1,407 21
Total earnings per mile of road, including mails, express, etc.		1,519 56
Train mileage	10,950	

PASSENGER AND FREIGHT, AND TRAIN MILEAGE. (For 6 months ending June 30, 1893.)

Item.	Tonnage, Passengers, Etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue	5,410	
Total passenger revenue		\$3,115 41
Average amount received from each passenger		57.4
Average receipts per passenger per mile		07.6
Passenger earnings per mile of road		415 38
Freight traffic:		
Number of tons carried of freight earning revenue	9,693.4	
Total freight revenue		1,789 51
Average amount received for each ton of freight		18.4
Freight earnings per mile of road		238 60
Passenger and freight:		
Passenger and freight earnings		4,904 92
Passenger and freight earnings per mile of road		653 98
Total earnings per mile of road, including mail, express, etc.		783 23
Train mileage	5,490	

DESCRIPTION OF EQUIPMENT.

Locomotive—passenger, 1. Cars in passenger service—combination passenger cars, 1. Cars in freight service—box cars, 1; flat cars, 2; section cars, 2.

MILEAGE OF ROAD OPERATED.

Miles of single track, 7.5; miles of yard track and sidings, 0.4; total mileage operated, 7.9. The rails are steel.

RENEWALS OF RAILS AND TIES.

There were no new rails laid. The average price of steel rails per ton at distributing point is \$55 50.

New ties laid during eighteen months: 42.

CONSUMPTION OF FUEL BY LOCOMOTIVES.

The locomotive running on this road consumed 619.28 cords of soft wood during the eighteen months ending June 30, 1893. The average cost at distributing point is \$4 50 per cord.

CHARACTERISTICS OF ROAD.

Montague to Yreka: Length, 7.9 miles; number of curves, 32; aggregate length of curved line, 25,278 feet; length of straight line, 14,178 feet; length of level line, 1,250 feet; number of ascending grades, 1; sum of ascents, 282.89 feet; aggregate length of ascending grades, 14,300 feet; number of descending grades, 2; sum of descents, 216.24 feet; aggregate length of descending grades, 24,957 feet.

Bridges: Wooden, 1; 80-foot span.
Trestles: Aggregate length, 826 feet.
Gauge of track: 4 feet 8½ inches.

DATE WHEN ROAD WAS OPENED FOR PUBLIC USE.

The road from Montague to Yreka was opened on January 9, 1889.

STATE OF CALIFORNIA, }
County of Siskiyou. } ss.

We, the undersigned, Jerome Churchill, President, and Fred. A. Autenrieth, Secretary, of the Yreka Railroad Company, on our oath, do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

JEROME CHURCHILL,
President.
FRED. A. AUTENRIETH,
Secretary.

Subscribed and sworn to before me, this eighth day of September, 1893.

JAS. R. TAPSCOTT,
Notary Public in and for Siskiyou County.

ARCATA AND MAD RIVER RAILROAD COMPANY.

[For 18 months ending June 30, 1893.]

HISTORY.

1. Name of common carrier making this report: Arcata and Mad River Railroad Company.
2. Date of organization: December 29, 1881
3. Under what laws organized: Laws of the State of California.

ORGANIZATION.

Names of Directors: F. Korbel, A. Korbel, J. Korbel, Anna Korbel, and Theresa Korbel, all of San Francisco.

Date of expiration of terms of Directors: January 4, 1894.

Total number of stockholders at date of last election: 5.

Date of last meeting of stockholders for election of Directors: January 4, 1893.

Post Office address of general office: 723 Bryant Street, San Francisco.

Post Office address of operating office: Arcata, Humboldt County, California.

OFFICERS.

Title.	Name.	Location of Office.
President	F. Korbel	San Francisco.
Vice-President	A. Korbel	San Francisco.
Secretary	J. Korbel	San Francisco.
Treasurer	A. Korbel	San Francisco.
Counsel	S. M. Buck	Eureka.
General Superintendent	V. Zaruba	Arcata.
General Freight Agent	W. Ogilby	Arcata.
General Passenger and Ticket Agent	M. Wagner	Arcata.

PROPERTY OPERATED.

Name..	Terminals.	Description.	Miles.
Arcata and Mad River Railroad.....	Arcata Wharf to Korbel. Korbel to Mad River....	Main line.. Branch line.	14 3/4

CAPITAL STOCK.

The total par value of authorized capital stock is \$300,000, divided into 300,000 shares. The total amount issued and outstanding is \$187,740.

Manner of payment for capital stock: Number of shares issued, 9,387; cash realized on amount issued, \$187,740.

CURRENT ASSETS AND LIABILITIES. (December 31, 1892.)

Cash and Current Assets Available for Payment of Current Liabilities.		Current Liabilities Accrued to and Including December 31, 1892.	
Cash	\$421 61	Receiver's certificates	\$2,165 57
Bills receivable	3,373 44	Wages and salaries	226 99
Other cash assets (excluding "materials and supplies")..	2,655 56	Balance—cash assets.....	195,884 64
Balance—current liabilities...	191,827 59		
Total	\$198,277 20	Total	\$198,277 20

CURRENT ASSETS AND LIABILITIES. (June 30, 1893.)

Cash and Current Assets Available for Payment of Current Liabilities.		Current Liabilities Accrued to and Including June 30, 1893.	
Cash	\$185 93	Loans and bills payable	\$2,682 30
Bills receivable	4,222 42	Wages and salaries	323 49
		Balance—cash assets.....	1,402 56
Total	\$4,408 35	Total	\$4,408 35

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS. (December 31, 1892.)

Item.	Expenditures Charged as Permanent Improvements.	Net Additions During Year.	Total Cost.
Construction		\$27,559 11	\$130,570 99
Grading, and bridge and culvert masonry ..	\$10,860 41		
Bridges and trestles.....	2,284 87		
Rails.....	11,705 51		
Ties.....	1,377 46		
Other superstructure.....			330 00
Buildings, furniture, and fixtures.....			16,254 00
Shop machinery and tools.....			1,922 60
Engineering expenses.....	696 29		
Purchase of constructed road.....	634 57		
Other items.....			2,235 00
Total construction.....	\$27,559 11	\$27,559 11	\$151,312 59
Equipment:			
Baggage, express, and postal cars.....			\$37,465 00
Floating equipment.....			3,050 00
Total equipment.....			\$40,515 00
Grand total cost construction, equipment, etc.....			\$191,827 59

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS. (June 30, 1893.)

Item.	Expenditures Charged as Permanent Improvements.	Total Cost.	Net Additions During Year.
Construction :			
Grading, and bridge and culvert masonry	\$1,576 09	\$132,147 08	\$1,576 09
Buildings, furniture, and fixtures	389 72	17,116 97	389 72
Shop machinery and tools	285 06	2,207 66	285 06
Telephone line	186 68	186 68	186 68
Other items		2,235 00	
Total construction	\$2,437 55	\$153,893 39	\$2,437 55
Equipment:			
Cars of all classes	\$1,718 88	\$39,183 88	\$1,718 88
Floating equipment		3,050 00	
Total equipment	\$1,718 88	\$42,233 88	\$1,718 88
Grand total cost construction, equipment, etc.	\$4,156 43	\$196,127 27	\$4,156 43

RECAPITULATION.

Account.	Total Amount Outstanding.
Capital stock	\$187,740 00
Floating debt, balance of	17,814 96
Total	\$205,554 96

INCOME ACCOUNT. (For 12 months ending December 31, 1892.)

Gross earnings from operation	\$96,531 61	
Less operating expenses	85,398 72	
Income from operation		\$11,132 89
Deductions from income:		
Taxes	\$1,267 68	
Other deductions	8,144 64	
Total deductions from income		9,412 32
Net income		\$1,720 57

INCOME ACCOUNT. (For 6 months ending June 30, 1893.)

Gross earnings from operation	\$42,979 00	
Less operating expenses	31,567 84	
Income from operation		\$11,411 16
Deductions from income:		
Taxes	\$590 20	
Other deductions	4,156 43	
Total deductions from income		4,746 43
Net income		\$6,664 53

EARNINGS FROM OPERATION. (For 12 months ending December 31, 1892.)

Item.	Total Receipts.	Deductions, Etc.	Actual Earnings.
Passenger revenue.....	\$18,936 89		
Less deductions.....		\$29 65	
Total passenger revenue.....			\$18,907 24
Mail.....	\$1,520 24		1,520 24
Express.....	144 00		144 00
Other items.....	1,704 77	\$56 01	1,648 76
Total passenger earnings.....			\$22,220 24
Freight revenue.....	\$44,305 45	\$129 38	\$44,176 07
	20,359 50	9,331 14	11,028 36
Total freight revenue.....			\$55,204 43
Lumber yards.....			6,987 22
Other items.....	\$260 50	\$100 25	160 25
Total freight earnings.....			\$62,351 90
Total passenger and freight earnings.....			\$84,572 14
Other earnings from operation:			
Rents from tracks, yards, and terminals.....	\$7,078 20	\$10 00	\$7,068 20
Other sources.....			3,984 48
Dockage.....		2 90	107 79
Waterworks.....			799 00
Total other earnings.....			\$11,959 47
Total gross earnings from operation.....			\$96,531 61

EARNINGS FROM OPERATION. (For 6 months ending June 30, 1893.)

Item.	Total Receipts.	Deductions, Etc.	Actual Earnings.
Passenger revenue.....	\$8,433 45		
Total passenger revenue.....			\$8,433 45
Mail.....	\$597 01		597 01
Express.....	84 00		84 00
Other items.....	319 38	\$29 88	289 50
Total passenger earnings.....			\$9,403 96
Freight revenue.....	\$17,711 16	\$26 45	\$17,684 71
	8,698 33	3,696 33	5,002 00
Total freight revenue.....			\$22,686 71
Lumber yards.....			3,478 48
Other items.....	\$105 30	\$34 55	70 75
Total freight earnings.....			\$26,235 94
Total passenger and freight earnings.....			\$35,639 90
Other earnings from operation:			
Rents from tracks, yards, and terminals.....			\$3,378 58
Other sources.....			3,559 28
Dockage.....			31 74
Waterworks.....			369 50
Total other earnings.....			\$7,339 10
Total gross earnings from operation.....			\$42,979 00

OPERATING EXPENSES. (For 12 months ending December 31, 1892.)

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of way and structures:			
Repairs of roadway	\$13,700 31	\$13,700 31	\$27,400 62
Repairs of bridges and culverts	792 61	792 60	1,585 21
Repairs of fences, road-crossings, signs, and cattle guards	198 95	198 95	397 90
Repairs of buildings		383 84	383 84
Repairs of docks and wharves		3,789 83	3,789 83
Repairs of telephone	50 69	50 69	101 38
Totals	\$14,742 56	\$18,916 22	\$33,658 78
Maintenance of equipment:			
Repairs and renewals of locomotives	\$798 98	\$798 98	\$1,597 96
Repairs and renewals of passenger cars	144 48		144 48
Repairs and renewals of freight cars		4,189 75	4,189 75
Repairs and renewals of ferry-boats, tugs, floats, and barges	951 56	951 56	1,903 12
Shop machinery, tools, etc.		599 89	599 89
Other expenses	131 76	131 76	263 52
Totals	\$2,026 78	\$6,671 94	\$8,698 72
Conducting transportation:			
Wages of enginemen, firemen, and round-housemen	\$2,330 73	\$2,330 72	\$4,661 45
Fuel for locomotives	753 45	753 45	1,506 90
Water supply for locomotives	22 00	22 00	44 00
All other supplies for locomotives	164 86	164 85	329 71
Wages of other trainmen	846 90	846 90	1,693 80
Wages of switchmen, flagmen, and watchmen		4,760 14	4,760 14
Wages of station agents, clerks, and laborers		660 00	660 00
Car mileage—balance		44 50	44 50
Loss and damage	3,272 25		3,272 25
Injuries to persons	147 12	147 11	294 23
Barges, floats, tugs, ferry-boats, expenses of, including wages, fuel, and supplies	636 35	636 34	1,272 69
Other expenses	1,770 00	1,770 00	3,540 00
Totals	\$9,943 66	\$12,136 01	\$22,079 67
General expenses:			
Salaries of officers		\$15,000 00	\$15,000 00
Salaries of clerks	\$1,800 00	1,800 00	3,600 00
Advertising	152 00		152 00
Insurance		285 00	285 00
Legal expenses	250 00		250 00
Stationery and printing	142 28		142 28
Other general expenses		1,332 27	1,332 27
Totals	\$2,344 28	\$18,417 27	\$20,761 55
Recapitulation of expenses:			
Maintenance of way and structures	\$14,742 56	\$18,916 22	\$33,658 78
Maintenance of equipment	2,026 78	6,671 94	8,698 72
Conducting transportation	9,943 66	12,136 01	22,079 67
General expenses	2,344 28	18,417 27	20,761 55
Grand totals	\$29,057 28	\$56,141 44	\$85,198 72

OPERATING EXPENSES. (For 6 months ending June 30, 1893.)

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of way and structures:			
Repairs of roadway	\$2,425 78	\$2,425 79	\$4,851 57
Repairs of bridges and culverts	1,634 56	1,634 56	3,269 12
Repairs of fences, road-crossings, signs, and cattle guards	197 94	197 94	395 88
Repairs of buildings	127 90	127 90	255 80
Repairs of docks and wharves		192 96	192 96
Repairs of telephone		38 54	38 54
Totals	\$4,386 18	\$4,617 69	\$9,003 87
Maintenance of equipment:			
Repairs and renewals of locomotives	\$512 72	\$512 72	\$1,025 44
Repairs and renewals of ferry-boats, tugs, floats, and barges	500 46	500 46	1,000 92
Totals	\$1,013 18	\$1,013 18	\$2,026 36
Conducting transportation:			
Wages of enginemen, firemen, and round- housemen	\$1,028 34	\$1,028 33	\$2,056 67
Fuel for locomotives	632 13	632 12	1,264 25
Water supply for locomotives	10 00	10 00	20 00
All other supplies for locomotives	104 02	104 01	208 03
Wages of other trainmen	420 00	420 00	840 00
Wages of switchmen, flagmen, and watch- men		2,308 35	2,308 35
Wages of station agents, clerks, and laborers	165 00	165 00	330 00
Loss and damage		11 85	11 85
Injuries to persons	69 93	69 92	139 85
Barges, floats, tugs, ferry-boats, expenses of, including wages, fuel, and supplies	318 05	318 05	636 10
Other expenses	1,170 00	1,170 00	2,340 00
Totals	\$3,917 47	\$6,237 63	\$10,155 10
General expenses:			
Salaries of officers	\$3,750 00	\$3,750 00	\$7,500 00
Salaries of clerks	900 00	900 00	1,800 00
Advertising	35 00	35 00	70 00
Insurance	106 25	106 25	212 50
Stationery and printing	15 94	15 94	31 88
Other general expenses	379 06	379 07	758 13
Totals	\$5,186 25	\$5,186 26	\$10,372 51
Recapitulation of expenses:			
Maintenance of way and structures	\$4,386 18	\$4,617 69	\$9,003 87
Maintenance of equipment	1,013 18	1,013 18	2,026 36
Conducting transportation	3,917 47	6,237 63	10,155 10
General expenses	5,186 25	5,186 26	10,372 51
Grand totals	\$14,503 08	\$17,054 76	\$31,557 84

MISCELLANEOUS INCOME. (For 12 months ending December 31, 1892.)

Item.	Gross Income.
Freight	\$55,204 43
Fare	18,907 24
Mail	1,520 24
Wells-Fargo	144 00
Interest	1,648 76
Wharf yard	6,987 22
Commission	160 25
Rent	7,068 20
Dockage	107 79
Waterworks	799 00
Wharfage	3,984 48
Total	\$96,531 61

MISCELLANEOUS INCOME. (For 6 months ending June 30, 1893.)

Item.	Gross Income.
Freight	\$22,686 71
Fare	8,433 45
Mail	597 01
Wells-Fargo	84 00
Interest	289 50
Wharf yard	3,478 48
Commissions	70 75
Rent	3,378 58
Dockage	31 74
Waterworks	369 50
Wharfage	3,559 28
Total	\$42,979 00

GENERAL BALANCE SHEET. (December 31, 1892.)

Assets.		Liabilities.	
Cost of road	\$130,570 99	Capital stock	\$187,740 00
Cost of equipment	37,465 00	Floating debt	2,392 56
Other permanent investments	5,302 60	Funded debt	8,144 64
Lands owned	16,250 00		
Sundries	8,688 61		
Total	\$198,277 20	Total	\$198,277 20

GENERAL BALANCE SHEET. (June 30, 1893.)

Assets.		Liabilities.	
Cost of road	\$132,147 08	Capital stock	\$187,740 00
Cost of equipment	42,233 88	Funded debt	8,144 64
Other permanent investments	2,235 00	Floating debt	3,005 79
Lands owned	17,116 97	Surplus from operation	6,664 53
Cash and current assets	185 00		
Materials and supplies	4,499 05		
Deficit from operation	7,137 98		
Total	\$205,554 96	Total	\$205,554 96

PASSENGER AND FREIGHT, AND TRAIN MILEAGE. (For 12 months ending Dec. 31, 1892.)

Item.	Tonnage, Passengers, Etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue	35,660	
Total passenger revenue		\$18,907 24
Freight traffic:		
Number of tons carried of freight earning revenue	8,351 $\frac{3}{20}$	
Total freight revenue		62,351 90
Train mileage:		
Miles run by mixed trains	17,756	
Average number of freight cars in train	11	
Average number of loaded cars in train	11	
Average number of empty cars in train	11	
Average number of tons of freight in train	44	
Average number of tons of freight in each loaded car	4	

PASSENGER AND FREIGHT, AND TRAIN MILEAGE. (For 6 months ending June 30, 1893.)

Item.	Tonnage, Passengers, Etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue	15,603	
Total passenger revenue		\$8,433 45
Freight traffic:		
Number of tons carried of freight earning revenue	4,215 $\frac{7}{20}$	
Total freight revenue		22,686 71
Passenger and freight:		
Passenger and freight revenue		31,120 16
Train mileage:		
Miles run by mixed trains	8,668	
Average number of freight cars in train	15	
Average number of loaded cars in train	15	
Average number of empty cars in train	15	
Average number of tons of freight in train	60	
Average number of tons of freight in each loaded car	4	

FREIGHT TRAFFIC MOVEMENT. (For 12 months ending December 31, 1892.)

Commodity.	Originating on this Road— Tons.	Received from Connecting Roads—Tons.
Products of agriculture:		
Grain		570 $\frac{1}{2}$
Flour		509 $\frac{1}{2}$
Potatoes	904 $\frac{1}{10}$	
Peas	401 $\frac{1}{2}$	
Products of animals:		
Butter	61 $\frac{1}{10}$	
Wool	64 $\frac{1}{2}$	
Hides and leather	176 $\frac{1}{2}$	
Milk	60 $\frac{1}{2}$	
Products of forest:		
Shingles	41,277,000 pieces.	
Lumber	21,374,523 feet.	
Shakes	3,668,250 pieces.	
Bolts	724 $\frac{1}{2}$ cords.	
Manufactures:		
Petroleum and other oils		127 $\frac{1}{2}$
Wines, liquors, and beers		275 $\frac{7}{20}$
Merchandise	1,064 $\frac{3}{5}$	4,135 $\frac{1}{2}$
Total tonnage	2,732 $\frac{1}{2}$	5,618 $\frac{7}{20}$

FREIGHT TRAFFIC MOVEMENT. (For 6 months ending June 30, 1893.)

Commodity.	Originating on this Road—Tons.	Received from Connecting Roads—Tons.
Products of agriculture:		
Grain		269 $\frac{2}{2}$
Flour		169 $\frac{2}{2}$
Potatoes	665 $\frac{2}{7}$	
Peas	74 $\frac{7}{10}$	
Products of animals:		
Butter	461 $\frac{1}{20}$	
Wool	33 $\frac{9}{20}$	
Hides and leather	102 $\frac{9}{20}$	
Milk	16 $\frac{2}{10}$	
Products of forest:		
Bolts	692 $\frac{3}{4}$ cords.	
Lumber	11,217,855 feet.	
Shakes	1,045,250 pieces.	
Shingles	17,237,250 pieces.	
Manufactures:		
Petroleum and other oils		62 $\frac{2}{5}$
Wines, liquors, and beers		110 $\frac{5}{10}$
Merchandise	672 $\frac{9}{10}$	1,990 $\frac{2}{2}$
Total tonnage	1,611 $\frac{13}{20}$	2,603 $\frac{7}{10}$

IMPORTANT CHANGES DURING THE EIGHTEEN MONTHS.

Since submitting our last report, the line has been extended to Mad River, a distance of $3\frac{1}{2}$ miles.

DESCRIPTION OF EQUIPMENT.

Item.	Total Owned.
Locomotives	4
Second-class passenger cars	3
Combination passenger cars	1
Box cars	3
Flat cars	160
Cars in company's service	22

EMPLOYÉS AND SALARIES. (For 12 months ending December 31, 1892.)

Class.	Number.	Total Yearly Compensation.	Average Daily Compensation.
General officers	5	\$15,000 00	\$41 10
General office clerks	2	1,680 00	6 18
Station agents	1	1,920 00	5 33
Other station men	1	660 00	1 33
Enginemen	3	3,000 00	8 32
Firemen	3	2,160 00	6 00
Conductors	1	960 00	2 66
Other trainmen	1	720 00	2 30
Carpenters	2		7 63
Section foremen	2	1,680 00	5 38
Other trackmen	10	7,098 00	22 75
Wharf foreman	1	960 00	3 08
Employés—account floating equipment	2	1,200 00	3 32
All other employés and laborers	6	3,800 14	12 95
.....	1	1,200 00	3 33
.....	1	960 00	2 66
Totals	42	\$42,968 14	\$134 82

EMPLOYÉS AND SALARIES. (For 6 months ending June 30, 1893.)

Class.	Number.	Total Compensation.	Average Daily Compensation.
General officers.....	5		
General office clerks.....	2	\$840 00	\$6 18
Station agents.....	1	960 00	5 33
Other station men.....	1	330 00	1 83
Enginemen.....	3	1,500 00	8 32
Firemen.....	3	1,080 00	6 00
Conductors.....	1	480 00	2 66
Other train men.....	1	360 00	2 30
Carpenters.....	2	1,190 28	7 63
Section foremen.....	3		
Other trackmen.....	12	3,549 00	27 20
Wharf foreman.....	1	480 00	3 08
Employés—account floating equipment.....	2	600 00	3 32
All other employés and laborers.....	5	1,828 35	11 72
.....	1	600 00	3 33
.....	1	480 00	2 66
Totals.....	44	\$15,117 63	\$91 56

CONTRACTS, AGREEMENTS, ETC.

Agreement with Wells, Fargo & Co., to carry express from Eureka to Arcata and Korbél.

Carry mail from Eureka to Arcata Wharf, six times a week, twice a day; from Arcata Wharf to Korbél, six times a week, twice a day.

Agreement to haul lumber from mills, and unload, pile, and store it on the wharf.

MILEAGE OF ROAD OPERATED.

Line in Use.	Main Line.	Branches and Spurs.	Total Mileage Operated.	Iron Rails.	Steel Rails.
Miles of single track.....	14	3¼	17¼	1¾	15½
Miles of yard track and sidings.....	3¾		3¾	3¾	
Total mileage operated (all tracks).....	17¾	3¼	21	5½	15½

RENEWALS OF TIES.

From December 31, 1891, to December 31, 1892: Redwood, 2,967; average price at distributing point, 37½ cents. From December 31, 1892, to June 30, 1893: Redwood, 2,399; average price at distributing point, 21½ cents.

CONSUMPTION OF FUEL BY LOCOMOTIVES.

By locomotives, 1,167¼ cords of wood; by ferry steamer, 1,090¾ cords of wood; total, 2,258¾ cords. Average cost at distributing point: pine, \$3 25 per cord; redwood, \$1 75 per cord.

CHARACTERISTICS OF ROAD.

Arcata Wharf to Arcata: Length, 2 miles; number of curves, 1; length of straight line, 1¾ miles.

Arcata to Korbél: Length, 12 miles; number of curves, 36; length of straight line, 3 miles.

Korbél to Mad River: Length, 3¼ miles; number of curves, 10; length of straight line, 2 miles.

Eureka to Arcata Wharf: Length, 4½ miles; this is a ferry line.

Bridges: Wooden, 1; combination, 1.

Trestles: 21; aggregate length, 17,230 feet.

Gauge of track: 45½ inches.

Telephone: 3 miles of line.

Number of stations on all roads operated by this company in California, 1.

Number of stations on all roads owned by this company in California, 4.

DATE WHEN THE ROAD WAS OPENED FOR PUBLIC USE.

From Arcata to Arcata Wharf.....	September, 1855
From Arcata Wharf to Eureka.....	September, 1855
From Arcata to Korbel.....	December, 1883

STATE OF CALIFORNIA,
City and County of San Francisco. } ss.

The undersigned, J. Korbel, Secretary of the Arcata and Mad River Railroad Company, on oath does say that the foregoing return has been prepared under his direction, from the original books, papers, and records of said company; that he has carefully examined the same, and declares the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of his knowledge, information, and belief; and further says that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

J. KORBEL,
Secretary.

Subscribed and sworn to before me, this twenty-ninth day of September, 1893.

J. D. DEANE,
Notary Public.

EEL RIVER AND EUREKA RAILROAD COMPANY.

SPECIAL REPORT ON FARES AND FREIGHTS.

EUREKA, CAL., March 14, 1893.

Mr. WM. BECKMAN, *Sacramento*:

DEAR SIR: Your letter of the 4th instant received and contents noted. In answer to your inquiries I would state, our charges on regular tickets is about 5 cents per mile, but owing to the amount of excursion and commutation tickets sold last year, it cut our average rate to about 3½ cents per mile.

Our charges on small lots of lumber are our first-class rates, which are, per ton:

From Eureka to Bucksport.....	distance 3 miles.....	\$0 60
From Eureka to South Bay.....	distance 7 miles.....	75
From Eureka to Salmon Creek.....	distance 11 miles.....	1 10
From Eureka to Swaugers.....	distance 14 miles.....	1 25
From Eureka to Singleys.....	distance 16 miles.....	1 60
From Eureka to Fortuna.....	distance 19 miles.....	1 85
From Eureka to Rohnerville.....	distance 21 miles.....	2 05
From Eureka to Junction.....	distance 23 miles.....	2 25
From Eureka to Burnells.....	distance 25 miles.....	2 35

Estimated weight of lumber being 2,500 pounds for dry and 4,000 pounds for green.

Our principal lumber traffic is, by special contract, averaging between 2 and 3 cents per ton per mile, that is, when you consider that we have to return the empty cars to the different points, which, owing to grades, takes just about as much steam as it takes to draw the loaded ones to the shipping point. The price paid by the Pacific Lumber Company for the transportation of their lumber is exceedingly low, being \$1 per thousand feet from Junction to South Bay. This contract was as a compromise. At the time both parties were going ahead building railroads, and to save competition this contract was entered into with them (Pacific Lumber Company).

Hay, wood, and live stock are principally shipped at carload rates, which is—

From Burnells to Eureka.....	\$12 00
From Junction to Eureka.....	11 50
From Rohnerville to Eureka.....	11 00
From Fortuna to Eureka.....	10 00
From Singleys to Eureka.....	8 00
From Swaugers to Eureka.....	7 50
From Salmon Creek to Eureka.....	7 00

Special rate on straw is about one third less than the above.

Grain is carried at first-class rates, which I have already quoted.

Hoping that this information may prove satisfactory, and what you require, I remain
Yours, very respectfully,

JOHN M. VANCE.

Filed in office of Railroad Commissioners, May 8, 1893.

EXPLANATORY OF COST OF CONSTRUCTION AND EQUIPMENT.

EUREKA, CAL., July 26, 1893.

JAMES V. KELLY, *Esq.*, *Secretary Board of Railroad Commissioners, San Francisco, Cal.:*

DEAR SIR: We have forwarded this day by Wells, Fargo & Co.'s Express, annual report for year ending December 31, 1892, and also semi-annual report for six months ending June 30, 1893. In report for year ending December 31, 1892, in the table giving cost of road and equipment, you will note by comparison with report for the previous year the "Grand Total Cost Construction and Equipment, December 31, 1891," to be \$606,925 36, while the report for the year ending December, 1891, shows "Grand Total Cost Construction and Equipment December 31, 1891," to be \$757,724 30.

During the year 1892 the books of the company were expeted, partially for the purpose of discovering the existing difference, as shown on the reports, and the true statement of the account, as shown by the books of the company. The greater part of this difference was found to have occurred when the first Railroad Commissioners' report was compiled. It appears that the first report was compiled before the book accounts were closed, and that afterwards the error was never corrected on the reports. It was found, also, that since then many accounts were reported as being net additions to "Cost of Road and Equipment," while on the books they were closed into operating expenses. All these errors have been corrected in the reports, hence this difference. The reports forwarded to you this day contain a true statement of the book accounts, and correspond in every particular.

Trusting the correction made, and also that the reports will meet with your approval, we remain,

Yours, very respectfully,

EEL RIVER AND EUREKA RAILROAD CO.,

Per T. R. LEVER, Secretary.

HISTORY.

1. Name of common carrier making this report: Eel River and Eureka Railroad Company.
2. Date of organization: November 14, 1882.
3. Under what laws organized: Laws of the State of California.

ORGANIZATION.

Names of Directors.	Post Office Address.
John M. Vance	Eureka, Cal.
William Carson	Eureka, Cal.
John Dolbeer	San Francisco.
E. P. Vance	Salmon Creek, Cal.
J. N. Gillett	Eureka, Cal.
H. H. Buhne, Jr.	Eureka, Cal.
C. L. Rose	South Bay, Cal.

Date of expiration of terms of Directors: January 10, 1894.

Total number of stockholders at date of last election: 7.

Date of last meeting of stockholders for election of Directors: January 10, 1893.

Post Office address of general and operating office: Eureka, Cal.

OFFICERS.

Title.	Name.	Location of Office.
President	John M. Vance	Eureka.
Vice-President	William Carson	Eureka.
Secretary	T. R. Lever	Eureka.
Treasurer	Randall Banking Co.	Eureka.
General Manager	John M. Vance	Eureka.
Superintendent	C. L. Rose	South Bay.
General Passenger, Ticket, and Freight Agent	T. R. Lever	Eureka.
Assistant General Freight Agent	A. G. Painter	Eureka.
General Baggage Agent	A. G. Painter	Eureka.

PROPERTY OPERATED.

The Eel River and Eureka Railroad is operated by main line from Eureka to Burnells, a distance of 30 miles.

CAPITAL STOCK.

The total par value of authorized capital stock is \$1,200,000, divided into shares of a par value of \$100 each. The total amount issued and outstanding is \$480,000. A dividend was declared at the rate of 2½ per cent on the capital stock authorized, which amounted to \$12,000.

Manner of payment for capital stock :

	Number of Shares.	Total Cash Realized.
Issued for cash	800	\$80,000 00
Issued for stock dividend	4,000	400,000 00
Totals	4,800	\$480,000 00

On March 13, 1893, 4,000 shares of capital stock were issued to the present stockholders of the Eel River and Eureka Railroad Company as a stock dividend, being accumulations of said railroad, from year to year, in excess of earnings beyond current expenses, in constructing and equipping the road, and in the purchase and improvement of its real estate, thereby increasing the actual value of the property and real estate \$400,000, in addition to the amount already received from the sale of 800 shares of capital stock and 488 first mortgage bonds. This issue of stock was ordered by a resolution of the Board of Directors, March 6, 1893.

FUNDED DEBT.

In October, 1883, first mortgage bonds to the amount of \$600,000 were authorized to be issued. The amount issued and now outstanding is \$488,000, upon which amount but \$487,700 cash was realized. These bonds mature in 1903, and bear 6 per cent interest, payable semi-annually, in April and October. From December 31, 1891, to December 31, 1892, there accrued \$29,280 interest; during the same period interest to the amount of \$71,370 was paid. From December 31, 1892, to June 30, 1893, there accrued \$14,640 interest, which was paid in full.

As security for the first mortgage bonds, a lien was given on the road from Eureka to Burnells, and also upon the equipment of the road.

FLOATING DEBT AND CURRENT LIABILITIES. (December 31, 1892.)

Liabilities Accruing up to and Including December 31, 1892.	Cash Assets Available for Payment of Floating Debt and Current Liabilities.
Audited vouchers and accounts	Cash
Wages and salaries	Due from agents
Matured interest coupons unpaid	Due from solvent companies and individuals
Balance—cash assets	
Total	Total

FLOATING DEBT AND CURRENT LIABILITIES. (June 30, 1893.)

Liabilities Accruing up to and Including June 30, 1893.	Cash Assets Available for Payment of Floating Debt and Current Liabilities.
Audited vouchers and accounts	Cash
Wages and salaries	Due from agents
Matured interest coupons unpaid	Due from solvent companies and individuals
Balance—cash assets	
Total	Total

RECAPITULATION. (December 31, 1892.)

Account.	Total Amounts.	Miles of Road.	Amount per Mile of Road.
Capital stock	\$80,000 00	30	\$2,666 66
Funded debt	488,000 00		16,266 66
Totals	\$568,000 00	30	\$18,933 32

\$10,000 worth of stock canceled July 9, 1892. \$297,000 worth of bonds issued July 9, 1892, in payment of floating debt.

RECAPITULATION. (June 30, 1893.)

Account.	Total Amounts.	Miles of Road.	Amount per Mile of Road.
Capital stock	\$480,000 00	30	\$16,000 00
Funded debt	488,000 00		16,266 66
Totals	\$968,000 00	30	\$32,266 66

COST OF ROAD AND EQUIPMENT. (December 31, 1892.)

Item.	Total Cost to Dec. 31, 1891.	Net Additions During Year.	Total Cost to Dec. 31, 1892.
Construction :			
Right of way	\$26,150 75		\$26,150 75
Other real estate	9,400 94	\$267 00	9,667 94
Fences	5,129 47	12 75	5,142 22
Grading, and bridge and culvert masonry	331,649 12		331,649 12
Bridges and trestles	7,984 74		7,984 74
Rails	164,013 01		164,013 01
Ties	7,906 10		7,906 10
Other superstructure	2,526 37	504 74	3,031 11
Buildings, furniture, and fixtures	34,423 36	1,251 05	35,674 41
Shop machinery and tools	1,971 56		1,971 56
Telephone line	1,345 49		1,345 49
Wharfing, etc.	14,813 35		14,813 35
Sidings and yard extensions		174 70	174 70
Other items	564 42	99 75	664 17
Total construction	\$607,878 68	\$2,309 99	\$610,188 67
Equipment :			
Locomotives	\$27,567 35		\$27,567 35
Passenger cars	23,652 26		23,652 26
Baggage, express, and postal cars	221 99		221 99
Freight cars	8,515 04		8,515 04
Other cars of all classes	23,498 49		23,498 49
Floating equipment	5,591 55	\$152 48	5,744 03
Total equipment	\$89,046 68	\$152 48	\$89,199 16
Grand total cost construction and equipment	\$696,925 36	\$2,462 47	*\$699,387 83

*Including real estate.

COST OF ROAD AND EQUIPMENT. (June 30, 1893.)

Item.	Total Cost to Dec. 31, 1892.	Net Additions During Six Months.	Total Cost to July 1, 1893.
Construction:			
Right of way	\$26,150 75		\$26,150 75
Other real estate	9,667 94		9,667 94
Fences	5,142 22	\$39 16	5,181 38
Grading, and bridge and culvert masonry	331,649 12	615 00	332,264 12
Bridges and trestles	7,984 74	3,153 23	11,137 97
Rails	164,013 01		164,013 01
Ties	7,906 10		7,906 10
Other superstructure	3,031 11	36 52	3,067 63
Buildings, furniture, and fixtures	35,674 41	385 25	36,059 66
Shop machinery and tools	1,971 56		1,971 56
Telephone line	1,345 49		1,345 49
Wharfing, etc.	14,813 35		14,813 35
Sidings and yard extensions	174 70	351 11	525 81
Other items	664 17	242 25	906 42
Total construction	\$610,188 67	\$4,822 52	\$615,011 19
Equipment:			
Locomotives	\$27,567 35		\$27,567 35
Passenger cars	23,652 26		23,652 26
Baggage, express, and postal cars	221 99		221 99
Freight cars	8,515 04		8,515 04
Other cars of all classes	23,498 49		23,498 49
Floating equipment	5,744 03	\$119 99	5,864 02
Total equipment	\$89,199 16	\$119 99	\$89,319 15
Grand total cost construction and equip- ment	\$699,387 83	\$4,942 51	*\$704,330 34

*Including lands owned.

PERMANENT IMPROVEMENTS FOR THE EIGHTEEN MONTHS.

Item.	Expenditures Included in Operating Expenses.	Expenditures Not Included in Operating Expenses.
Construction:		
Real estate		\$584 50
Fences		12 75
Other superstructure		504 74
Buildings, furniture, and fixtures		1,251 05
Sidings and yard extensions		174 70
Other items		99 75
Breakwater protection	\$3,325 81	
Total construction	\$3,325 81	\$2,627 49
Equipment:		
Floating equipment		152 48
Grand total construction and equipment	\$3,325 81	\$2,779 97

MISCELLANEOUS INCOME. (For 12 months ending December 31, 1892.)

Item.	Gross Income.
Passenger earnings	\$42,007 79
Freight earnings.....	84,261 15
Express earnings.....	737 99
Mail earnings.....	2,468 40
Rent earnings.....	2,074 86
Wharfage earnings.....	4,467 57
Storage earnings.....	156 81
Miscellaneous income.....	877 09
	<hr/>
	\$137,051 66
Less operating expenses	67,855 32
	<hr/>
Net miscellaneous income	\$69,196 34

MISCELLANEOUS INCOME. (For 6 months ending June 30, 1893.)

Item.	Gross Income.
Passenger earnings	\$16,915 59
Freight earnings.....	36,024 59
Express earnings.....	330 00
Mail earnings.....	1,179 20
Rent earnings.....	1,017 50
Wharfage earnings.....	1,949 30
Storage earnings.....	239 37
Ferry-boat earnings.....	1,500 71
Miscellaneous income.....	167 76
	<hr/>
	\$59,324 02
Less operating expenses	25,854 84
	<hr/>
Net miscellaneous income	\$33,469 18

INCOME ACCOUNT. (For 12 months ending December 31, 1892.)

Gross earnings from operation.....	\$137,051 66	
Less operating expenses	63,608 02	
	<hr/>	
Total income		\$73,443 64
Deductions from income:		
Interest on funded debt accrued during year.....	\$29,280 00	
Interest and discount on floating debt paid during year.....	3,916 67	
Taxes.....	4,247 30	
Other deductions	2,462 47	
	<hr/>	
Total deductions from income.....		39,906 44
	<hr/>	
Net income		\$33,537 20

INCOME ACCOUNT. (For 6 months ending June 30, 1893.)

Gross earnings from operation	\$59,324 02	
Less operating expenses.....	23,838 26	
	<hr/>	
Total income		\$35,485 76
Deductions from income:		
Interest on funded debt accrued during six months.....	\$14,640 00	
Taxes.....	2,016 58	
Other deductions	4,942 51	
	<hr/>	
Total deductions from income.....		21,599 09
	<hr/>	
Net income		\$13,886 67

GENERAL BALANCE SHEET. (December 31, 1892.)

Assets.		Liabilities.	
Cost of road.....	\$600,520 73	Capital stock	\$80,000 00
Cost of equipment.....	89,199 16	Funded debt.....	488,000 00
Lands owned.....	9,667 94	Floating debt.....	6,052 33
Cash items.....	26,277 41	Accrued interest on funded debt not yet payable.....	4,392 00
Materials and supplies, etc....	10,496 17	Surplus from operation to date	157,717 08
Total	\$736,161 41	Total	\$736,161 41

GENERAL BALANCE SHEET. (June 30, 1893.)

Assets.		Liabilities.	
Cost of road.....	\$605,343 25	Capital stock	\$480,000 00
Cost of equipment.....	89,319 15	Funded debt.....	488,000 00
Lands owned.....	9,985 44	Floating debt.....	12,279 75
Cash items.....	29,307 97	Accrued interest on funded debt not yet payable.....	7,320 00
Materials and supplies, etc....	8,830 41		
Deficit from operation.....	244,813 73		
Total	\$987,599 75	Total	\$987,599 75

FINANCIAL OPERATIONS FOR THE YEAR ENDING DECEMBER 31, 1892.

Resources.		Appropriation of Resources.	
Net income from operation...	\$69,196 34	Interest on funded debt paid.	\$71,370 00
Net amount realized from bonds issued.....	297,000 00	Other interest paid.....	3,916 67
Net amount decrease of cash assets.....	66,125 91	Taxes.....	4,247 30
Total	\$432,322 25	Reduction of floating debt...	347,000 00
		Permanent improvements and equipments	5,788 28
		Total.....	\$432,322 25

FINANCIAL OPERATIONS FOR THE SIX MONTHS ENDING JUNE 30, 1893.

Resources.		Appropriation of Resources.	
Net income from operation...	\$33,469 18	Interest on funded debt paid.	\$14,640 00
Net amount decrease of cash assets.....	447 41	Taxes.....	2,016 58
Total	\$33,916 59	Dividends.....	12,000 00
		Permanent improvements and equipment	4,942 51
		Other expenditures (real estate).....	317 50
		Total	\$33,916 59

OPERATING EXPENSES. (For 12 months ending December 31, 1892.)

Items.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of way and structures:			
Repairs of roadway	\$4,704 41	\$4,704 42	\$9,408 83
Repairs of bridges and culverts	437 78	437 78	875 56
Repairs of fences, road-crossings, signs, and cattle guards	51 64	51 64	103 28
Repairs of buildings	547 82		547 82
Repairs of docks and wharves		686 60	686 60
General repairs	475 09	475 10	950 19
Repairs of tunnel	861 40	861 39	1,722 79
Totals	\$7,078 14	\$7,216 93	\$14,295 07
Maintenance of equipment:			
Repairs and renewals of locomotives	\$390 90	\$390 90	\$781 80
Repairs and renewals of passenger cars	618 39		618 39
Repairs and renewals of freight cars		1,093 28	1,093 28
Repairs and renewals of ferry-boats, tugs, floats, and barges	338 80	338 81	677 61
Shop machinery, tools, etc.	144 99	144 99	289 98
Other expenses	14 00		14 00
Totals	\$1,507 08	\$1,967 98	\$3,475 06
Conducting transportation:			
Wages of enginemen, firemen, and round-housemen	\$2,270 52	\$2,270 53	\$4,541 05
Fuel for locomotives	1,569 44	1,569 45	3,138 89
Water supply for locomotives	28 12	28 13	56 25
Wages of other trainmen	2,721 56	2,721 56	5,443 12
All other train supplies	361 09	361 09	722 18
Wages of switchmen, flagmen, and watchmen	358 36	358 37	716 73
Expense of telephone	239 16	239 16	478 32
Wages of station agents, clerks, and laborers	6,677 84	6,677 84	13,355 68
Station supplies	593 70	593 70	1,187 40
Loss and damage		76 15	76 15
Injuries to persons	6,706 30		6,706 30
Barges, floats, tugs, ferry-boats, expenses of, including wages, fuel, and supplies	530 62	530 63	1,061 25
Other expenses	949 84	949 84	1,899 68
Totals	\$23,006 55	\$16,376 45	\$39,383 00
General expenses:			
Salaries of officers	\$2,266 00	\$2,266 00	\$4,532 00
General office expenses and supplies	135 00	135 00	270 00
Advertising	152 75	152 75	305 50
Legal expenses	600 00	600 00	1,200 00
Other general expenses	73 69	73 70	147 39
Taxes	2,123 65	2,123 65	4,247 30
Totals	\$5,351 09	\$5,351 10	\$10,702 19
Recapitulation of expenses:			
Maintenance of way and structures	\$7,078 14	\$7,216 93	\$14,295 07
Maintenance of equipment	1,507 08	1,967 98	3,475 06
Conducting transportation	23,006 55	16,376 45	39,383 00
General expenses	5,351 09	5,351 10	10,702 19
Grand totals	\$36,942 86	\$30,912 46	\$67,855 32

OPERATING EXPENSES. (For 6 months ending June 30, 1893.)

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of way and structures:			
Repairs of roadway.....	\$1,369 74	\$1,369 73	\$2,739 47
Repairs of bridges and culverts.....	85 24	85 25	170 49
Repairs of fences, road-crossings, signs, and cattle guards.....	7 17	7 18	14 35
Repairs of buildings.....	131 53	131 54	263 07
Repairs of docks and wharves.....	53 45	53 45	106 90
General repairs.....	105 34	105 35	210 69
Repairs of tunnel.....	9 12	9 13	18 25
Repairs of Singley's ferry approaches.....	58 83	58 84	117 67
Totals.....	\$1,820 42	\$1,820 47	\$3,640 89
Maintenance of equipment:			
Repairs and renewals of locomotives.....	\$388 25	\$388 25	\$776 50
Repairs and renewals of passenger cars.....	445 86		445 86
Repairs and renewals of freight cars.....		68 78	68 78
Repairs and renewals of ferry-boats, tugs, floats, and barges.....	82 48	82 49	164 97
Shop machinery, tools, etc.....	62 36	62 36	124 72
Other expenses.....	15 20	15 21	30 41
		63 38	63 38
Totals.....	\$994 15	\$680 47	\$1,674 62
Conducting transportation:			
Wages of enginemen, firemen, and round-housemen.....	\$1,131 97	\$1,131 97	\$2,263 94
Fuel for locomotives.....	1,112 88	1,112 88	2,225 76
Water supply for locomotives.....	25 00	25 00	50 00
Wages of other trainmen.....	1,338 77	1,338 78	2,677 55
All other train supplies.....	132 63	132 64	265 27
Wages of switchmen, flagmen, and watchmen.....	121 77	121 78	243 55
Expense of telephone.....	213 87	213 88	427 75
Wages of station agents, clerks, and laborers.....	2,516 28	2,516 27	5,032 55
Station supplies.....	11 22	11 23	22 45
Loss and damage.....		53 25	53 25
Barges, floats, tugs, ferry-boats, expenses of, including wages, fuel, and supplies.....	391 52	391 53	783 05
Other expenses.....	485 03	485 04	970 07
Totals.....	\$7,480 94	\$7,534 25	\$15,015 19
General expenses:			
Salaries of officers.....	\$1,250 00	\$1,250 00	\$2,500 00
Advertising.....	99 80	99 80	199 60
Rents of buildings, tracks, yards, and terminals.....	12 50	12 50	25 00
Legal expenses.....	450 00		450 00
Stationery and printing.....	112 86	112 87	225 73
Other general expenses.....	53 61	53 62	107 23
Taxes.....	1,008 29	1,008 29	2,016 58
Totals.....	\$2,987 06	\$2,537 08	\$5,524 14
Recapitulation of expenses:			
Maintenance of way and structures.....	\$1,820 42	\$1,820 47	\$3,640 89
Maintenance of equipment.....	994 15	680 47	1,674 62
Conducting transportation.....	7,480 94	7,534 25	15,015 19
General expenses.....	2,987 06	2,537 08	5,524 14
Grand totals.....	\$13,282 57	\$12,572 27	\$25,854 84

EARNINGS FROM OPERATION. (For 12 months ending December 31, 1892.)

Item.	Actual Earnings.
Passenger revenue	\$42,007 79
Mail	2,468 40
Express	737 99
Total passenger earnings.....	\$45,214 18
Freight revenue.....	84,261 15
Total passenger and freight earnings	\$129,475 33
Other earnings from operation:	
Rentals of buildings, tracks, yards, and terminals	2,074 86
Other sources	877 09
Storage	156 81
Wharfage	4,467 57
Total gross earnings from operation	\$137,051 66

EARNINGS FROM OPERATION. (For 6 months ending June 30, 1893.)

Item.	Actual Earnings.
Passenger revenue	\$16,915 59
Mail	1,179 20
Express	330 00
Total passenger earnings.....	\$18,424 79
Freight revenue.....	36,024 59
Total passenger and freight earnings	\$54,449 38
Other earnings from operation:	
Rentals of buildings, tracks, yards, and terminals	1,017 50
Miscellaneous	167 76
Storage	239 37
Wharfage earnings	1,949 30
Ferry-boat earnings.....	1,500 71
Total gross earnings from operation	\$59,324 02

PASSENGER, FREIGHT, AND TRAIN MILEAGE. (For 12 months ending December 31, 1892.)

Item.	Tonnage, Passengers, Etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue	51,845	
Average distance carried—miles.....	20	
Total passenger revenue.....		\$42,007 79
Amount received from each passenger		81
Average receipts per passenger per mile.....		04
Passenger earnings per mile of road		1,680 31
Freight traffic:		
Number of tons carried of freight earning revenue (not including lumber, etc.)	27,334	
Passenger and freight:		
Passenger and freight earnings.....		126,268 94
Passenger and freight earnings per mile of road		4,208 96
Expense per mile of road		2,261 51
Total earnings per mile of road, including mails, express, etc.		4,568 38
Train mileage:		
Miles run by passenger trains	36,000	
Miles run by freight trains	30,890	
Miles run by mixed trains.....	2,760	
Total mileage trains earning revenue.....	69,650	

PASSENGER, FREIGHT, AND TRAIN MILEAGE. (For 6 months ending June 30, 1893.)

Item.	Tonnage, Passengers, Etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue.....	21,729	
Average distance carried—miles.....	19½	
Total passenger revenue.....		\$16,915 59
Amount received from each passenger.....		77.85
Average receipts per passenger per mile.....		03.99
Passenger earnings per train mile.....		676 62
Freight traffic:		
Number of tons carried of freight earning revenue (not including lumber, etc.).....	7,671	
Total freight revenue.....		36,024 59
Passenger and freight:		
Passenger and freight earnings.....		52,940 18
Passenger and freight earnings per mile of road.....		1,764 67
Expense per mile of road.....		861 49
Total earnings per mile of road, including mails, express, etc.....		1,977 46
Train mileage:		
Miles run by passenger trains.....	14,600	
Miles run by freight trains.....	14,864	
Miles run by mixed trains.....	2,700	
Total mileage trains earning revenue.....	32,164	

EMPLOYÉS AND SALARIES.

Class.	Number.	Average Daily Compensation.
General officers.....	3	\$5 00
General office clerks.....	1	2 00
Station agents.....	12	2 25
Other station men.....	3	2 25
Enginemen.....	4	3 00
Firemen.....	4	1 85
Conductors.....	3	3 15
Other trainmen.....	6	2 20
Machinists.....	1	2 50
Carpenters.....	1	3 00
Section foremen.....	2	2 50
Other trackmen.....	12	2 00
Switchmen, flagmen, and watchmen.....	3	2 00
All other employés and laborers.....	16	2 00

CONTRACTS, AGREEMENTS, ETC.

Contract between the Eel River and Eureka Railroad Company and Pacific Lumber Company to transport lumber, shingles, shakes, etc., from Junction Station, on Eel River and Eureka Railroad, to South Bay, loaded on cars of the Pacific Lumber Company, for \$1 per 1,000 feet; to take not less than four cars at any one time, and return empty cars without charge. Also, to transport material for constructing and equipping their mills and railroad (loaded on their cars) from South Bay to Junction Station, at 50 cents per ton. Contract, twenty years from August 4, 1883.

Contract with the Milford Land and Lumber Company to transport lumber on their cars from Salmon Creek Mill to their wharf at South Bay, at 65 cents per 1,000 feet. Contract, ten years from November 2, 1885.

Contract with Eel River Valley Lumber Company to transport lumber from Newburg to South Bay, on their cars, at \$1 per 1,000 feet.

United States mail contract, under laws for regulation of railroad mail service.

Agreement with Wells, Fargo & Co., to carry express and treasure boxes. Agreement from year to year.

FREIGHT TRAFFIC MOVEMENT. (For 12 months ending December 31, 1892.)

Commodity.	Originating on this Road—Tons.
Products of agriculture:	
Grain	2,112
Hay	1,249
Fruit and vegetables	773
.....	1,632
Products of animals:	
Live stock	194
Poultry, game, and fish	730
Wool	271
Products of mines: Gravel	12,025
Products of forest:	
Lumber	31,307,172 feet.
Shingles	112,699,110
Shakes	6,889,279
Merchandise	6,584
Miscellaneous: other commodities not mentioned above	1,764
Total tonnage	27,334

FREIGHT TRAFFIC MOVEMENT. (For 6 months ending June 30, 1893.)

Commodity.	Originating on this Road—Tons.
Products of agriculture:	
Grain	528
Hay	362
Fruit and vegetables	138
Products of animals:	
Live stock	178
Poultry, game, and fish	337
Wool	91
Butter	784
Products of mines: Gravel	429
Products of forest:	
Wood	163
Lumber	15,946,449 feet.
Pickets	72,000
Shakes	2,198,430
Shingles	52,215,650
Merchandise	3,690
Miscellaneous: other commodities not mentioned above	971
Total tonnage	7,671

MILEAGE OF ROAD OPERATED.

Length of single track, 25 miles; length of yard track, sidings, and spurs, 5 miles; aggregate length of all tracks, 30 miles.

CONSUMPTION OF FUEL BY LOCOMOTIVES.

From December 31, 1891, to June 30, 1893, the locomotives consumed 2,517 cords of wood; average cost at distributing point, \$3 75 per cord.

CHARACTERISTICS OF ROAD.

Bridges: Iron, 1; wooden, 1.

Trestles: Aggregate length, 2,504 feet. (2,010 feet filled in during 1893.)

Tunnels: 1; length, 1,945 feet.

Gauge of track: 4 feet 8½ inches.

Telephone: 25 miles of line; owned by the company.

Number of stations on all roads operated by this company in California: 9.

DESCRIPTION OF EQUIPMENT.

	Total.
Locomotives:	
Passenger	1
Freight	1
Switching	1
Total	3
Cars in passenger service:	
First-class passenger cars	3
Second-class passenger cars	4
Combination passenger cars	2
Total	9
Cars in freight service:	
Box cars	10
Flat cars	28
Total	38
Total cars owned	47
Cars used for other companies:	
Pacific Lumber Company	80
Eel River Valley Lumber Company	35

DATE WHEN THE ROAD WAS OPENED FOR PUBLIC USE.

From Burnells to South Bay	August 29, 1884.
From South Bay to Eureka	July 16, 1885.

STATE OF CALIFORNIA, }
 County of Humboldt. } ss.

John M. Vance, President of the Eel River and Eureka Railroad Company, and T. R. Lever, Secretary of the said company, being duly sworn, depose and say, that the statements, tables, and answers contained in the foregoing have been compiled and prepared by the proper officers of said company, from its books and records, under their direction and supervision; that they, the deponents, have carefully examined the same, and that as now furnished by them to the Board of Railroad Commissioners, they are, in all respects, just, correct, complete, and true, to the best of their knowledge, and, as they verily believe, the same contain a true and full exhibit of the condition and affairs of said company on the thirty-first day of December, 1892, and the thirtieth day of June, 1893.

JOHN M. VANCE,
 President.
 T. R. LEVER,
 Secretary.

Subscribed and sworn to before me, this twenty-fourth day of July, 1893.

G. R. GEORGESON,
 Notary Public.

VISALIA AND TULARE RAILROAD COMPANY.

[For 18 months ending June 30, 1893.]

HISTORY.

1. Name of common carrier making this report: The Visalia and Tulare Railroad Company.
2. Date of organization: November 4, 1887.
3. Under what laws organized: Laws of the State of California.

ORGANIZATION.

Names of Directors.	Post Office Address.
Jasper Harrell	Visalia.
A. J. Harrell	Visalia.
V. D. Knapp	Visalia.
G. A. Botsford	Visalia.
J. Goldman	San Francisco.
T. H. Thompson	Alameda.
H. P. Perkins	Visalia.

Date of expiration of terms of Directors: June 4, 1894.

Number of stockholders at date of last election: 9.

Date of last meeting of stockholders for election of Directors: June 6, 1893.

Post Office address of general and operating office: Visalia, California.

OFFICERS.

Title.	Name.	Location of Office.
President	Jasper Harrell	Visalia.
Vice-President	J. Goldman	San Francisco.
Secretary	A. J. Harrell	Visalia.
Treasurer	Harrell & Son, bankers	Visalia.
General Manager	A. J. Harrell	Visalia.
General Passenger Agent	T. H. Thompson	Alameda.

PROPERTY OPERATED.

The Visalia and Tulare Railroad is operated by main line from Visalia to Tulare, a distance of 11½ miles.

CAPITAL STOCK.

The total par value of authorized capital stock is \$100,000, divided into shares of a par value of \$100 each. The total amount issued and outstanding is \$50,000.

Manner of payment for capital stock: Number of shares issued, 1,000; total cash realized, \$50,000, collected in five assessments of 10 per cent each.

FUNDED DEBT.

In 1888 an issue of first mortgage bonds to the amount of \$50,000 was authorized, and which amount is now outstanding. The cash realized was \$49,000. The bonds mature in 1893, and bear 7 per cent interest, payable yearly. The interest accruing during the eighteen months covered by this report amounted to \$5,250, which was paid in full.

As security for the bonds, a lien was given upon the roadway from Visalia to Tulare, and also upon the entire equipment.

FLOATING DEBT AND CURRENT LIABILITIES. (December 31, 1892.)

Loans and bills payable \$11,992 11

FLOATING DEBT AND CURRENT LIABILITIES. (June 30, 1893.)

Loans and bills payable \$12,905 16

RECAPITULATION. (December 31, 1892.)

Account.	Total Amounts.	Miles of Road.	Amount per Mile of Road.
Capital stock	\$50,000 00	} 11½ }	\$4,347 82+
Funded debt	50,000 00		4,347 82+
Floating debt, balance of	11,992 11		1,042 79
Totals	\$111,992 11	11½	\$9,738 43+

RECAPITULATION. (June 30, 1893.)

Account.	Total Amounts.	Miles of Road.	Amount per Mile of Road.
Capital stock	\$50,000 00	} 11½ }	\$4,347 82+
Funded debt	50,000 00		4,347 82+
Floating debt, balance of	12,905 16		1,122 18
Totals	\$112,905 16	11½	\$9,817 82+

PERMANENT IMPROVEMENTS FOR THE YEAR ENDING DECEMBER 31, 1892.

Item.	Expenditures Included in Operating Expenses.	Expenditures Not Included in Operating Expenses.
Construction:		
Real estate		\$1,501 50
Bridges and trestles	\$1,616 37	
Rails	244 14	
Ties	545 05	
Switches	89 55	
Engineering expenses	12 00	
Total construction	\$2,507 11	\$1,501 50
Equipment:		
Locomotive repairs	606 37	
Grand total construction and equipment	\$3,113 48	\$1,501 50

Total net additions to property, \$4,614 98.

PERMANENT IMPROVEMENTS FOR THE SIX MONTHS ENDING JUNE 30, 1893.

Item.	Expenditures Included in Operating Expenses.
Construction:	
Bridges and trestles	\$562 82
Equipment:	
Locomotive repairs	33 36
Passenger car repairs	36 25
Total construction and equipment	\$632 43

COST OF ROAD AND EQUIPMENT. (June 30, 1893.)

Item.	Total Cost to Dec. 31, 1892.	Net Additions During 6 Months.	Total Cost to June 30, 1893.
Construction:			
Real estate	\$1,601 50		\$1,601 50
Grading and bridge and culvert masonry (all construction included)	91,054 66		91,054 66
Bridges and trestles		\$562 82	562 82
Buildings, furniture, and fixtures	2,612 12		2,612 12
Total construction	\$95,268 28	\$562 82	\$95,831 10
Equipment:			
Locomotive repairs		\$33 36	\$33 36
Passenger car repairs		36 25	36 25
Sleeping, parlor, and dining cars (all rolling stock included)	\$21,150 78		21,150 78
Total equipment	\$21,150 78	\$69 61	\$21,220 39
Grand total cost construction and equipment	\$116,419 06	\$632 43	\$117,051 49

INCOME ACCOUNT. (For 12 months ending December 31, 1892.)

Gross earnings from operation	\$20,146 89	
Less operating expenses	14,767 48	
Income from operation		\$5,379 41
Deductions from income:		
Interest on funded debt accrued during year	\$3,500 00	
Interest and discount on floating debt paid during year	996 67	
Taxes	965 42	
Rentals	400 00	
Legal expenses	1,274 95	
Expense account	1,038 30	
Total deductions from income		8,175 34
Deficit		\$2,795 93
Surplus on December 31, 1891		\$7,480 71
Deficit for year ending December 31, 1892		2,795 93
Surplus on December 31, 1892		\$4,684 78

INCOME ACCOUNT. (For 6 months ending June 30, 1893.)

Gross earnings from operation	\$7,683 00	
Less operating expenses	5,650 36	
Income from operation		\$2,032 64
Deductions from income:		
Interest on funded debt accrued during six months	\$1,750 00	
Interest and discount on floating debt paid during six months	545 69	
Rentals	150 00	
Legal expenses	500 00	
Total deductions from income		2,945 69
Deficit		\$913 05
Surplus on December 31, 1892		\$4,684 78
Deficit for six months ending June 30, 1893		913 05
Surplus on June 30, 1893		\$3,771 73

EARNINGS FROM OPERATION. (For 12 months ending December 31, 1892.)

Item.	Actual Earnings.
Passenger revenue	\$16,482 30
Extra baggage and storage	143 00
Total passenger earnings	\$16,625 30
Freight revenue	1,987 56
Total passenger and freight earnings	\$18,612 86
Rentals of buildings, tracks, yards, and terminals	1,534 03
Total gross earnings from operation	\$20,146 89

EARNINGS FROM OPERATION. (For 6 months ending June 30, 1893.)

Item.	Actual Earnings.
Passenger revenue	\$6,812 15
Extra baggage and storage	78 35
Total passenger earnings	\$6,890 50
Freight revenue	773 00
Total passenger and freight earnings	\$7,663 50
Other earnings from operation	19 50
Total gross earnings from operation	\$7,683 00

OPERATING EXPENSES. (For 12 months ending December 31, 1892.)

Item.	Total.
Maintenance of way and structures:	
Repairs of roadway	\$7,342 97
Repairs of bridges and culverts	1,616 37
Other expenses	200 00
Total	\$9,159 34
Maintenance of equipment:	
Repairs and renewals of locomotives	\$606 37
Repairs and renewals of passenger cars	365 77
Other expenses	300 00
Total	\$1,272 14
Conducting transportation:	
Wages of enginemen, firemen, and roundhousemen	\$2,676 67
Water supply for locomotives	120 00
All other train supplies	1,040 25
Other expenses	64 08
Total	\$3,901 00
General expenses:	
Salaries of officers	\$360 00
Rents of buildings, tracks, yards, and terminals	400 00
Legal expenses	1,274 95
Stationery and printing	75 00
Total	\$2,109 95
Recapitulation of expenses:	
Maintenance of way and structures	\$9,159 34
Maintenance of equipment	1,272 14
Conducting transportation	3,901 00
General expenses	2,109 95
Grand total	\$16,442 43

OPERATING EXPENSES. (For 6 months ending June 30, 1893.)

Item.	Total.
Maintenance of way and structures:	
Repairs of roadway	\$2,155 43
Repairs of bridges and culverts	562 82
Total	\$2,718 25
Maintenance of equipment:	
Repairs and renewals of locomotives	\$33 36
Repairs and renewals of passenger cars	36 25
Total	\$69 61
Conducting transportation:	
Wages of enginemen, firemen, and roundhousemen	\$1,347 98
Fuel for locomotives	630 00
Water supply for locomotives	60 00
All other supplies for locomotives	23 40
Wages of other trainmen	518 70
All other train supplies	74 61
Total	\$2,654 75
General expenses:	
Salaries of clerks	\$180 00
Rents of buildings, tracks, yards, and terminals	150 00
Legal expenses	500 00
Stationery and printing	27 75
Total	\$857 75
Recapitulation of expenses:	
Maintenance of way and structures	\$2,718 25
Maintenance of equipment	69 61
Conducting transportation	2,654 75
General expenses	857 75
Grand total	\$6,300 36

GENERAL BALANCE SHEET. (December 31, 1892.)

Assets.		Liabilities.	
Cost of road	\$91,054 66	Capital stock	\$50,000 00
Cost of equipment	21,150 78	Funded debt	50,000 00
Buildings	2,612 12	Floating debt	11,992 11
Bills receivable	257 83	Surplus from operation	5,183 07
Lands owned	1,601 50		
Deficit from operation	498 29		
Total	\$117,175 18	Total	\$117,175 18

GENERAL BALANCE SHEET. (June 30, 1893.)

Assets.		Liabilities.	
Cost of road	\$91,054 66	Capital stock	\$50,000 00
Cost of equipment	21,150 78	Funded debt	50,000 00
Buildings	2,612 12	Floating debt	12,905 16
Bills receivable	257 83	Surplus from operation	4,684 78
Lands owned	1,601 50		
Deficit from operation	913 05		
Total	\$117,589 94	Total	\$117,589 94

PASSENGER, FREIGHT, AND TRAIN MILEAGE. (For 12 months ending December 31, 1892.)

	Tonnage, Number Pas- sengers, Etc.	Revenue and Rates.
Passenger traffic:		
Number passengers carried earning revenue	31,053	
Number of passengers carried one mile	357,109½	
Average distance carried—miles	11½	
Total passenger revenue		\$16,482 30
Average receipts per passenger per mile		04+
Passenger earnings per mile of road		1,433 24+
Freight traffic:		
Number of tons carried of freight earning revenue	1,685½	
Number of tons carried one mile	19,383¼	
Average distance haul of one ton—miles	11½	
Total freight revenue		1,987 56
Amount received for each ton of freight		1 18+
Average receipts per ton per mile		10+
Passenger and freight:		
Passenger and freight earnings		18,469 86
Passenger and freight earnings per mile of road		1,606 07
Total earnings per mile of road, including mails, express, etc.		1,618 50
Average number of tons of freight in each loaded car	10	

PASSENGER, FREIGHT, AND TRAIN MILEAGE. (For 6 months ending June 30, 1893.)

	Tonnage, Number Pas- sengers, Etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue	13,269	
Number of passengers carried one mile	152,593½	
Average distance carried—miles	11½	
Total passenger revenue		\$6,812 15
Average receipts per passenger per mile		04
Passenger earnings per mile of road		592 36
Freight traffic:		
Number of tons carried of freight earning revenue	647+	
Number of tons carried one mile	7,440½	
Average distance haul of one ton—miles	11½	
Total freight revenue		773 00
Amount received for each ton of freight		1 19+
Average receipts per ton per mile		10+
Freight earnings per mile of road		67 21+
Passenger and freight:		
Passenger and freight earnings		7,585 15
Passenger and freight earnings per mile of road		659 57
Total earnings per mile of road, including mails, express, etc.		666 38
Average number of tons of freight in each loaded car	10	

FINANCIAL OPERATIONS FOR THE YEAR ENDING DECEMBER 31, 1892.

Resources.		Appropriation of Resources.	
Net income from operation ...	\$5,379 41	Interest on funded debt paid ..	\$3,500 00
Net increase floating debt	4,181 93	Other interest paid	996 67
Bills receivable	115 50	Taxes	965 42
		Rentals	400 00
		Land purchased	1,501 50
		Expense account	1,038 30
		Legal expenses	1,274 95
Total	\$9,676 84	Total	\$9,676 84

FINANCIAL OPERATIONS FOR THE SIX MONTHS ENDING JUNE 30, 1893.

Resources.		Appropriation of Resources.	
Net income from operation...	\$2,032 64	Interest on funded debt paid..	\$1,750 00
Net increase floating debt	913 05	Other interest paid	545 69
		Rentals	150 00
		Legal expenses	500 00
Total	\$2,945 69	Total	\$2,945 69

EMPLOYÉS AND SALARIES. (For 12 months ending December 31, 1892.)

Class.	Number.	Total Yearly Compensation.	Average Daily Compensation.
General officers	1	\$360 00	\$1 00
Enginemen	1	1,216 67	3 33 $\frac{2}{3}$
Firemen	1	730 00	2 00
Conductors	1	1,040 25	2 85
Section foremen	1	842 40	2 70
Other trackmen	3	624 00	2 00
Total	8	\$4,813 32	-----

EMPLOYÉS AND SALARIES. (For 6 months ending June 30, 1893.)

Class.	Number.	Total 6 Months Compensation.	Average Daily Compensation.
General officers	1	\$180 00	\$1 00
Enginemen	1	603 34	3 33 $\frac{2}{3}$
Firemen	1	362 00	2 00
Conductors	1	518 70	2 85
Other shopmen	1	362 00	2 00
Section foremen	1	418 50	2 70
Other trackmen	6	1,860 00	2 00
Total	12	\$4,304 54	-----

FREIGHT TRAFFIC MOVEMENT. (For 12 months ending December 31, 1892.)

Commodity.	Originating on this Road—Tons.	Received from Connecting Roads—Tons.
Products of agriculture:		
Grain	20	-----
Flour	160	-----
Other mill products	20	-----
Fruit and vegetables	210	-----
Products of animals: Dressed meats	3	-----
Products of forest: Lumber		110
Manufactures:		
Castings and machinery		30
Cement, brick, and lime	330	-----
Wagons, carriages, tools, etc.		10
Household goods and furniture		10
Merchandise	515	222 $\frac{1}{2}$
Miscellaneous; other commodities not mentioned above	25	20
Total tonnage	1,283	402 $\frac{1}{2}$

The entire freight movement over the road was 1,685 $\frac{1}{2}$ tons.

FREIGHT TRAFFIC MOVEMENT. (For 6 months ending June 30, 1893.)

Commodity.	Originating on this Road—Tons.	Received from Connecting Roads—Tons.
Products of agriculture:		
Grain	10	
Flour	50	
Hay	10	
Products of animals: Dressed meats	2	
Products of forest: Lumber	174	
Manufactures:		
Petroleum and other oils		20
Cement, brick, and lime	90	
Merchandise		150
Miscellaneous: other commodities not mentioned above	141	
Total tonnage	477	170

The entire freight movement over the road was 647 tons.

CHARACTERISTICS OF ROAD.

Visalia to Tulare: Length, 11½ miles; number of curves, 4; aggregate length of curved line, 1½ miles; length of straight track, 10 miles; length of level track, 11½ miles.
Trestles: Aggregate length, 150 feet.
Gauge of track: 4 feet 8½ inches.
Number of stations on all roads operated by this company in California: 2.

DATE WHEN THE ROAD WAS OPENED FOR PUBLIC USE.

The road from Visalia to Tulare was opened to the public on October 22, 1888.

STATE OF CALIFORNIA,)
County of Tulare.) ss.

A. J. Harrell, General Manager of the Visalia and Tulare Railroad Company, being duly sworn, deposes and says, that the statements, tables, and answers contained in the foregoing have been compiled and prepared by the proper officers of said company, from its books and records, under his direction and supervision; that he, the deponent, has carefully examined the same, and that as now furnished by him to the Board of Railroad Commissioners, they are, in all respects, just, correct, complete, and true, to the best of his knowledge, and, as he verily believes, the same contain a true and full exhibit of the condition and affairs of said company on the thirty-first day of December, 1892, and the thirtieth day of June, 1893.

A. J. HARRELL,
General Manager.

Subscribed and sworn to before me, this seventeenth day of July, 1893.

GEORGE W. SMALL,
Notary Public.

VISALIA RAILROAD COMPANY.

[For 18 months ending June 30, 1893.]

HISTORY.

1. Name of common carrier making this report: Visalia Railroad Company.
2. Date of organization: May 24, 1874.
3. Under what laws organized: Laws of the State of California.

ORGANIZATION.

Names of Directors.	Post Office Address.
R. E. Hyde.....	..... Visalia.
E. Jacob.....	..... Visalia.
S. Sweet.....	..... San Francisco.
L. C. Hyde.....	..... Visalia.
S. Mitchell.....	..... Visalia.

Date of expiration of terms of Directors: June 13, 1894.

Total number of stockholders at date of last election: 5.

Date of last meeting of stockholders for election of Directors: June 10, 1893.

Post Office address of general and operating office: Visalia.

OFFICERS.

Title.	Name.	Location of Office.
President.....	R. E. Hyde.....	..... Visalia.
Vice-President.....	E. Jacob.....	..... Visalia.
Secretary.....	Julius Levy.....	..... Visalia.
Treasurer.....	E. Jacob.....	..... Visalia.

CAPITAL STOCK.

The total par value of authorized capital stock is \$100,000, divided into shares of a par value of \$100 each. The total amount issued and outstanding is \$82,025. As the length of the road operated is $8\frac{1}{3}$ miles, the capital stock issued is at the rate of \$14,886 per mile.

Manner of payment for capital stock: Number of shares issued, 1,000; total cash realized, \$82,025.

PERMANENT IMPROVEMENTS FOR THE EIGHTEEN MONTHS.

Item.	Expenditures Included in Operating Expenses.
Construction:	
Rails.....	\$5,980 54
Ties.....	647 43
Equipment: Locomotive repairs.....	468 34
Total construction and equipment.....	\$7,096 31

COST OF ROAD AND EQUIPMENT.

The cost of road and equipment to December 31, 1892, was, for construction, \$108,231 45; for equipment, \$36,001 50; total, \$150,860 92. Net additions during eighteen months ending June 30, 1893, construction, \$6,627 97; equipment, \$468 34. Cost of road and equipment to June 30, 1893, construction, \$114,859 42; equipment, \$36,469 84; total, \$151,329 26. This is at the rate of \$18,787 per mile of road operated.

STOCK OWNED.

By Whom.	Par Value.
R. E. Hyde.....	\$43,500 00
S. Sweet.....	31,100 00
E. Jacob.....	24,700 00
L. C. Hyde.....	400 00
S. Mitchell.....	300 00
Total.....	\$100,000 00

INCOME ACCOUNT. (For 12 months ending December 31, 1892.)

Gross income from operation :		
Fares.....	\$9,359 95	
Freights.....	11,436 71	
Express.....	1,015 00	
Mail.....	196 48	
		\$22,008 14
Less operating expenses:		
Taxes.....	\$1,131 00	
Salaries.....	9,196 00	
Other salaries.....	825 00	
Cars to Southern Pacific Railroad.....	1,008 87	
Fuel.....	2,500 00	
Station supplies.....	1,000 00	
		15,660 87
Total income from operation.....		\$6,347 27
Less taxes.....		1,131 00
Net income.....		\$5,216 27

INCOME ACCOUNT. (For 6 months ending June 30, 1893.)

Gross income from operation :		
Fares.....	\$4,322 15	
Freights.....	5,197 68	
Express.....	507 50	
Mail.....	98 24	
		\$10,125 57
Less operating expenses :		
Salaries.....	\$4,598 00	
Other salaries.....	425 00	
Cars to Southern Pacific Railroad.....	431 00	
Fuel.....	1,250 00	
Station supplies.....	500 00	
		7,204 00
Net income from operation.....		\$2,921 57

GENERAL BALANCE SHEET. (December 31, 1892.)

Assets.		Liabilities.	
Cost of road.....	\$114,859 42	Capital stock.....	\$82,025 00
Cost of equipment.....	36,001 50	Profit and loss.....	76,335 92
Lands owned.....	3,500 00		
Cash items.....	4,000 00		
Total.....	\$158,360 92	Total.....	\$158,360 92

GENERAL BALANCE SHEET. (June 30, 1893.)

Assets.		Liabilities.	
Cost of road	\$114,859 42	Capital stock	\$82,025 00
Cost of equipment	36,469 84	Profit and loss	76,804 26
Lands owned	3,500 00		
Materials and supplies	4,000 00		
Total	\$158,829 26	Total	\$158,829 26

EARNINGS FROM OPERATION. (For 12 months ending December 31, 1892.)

Item.	Actual Earnings.
Passenger revenue	\$9,359 95
Mail	196 48
Express	1,015 00
Total passenger earnings	\$10,571 43
Freight revenue	11,436 71
Total gross earnings from operation	\$22,008 14

EARNINGS FROM OPERATION. (For 6 months ending June 30, 1893.)

Item.	Actual Earnings.
Passenger revenue	\$4,322 15
Mail	98 24
Express	507 50
Total passenger earnings	\$4,927 89
Freight revenue	5,197 68
Total gross earnings from operation	\$10,125 57

PASSENGER, FREIGHT, AND TRAIN MILEAGE. (For 12 months ending December 31, 1892.)

Item.	Tonnage, Number Pas- sengers, Etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue	18,720	
Average distance carried—miles	7 $\frac{1}{4}$	
Total passenger revenue		\$9,359 95
Amount received from each passenger		50
Average receipts per passenger per mile		07
Freight traffic:		
Number of tons carried of freight earning revenue	13,455	
Average distance haul of one ton—miles	7 $\frac{1}{4}$	
Total freight revenue		11,436 71
Amount received for each ton of freight		85
Average receipts per ton per mile		12
Passenger and freight:		
Passenger and freight earnings		20,796 66

PASSENGER, FREIGHT, AND TRAIN MILEAGE. (For 6 months ending June 30, 1893.)

Item.	Tonnage, Number Pas- sengers, Etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue.....	8,644	
Average distance carried—miles.....	7 $\frac{1}{3}$	
Total passenger revenue.....		\$4,322 15
Amount received from each passenger.....		50
Average receipts per passenger per mile.....		07
Freight traffic:		
Number of tons carried of freight earning revenue.....	6,115	
Average distance haul of one ton—miles.....	7 $\frac{1}{3}$	
Total freight revenue.....		5,197 68
Amount received for each ton of freight.....		85
Average receipts per ton per mile.....		12
Passenger and freight:		
Passenger and freight earnings.....		9,519 83

OPERATING EXPENSES.

Item.	For 12 Months Ending Dec. 31, 1892.	For 6 Months Ending June 30, 1893.
Conducting transportation:		
Wages of enginemen, firemen, and roundhousemen.....	\$9,196 00	\$4,598 00
Fuel for locomotives.....	2,500 00	1,250 00
Wages of other trainmen.....	825 00	425 00
Station supplies.....	1,000 00	500 00
Car mileage—balances.....	1,008 87	431 00
Totals.....	\$14,529 87	\$7,204 00

FREIGHT TRAFFIC MOVEMENT. (For 12 months ending December 31, 1892.)

Commodity.	Originating on this Road—Tons.	Received from Connecting Roads—Tons.	Total Freight Tonnage.
Products of agriculture:			
Grain.....	157 $\frac{1}{2}$		157 $\frac{1}{2}$
Flour.....		132	132
Hay.....	462		462
Fruit and vegetables.....	367	788	1,155
Products of animals:			
Live stock.....	1,362		1,362
Wool.....	363		363
Products of mines:			
Charcoal.....	100		100
Coal.....		108	108
Products of forest: Lumber.....			
		2,024	2,024
Manufactures:			
Petroleum and other oils.....		134 $\frac{1}{2}$	134 $\frac{1}{2}$
Sugar.....		163	163
Iron—pig and bloom.....		148 $\frac{1}{2}$	148 $\frac{1}{2}$
Iron and steel rails.....	249 $\frac{1}{2}$		249 $\frac{1}{2}$
Cement, brick, and lime.....		90	90
Agricultural implements.....		79	79
Wines, liquors, and beers.....		333	333
Household goods and furniture.....	60	30	90
Merchandise.....	450	2,400	2,850
Miscellaneous: other commodities not men- tioned above.....	1,530	1,924	3,454
Total tonnage.....	5,101	8,354	13,455

FREIGHT TRAFFIC MOVEMENT. (For 6 months ending June 30, 1893.)

Commodity.	Originating on this Road—Tons.	Received from Connecting Roads—Tons.	Total Freight Tonnage.
Products of agriculture:			
Grain	335		335
Hay	291		291
Fruit and vegetables	184½		184½
Products of animals:			
Live stock	697		697
Wool	300		300
Products of mines:			
Charcoal	40		40
Hard coal		47½	47½
Products of forest: Lumber		812	812
Manufactures:			
Petroleum and other oils		55	55
Sugar		11	11
Agricultural implements		97	97
Wines, liquors, and beers		155	155
Household goods and furniture	10	30	40
Merchandise	141½	1,072	1,213½
Miscellaneous: other commodities not mentioned above	1,400	195	1,595
Total tonnage	3,399	2,716	6,115

EMPLOYÉES AND SALARIES. (June 30, 1893.)

Class.	Number.	Total Yearly Compensation.	Average Daily Compensation.
General officers	3	None.	
Station agents	1	\$1,200 00	\$3 25
Enginemen	1	1,320 00	3 61
Conductors	1	900 00	2 50
Other trainmen	1	780 00	2 16
Section foremen	1	1,080 00	3 46
Other trackmen	4	3,116 00	2 50
All other employés and laborers		800 00	2 56
Total		\$9,196 00	

DESCRIPTION OF EQUIPMENT.

Locomotives, 3; combination passenger cars, 2.

MILEAGE OF ROAD OPERATED.

Length of single track, 7¼ miles; length of yard track, sidings, and spurs, 1 mile; aggregate length of all tracks, 8¼ miles.

RENEWALS OF RAILS.

New rails laid during eighteen months: steel, 249½ tons.

CONSUMPTION OF FUEL BY LOCOMOTIVES.

From December 31, 1892, to June 30, 1893, the locomotives consumed 1,027 cords of wood.

CHARACTERISTICS OF ROAD.

Bridges: Wooden, 2.

Trestles: None.

Tunnels: None.

Gauge of track: Standard.

Telegraph: 7¼ miles of line, owned and operated by the company.

Number of stations on road operated by this company: One—the terminus.

DATE WHEN THE ROAD WAS OPENED FOR PUBLIC USE.

The road of this company was opened for public business in September, 1874.

STATE OF CALIFORNIA,)
 County of Tulare. } ss.

R. E. Hyde, President of the Visalia Railroad Company, and Julius Levy, Secretary of the said company, being duly sworn, depose and say, that the statements, tables, and answers contained in the foregoing have been compiled and prepared by the proper officers of said company, from its books and records, under their direction and supervision; that they, the deponents, have carefully examined the same, and that as now furnished by them to the Board of Railroad Commissioners, they are, in all respects, just, correct, complete, and true, to the best of their knowledge, and, as they verily believe, the same contain a true and full exhibit of the condition and affairs of said company for the period named therein.

R. E. HYDE,
 President.
 JULIUS LEVY,
 Secretary.

Subscribed and sworn to before me, this nineteenth day of July, 1893.

C. J. GIDDINGS,
 Notary Public in and for Tulare County, Cal.

REPORTS OF RAILROAD COMPANIES

TO THE

BOARD OF RAILROAD COMMISSIONERS.

YEAR ENDING JUNE 30, 1894.

REPORTS OF RAILROAD COMPANIES.

SOUTHERN PACIFIC COMPANY.

HISTORY.

1. Name of common carrier making this report: Southern Pacific Company.
2. Date of organization: March 17, 1884.
3. Under laws of what Government, State, or Territory organized: Chartered by the Act of the State of Kentucky, Chap. 403, approved March 17, 1884; amended by Chap. 601, approved March 21, 1888.

ORGANIZATION.

Names of Directors.	Post Office Address.
C. P. Huntington	23 Broad Street, New York.
Thos. E. Stillman	23 Broad Street, New York.
Thos. H. Hubbard	23 Broad Street, New York.
C. F. Crocker	San Francisco.
W. H. Crocker	San Francisco.
H. E. Huntington	San Francisco.
A. N. Towne	San Francisco.
J. C. Stubbs	San Francisco.
R. J. Wilson	San Francisco.
N. T. Smith	San Francisco.
C. G. Lathrop	San Francisco.

Date of expiration of terms of Directors: April 3, 1895.

Number of stockholders at date of last election: 150.

Last meeting of stockholders for election of Directors: April 4, 1894.

Post Office address of general and operating offices: Fourth and Townsend Streets, San Francisco.

OFFICERS.

Title.	Name.	Location of Office.
President	C. P. Huntington	New York.
First Vice-President	Chas. F. Crocker	San Francisco.
Second Vice-President	A. N. Towne	San Francisco.
Third Vice-President	J. C. Stubbs	San Francisco.
Acting Vice-President and Assistant Secretary	I. E. Gates	New York.
First Assistant to the President	H. E. Huntington	San Francisco.
Second Assistant to the President	Wm. Mahl	New York.
Secretary and Controller	G. L. Lansing	San Francisco.
Treasurer	N. T. Smith	San Francisco.
Assistant Treasurer	F. H. Davis	New York.
Assistant to Treasurer	Chas. H. Redington	San Francisco.
Assistant Clerk	C. F. Krebs	Louisville.
Transfer Agent	George Watkins	New York.
Registrar of Stock	Union Trust Company	New York.
<i>Pacific System.</i>		
General Manager	A. N. Towne	San Francisco.
Assistant to General Manager	W. G. Curtis	San Francisco.
General Superintendent	J. A. Fillmore	San Francisco.
Assistant General Superintendent	R. H. Pratt	San Francisco.
Manager Lines in Oregon	R. Koehler	Portland, Or.
General Traffic Manager	R. Gray	San Francisco.
Assistant General Traffic Manager	E. Hawley	New York.
General Freight Agent	C. F. Smurr	San Francisco.
General Passenger Agent	T. H. Goodman	San Francisco.
General Auditor	E. C. Wright	San Francisco.
Chief Counsel	Wm. F. Herrin	San Francisco.

OFFICERS—Continued.

Title.	Name.	Location of Office.
<i>Atlantic System.</i>		
General Manager	J. Kruttschnitt	Houston, Texas.
Traffic Manager	J. G. Schriever	New Orleans.
General Freight Agent	H. J. Lyons	New Orleans.
General Auditor	E. M. Underhill	New Orleans.
Local Treasurer	J. B. Richardson	New Orleans.
General Passenger Agent	C. B. F. Morse	New Orleans.

PROPERTY OPERATED.

Name of Road.	Miles.	Total Miles.
<i>Railroad line represented by capital stock—</i>		
None except through ownership of stock.		
<i>Proprietary companies whose capital stock is owned by this company—</i>		
Southern Pacific Railroad of California :		
San Francisco to Tres Pinos	100.50	
Alcalde to Mojave	201.38	
Mojave to Yuma	349.75	
Carnadero to San Miguel	124.30	
Los Angeles to San Pedro	24.24	
Hillsdale to New Almaden	7.80	
Pajaro to Santa Cruz	21.20	
Aptos to Monte Vista	7.44	
San Miguel to San Luis Obispo	45.50	
Ellwood to Saugus	91.50	
Castroville to Lake Majella	19.52	
Near Martinez to Armona	193.48	
Avon to San Ramon	19.70	
Oakdale to Merced	40.60	
Fresno to Poso	104.26	
Berenda to Raymond	21.00	
Florence to Santa Ana	27.60	
Clement Junction to Santa Monica	16.27	
Studebaker to Whittier	5.90	
Long Beach to Thenard	3.80	
Stockton to Milton	30.00	
Peters to Oakdale	19.00	
Miraflores to Tustin	10.80	
Baden to San Bruno	3.67	
Santa Monica to Port Los Angeles	3.20	
Ontario to Chino	5.70	
Declez to Declezville	2.55	
Redlands Junction to Crafton	7.00	
Collis to Fresno	15.39	
Fresno to Pollasky	23.70	
Bakersfield to Asphalto	47.90	
Home Junction to Soldiers' Home	1.80	
(Motor) Shorbs to Monrovia	10.40	
Burbank to Chatsworth Park	21.30	
San Bernardino to Motor Junction	7.17	
Southern Pacific Railroad of Arizona	392.50	
Southern Pacific Railroad of New Mexico	171.06	
South Pacific Coast Railway (Narrow Gauge):		
San Francisco to Santa Cruz	80.60	
Alameda Junction to Fourteenth Street, Oakland	1.80	
Newark to Centerville	3.00	
Campbells to New Almaden	9.60	
Felton to Boulder Creek	7.30	
Junction south of Big Trees to Old Felton	1.70	
Northern Railway:		
West Oakland to Delaware Street	4.15	
West Oakland to Berrymans	5.38	
West Oakland to Martinez	31.03	
Port Costa to Benicia	1.00	
Benicia to Suisun	16.33	

PROPERTY OPERATED—Continued.

Name of Road.	Miles.	Total Miles.
Woodland to Tehama	100.74	
Willows to Fruto	17.10	
Elmira to Rumsey	51.05	
Napa Junction to Santa Rosa	36.70	
Sacramento to Placerville	59.50	
Galt to Ione	27.20	
(Narrow gauge) Woodbridge to Valley Spring	29.50	
(Narrow gauge) Woodbridge to Bracks	10.70	
Northern California Railway:		
Oroville to Marysville	25.90	
Marysville to Knights Landing	27.70	
		2,746.86
<i>Line operated under lease—</i>		
California Pacific Railroad:		
Vallejo Junction to Sacramento	62.39	
Davis to Knights Landing	18.57	
Napa Junction to Calistoga	34.48	
Union Pacific Railway:		
Five miles west of Ogden to Ogden	5.00	
		120.44
<i>Line operated under contract—</i>		
Central Pacific Railroad:		
San Francisco to Brighton	134.03	
Sacramento to 5 miles west of Ogden	738.56	
Niles to San José	17.54	
Lathrop to Goshen	146.08	
Roseville to California and Oregon State line	296.50	
Oakland local lines	4.84	
Alameda local lines	11.46	
Oregon and California Railroad:		
California and Oregon State line to Portland	366.80	
Portland to Corvallis	96.50	
Albany Junction to Lebanon	11.50	
Woodburn to Natron	92.70	
Dundee to Airlie	50.50	
Sheridan Junction to Sheridan	7.00	
Portland to Dundee	28.50	
		2,002.51
<i>Line operated under trackage rights—</i>		
Northern Railway account Central Pacific Railroad:		
Brighton to Sacramento		5.64
Total Pacific System		4,875.45

CAPITAL STOCK.

The total par value of authorized capital stock is \$150,000,000, divided into 1,500,000 shares of a par value of \$100 each. The total amount issued and outstanding is \$120,934,170. No dividends were declared. The manner of payment for capital stock was as follows:

	Number of Shares.	Cash Realized.
Issued for cash	10,000.00	\$1,000,000 00
Issued for stock of railroad companies	1,199,341.70	119,934,170 00
Totals	1,209,341.70	\$120,934,170 00

The stock of this company is issued at par and it receives therefor stock of railroad companies at rates agreed upon by the Boards of Directors.

FUNDED DEBT.

Class of Bond or Obligation, and Date of Issue and Maturity.	Authorized Issue.	Amount Outstanding.	Cash Realized.
Southern Pacific Company Steamship bond, first mortgage, Jan. 1, 1891; January 1, 1911.	\$3,000,000 00	\$2,858,000 00	\$3,000,000 00

These bonds bear 6 per cent interest, payable in January and July. The amount of interest accruing was \$169,350; amount paid, \$171,480.

RECAPITULATION OF FUNDED DEBT.

Class of Debt.	Amount Issued.	Amount Outstanding.
Mortgage bonds	\$3,000,000	\$2,858,000

Interest accrued during year, \$169,350; interest paid during year, \$171,480.

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.	Current Liabilities Accrued to and Including June 30, 1894.
Cash	Loans and bills payable.....
Bills receivable	Audited vouchers and accounts
Due from agents	Wages and salaries
Net traffic balances due from other companies	Due solvent companies and individuals
Miscellaneous—U. S. Government	Matured interest coupons unpaid (including coupons due July 1)
Balance—Current liabilities ..	Miscellaneous
Total	Total

Materials and supplies on hand, \$4,119,591 25.

RECAPITULATION.

A. For Mileage Owned by Road Making this Report.

Account.	Amount Outstanding.	Apportionment to other Properties.
Bonds	\$2,858,000	\$2,858,000

This company owns no road except through ownership of stock of railroad companies, which is in effect a duplication.

B. For Mileage Operated by Road Making this Report (Trackage Rights excluded), the Operations of which are included in the Income Account.

Name of Road.	Capital Stock.	Funded Debt.	Current Liabilities.	Total.
Southern Pac. R. R. of California	\$68,402,900	\$52,683,500	\$318,818 69	\$121,905,218 69
Southern Pacific R. R. of Arizona	19,995,000	10,000,000	196,211 94	30,191,211 94
Southern Pac. R.R. of New Mexico	6,888,800	4,180,000	9,177 80	11,077,977 80
South Pac. C. Ry. (narrow gauge)	6,000,000	5,500,000	-----	11,500,000 00
Northern Railway	12,896,000	9,907,000	6,173 13	22,809,173 13
Northern California Railway ..	1,280,000	1,074,000	-----	2,354,000 00
Central Pacific Railroad	68,000,000	60,032,000	2,583,166 77	130,615,166 77
Oregon and California Railroad.	19,000,000	19,625,000	-----	-----
California Pacific Railroad	12,000,000	6,825,500	206,006 90	19,031,506 90

RECAPITULATION—Continued.

Name of Road.	Miles.	Amount per Mile of Road.
Southern Pacific Railroad of California	1,860.64	\$65,517 90
Southern Pacific Railroad of Arizona	392.50	76,920 30
Southern Pacific Railroad of New Mexico	167.30	66,216 00
South Pacific Coast Railway (narrow gauge)	101.00	113,861 39
Northern Railway	389.38	58,578 18
Northern California Railway	53.60	43,917 90
Central Pacific Railroad	1,345.32	97,088 55
Oregon and California Railroad	653.50	-----
California Pacific Railroad	113.44	167,767 15

Morgan's Louisiana and Texas Railroad and Steamship Company, Louisiana Western Railroad, Texas and New Orleans Railroad—Amounts not at hand.

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS.

Items.	Permanent Improvements During Year.
Construction:	
Real estate	\$11,743 38
Fences	10,350 87
Grading, and bridge and culvert masonry	1,005 66
Bridges and trestles	2,784 34
Other superstructure	461 69
Buildings, furniture, and fixtures	88,532 13
Shop machinery and tools	24,041 72
Water supply	3,616 77
Ballast	5,727 23
Telegraph line	73 61
Sidings and yard extensions	45,534 35
Castle Crag branch	21,726 40
Other items	25,562 04
Total construction	\$241,160 19

This company owns no road. Construction and equipment reported by lessor companies.

INCOME ACCOUNT.

	Atlantic System.	Pacific System.	Total.
Gross earnings from operation	\$10,303,179 95	\$32,873,555 46	\$43,176,735 41
Less operating expenses	7,127,916 27	20,197,693 82	27,325,610 09
Income from operation	\$3,175,263 68	\$12,675,861 64	\$15,851,125 32
Dividends on stocks owned	\$250,000 00	\$2,380,781 50	\$2,630,781 50
Interest on bonds owned	111,200 00	84,475 00	195,675 00
Miscellaneous income—less expenses	131,287 62	1,870,553 07	2,001,840 69
Income from other sources	\$492,487 62	\$4,335,809 57	\$4,828,297 19
Total income	\$3,667,751 30	\$17,011,671 21	\$20,679,422 51
Deductions from income:			
Interest on funded debt accrued	\$169,350 00	-----	\$169,350 00
Interest on interest-bearing current liabilities accrued, not otherwise provided for	71,612 30	\$120,829 87	192,442 17
Rents	2,890,369 29	10,998,027 56	13,888,396 85
Taxes	249,634 44	1,037,433 46	1,287,067 90
Permanent improvements	-----	241,160 19	241,160 19
Other deductions*	-----	809,774 77	809,774 77
Total deductions from income	\$3,380,966 03	\$13,207,225 85	\$16,588,191 88
Net income	\$286,785 27	\$3,804,445 36	\$4,091,230 63

INCOME ACCOUNT—Continued.

	Atlantic System.	Pacific System.	Total.
Surplus from operations of year ending June 30, 1894.....			\$4,091,230 63
Surplus on June 30, 1893			6,300,583 35
Deductions for year†			\$10,391,813 98
			2,813,111 54
Income for sinking funds.....			\$7,578,702 44
			217,900 00
Surplus on June 30, 1894			\$7,360,802 44
*Other deductions:			
Central Pacific Railroad Land Department expenses.....			\$39,999 59
Central Pacific Railroad sinking funds.....			185,000 00
Central Pacific Railroad United States requirements			584,775 18
			\$809,774 77
†Deductions for year:			
Excess taxes California Pacific Railroad, 1880-85, reassessed			\$17,315 53
Oregon and California Railroad stock—valuation written off... \$3,600,000			
Acquired during year		1,000,000	
			2,600,000 00
Sundry—valuation of investments written off			195,796 01
			\$2,813,111 54

EARNINGS FROM OPERATION—Pacific System.

Item.	Total Receipts.	Deductions, etc.	Actual Earnings.
Passenger revenue	\$10,597,925 55		
Less tickets redeemed.....		\$80,089 07	
Excess fares refunded.....		6,504 46	
Total deductions		\$86,593 53	
Total passenger revenue			\$10,511,332 02
Mail			972,627 59
Express			439,886 31
Extra baggage and storage			112,695 59
Other items			511,473 66
Total passenger earnings.....			\$12,548,015 17
Freight revenue.....	19,962,214 68		
Less overcharge to shippers.....		\$512,851 27	
Other repayments.....		33,077 28	
Total deductions		\$545,928 55	
Total freight earnings.....			19,416,286 13
Total passenger and freight earnings.....			\$31,964,301 30
Other earnings from operation:			
Car mileage—balance.....			430,971 13
Locomotive mileage—balance.....			91,817 10
Telegraph companies.....			103,180 00
Rents from tracks, yards, and terminals			25,583 42
Rents not otherwise provided for			128,575 15
Other sources.....			129,127 36
Total other earnings			\$909,254 16
Total gross earnings from operation			\$32,873,555 46

STOCKS OWNED.

Name.	Par Value.	Valuation.
Southern Pacific Railroad Company of California *	\$67,877,950 00	\$40,726,770 00
Southern Pacific Railroad Company of Arizona.....	19,995,000 00	11,997,000 00
Southern Pacific Railroad Company of New Mexico †	6,888,800 00	4,133,280 00
South Pacific Coast Railway Company	6,000,000 00	550,000 00
Northern Railway Company	12,704,700 00	12,704,700 00
Northern California Railway Company.....	1,280,000 00	10 00
Oregon and California Railroad Company.....	4,000,000 00	400,000 00
California Pacific Railroad Company	1,794,633 33	279,830 16
Morgan's Louisiana and Texas Railroad and Steamship Co.	14,995,000 00	22,444,250 00
Louisiana Western Railroad Company	3,360,000 00	3,360,000 00
Texas and New Orleans Railroad Company †	5,000,000 00	7,500,000 00
Galveston, Harrisburg, and San Antonio Railway Co.....	26,914,500 00	16,150,275 00
New York, Texas, and Mexican Railway Company.....	615,000 00	500 00
Mexican International Railroad Company	4,172,100 00	834,420 00
Austin and Northwestern Railroad Company	716,000 00	179,000 00
Central Texas and Northwestern Railway Company	200,000 00	47,000 00
World's Columbian Exposition.....	20,000 00	18,000 00
Union Compress and Warehouse Company	16,000 00	10,000 00
Louisiana Sugar Exchange	250 00	175 00
Chamber of Commerce and Industry of Louisiana	100 00	100 00
New Orleans Board of Trade	100 00	90 00
Railway Age and N. U. Railroads	500 00	500 00
Wells-Fargo Company.....	1,662,500 00	2,161,250 00
Totals	\$178,213,133 33	\$123,497,150 16

* Bears 3 per cent interest. Dividend received.....	\$2,036,341 50
† Bears 5 per cent interest. Dividend received.....	344,440 00
‡ Bears 5 per cent interest. Dividend received.....	250,000 00

Total dividends received..... \$2,630,781 50

BONDS OWNED.

Name.	Par Value.	Valuation.
S. P. R. R. Co. of California, 5 per cent consolidated of 1893.*	\$582,000 00	\$582,347 28
Oregon and California Railroad, first mortgage †	962,000 00	796,500 00
Galveston, Harrisburg, and San Antonio Railway, Western Division, second mortgage	1,110,000 00	277,500 00
Gulf, Western Texas, and Pacific Railway, first mortgage † ..	2,224,000 00	1,334,173 33
Northern Pacific Terminal Company	70,000 00	63,000 00
Totals	\$4,948,000 00	\$3,053,525 66

* Bears 5 per cent interest. Dividend received.....	\$36,375
† Bears 5 per cent interest. Dividend received.....	48,100
‡ Bears 5 per cent interest. Dividend received.....	111,200

Total dividends received..... \$195,675

RENTALS RECEIVED—Pacific System.

Designation of Property.	Situation of Property Leased.	Company Using Property Leased.	Item.
Tracks: Third rail privilege	Ogden, U. T.	Rio Grande West'n Ry.	\$116 72
Trackage right	Sacramento, Brighton, Cal.	Central Pacific R. R. ...	7,200 00
Trackage right	Marysville, Cal.	Northern Cal. Ry.	2,700 00
Ferry and river steamers.	San Francisco Bay and tributaries	Pacific System lines..	14,316 70
Terminals: Ground	San Francisco	Various tenants	1,250 00
Total rents .....	.....	.....	\$25,583 42

RENTALS RECEIVED—*Atlantic System.*

Designation of Property.	Situation of Property Leased.	Company Using Property Leased.	Item.
Trackage right	New Iberia, Louisiana ..	Iberia and Verm. R. R	\$1,113 00
Trackage right	Sierra Blanco to El Paso.	T. & P. Railway Co....	60,889 88
Trackage right	Rio Grande to El Paso ..	S. P. R. R. of N. M.	11,661 36
Trackage right	Blodgett to Chaney Jct..	S. A. & A. P. Ry.	275 00
Shops	Houston, Texas	Sundry	15,103 68
Creosote works	Houston, Texas	Sundry	2,460 60
Lands	Texas	Sundry	5,284 71
Total rents .....	.....	.....	\$96,788 23

MISCELLANEOUS INCOME—*Pacific System.*

Item.	Gross Income.	Less Expenses.	Net Miscellaneous Income.
Creosote works, Oakland, operations of	\$22,786 55	.....	\$22,786 55
Rental of property	170,823 41	\$49,561 89	121,261 52
Wells, Fargo & Co., account contract	1,290,240 00	.....	1,290,240 00
Stock sold .....	.....	1 00	Dr. 1 00
Line of S. P. R. R., Mojave to The Needles, leased to the A. & P. R. R. Co.	436,266 00	.....	436,266 00
Totals	\$1,920,115 96	\$49,562 89	\$1,870,553 07

MISCELLANEOUS INCOME—*Atlantic System.*

Item.	Gross Income.	Less Expense.	Net Miscellaneous Income.
Morgan's steamship line	\$2,526,948 21	\$2,801,137 07	Dr. \$274,188 86
Rental of property	2,400 00	.....	2,400 00
Southern Pacific Co. steamships	590,865 24	262,788 76	328,076 48
Contribution to Sinking Fund	75,000 00	.....	75,000 00
Totals	\$3,195,213 45	\$3,063,925 83	\$131,287 62

OPERATING EXPENSES—*Pacific System.*

Item.	Total.
Maintenance of way and structures:	
Repairs of roadway	\$2,255,239 88
Renewals of rails	349,999 27
Renewals of ties	540,240 39
Repairs of bridges and culverts	512,381 49
Repairs of fences, road-crossings, signs, and cattle-guards	101,646 48
Repairs of buildings	288,980 06
Repairs of docks and wharves	60,919 17
Repairs of telegraph	2,887 44
Other expenses	242,401 42
.....	126,817 00
Total	\$4,481,512 60
Maintenance of equipment:	
Repairs and renewals of locomotives	\$1,067,023 87
Repairs and renewals of passenger cars	481,344 94
Repairs and renewals of freight cars	918,480 75
Repairs and renewals of ferry-boats, tugs, floats, and barges	68,141 25
Shop machinery, tools, etc.	26,863 29
Other expenses	260,554 26
Total	\$2,822,408 36

OPERATING EXPENSES—*Pacific System*—Continued.

Item.	Total.
Conducting transportation:	
Wages of enginemen, firemen, and roundhousemen.....	\$1,660,748 06
Fuel for locomotives.....	3,501,329 16
Water supply for locomotives.....	129,823 08
All other supplies for locomotives.....	67,793 79
Wages of other trainmen.....	1,202,243 31
All other train supplies.....	119,861 48
Wages of switchmen, flagmen, and watchmen.....	374,254 74
Expense of telegraph, including train dispatchers and operators.....	422,940 84
Wages of station agents, clerks, and laborers.....	1,622,990 52
Station supplies.....	81,438 42
Switching charges—balance.....	11,984 20
Car mileage—balance.....	425,206 71
Loss and damage.....	106,140 89
Injuries to persons.....	124,149 27
Barges, floats, tugs, ferry-boats, expenses of, including wages, fuel, etc.....	543,652 39
Other expenses.....	217,229 87
Total.....	\$10,611,786 73
General expenses:	
Salaries of officers.....	\$344,481 47
Salaries of clerks.....	605,719 24
General office expenses and supplies.....	46,032 18
Agencies, including salaries and rent.....	216,813 93
Advertising.....	104,039 77
Commissions.....	11,520 94
Expense of traffic associations.....	6,922 59
Rents for tracks, yards, and terminals.....	214,546 08
Rents not otherwise provided for.....	163,313 53
Legal expenses.....	349,801 84
Stationery and printing.....	105,031 60
Other general expenses.....	113,762 96
Total.....	\$2,281,986 13
Recapitulation of expenses:	
Maintenance of way and structures.....	\$4,481,512 60
Maintenance of equipment.....	2,822,408 36
Conducting transportation.....	10,611,786 73
General expenses.....	2,281,986 13
Grand total.....	\$20,197,693 82
Percentage of operating expenses to earnings.....	61.44

RENTALS PAID—*Pacific System*.A. *Rents Paid for Lease of Road.*

Name of Road.	Interest on Bonds Guaranteed.	Cash.	Total.
Southern Pacific Railroad of California.....	\$2,892,642 68	\$1,164,740 65	\$4,057,383 33
Southern Pacific Railroad of Arizona.....	600,000 00	264,713 78	864,713 78
Southern Pacific Railroad of New Mexico.....	250,800 00	158,828 27	409,628 27
South Pacific Coast Railway.....	220,000 00		220,000 00
Northern Railway.....	546,910 00	440,058 19	986,968 19
Northern California Railway.....	51,012 50		51,012 50
Central Pacific Railroad.....	1,899,145 97	{ 1,360,000 00 5,000 00	3,264,145 97
Oregon and California Railroad.....	932,591 67	{ *442,832 82 4,583 33	434,342 18
California Pacific Railroad.....		600,000 00	600,000 00
San Joaquin Valley Railroad.....		20,833 34	20,833 34
San Bernardino and Redlands Railroad.....		9,000 00	9,000 00
Union Pacific Railway.....		20,000 00	20,000 00
Total rents.....	\$7,393,102 82	\$3,604,924 74	\$10,998,027 56

* Credit.

B. Rents Paid for Lease of Other Property.

Designation of Property.	Situation of Property Leased.	Company Owning Property Leased.	Item.
Steamers	Bay of San Francisco and tributaries, etc.	Various Pacific System lines.....	\$18,366 70
Trackage rights	Rio Grande to El Paso.....	G. H. & S. A. Ry. Co.	2,830 68
Trackage rights	Marysville, Cal.	C. P. R. R. Co.	2,700 00
Trackage rights	Sacramento to Brighton	Northern Ry. Co.	7,200 00
Willamette River Bridge	Portland, Or.	Union Pacific Ry. Co.	10,000 00
Right of way, etc.	Various	Various	209 00
Right of way	San Francisco	Hastings	579 90
Right of way	San Francisco	Payne & Dewey	700 00
Shops	San Francisco	Pacific Imp. Co.	7,500 00
Shops	El Paso, Tex.	G. H. & S. A. Ry. Co.	3,000 00
Depot and grounds.....	Ogden, U. T.	Ogden Union Railway and Depot Co.	9,000 00
Ground.....	San Francisco	C. A. Hooper Co.	20,000 00
Ground.....	San Francisco	Pacific Imp. Co.	96,000 00
Ground.....	Portland, Or.	N. P. Terminal Co.	36,459 80
Total rents .....	.....	.....	\$214,546 08

RENTALS PAID—Atlantic System.

A. Rents Paid for Lease of Road.

Name of Road.	Interest on Bonds Guaranteed.	Cash.	Total.
M. L. and T. R. R. and S. S. Co.	\$452,328 64	\$636,618 68	\$1,090,947 32
La. Western R. R. Co.	134,400 00	185,299 66	319,699 66
Iberia and Vermilion R. R. Co.	14,758 34	3,419 01	18,177 35
Texas & N. O. R. R. Co.	348,900 00	324,391 94	673,291 94
G., H. & S. A. Railway Co.	1,407,500 00	*619,722 44	787,777 56
Gulf, W. T. & Pacific Railway Co.	107,987 50	*163,071 84	55,084 34
New York, Texas, and Mexican Railway Co. ..	61,930 00	*6,370 20	55,559 80
Total rents	\$2,527,802 48	\$362,564 81	\$2,890,369 29

* Credit.

B. Rents Paid for Lease of Other Property.

Designation of Property.	Situation of Property Leased.	Company Owning Property Leased.	Item.
Trackage right	Pacific Junction to Cheneyville, La.	T. & P. Railway Co.	\$10,620 00
Trackage right	New Iberia to Cheneyville, La.	M. L. & T. R. R. and S. S. Co.	1,113 00
Shops	Houston, Texas	Various Lines	17,164 28
Creosote works	Houston, Texas		
Total rents .....	.....	.....	\$28,897 28

COMPARATIVE GENERAL BALANCE SHEET.

June 30, 1893.	Assets.	June 30, 1894.	June 30, 1894— Increase.	June 30, 1894— Decrease.
\$121,762,570 00	Stocks of other companies owned.....	\$123,497,150 16	\$1,734,580 16	
2,333,178 38	Bonds of other companies owned.....	3,053,525 66	720,347 28	
4,108,312 03	Other permanent investments.....	6,556,196 14	2,447,884 11	
9,265,429 52	Cash and current assets.....	4,951,089 07		\$4,314,340 45
5,192,267 21	Materials and supplies.....	4,119,591 25		1,072,675 96
75,450 00	Sinking Fund.....	75,900 00	450 00	
\$142,737,207 14	Totals.....	\$142,253,452 28		\$483,754 86
June 30, 1893.	Liabilities.	June 30, 1894.	June 30, 1894— Increase.	June 30, 1894— Decrease.
\$119,047,170 00	Capital stock.....	\$120,934,170 00	\$1,887,000 00	
2,929,000 00	Funded debt.....	2,858,000 00		\$71,000 00
13,363,774 13	Current liabilities.....	10,055,638 51		3,308,135 62
1,096,679 66	Accrued interest on funded debt not yet payable.....	826,941 33		269,738 33
6,154,133 35	Profit and loss.....	7,360,802 44		
146,450 00	Income for Sinking Fund.....	217,900 00	1,278,119 09	
\$142,737,207 14	Totals.....	\$142,253,452 28		\$483,754 86

IMPORTANT CHANGES DURING THE YEAR—*Pacific System.*

Extension of road: By Southern Pacific Railroad of California—		
1893—Sept. 30—Burbank to Chatsworth Park.....		21.30 miles.
1894—May 5—Santa Margarita to San Luis Obispo.....		16.70 miles.
		38.00 miles.

Under date of August 1, 1893, the Oregonian Railroad and Portland and Yamhill Railroad, formerly leased by this company, were consolidated with the Oregon and California Railroad. A new lease covering the consolidated property went into effect August 1, 1893.

Capital stock issued in exchange for stock of railroad companies, \$1,887,000.

Southern Pacific Company Steamship bonds redeemed, \$71,000.

\$532,000 Southern Pacific Railroad of California 5 per cent bonds acquired by Southern Pacific Company in payment for advance on account of rolling stock.

Oregon and California Railroad bonds were purchased to the amount, at par, of \$1,000,000.

CONTRACTS, AGREEMENTS, ETC.

1. *Express Companies.*—Contracts with Wells, Fargo & Co. provide that the railroads shall transport express matter, and payment therefor shall be made by Wells, Fargo & Co. at agreed rates.

2. *Mails.*—Rates are fixed by the United States Government. On the Central and Southern Pacific, and Oregon and California Railroads these rates are subject to the terms of the several Acts of Congress granting aid for the construction of said railroads.

3. *Sleeping, Parlor, or Dining Car Companies.*—Sleeping cars are operated by the Pullman Palace Car Company, which company owns an interest in the cars. The net profit or loss from their operation is divided in proportion to the interest owned by each company. The Pullman Company has no interest in this company's dining cars, but operates them for account of this company.

4. *Freight or Transportation Companies or Lines.*—

5. *Other Railroad Companies.*—

6. *Steamboat or Steamship Companies.*—

7. *Telegraph Companies.*—Telegraph lines are operated jointly by Western Union Telegraph Company and this company, under contracts entered into by the several lessor companies. The telegraph lines of the South Pacific Coast Railway Company are operated jointly with the Pacific Postal Telegraph Cable Company.

8. *Other Contracts.*—The Central Pacific Railroad, the Southern Pacific Railroad, and the Oregon and California Railroad, each received aid in its construction from the United States, and is subject by the Acts granting such aid to certain restrictions and conditions regarding the transportation of freight, passengers, and mails. These Acts of Congress constitute contracts between the railroads and the United States.

SECURITY FOR FUNDED DEBT.

Southern Pacific Company, first mortgage steamship bonds, seven steamships mortgaged.

EMPLOYÉS AND SALARIES—*Pacific System.*

Class.	Number.	Total Days Worked.	Total Compensation.	Average Daily Compensation.
General officers	80	25,040	\$344,481 47	\$13 76
General office clerks	569	178,097	605,719 24	3 40
Station agents (including agents who are also operators)	558	174,654	439,197 48	2 51
Other station men (including men who are also operators)	1,256	393,123	1,011,388 20	2 57
Enginemmen	677	211,901	939,223 56	4 43
Firemen	718	224,734	544,721 60	2 42
Conductors	360	112,680	461,876 36	4 10
Other trainmen	806	252,278	782,192 96	3 10
Machinists	468	146,484	481,762 56	3 29
Carpenters	932	291,716	868,593 60	2 98
Other shopmen	2,441	764,033	1,902,953 28	2 49
Section foreman	582	182,166	478,382 64	2 63
Other trackmen	3,423	1,071,399	1,686,140 40	1 57
Switchmen, flagmen, and watchmen	403	126,139	374,254 74	2 97
Telegraph operators and dispatchers (excluding men as shown above)	231	72,303	245,811 60	3 40
Employés, account floating equipment	332	103,916	286,892 40	2 76
All other employés and laborers	573	179,349	570,980 88	3 18
Total (including general officers)	14,409	4,510,017	\$12,024,572 97	\$2 67
Less general officers	80	25,040	344,481 47	13 76
Total (excluding general officers)	14,329	4,484,977	\$11,680,091 50	\$2 60
Distribution of above:				
General administration	649	203,137	\$950,200 71	\$4 68
Maintenance of way and structures	4,355	1,363,115	2,533,451 76	1 86
Maintenance of equipment	3,491	1,092,683	2,884,380 72	2 64
Conducting transportation	5,914	1,851,082	5,656,539 78	3 05
Total (including general officers)	14,409	4,510,017	\$12,024,572 97	\$2 67
Less general officers	80	25,040	344,481 47	13 76
Total (excluding general officers)	14,329	4,484,977	\$11,680,091 50	\$2 60

PASSENGER AND FREIGHT, AND TRAIN MILEAGE—*Pacific System.*

Item.	Tonnage, Passengers, etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue	17,713,466	
Number of passengers carried one mile	542,133,256	
Average distance carried—miles	30.61	
Total passenger revenue		\$10,511,332 02
Average amount received from each passenger		59.341
Average receipts per passenger per mile		01.939
Total passenger earnings		12,548,015 17
Passenger earnings per mile of road		2,573 71.426
Passenger earnings per train-mile		1 59.507
Freight traffic:		
Number of tons carried of freight earning revenue	6,291,608	
Number of tons carried one mile	1,472,077,576	
Average distance haul of one ton—miles	233,975	
Total freight revenue		19,416,286 13
Average amount received for each ton of freight		3 08.606
Average receipts per ton per mile		01.319
Total freight earnings		19,416,286 13
Freight earnings per mile of road		3,982 46.031
Freight earnings per train-mile		2 10.238

PASSENGER AND FREIGHT, AND TRAIN MILEAGE—*Pacific System*—Continued.

Item.	Tonnage, Passengers, etc.	Revenue and Rates.
Passenger and freight:		
Passenger and freight revenue		\$29,927,618 15
Passenger and freight revenue per mile of road		6,138 43.197
Passenger and freight earnings		31,964,301 30
Passenger and freight earnings per mile of road—miles		6,556 17.457
Gross earnings from operation		32,873,555 46
Gross earnings from operation per mile of road		6,742 67.103
Expenses		20,197,693 82
Expenses per mile of road		4,142 73.427
Train mileage:		
Miles run by passenger trains	7,719,586	
Miles run by freight trains	8,793,945	
Miles run by mixed trains	588,591	
Total mileage trains earning revenue	17,102,122	
Miles run by switching trains	2,537,438	
Miles run by construction and other trains	615,925	
Grand total train mileage	20,255,485	
Mileage of loaded freight cars	111,789,158	
Mileage of empty freight cars	40,232,652	
Average number of freight cars in train	16.460	
Average number of loaded cars in train	12.104	
Average number of empty cars in train	4.356	
Average number of tons of freight in train	159,395	
Average number of tons of freight in each loaded car	13.168	

MILEAGE OF LINE BY STATES AND TERRITORIES.

State or Territory.	Line of Proprietary Companies.	Line Operated Under Lease.	Line Operated Under Contract, etc.	New Line Acquired During Year.	Total Mileage, Excluding Trackage Rights.
California	2,182.79	115.44	750.64	38.00	3,054.51
Nevada			448.73		448.73
Oregon			653.50		653.50
Texas	3.76				3.76
Arizona	393.01				393.01
New Mexico	167.30				167.30
Utah		5.00	149.64		154.64
Total mileage operated (single track)	2,746.86	120.44	2,002.51	38.00	4,875.45
State or Territory.			Line Operated Under Trackage Rights.	Iron Rails.	Steel Rails.
California			5.64	114.93	2,924.25
Nevada					448.73
Oregon				58.53	594.97
Texas					3.76
Arizona					393.01
New Mexico					167.30
Utah					154.64
Total mileage operated (single track)			5.64	173.46	4,686.66

MILEAGE OF ROAD OPERATED—*Pacific System.*

Line in Use.	Line of Proprietary Companies.	Line Operated Under Lease.	Line Operated Under Contract, etc.	Line Operated Under Trackage Rights.	Total Mileage Operated.
Miles of single track.....	2,746.86	120.44	2,002.51	5.64	4,875.45
Miles of second track.....	43.62		9.51		53.13
Miles of yard track and sidings.....	565.07	35.62	391.69		992.38
Total mileage operated (all tracks).....	3,355.55	156.06	2,403.71	5.64	5,920.96

Line in Use.	New Line Acquired During Year.	Iron Rails.	Steel Rails.
Miles of single track.....	38.00	173.46	4,686.66
Miles of second track.....	3.72	.58	52.55
Miles of yard track and sidings.....	25.34	656.23	336.15
Total mileage operated (all tracks).....	67.06	830.27	5,075.36

DESCRIPTION OF EQUIPMENT—*Pacific System.*

Item.	Added During Year.	Number at End of Year.	With Train-Brake.	With Automatic Coupler.
Locomotives:				
Passenger and freight.....	Dec. 4	679	675	-----
Switching.....	Inc. 7	44	44	-----
Total locomotives.....	Inc. 3	723	719	-----
Cars in passenger service:				
First-class passenger cars.....	Dec. 4	439	434	439
Second-class passenger cars.....	Dec. 4	89	89	89
Combination passenger cars.....	Inc. 1	48	47	48
Emigrant cars, tourist.....		73	73	73
Dining cars.....	Inc. 2	7	7	7
Parlor cars.....		3	3	3
Sleeping cars, first-class.....		92	92	92
Baggage, express, and postal cars.....	Inc. 1	186	185	186
Totals.....	Dec. 4	937	930	937
Cars in freight service:				
Box cars.....	Inc. 130	9,603	8,928	143
Flat cars.....	Dec. 142	4,440	3,615	-----
Stock cars.....		22	17	-----
Coal cars.....	Inc. 38	643	643	-----
Tank cars.....		2	2	-----
Refrigerator cars.....	Dec. 4	27	27	-----
Totals.....	Inc. 22	14,737	13,232	143
Cars in company's service:				
Gravel cars.....	Dec. 2	103	-----	-----
Derrick cars.....	Dec. 1	12	11	-----
Caboose cars.....	Dec. 1	253	3	-----
Other road cars.....	Inc. 15	163	53	11
Water cars.....	Dec. 2	87	85	-----
Officers' and pay cars.....	Inc. 1	11	10	10
Totals.....	Inc. 10	634	162	21
Total cars owned.....	Inc. 28	16,308	14,324	1,101

The Westinghouse train-brake and Miller automatic coupler are used.
All equipment shown is leased by Southern Pacific Company from lessor roads.

FREIGHT TRAFFIC MOVEMENT—(Company's material included)—*Pacific System.*

Commodity.	Total Freight Tonnage.	Per Cent.
Products of agriculture:		
Grain	927,877	14.75
Flour	116,748	1.86
Other mill products	76,150	1.21
Hay	194,117	3.09
Tobacco	5,391	.09
Cotton	2,765	.05
Fruit and vegetables	445,287	7.08
Other	106,009	1.69
Products of animals:		
Live stock	253,638	4.03
Dressed meats	15,903	.25
Other packing-house products	14,735	.23
Poultry, game, and fish	19,975	.32
Wool	27,332	.44
Hides and leather	18,761	.30
Other	5,681	.09
Products of mines:		
Bituminous coal	214,513	3.41
Coke	45,382	.72
Ores	40,341	.64
Base metals, pig or bar	22,227	.36
Stone, sand, and other like articles	193,225	3.07
Other	9,659	.15
Products of forest:		
Lumber	474,149	7.54
Wood	187,899	3.00
Other	6,268	.01
Manufactures:		
Petroleum and other oils	89,102	1.42
Sugar	123,152	1.96
Naval stores	2,395	.04
Iron—pig and bloom	13,500	.22
Iron and steel rails	9,094	.15
Other castings and machinery	17,742	.28
Bar and sheet metal	24,184	.39
Cement, brick, and lime	132,572	2.11
Agricultural implements	6,964	.11
Wagons, carriages, tools, etc.	31,001	.49
Wines, liquors, and beers	148,099	2.36
Household goods and furniture	19,264	.31
Other	250,094	3.98
Merchandise	645,333	10.26
Miscellaneous: other commodities not mentioned above	180,423	2.87
Company freight	1,174,656	18.67
Total tonnage	6,291,608	100.00

ACCIDENTS TO PERSONS IN CALIFORNIA.

Kind of Accident.	Employés.		Passengers.		Others Trespassing and Not Trespassing.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Coupling and uncoupling	2	106				
Falling from trains and engines	3	49				
Overhead obstructions		8				
Collisions	1	23		10		1
Deraillments	1	16		5	3	4
Other train accidents (see p. 221)		5		7		
At highway crossings					7	21
At stations	1	33		25	7	14
Other causes (see p. 220)	3	147	4	69	61	130
Totals	11	387	4	116	78	170

"Other Causes"—Classified Employés.

Kind of Accident.	Trainmen.		Switchmen, Firemen, and Watchmen In- jured.....	Other Employés.	
	Killed.....	Injured ..		Killed.....	Injured ..
Sand blew in eye		1			
Walking on, being on, or crossing track				2	3
Getting on or off trains or engines	1	18	9		12
Foot caught by brakebeam		1			
Pulling on monkey-wrench		1			
Injured on or about engines		5	1		
Water-glass bursting		1			
Jammed between cars—not coupling			1		
Climbing over car		1			
Struck by coupling pin or link		1	2		
Struck corrals, buildings, cattle guards, or projections		2	3		
Shaker bar slipped		1			
Main rod strap fell on foot		1			
Fell against glass door		1			
Assaulted on train		1			
Climbing between cars					1
Handling rails					1
Hanging on rear platform of car		1			
Foot caught between drawheads					1
Fell against hot stove					1
Struck by air hose			1		
Foot turned		3			
Thrown from cupola		1			
Door fell from car		1	2		
Working under car					1
Scalded by steam		2			
Coal board fell on finger		1			
Cinders in eye		12			
Struck by broken chain			2		2
Knocked off train by tramps		1			
Loading and unloading baggage		2			
Hand caught in seat		1			
Struck by stick of wood		5			1
Hand caught in gate of car		1			
Stepped on stove					1
Coal derrick fell on hand					1
Setting brake			1		1
Fell in manhole of engine		1			
Struck by switch stand or lever		3			
Slipped while turning air plug		1			
Shut door on finger		1			
Fell in car		2			
Fell from pile-driver					1
Loading frog					1
Unloading rock					2
Caught between car and warehouse			1		
Hand-hold of car gave way			1		
Stepped on rock		1			
Struck hand against coal board		1			
Cutting bell cord		1			
Placing pin under wheel to stop car					1
Struck by piece of coal		1			
Brake club broke		1			
Slipped on apron		1			
Fell from ladder					1
Foot slipped		1			
Struck by wagon					1
Cut by broken lamp		1			
Staking car			1		
Stepped on lump of coal		1			
Pushing or turning engine on table		1			1
Struck by car			1		1
Foot-board struck street crossing			1		
Foot caught in turntable		1			
Cut by car seal					1
Totals	1	85	27	2	35

"Other Causes"—Passengers, Etc.

Kind of Accident.	Passengers.		Trespassers.		Not Trespassing, Injured
	Killed.	Injured	Killed.	Injured	
Walking on, being on, or crossing track			34	31	
Getting on or off, or falling from, trains or engines	4	47	25	72	
Crushed between cars			1		
Foot caught between drawheads				6	
Door shut on hand		1		1	
Struck by missile or glass broken by missile		12			
Collision with car				1	
Alcohol lamp exploded		2			
Struck by car step				1	
Window fell on hand		2		1	
Tripped over piece of wood		1			
Sleeping too near track				2	
Stumbled over switch		1			
Struck by car				1	
Lumber falling in car				1	
Coupling cars				1	
Seat fell on hand		1		1	
Slipped over brakebeam				1	
Collision with buggy—not at crossing			1	3	
Undercar				1	
Climbing between cars				3	
Rock slide broke window		1			
Fell through trestle		1			
Electric car ran into engine					3
Totals	4	69	61	127	3

"Other Train Accidents."

Kind of Accident.	Passengers Injured	Trainmen Injured	Other Employees Injured
Sudden start of train	2		
Sudden stop of train		1	
Train broke in two		2	1
Link broke		1	
Cars struck too hard	1		
Cars coupled roughly	4		
Totals	7	4	1

CONSUMPTION OF FUEL BY LOCOMOTIVES.

Locomotives.	Coal— Tons.	Wood— Cords.	Total Fuel Consumed— Tons.	Miles Run.	Average lbs. Consumed per Mile.
Passenger	183,722	39,519	203,482	7,719,586	53
Freight	358,297	48,212	382,403	9,221,285	83
Switching	40,830	6,864	44,263	2,110,098	42
Construction	10,976	6,005	13,979	615,925	45
Mixed	14,976	5,190	17,571	588,591	60
Totals	608,801	105,790	661,697	20,255,485	65
Average cost at distributing point	\$4 89	\$4 16			

RENEWALS OF RAILS AND TIES—*Pacific System.*

New rails laid during year: Steel, 17,587 tons. Average price per ton at distributing point, \$45.

New ties laid during year: Redwood, 950,741; mountain, 404,757; total, 1,355,498. Average price at distributing point, 48 cents. Ties classed as "Mountain" are of pine, fir, and cedar.

CAR MILEAGE.

List of all Individuals, Coöperative Fast Freight Lines, and Stock Companies to which the S. P. Co. Paid Mileage for the Use of Cars during the Year ending June 30, 1894.

American Live Stock Transportation Co.	Lipton Refrigerator Line.
Abernathy Furniture Co.	Live Poultry Transportation Co.
American Refrigerator Transit Co.	Mann Bros.
American Brewing Co.	Merchants' Despatch Transportation Co.
Anglo-American Refrigerator Car Co.	Morris & Co's. Refrigerator Line.
Armour Car Equipment.	National Despatch.
Arms Palace Horse Car Co.	National Fruit Despatch.
Bear Creek Refining Co.	National Refrigerator Transportation Co.
Boyd, Lunham & Co.	National Rolling Stock Co.
Blue Line Transit Co.	New England Car Co.
California Fruit Express.	New York Despatch Refrigerator Line.
Continental Fruit Express.	N. W. Despatch Fast Freight Line.
California Fruit Transportation Co.	Omaha Packing Co.
Canada Cattle Car Co.	Pacific Coast Oil Co.
Canadian Pacific Despatch.	Peavey Grain Line.
Canada Southern Line.	Pullman's Palace Car Co.
Canada Southern Line.	Provision Dealers' Despatch.
Cedar Rapids Refrigerator Express.	Red Line Transit Co.
Chicago Refrigerator Car Line.	Rocky Mountain Oil Co.
Climax Gasoline Co.	San Fran. Brewing Car and Trans. Co.
Cottolene Refrigerator Line.	St. Charles Car Co.
Cudahy Refrigerator Line.	St. Louis Refrigerator Car Line.
Cudahy Milwaukee Refrigerator Line.	Schofield, Shurmer & Teagle.
Empire Line.	Sioux City Dressed Beef Line.
Globe Tank Line.	Southern Iron Car Line.
Goodell Refrigerator Car Co.	Southern Despatch Lumber Line.
Hammond Refrigerator Line.	Street's Western Stable Car.
Havens & Co. C. B.	Swift Refrigerator Line.
Hicks Stock Car Co.	Union Refrigerator Transit.
Interstate Ventilated Refrig. Car Line.	Union Tank Line.
Jacob Dold Packing Co.	Watern Pierce Oil Co.
Kansas City Dressed Beef Line.	Waverly Oil Co.
Kansas City Refrigerator Car Co.	White Line Transit.
Kansas Manufacturers' Despatch.	White Star Transportation Co.
Libby, McNeil & Libby.	

STATE OF CALIFORNIA,
City and County of San Francisco, } ss.

We, the undersigned, A. N. Towne, Vice-President, and G. L. Lansing, Secretary and Controller, of the Southern Pacific Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

A. N. TOWNE,
Vice-President.
G. L. LANSING,
Secretary and Controller.

Subscribed and sworn to before me, this thirtieth day of October, 1894.

E. B. RYAN,
Notary Public.

SOUTHERN PACIFIC RAILROAD COMPANY.

HISTORY.

1. Name of common carrier making this report: Southern Pacific Railroad Company.
2. Date of organization; November 3, 1882.
3. Under laws of what Government, State, or Territory organized: Under general laws of State of California; also Acts of Congress of July 27, 1866 (14 U. S. Stats., p. 292), and March 3, 1891 (16 U. S. Stats., p. 573).
4. Names of constituent companies:

Name of Company.	Incorporated.	With what Company Consolidated.
San Francisco and San José R. R. Co.	Aug. 18, 1860	S. P. R. R. Co., Oct. 12, 1870; amended April 15, 1871.
Southern Pacific Railroad Company	Dec. 2, 1865	
Santa Clara and Pajaro Valley R. R. Co.	Jan. 2, 1868	
California Southern Railroad Company ...	Jan. 22, 1870	
Southern Pacific Railroad Company	Oct. 12, 1870	S. P. R. R. Co., Aug. 19, 1873.
Southern Pacific Branch Railroad Co.	Dec. 23, 1872	
Southern Pacific Railroad Company	Aug. 19, 1875	S. P. R. R. Co., Dec. 18, 1874.
Los Angeles and San Pedro R. R. Co.	Feb. 18, 1868	
Southern Pacific Railroad Company	Dec. 18, 1874	S. P. R. R. Co., May 14, 1888; amended Nov. 3, 1892.
San José and Almaden Railroad Co.	Mar. 2, 1868	
Pajaro and Santa Cruz Railroad Co.	June 3, 1884	
Monterey Railroad Company	Jan. 24, 1880	
Monterey Extension Railroad Co.	Jan. 6, 1886	
Southern Pacific Branch Railway Co.	Apr. 12, 1886	
San Pablo and Tulare Railroad Co.	July 19, 1871	
San Pablo and Tulare Extension R. R. Co. .	Feb. 7, 1887	
San Ramon Valley Railroad Co.	Apr. 25, 1888	
Stockton and Copperopolis Railroad Co.	Nov. 17, 1877	
Stockton and Tulare Railroad Co.	Dec. 2, 1887	
San Joaquin Valley and Yosemite R. R. Co. .	Feb. 15, 1886	
Los Angeles and San Diego R. R. Co.	Oct. 10, 1876	
Los Angeles and Independence R. R. Co. .	Jan. 8, 1875	
Long Beach, Whittier, and Los Angeles County Railroad Co.	Dec. 17, 1887	
Long Beach Railroad Company	Oct. 31, 1887	
Southern Pacific R. R. Extension Co.	Feb. 21, 1888	
Ramona and San Bernardino R. R. Co.	Apr. 25, 1886	

5. Authority for consolidation: General laws of the United States and of the State of California.

6. Name of original corporation, and law under which it was organized: The Southern Pacific Company; under the General Railroad Act of the State of California, approved May 20, A. D. 1861.

7. Carrier operating the road of this company: Southern Pacific Company.

ORGANIZATION.

Names of Directors: Chas. F. Crocker, H. E. Huntington, A. N. Towne, F. S. Dooty, I. E. Gates, N. T. Smith, J. L. Willcutt; all of San Francisco, except Mr. Gates, whose residence is New York.

Date of expiration of terms of Directors: April 10, 1895.

Number of stockholders at date of last election: 18.

Last meeting of stockholders for election of Directors: April 11, 1894.

Post Office address of general office: Box 2008, San Francisco.

Post Office address of operating office: Southern Pacific Company, Box 2328, San Francisco.

OFFICERS.

Title.	Name.	Location of Office.
Chairman of the Board	Charles F. Crocker	San Francisco.
President	Charles F. Crocker	San Francisco.
First Vice-President	H. E. Huntington	San Francisco.
Second Vice-President	I. E. Gates	New York.
Secretary	J. L. Willcutt	San Francisco.
Treasurer	N. T. Smith	San Francisco.
General Solicitor and Attorney	Wm. F. Herrin	San Francisco.
Chief Engineer	Wm. Hood	San Francisco.
Land Commissioner	Jerome Madden	San Francisco.
General Agent and Attorney	C. P. Huntington	New York.

Other officers are reported by the Southern Pacific Company, lessee.

PROPERTY LEASED OR OTHERWISE ASSIGNED FOR OPERATION.

Name of Road.	Miles.
Southern Pacific Railroad:	
Coast Division—San Francisco to Tres Pinos	100.490
Carnadero to San Luis Obispo	170.695
Castroville to Lake Majella	19.554
Pajaro to Santa Cruz	21.200
Aptos to Monte Vista Extension	6.767
Hillsdale to Almaden	7.711
Baden to San Francisco Station	1.513
San Bruno toward San Francisco	2.159
Southern Division—Alcalde to Yuma, A. T.	
Florence to Santa Ana	550.998
Los Angeles (Clement Junction) to Port Los Angeles	27.820
Home Junction to Soldiers' Home	19.180
Burbank to Chatsworth Park	2.971
Los Angeles to San Pedro and Point Firmin Light-house	21.621
Near Martinez to Armona	27.565
Berenda to Raymond	193.275
Saugus to Ellwood	21.000
Thenard to Long Beach	91.500
Studebaker to Whittier	4.023
Collis to Poso	5.914
Miraflores to Tustin	117.429
Ontario to Chino	11.703
Near Bakersfield to Asphalto	5.780
Declez to Declezville	48.057
Redlands Junction to Crafton	2.552
Fresno to Pollasky	7.190
	24.112
Stockton Division—Stockton to Milton	
Peters to Merced	25.820
Avon to San Ramon	59.262
Operated by Southern Pacific Company; lease 99 years, from March 1, 1885.	20.269
Colorado Division—Mojave to Needles (Atlantic and Pacific Railroad Company; lease until sale)	
	242.507
Total mileage	1,860.637

Leased to the Southern Pacific Company for 99 years from March 1, 1885 (subsequently modified to include consolidated lines). Under this lease the lessor is to receive the rents and profits, and pay the expenses of operation, maintenance, taxes, and interest on bonded and floating debt. The net profits remaining after payments of these expenses and charges to be apportioned to the Southern Pacific Railroad Company and other lessors upon agreed percentage.

Contract October 1, 1884, for sale to Atlantic and Pacific Railroad Company of road from Mojave to The Needles, 242.51 miles. Till completion of sale, Atlantic and Pacific Railroad Company to pay an annual rental of \$436,266, payable semi-annually. This rental appears in the income account of the Southern Pacific Company, as the interest paid by that Company as lessee of the Southern Pacific Railroad includes the interest on all the bonds issued on this road.

CAPITAL STOCK.

The total par value of the capital stock authorized is \$90,000,000, divided into 900,000 shares of a par value of \$100 each. Total amount issued and outstanding is \$63,402,900. Dividend declared during the year, 3 per cent, on 678,815 shares; amount, \$2,036,445. The manner of payment for capital stock was as follows:

	Number of Shares Issued.	Cash Realized.
Issued for cash	28,386	\$2,838,600
Issued for construction	641,543	64,153,300
Issued for bonds of consolidated roads	14,100	1,410,000
Total	684,029	\$68,401,900

During the year ending June 30, 1894, there were 18,259 shares of capital stock issued for construction, upon which \$1,825,900 was realized.

FUNDED DEBT.

Class of Bond or Obligation, and Date of Issue and Maturity.	Authorized Issue.	Amount Issued.	Amount Outstanding.	Cash Realized.
S. P. R. R. Co., 6 per cent first mortgage coupon:				
Series A—Apr. 1, 1875; Apr. 1, 1905.....	\$15,000,000	\$15,000,000	\$13,022,500	\$14,713,200 00
Series B—Oct. 1, 1875; Oct. 1, 1905.....	5,000,000	5,000,000	4,718,000	5,000,000 00
Series C—Oct. 1, 1876; Oct. 1, 1906.....	5,000,000	5,000,000	4,113,000	5,000,000 00
Series D—Oct. 1, 1876; Oct. 1, 1906.....	5,000,000	5,000,000	4,006,000	5,000,000 00
Series E—Apr. 1, 1882; Apr. 1, 1912.....	5,000,000	5,000,000	3,191,000	5,000,000 00
Series F—Apr. 1, 1882; Apr. 1, 1912.....	5,000,000	4,285,000	1,969,000	4,422,815 74
Series G.....	6,000,000			
Totals.....	*\$46,000,000	\$39,285,000	\$31,019,500	\$39,136,015 74
S. P. R. R. Co., 5 per cent first mortgage coupon:				
Oct. 1, 1888; Oct. 1, 1938.....	*\$38,000,000	12,932,000	3,399,000	12,811,400 00
S. P. R. R. Co., 5 per cent first mortgage coupon:				
Sept. 15, 1893; Nov. 1, 1937.....	89,293,500	12,517,000	12,517,000	12,517,000 00
Non-interest-bearing.....		1,670,000	1,670,000	1,670,000 00
S. P. Branch Ry. Co., first mortgage coupon:				
Apr. 1, 1887; Apr. 1, 1937.....	*\$9,000,000	3,578,000	3,578,000	3,578,000 00
Stockton and Copperopolis R. R. Co., first mortgage coupon:				
Jan. 1, 1875; June 1, 1905.....	*\$500,000	500,000	500,000	500,000 00
	\$182,793,500			
Deduct.....	*\$93,500,000			
Grand totals	\$89,293,500	\$70,482,000	\$52,683,500	\$70,212,415 74

Interest (payable by lessee).

Class of Bond.	Rate.	Payable.	Amount Accrued.	Amount Paid.
S. P. R. R. Co. 6 per cent of 1905.....	6	Apr.—Oct. ..	\$1,874,280 84	\$1,868,100 84
S. P. R. R. Co. 5 per cent of 1938.....	5	Apr.—Oct. ..	428,550 00	501,375 00
S. P. R. R. Co. 5 per cent of 1937.....	5	May—Nov....	350,131 84	245,823 51
S. P. Branch Ry. Co., first mortgage coupon	6	Apr.—Oct. ..	214,680 00	218,700 00
Stockton and Copperopolis R. R. Co., first mortgage coupon	5	Jan.—June..	25,000 00	25,037 50
Totals.....			\$2,892,642 68	\$2,859,036 85

*Authorized issue of bonds subject to retirement by mortgage of 1893.

RECAPITULATION OF FUNDED DEBT.

Class of Debt.	Amount Issued.	Amount Outstanding.
Mortgage bonds	\$70,482,000	\$52,683,500

Interest accrued during year, \$2,892,642 68; interest paid by lessee during year, \$2,859,036 85.

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.	Current Liabilities Accrued to and Including June 30, 1894.
Cash	\$124,450 81
Bills receivable	500 00
Other cash assets (excluding "materials and supplies")	771 63
Balance—current liabilities	693,096 25
Total	\$818,818 69
Bills payable	\$16,000 00
Matured interest coupons unpaid	495 00
Miscellaneous	\$02,323 69
Total	\$818,818 69

RECAPITULATION.

Account.	Amount Outstanding.	Miles.	Amount per Mile of Road.
Capital stock	\$68,402,900	1,860.637	\$36,763 16
Bonds	52,683,500	1,860.637	28,314 76
Totals	\$121,086,400	1,860.637	\$65,077 92

Capital stock and mortgage cover railroad and telegraph lines and rolling stock, etc.; also lands granted by the United States. The amount on each cannot be separated.

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS.

Item.	Construction or Equipment During Year.
Construction:	
Real estate	\$21,231 85
Fences	2,433 59
Grading, and bridge and culvert masonry	24,951 53
Bridges and trestles	18,054 04
Reconstruction—El Rio to Yuma	76,526 41
Other superstructure	1,394 19
Buildings, furniture, and fixtures	16,086 16
Shop machinery and tools	92 40
Sidings and yard extensions	120,630 76
Road built by contract	4,359,825 00
Purchase of constructed road	542,520 00
Total construction	\$5,183,745 93
Equipment:	
32 Locomotives	\$342,933 91
51 Passenger cars	451,482 44
Sleeping, parlor, and dining cars, change in	Cr. 8 00
18 Freight cars (caboose)	22,838 44
1 Other car (officers')	7,500 00
Total equipment	\$824,746 79
Grand total cost of construction, equipment, etc.	\$6,008,492 72

Grand total cost of construction and equipment to June 30, 1893, \$123,945,055 58; total cost to June 30, 1894, \$129,953,548 30; cost per mile (1,860.637 miles), \$69,843 57. Owing to consolidations, etc., it is impossible to state details.

INCOME ACCOUNT.

Income from lease of road.....	\$4,057,383 33	
Miscellaneous income—less expenses.....	1,391,862 14	
Total income.....		\$5,449,245 47
Deductions from income:		
Salaries and maintenance of organization.....	\$27,813 25	
Interest on funded debt accrued.....	2,892,642 68	
Taxes (on lands).....	238,956 89	
Total deductions from income.....		3,159,412 82
Net income.....		\$2,289,832 65
Dividends, three per cent, common stock.....	\$2,036,445 00	
Other payments from net income.....	1,504,965 65	
Total.....		3,541,410 65
Deficit from operations of year ending June 30, 1894.....		\$1,251,578 00
Surplus on June 30, 1893.....		2,745,130 05
Surplus on June 30, 1894.....		\$1,493,552 05

STOCKS AND BONDS OWNED.

This company owns no stock.

Bonds: Southern Pacific Railroad Company first mortgage coupon, 44-year 5 per cent bonds; total par value, \$1,670,000; non-interest bearing.

MISCELLANEOUS INCOME.

Item.	Gross Income.	Less Expenses.	Net Miscellaneous Income.
Income from land sales for redemption of bonds.....	\$1,266,683 15	\$57,313 39	\$1,209,369 76
Income for sinking funds of the company.....	138,282 50		138,282 50
Adjustment of suspense equipment.....	347 28		347 28
Balance Texas Pacific land account.....	43,862 60		43,862 60
Totals.....	\$1,449,175 53	\$57,313 39	\$1,391,862 14

COMPARATIVE GENERAL BALANCE SHEET.

June 30, 1893.	Assets.	June 30, 1894.	June 30, 1894— Increase.	June 30, 1894— Decrease.
\$123,945,055 58	Cost of road and equipment.....	\$129,953,548 30	\$6,008,492 72	
92,000 00	Bonds owned.....	1,670,000 00	1,578,000 00	
2,541,530 39	Bills receivable, account land sales.....	3,629,354 33	1,087,823 94	
1,764,113 26	Cash and current assets.....	125,722 44		\$1,638,390 82
1,310,494 53	Sinking funds.....	1,353,636 24	43,141 71	
\$129,653,193 76	Totals.....	\$136,732,261 31	\$7,079,067 55	
June 30, 1893.	Liabilities.	June 30, 1894.	June 30, 1894— Increase.	June 30, 1894— Decrease.
\$66,577,000 00	Capital stock.....	\$68,402,900 00	\$1,825,900 00	
47,721,500 00	Funded debt.....	52,683,500 00	4,962,000 00	
631,038 79	Current liabilities.....	818,813 69	137,779 90	
10,595,580 07	Income from land sales for redemption of bonds.....	11,862,263 22	1,266,683 15	
1,332,944 85	Income for sinking fund of the company.....	1,471,227 35	138,282 50	
2,745,130 05	Profit and loss.....	1,493,552 05		\$1,251,578 00
\$129,653,193 76	Totals.....	\$136,732,261 31	\$7,079,067 55	

IMPORTANT CHANGES DURING THE YEAR.

Extension of Road put in Operation:

Burbank to Chatsworth Park.....	21,621 miles.
Near Santa Margarita to near San Luis Obispo.....	16,900 miles.

New Stock and Bonds Issued.

	Miles.	Stock.	Bonds.
For road—			
Collis to Fresno.....	15,154	\$1,103,200	\$783,000
Burbank to Chatsworth Park.....	21,621		
Santa Monica to Soldiers' Home.....	2,400	215,700	704,000
Fresno to Pollasky.....	24,112		
Redlands Junction to Crafton.....	7,191	507,000	507,300
Near Santa Margarita to near San Luis Obispo.....	16,900		
And extra compensation.....			1,082,000
For exchange of 5 per cent bonds of 1888 at par.....			9,533,000

SECURITY FOR FUNDED DEBT.

Class of Bond or Obligation.	What Road Mortgaged.	Miles.
Southern Pacific Railroad Company first mortgage 6 per cent (coupon) bonds.....	San Francisco to Tres Pinos.....	100.490
	Huron to east bank Colorado River, near Yuma.....	530.439
	Los Angeles to San Pedro.....	24.650
	Carnadero to San Miguel.....	125.993
	Mojave to Needles.....	242.507
	Huron to Alcalde.....	20.559
Southern Pacific Railroad Company first mortgage 5 per cent (coupon) bonds.....	Hillsdale to Almaden.....	7.711
	Pajaro to Santa Cruz.....	21.200
	Aptos to New Monte Vista.....	6.767
	Castroville to Lake Majella.....	19.554
	Martinez to Armona.....	193.275
	Avon to San Ramon.....	20.269
	Collis to near Poso.....	117.429
	Peters to Merced.....	59.262
	Berenda to Raymond.....	21.000
	Florence to Santa Ana.....	27.820
	Miraflores to Tustin.....	11.703
	Los Angeles (Clement Junction) to Port Los Angeles.....	19.180
	Home Junction to Soldiers' Home.....	2.971
	Burbank to Chatsworth Park.....	21.621
	Studebaker to Whittier.....	5.914
	Thenard to Long Beach.....	4.023
	Ontario to Chino.....	5.780
	Near Bakersfield to Asphalto.....	48.057
	Santa Margarita to San Luis Obispo.....	16.900
	Baden to South San Francisco Station.....	1.513
San Bruno toward San Francisco.....	2.159	
Declez to Declezville.....	2.552	
Redlands Junction to Crafton.....	7.190	
Fresno to Pollasky.....	24.112	
San Pedro to Point Firmin Light-house.....	2.915	
Southern Pacific Branch Railway Company first mortgage 6 per cent (coupon) bonds.....	Saugus N.W. to Ellwood.....	91.500
	San Miguel S.E. to Santa Margarita.....	27.802
Stockton and Copperopolis Railroad Company first mortgage 5 per cent (coupon) bonds.....	Stockton to Milton.....	25.820
	Total miles.....	1,860.637

Mortgages cover railroads, telegraph lines, rolling stock, etc.; also lands granted by the United States. The amount on each cannot be separated.

All equipment is mortgaged.

Income mortgaged: To pay S. P. R. R. Co. first mortgage 6 per cent (coupon) bonds, a sinking fund of \$100,000 per year, commencing in 1882; also gross receipts from sales of land. To pay S. P. R. R. Co. first mortgage 5 per cent (coupon) bonds, a sinking fund of \$20,000 per year, from 1898 to 1912, and \$120,000 from 1913. To pay S. P. Branch Railway first mortgage 6 per cent (coupon) bonds, a sinking fund of \$50,000 per year, commencing in 1897.

MILEAGE OF ROAD OPERATED.

	Main Line.	Constructed During Year.	Rails—Iron.	Rails—Steel.
Coast Division.....	330.089	14.200	22.201	307.880
Southern Division.....	1,182.690	21.621	4.620	1,178.070
Stockton Division.....	105.351	-----	9.651	95.700
Colorado Division.....	242.507	-----	-----	242.507
Total mileage owned (single track).....	1,860.637	35.821	36.472	1,824.165

BRIDGES, TRESTLES, TUNNELS, ETC.

Item.	Number.	Aggregate Length.	Minimum Length.	Maximum Length.
Bridges:				
Iron.....	18	3,319 ft. 8 in.	72 feet.	930 feet.
Wooden.....	84	14,718 ft. 8 in.	18 feet.	960 feet.
Totals.....	102	18,038 ft. 4 in.		
Trestles.....	3,157	163,129 ft.	4 ft.	3,166 ft.
Tunnels.....	36	26,390 ft. 8 in.	158 ft. 10 in.	6,966 ft. 6 in.

Item.	Number.	Height Above Surface of Rail.
Overhead Highway Crossings:		
Trestles.....	8	18 feet.
Overhead Railway Crossings:		
Trestles.....	5	18 feet.
Tunnels.....	38	18 feet.

Gauge of track, 4 feet 8½ inches; length, 1,860.637 miles.

TELEGRAPH.

A. Owned by Company Making this Report.

Miles of Line.	Miles of Wire.	Operated by Another Company.		
		Miles of Line.	Miles of Wire.	Name of Operating Company.
1,791.51	2,357.83	1,767.81	2,334.13	Operated by railroad employes, who report to Western Union Telegraph Co. for commercial business.

B. Owned by Another Company, but Located on Property of Road Making this Report.

Miles of Line.	Miles of Wire.	Name of Owner.	Name of Operating Company.
1,156.53	4,507.11	Western Union Telegraph Co....	Western Union Telegraph Co.
-----	50.00	Central Pacific Railroad Co.....	Western Union Telegraph Co.

Working Divisions or Branches.	CHARACTERISTICS OF ROAD.			Profile.									
	Miles.	Alignment.		No. of Curves...		Length Curved Line—Miles...	Length Straight Line—Miles...	Length of Level Line—Miles...	No. Ascending Grades	Sum of Ascents of Ascending Grades—Feet..	Length Ascending Grades—Miles.....	No. Descending Grades	Sum of Descents of Descending Grades—Feet..	Length Descending Grades—Miles.....
San Francisco to Tres Pinos	100.490	14,316	86,174	70	19,708	32	1,241.19	50,403	27	7,249.93	30,379	30,379	30,379
Carnadero to San Luis Obispo	170.695	54,553	116,142	356	31,342	96	1,886.98	91,613	82	1,823.09	47,740	1,823.09	47,740
Castroville to Lake Magella	19.554	6,593	12,961	46	4,228	24	411.90	8,741	23	351.70	6,585	351.70	6,585
Pajaro to Santa Cruz	21.200	7,656	13,544	76	3,298	22	468.60	8,122	23	473.50	7,780	473.50	7,780
Aptos to Monte Vista	6.767	3,946	2,821	109	1,151	2	820.60	6,616					
Extension	7.711	3,593	5,121	33	1,892	11	200.30	5,819					
Hillsdale to Almaden	1.513	2,520	0,990	3	0,012	2	10.53	0,340	12	37.40	1,161	37.40	1,161
Baden to South San Francisco	2.459	1,050	1,109	5	0,329	3	13.11	0,902	3	18.30	0,928	18.30	0,928
San Bruno to South San Francisco	550.998	110,430	440,568	438	77,288	93	9,261.60	243,710	80	9,009.60	230,000	9,009.60	230,000
Alcalde to east bank of Colorado River, near Yuma	27.820	2,599	25,221	4	2,595	12	128.00	10,398	15	149.30	14,827	149.30	14,827
Clement Junction (Los Angeles) to shore end of Port Los Angeles wharf	19.180	5,682	13,498	21	4,100	8	125.25	3,935	16	334.96	11,145	334.96	11,145
Home Junction to Soldiers' Home	2.971	1,218	1,753	7	1,100	2	208.02	2,604	1	30.48	0,367	30.48	0,367
Burbank to Chatsworth Park	21.621	2,780	18,841	14	5,415	17	389.85	14,880	6	25.90	1,326	25.90	1,326
Los Angeles to San Pedro, and branch to Point Fermin.	27.565	6,399	21,166	36	3,322	6	113.47	2,430	10	352.77	21,813	352.77	21,813
Near Martinez to Armona	193.275	32	15,170	178,105	59,083	175	680.30	80,783	143	461.44	53,409	461.44	53,409
Berenda to Raymond	21.000	7,950	13,050	76	3,428	33	789.63	14,671	22	87.47	2,901	87.47	2,901
Saugus to Ellwood	91.500	225	33,388	225	14,190	62	878.39	25,696	68	1,941.13	51,614	878.39	51,614
Thendard to Long Beach	4.023	3	1,028	3	0,544	5	34.49	1,619	4	23.76	1,860	23.76	1,860
Studebaker to Whittier	5.914	8	1,513	8	0,947	5	153.67	4,327	5	12.46	0,640	12.46	0,640
Collis to Poso	117.429	37	12,590	104,839	25,536	122	715.84	52,523	100	219.23	39,370	219.23	39,370
Miraflores to Tustin	11.703	10	2,708	8,995	1,582	9	174.80	4,849	8	269.24	5,780	269.24	5,780
Ontario to Chino	5.780	4	0,816	4	4,964				1		18,719		18,719
Bakersfield to Ashalto	48.057	23	6,297	41,760	15,134	55	885.43	14,204	47	175.74	18,719	175.74	18,719
Declez to Declezville	2.552	5	0,999	1,553	0,307	2	62.51	0,749	1	107.40	1,496	107.40	1,496
Redlands Junction to Crafton	7.190	11	2,257	4,933	0,265	2	623.38	6,395	2	31.20	0,530	623.38	0,530
Fresno to Pollasky	24.112	48	4,799	19,313	4,363	32	217.60	13,496	18	150.03	6,253	150.03	6,253
Stockton to Milton	25.820	24	3,799	22,021	2,058	9	384.70	21,801	7	17.70	1,961	17.70	1,961
Peters to Merced	59.262	37	8,236	51,026	19,218	33	422.06	22,694	37	352.44	17,350	352.44	17,350
Avon to San Ramon	20.269	31	5,059	14,610	3,493	12	498.24	15,345	7	41.96	1,431	41.96	1,431
Mojave to Needles	242.507	199	45,443	197,064	21,229	22	3,010.70	86,685	36	5,283.50	134,593	5,283.50	134,593
Totals	1,860.637	2,000	372,987	1,487,650	325,057	908	24,821.14	816,350	804	23,030.69	719,290	23,030.69	719,290

EMPLOYÉES AND SALARIES.

General officers, 9; total compensation (2), \$8,700; average daily compensation (313 days), \$27 79.

Other officers reported by Southern Pacific Company, lessee.

SUBJECTS REPORTED UPON BY LESSEE.

All details under the following headings are reported upon by the Southern Pacific Company, the lessee of the road of this company:

Earnings from Operation.
 Rentals Received.
 Operating Expenses.
 Rentals Paid.
 Contracts, Agreements, Etc.
 Passenger and Freight, and Train Mileage.
 Freight Traffic Movement.
 Description of Equipment.
 Renewals of Rails and Ties.
 Consumption of Fuel by Locomotives.
 Accidents to Persons.
 Car Mileage.

STATE OF CALIFORNIA,)
 City and County of San Francisco.) ss.

We, the undersigned, Charles F. Crocker, President, and J. L. Willcutt, Secretary of the Southern Pacific Railroad Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

CHARLES F. CROCKER,
 President.

J. L. WILLCUTT,
 Secretary.

Subscribed and sworn to before me, this seventh day of September, 1894.

E. B. RYAN,
 Notary Public.

CENTRAL PACIFIC RAILROAD COMPANY.

HISTORY.

1. Name of common carrier making this report: Central Pacific Railroad Company.
 2. Date of organization: August 22, 1870.
 3. Under laws of what Government, State, or Territory organized: Incorporated under the laws of California, and of the United States. California: General railroad laws of 1861, approved May 20, 1861. United States: 12 Stat. 489; 13 Stat. 356; 14 Stat. 289.
 4. Names of the constituent companies:
 - I. *Central Pacific Railroad Company*. Consolidated June 23, 1870.
 Central Pacific Railroad Company of California, chartered June 28, 1861; amended October 8, 1864.
 Western Pacific Railroad Company, chartered December 13, 1862 ----- } Western Pacific Railroad Company, consolidated November 2, 1869.
 San Francisco Bay Railroad Company, chartered September 25, 1865 ----- }
 - II. *California and Oregon Railroad Company*. Consolidated December 18, 1869.
 California and Oregon Railroad Company, chartered June 30, 1865 ----- }
 Marysville Railroad Company, chartered November 29, 1867 ----- } California and Oregon Railroad Company, consolidated January 16, 1868.
 Yuba Railroad Company, chartered November 17, 1862 ----- }
 - III. *San Francisco, Oakland, and Alameda Railroad Co.* Consolidated June 29, 1870.
 San Francisco and Alameda Railroad Company, chartered March 25, 1863 --- }
 San Francisco, Alameda, and Stockton Railroad Co., chartered Dec. 8, 1863 --- } San Francisco and Alameda Railroad Company, consolidated October 15, 1868.
 San Francisco and Oakland Railroad Company, chartered October 21, 1861 . }
 - IV. *San Joaquin Valley Railroad Company*. Chartered February 5, 1868.
- The above four roads were consolidated August 22, 1870, under the name of the Central Pacific Railroad Company.
5. Authority: General railroad laws of California.
 6. Not reorganized.
 7. Carrier operating the road of this company: Southern Pacific Company.

ORGANIZATION.

Names of Directors.	Post Office Address.
Isaac L. Regua	San Francisco.
C. P. Huntington	23 Broad Street, New York.
Wm. H. Mills	San Francisco.
T. E. Spencer	San Francisco.
C. P. Ellis	San Francisco.
I. E. Gates	23 Broad Street, New York.
C. E. Bretherton	London, Eng.

Date of expiration of terms of Directors: April 9, 1895.

Number of stockholders at date of last election: 1,713.

Last meeting of stockholders for election of Directors: April 10, 1894.

Post Office address of general office: Fourth and Townsend Streets, San Francisco, and 23 Broad Street, New York.

OFFICERS.

Title.	Name.
Chairman of the Board and President.....	Isaac L. Regua.
First Vice-President.....	C. P. Huntington.
Second Vice-President.....	W. H. Mills.
Third Vice-President.....	I. E. Gates.
Secretary.....	W. M. Thompson.
Treasurer.....	W. H. Mills.
General Solicitor or General Counsel.....	W. F. Herrin.
Land Agent.....	W. H. Mills.

Operating officers reported by Southern Pacific Company, lessee.

PROPERTY LEASED OR OTHERWISE ASSIGNED FOR OPERATION.

Name of Road.	Miles.
Central Pacific Railroad: Oakland Wharf to Ogden.....	868.90
Niles to San José	17.54
Lathrop to Goshen	146.08
Roseville to California State line	296.50
Oakland local line	4.84
Alameda local line	11.46
San Francisco Ferry—C. P. R. R.: San Francisco to Oakland Wharf	3.69
Leased by C. P. R. R. Co.—Union Pacific Railway: Ogden to 5 miles west.....	5.00
C. P. R. R. trackage right—Northern Railway: Sacramento to Brighton	5.64
Total mileage	1,359.65

Operated by Southern Pacific Company under lease.

Railroads, equipments, and appurtenances of Central Pacific Railroad Company leased to Southern Pacific Company for 90 years, from January 1, 1894.

Lessee will pay to lessor a fixed yearly rental amounting to ten thousand dollars (\$10,000) per annum, to be applied to maintaining corporate organization.

Lessee is to operate said leased property and apply the earnings and income derived therefrom to paying all operating expenses thereof, incidental expenses connected therewith, including rental of leased lines, and, according to their lawful priorities, to the payment of the current interest, sinking fund contributions, United States requirements, etc.

On the first day of April in each year lessee shall pay to lessor such balance, if any, of the net earnings or income received by the lessee from leased premises for the year ending on the December 31st next preceding, as shall remain in its hands after payments provided for are made; provided, that if such balance shall exceed the sum of 6 per cent on the capital stock of lessor, lessee shall retain one-half ($\frac{1}{2}$) of such excess.

Lessee shall be entitled to retain and pay to itself whatever may be owing to it from lessor for or in respect of advances which may have been lawfully advanced by lessee.

Agreement subject to revision and change if found to work to the benefit of one party at the expense of the other.

FUNDED DEBT.

Class of Bond or Obligation, and Date of Issue and Maturity.	Authorized Issue.	Amount Issued.	Amount Outstanding
C. P. R. R. first mortgage, A—July 1, 1865; July 1, 1895.	\$3,000,000	\$2,996,000	\$2,995,000
C. P. R. R. first mortgage, B—July 1, 1866; July 1, 1896.	1,000,000	1,000,000	1,000,000
C. P. R. R. first mortgage, C—July 1, 1866; July 1, 1896.	1,000,000	1,000,000	1,000,000
C. P. R. R. first mortgage, D—July 1, 1866; July 1, 1896.	1,390,000	1,383,000	1,383,000
C. P. R. R. first mortgage, E—Jan. 1, 1867; Jan. 1, 1897.	4,000,000	3,997,000	3,997,000
C. P. R. R. first mortgage, F—Jan. 1, 1868; Jan. 1, 1898.	4,000,000	3,999,000	3,999,000
C. P. R. R. first mortgage, G—Jan. 1, 1868; Jan. 1, 1898.	4,000,000	3,999,000	3,999,000
C. P. R. R. first mortgage, H—Jan. 1, 1868; Jan. 1, 1898.	4,000,000	4,000,000	3,999,000
C. P. R. R. first mortgage, I—Jan. 1, 1868; Jan. 1, 1898.	3,525,000	3,511,000	3,511,000
W. P. R. R. old issue—Dec. 1, 1865; Dec. 1, 1895.....	1,970,000	1,970,000	111,000
W. P. R. R. first mortgage, A—July 1, 1869; July 1, 1899.			1,859,000
W. P. R. R. first mortgage, B—July 1, 1869; July 1, 1899	765,000	765,000	765,000
C. & O., A—Jan. 1, 1868; Jan. 1, 1918	6,000,000	6,000,000	5,982,000
C. & O., B—Jan. 1, 1872; Jan. 1, 1918	7,200,000	5,858,000	4,353,000
San Joaquin—Oct. 1, 1870; Oct. 1, 1900	6,080,000	6,080,000	6,080,000
C. P. R. R. Land Grant—Oct. 1, 1870; Oct. 1, 1900	10,000,000	10,000,000	2,765,000
50-year bonds of 1936—Oct. 1, 1886; Oct. 1, 1936	16,000,000	12,173,000	56,000
50-year bonds of 1939—April 1, 1889; April 1, 1939..}			17,173,000
Totals	\$73,930,000	\$68,731,000	\$60,032,000
United States Subsidy bonds*.....	27,855,680	27,855,680	27,855,680
Grand totals.....	\$101,785,680	\$96,586,680	\$87,887,680

* Interest paid by United States Government.

Owing to the number of consolidations it is impossible now to correctly trace the manner of payment for bonds. They were all issued for cash or its equivalent.

Interest on above Bonds (paid by Southern Pacific Company, lessee).

Class of Bond.	Rate.	When Payable.	Amount Accrued.	Amount Paid.
C. P. R. R. first mortgage	6	Jan.—July.	\$1,552,980 00	\$1,560,390 00
W. P. R. R. bonds (old issue).....	6	June—Dec.	6,660 00	6,840 00
W. P. R. R. first mortgage, series A and B	6	Jan.—July.	157,440 00	157,170 00
California and Oregon, series A	5	Jan.—July.	299,100 00	300,260 00
California and Oregon, series B	5	Jan.—July.	217,900 00	219,455 00
San Joaquin	6	April—Oct.	364,800 00	362,910 00
C. P. R. R. Land Grant	5	April—Oct.	136,962 50	143,050 00
50-year bonds of 1936	6	April—Oct.	3,360 00	3,360 00
50-year bonds of 1939	5	April—Oct.	584,815 97	567,853 47
Totals			\$3,324,018 47	\$3,321,288 47

RECAPITULATION OF FUNDED DEBT.

Class of Debt.	Amount Issued.	Amount Outstanding.
Mortgage bonds	\$68,731,000 00	\$60,032,000 00
Miscellaneous obligations—U. S. subsidy bonds	27,855,680 00	27,855,680 00
Totals	\$96,586,680 00	\$87,887,680 00

Interest accruing on mortgage bonds during year, \$3,324,018 47; interest paid by lessee during year, \$3,321,288 47.

Interest on subsidy bonds was paid by United States.

CAPITAL STOCK.

The total par value of capital stock authorized is \$100,000,000, divided into 1,000,000 shares of a par value of \$100 each. The total amount issued and outstanding is \$68,000,000.

During the year a dividend of 1 per cent, amounting to \$672,755, was declared. Dividends paid are on \$67,275,500 capital stock, \$724,500 being owned by the company.

Manner of payment for capital stock: Number of shares issued, 680,000; cash realized on amount issued, \$68,000,000. There have been so many consolidations that it is impossible now to correctly trace the manner of payment for all the capital stock. It was issued for cash, or its equivalent in material, labor, or services.

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.	Current Liabilities Accrued to and Including June 30, 1894.
Cash	Loans and bills payable
Bills receivable	Audited vouchers and ac-
Due from solvent companies	counts
and individuals	Sinking funds uninvested ...
Due from U. S. Government	Dividends not called for ...
over all requirements	Matured interest coupons
	unpaid (including coupons
	due July 1)
	Miscellaneous—trustees' land
	grant mortgage
	Balance—cash assets
Total	Total

RECAPITULATION.

Account.	Amount Outstanding.	Apportionment to Railroads.	Miles.	Amount per Mile of Road.
Capital stock.....	\$68,000,000 00	\$68,000,000 00	1,345.32	\$50,545 59
Bonds.....	60,032,000 00	60,032,000 00	1,345.32	44,622 85
Current liabilities.....	2,583,166 77	2,583,166 77	1,345.32	1,920 56
United States subsidy bonds	27,855,680 00	27,855,680 00	860.66	32,365 49
Totals.....	\$158,470,846 77	\$158,470,846 77	1,345.32	\$117,794 16

Capital stock and mortgage cover railroads, telegraph lines, rolling stock, ferry and river steamers, etc.; also, lands granted by the United States. Amount on each cannot be separated.

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS.

Item.	Construction or Equipment During Year.
Construction:	
Right of way.....	*\$1,620 00
Other real estate.....	211 20
Discount on securities sold.....	91,110 00
Other items.....	33
Total construction.....	\$89,701 53
Equipment:	
Locomotives.....	\$76,910 60
Sleeping, parlor, and dining cars (14).....	206,042 27
Total equipment.....	\$282,952 87

* Credit.

Total cost of construction, equipment, etc., to June 30, 1893, \$170,799,030 67; total cost of construction and equipment during year ending June 30, 1894, \$372,654 40; total cost to June 30, 1894, \$171,171,685 07; cost per mile, \$127,234 92.

Total cost of construction and equipment covers cost of ferry and river steamers, etc. The cost per mile of road cannot therefore be correctly stated.

INCOME ACCOUNT.

Income from lease of road.....	\$1,360,000 00	
Interest on bonds paid by lessee.....	3,324,018 47	
Dividends on stocks owned.....	104 85	
Interest on bonds owned.....	41 68	
Miscellaneous income—less expenses.....	1,281,872 28	
Total income.....		\$5,966,037 23
Deductions from income:		
Salaries and maintenance of organization.....	\$1,825 65	
Interest on funded debt accrued.....	3,324,018 47	
Other deductions.....	1,262,472 28	
Total deductions from income.....		4,588,316 40
Net income.....		\$1,377,720 88
Dividends—common stock: September 15, 1893, 1 per cent.....		672,755 00
Surplus from operations of year ending June 30, 1894.....		\$704,965 88
Surplus on June 30, 1893.....		2,710,313 49
Additions for year.....	\$258,796 63	\$3,415,279 37
Deductions for year.....	250,704 97	
		8,091 66
Surplus on June 30, 1894.....		\$3,423,371 03

STOCKS OWNED.

Name.	Par Value.	Valuation.
16,800 shares Newport News and Mississippi Valley Co.	\$1,680,000 00	\$560,542 61
7,245 shares Central Pacific Railroad Co.	724,500 00	724,500 00
Coos Bay (Oregon) Coal Co.	3,449,500 00	136,871 30
Colfax and Forest Hill Commercial Co.*	4,660 00	4,000 00
Totals	\$5,858,660 00	\$1,425,913 91

* Dividend received, \$104 85.

BONDS OWNED.

Name.	Par Value.	Rate— Per Cent.	Valuation.
U. S. Government Pacific Ry. bond—fractional* ..	\$120 00	6	\$120 00
Sacramento City †	20,000 00	5	35,310 37
Ogden Union Railway and Depot Co.	163,000 00	5	235,769 20
Totals	\$183,120 00	-----	\$271,199 57

* Income or dividend receivable by lessee.

† Dividend received, \$41 68.

COMPARATIVE GENERAL BALANCE SHEET.

June 30, 1893.	Assets.	June 30, 1894.	June 30, 1894— Increase.	June 30, 1894— Decrease.
\$170,799,030 67	Cost of road and cost of equipment	\$171,171,685 07	\$372,654 40	
1,430,709 22	Stocks of other companies owned	1,425,913 91	-----	\$4,795 31
120 00	Bonds of other companies owned	271,199 57	271,079 57	
99,945 82	Other permanent investments	99,856 72	-----	89 10
4,015,625 88	Cash and current assets ..	2,834,538 71	-----	1,181,087 17
10,131,965 42	Sinking funds, company ..	10,683,120 78	551,155 36	
14,136,776 15	Sundries	16,351,298 87	2,214,522 72	
\$200,614,173 16	Totals	\$202,837,613 63	\$2,223,440 47	
June 30, 1893.	Liabilities.	June 30, 1894.	June 30, 1894— Increase.	June 30, 1894— Decrease.
\$68,000,000 00	Capital stock	\$68,000,000 00		
59,008,000 00	Funded debt	60,032,000 00	\$1,024,000 00	
27,855,680 00	U. S. subsidy bonds	27,855,680 00		
3,608,617 29	Current liabilities	2,583,166 77	-----	\$1,025,450 52
-----	Accrued interest on funded debt not yet payable ..	279,320 00	279,320 00	
16,102,288 96	Income sinking fund of company	16,649,443 02	547,154 06	
10,242,490 15	Income redemption of lands	10,343,074 36	100,584 21	
13,086,783 27	Income U. S. requirements ..	13,671,553 45	584,775 18	
2,710,313 49	Profit and loss	3,423,371 03	713,057 54	
\$200,614,173 16	Totals	\$202,837,613 63	\$2,223,440 47	

MISCELLANEOUS INCOME.

Item.	Gross Income.	Net Miscellane-ous Income.
River steamers	\$14,400 00	\$14,400 00
Rental—January to June, 1894.....	5,000 00	5,000 00
U. S. requirement—paid by S. P. Co.....	584,775 18	584,775 18
Sinking Fund—paid by S. P. Co.....	185,000 00	185,000 00
Earnings of Sinking Funds	362,154 06	362,154 06
Land sales, etc.	57,794 15	57,794 15
	72,748 89	72,748 89
Totals	\$1,281,872 28	\$1,281,872 28

IMPORTANT CHANGES DURING THE YEAR.

Lease to Southern Pacific Company revised to continue 90 years from January 1, 1894. Guaranty of rental, \$1,360,000, rescinded. Lessee to pay \$10,000 per annum as rental, and net income after operating expenses, rental, interest on floating indebtedness, and U. S. requirements to be paid to lessor April 1st of each year for calendar year preceding. (See under "Property Leased or Otherwise Assigned for Operation.")

Bonds issued: C. P. R. R. 50-year 5 per cent, of 1889; January 15, 1894, \$1,142,000; April 3, 1894, \$31,000. Total, \$1,173,000.

Notes payable to trustees land grant mortgage, of \$500,000, each payable October 1, 1893, and October 1, 1894, were paid, with accrued interest.

Chesapeake and Ohio Railway stock, 275 shares, sold.

SECURITY FOR FUNDED DEBT.

Class of Bond or Obligation.	What Road Mortgaged.	Miles.
C. P. R. R. first mortgage, A B C D E F G H I	Sacramento to Nevada State line	139.76
W. P. R. R. old issue	Nevada line to 5 mil. west Ogden	597.74
W. P. R. R. first mortgage A	San José to 100 miles east.....	123.16
W. P. R. R. first mortgage B	San José to Brighton	
California and Oregon first mortgage A and B	Niles to Oakland	24.00
San Joaquin Valley	Roseville to California and Oregon State line	296.50
C. P. R. R. land grant	Lathrop to Goshen	146.08
C. P. R. R. 50-year of 1939	All lands granted by U. S. un- sold October 1, 1870.	
	All property owned by Company	

Also, all equipment is mortgaged.

Mortgage covers railroads, telegraph lines, rolling stock, etc. Amount on each cannot be separated.

EMPLOYÉS AND SALARIES.

General officers, 6; average daily compensation, \$9 58. Salaries of officers and employés are, under terms of lease, paid and reported by Southern Pacific Company, lessee.

MILEAGE OF ROAD OPERATED.

Line in Use.	Main Line.	Branches and Spurs.	Total Mileage Operated.	Iron Rails.	Steel Rails.
In State of California	288.07	458.88	746.95	1.83	745.12
In State of Nevada	448.73	-----	448.73	-----	448.73
In Territory of Utah	149.64	-----	149.64	-----	149.64
Total mileage owned (single track)	886.44	458.88	1,345.32	1.83	1,343.49

CHARACTERISTICS OF ROAD.

Working Divisions or Branches.	Miles.	Alignment.		
		Number of Curves.	Aggregate Length of Curved Line—Miles.....	Length of Straight Line—Miles.....
San José to five miles west of Ogden.....	858.98	1,136	282.00	576.98
Roseville to Oregon State line.....	296.50	695	99.67	196.83
Lathrop to Goshen.....	146.08	14	8.92	137.16
Oakland local line.....	4.84	7	.78	4.06
Alameda local line.....	11.46	21	3.75	7.71
Oakland to Niles.....	27.46	9	7.05	20.41
	1,345.32			
Northern Railway: Sacramento to Brighton.....	5.64			
Union Pacific Railway: Ogden to five miles west.....	5.00			
Ferry San Francisco Bay: San Francisco to Oakland.....	3.69			
Totals.....	1,359.65	1,882	402.17	943.15

Working Divisions or Branches.	Profile.						
	Length of Level Line—Miles.....	Number of Ascending Grades..	Sum of Ascents of Ascending Grades—Feet.....	Aggregate Length of Ascending Grades—Miles.....	Number of Descending Grades.	Sum of Descents of Descending Grades—Feet.....	Aggregate Length of Descending Grades—Miles.....
San José to five miles west of Ogden.....	141.07	11.64	14,546.10	410.32	844	10,401.00	307.59
Roseville to Oregon State line.....	43.09	2.89	5,674.12	176.93	112	2,965.60	76.48
Lathrop to Goshen.....	23.91	95	449.44	79.99	54	188.80	42.18
Oakland local line.....	1.86	2	21.00	2.05	1	23.00	.93
Alameda local line.....	3.38	36	74.14	5.46	30	50.90	2.62
Oakland to Niles.....	9.60	6	236.40	10.85	6	135.00	7.01
Totals.....	222.91	15 92	21,001.20	685.60	1,047	13,764.3 0	436.81

BRIDGES, TRESTLES, TUNNELS, ETC.

Item.	Number.	Aggregate Length.	Minimum Length.	Maximum Length.
Bridges:				
Iron.....	30	6,051 ft. 9 in.	50 feet.	438 feet.
Wooden.....	76	18,115 ft.	19 feet.	840 feet.
Total.....	106	24,166 ft. 9 in.		
Trestles.....	1,022	88,313 ft. 6 in.	5 feet.	3,621 feet.
Tunnels.....	29	14,717 ft.	83 feet.	1,795 feet.

Item.	Number.	Height Above Surface of Rail.
Overhead Highway Crossings:		
Trestles.....	3	18 feet.
Tunnels.....	29	16 feet.

Gauge of track, 4 feet 8½ inches; length, 1,345 $\frac{32}{100}$ miles.

TELEGRAPH.

A. Owned by Company Making this Report, but Operated by Another Company.

Miles of Line.	Miles of Wire.	Name of Operating Company.
1,355.85	3,217.59	Operated by railroad employes, who report to Western Union Telegraph Co. for commercial business.

B. Owned by Another Company, but Located on Property of Road Making this Report.

Miles of Line.	Miles of Wire.	Name of Owner.	Name of Operating Company.
1,328.21	5,883.79	Western Union Telegraph Co...	Western Union Telegraph Co.

SUBJECTS REPORTED UPON BY LESSEE.

Information under the following headings is reported by the Southern Pacific Company, the lessee of the road of this company:

Earnings from Operation.
 Rentals Received.
 Operating Expenses.
 Rentals Paid.
 Contracts, Agreements, Etc.
 Passenger and Freight, and Train Mileage.
 Freight Traffic Movement.
 Description of Equipment.
 Renewals of Rails and Ties.
 Consumption of Fuel by Locomotives.
 Accidents to Persons.
 Car Mileage.

STATE OF CALIFORNIA,
 City and County of San Francisco. } ss.

We, the undersigned, Isaac L. Requa, President, and W. M. Thompson, Secretary, of the Central Pacific Railroad Company, on our oath, do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

ISAAC L. REQUA,
 President.
 W. M. THOMPSON,
 Treasurer.

Subscribed and sworn to before me, this second day of October, 1894.

E. B. RYAN,
 Notary Public.

SOUTH PACIFIC COAST RAILWAY COMPANY.

HISTORY.

1. Name of common carrier making this report: South Pacific Coast Railway Company.
2. Date of organization: May 21, 1887.
3. Under laws of what Government, State, or Territory organized: State of California.
4. Names of constituent companies:

Name of Company.	Date of Incorporation.
Santa Cruz and Felton Railroad Company	November 13, 1874.
South Pacific Coast Railway Company	March 29, 1876.
Bay and Coast Railroad Company	May 2, 1877.
Oakland Township Railroad Company.....	January 7, 1881.
San Francisco and Colorado River Railroad Company	January 16, 1883.
Felton and Pescadero Railroad Company	June 13, 1883.
Alameda Branch Railroad Company	April 16, 1887.

5. Date of consolidation: May 21, 1887. Authority: General railroad laws of California.
7. Carrier operating the road of this company: Southern Pacific Company.

ORGANIZATION.

Names of Directors.	Post Office Address.
C. G. Lathrop	San Francisco.
C. F. Crocker	San Francisco.
W. V. Huntington	San Francisco.
A. N. Towne	San Francisco.
N. T. Smith	San Francisco.
C. P. Huntington	New York.
T. H. Hubbard	New York.

Date of expiration of terms of Directors: April 16, 1895.

Number of stockholders at date of last election: 9.

Last meeting of stockholders for election of Directors: April 12, 1894.

Post Office address of general office: Fourth and Townsend Streets, San Francisco.

OFFICERS.

Title.	Name.	Location of Office.
President	T. H. Hubbard	New York.
Vice-President	C. F. Crocker	San Francisco.
Secretary	W. V. Huntington	San Francisco.
Treasurer	N. T. Smith	San Francisco.

Operating officers are reported by Southern Pacific Company, lessee.

PROPERTY LEASED OR OTHERWISE ASSIGNED FOR OPERATION.

Name of Road.	Miles.
South Pacific Coast Railway: San Francisco to Santa Cruz	77.60
Alameda Junction to Oakland, Fourteenth Street	1.80
Newark to Centerville	3.00
Campbell to New Almaden	9.60
Felton to Boulder Creek	7.30
Junction South Big Trees to Old Felton.....	1.70
Alameda Ferry: San Francisco Bay—San Francisco to Alameda	3.00
Total mileage	104.00

Operated by Southern Pacific Company under lease.

The property of this company is leased to the Southern Pacific Company for 55 years from July 1, 1887.

Out of the income from the property the lessee is to pay the expenses of operation, maintenance, taxes, corporation expenses, interest on bonded and floating debt, betterments, and additions, and all other charges. The balance remaining after such payments is retained by, or the deficit, if any, is charged to, the lessee.

Majority of capital stock of this company acquired by Southern Pacific Company, July 1, 1887.

CAPITAL STOCK.

The total par value of authorized capital stock is \$6,000,000, divided into 60,000 shares of a par value of \$100 each. The total amount issued and outstanding is \$6,000,000. No dividends were declared.

Owing to consolidation, it is impossible to trace the manner of payment. There were 60,000 shares issued and the total cash realized was \$6,000,000.

FUNDED DEBT.

In July, 1887, first mortgage bonds to the amount of \$5,500,000 were issued to pay for the road. The entire issue is now outstanding. These bonds are to run fifty years, and bear 4 per cent interest, payable in January and July. The amount of interest accruing during the year was \$220,000, which was paid by lessee.

RECAPITULATION OF FUNDED DEBT.

Class of Debt.	Amount Issued.	Amount Outstanding.
Mortgage bonds	\$5,500,000	\$5,500,000

Interest accrued during year, \$220,000; interest paid by lessee during year, \$220,000.

RECAPITULATION.

Account.	Amount Outstanding.	Apportionment to Railroads.	Miles.	Amount per Mile of Road.
Capital stock	\$6,000,000	\$6,000,000	101	\$59,405 94
Bonds	5,500,000	5,500,000		54,455 45
Totals	\$11,500,000	\$11,500,000	101	\$113,861 39

Capital stock and bonds cover railroad, telegraph line, rolling stock, ferry and transfer steamers, etc.; amount on each cannot be separated.

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS.

Expenditures for year are reported by Southern Pacific Company, lessee.

Total cost of construction and equipment to June 30, 1894, \$11,500,000; cost per mile, \$113,861 39. Owing to consolidations it is impossible to show details. Total cost of construction and improvements includes ferry and transfer steamers; the amount per mile of road therefore cannot be correctly stated.

COMPARATIVE GENERAL BALANCE SHEET.

June 30, 1893.	Assets.	June 30, 1894.
\$11,500,000 00	Cost of road and equipment	\$11,500,000 00
June 30, 1893.	Liabilities.	June 30, 1894.
\$6,000,000 00	Capital stock	\$6,000,000 00
5,500,000 00	Funded debt	5,500,000 00
\$11,500,000 00	Totals	\$11,500,000 00

STOCKS AND BONDS OWNED.

This company owns neither stocks nor bonds.

INCOME ACCOUNT.

This company has no income, as its property is operated by lessee in consideration of receiving all revenue therefrom, and paying all expenses in connection therewith.

SECURITY FOR FUNDED DEBT.

Class of Bond or Obligation.	What Road Mortgaged.	Miles.
First mortgage bonds.....	San Francisco to Santa Cruz.....	77.60
	Alameda Junction to Oakland, Fourteenth Street.....	1.80
	Newark to Centerville.....	3.00
	Campbell to New Almaden.....	9.60
	Felton to Boulder Creek.....	7.30
	Big Trees to Old Felton.....	1.70

Mortgage covers railroad, telegraph lines, rolling stock, ferry and transfer steamers. Amount for each cannot be separated.

EMPLOYEES AND SALARIES.

Salaries of officers and other employes under lease are paid and reported by Southern Pacific Company, lessee.

MILEAGE OF ROAD OPERATED.

State or Territory.	Main Line.	Branches and Spurs.	Total Mileage Operated.	Iron Rails.	Steel Rails.
In State of California.....	77.60	23.40	101	22.64	78.36

BRIDGES, TRESTLES, TUNNELS, ETC.

Item.	Number.	Aggregate Length.	Minimum Length.	Maximum Length.
Bridges:				
Iron.....	1	212 feet.	212 feet.	212 feet.
Wooden.....	37	2,317 feet.	32 feet.	150 feet.
Totals.....	38	2,529 feet.		
Trestles.....	149	42,832 feet.	15 feet.	13,558 feet.
Tunnels.....	8	14,669 feet.	190 feet.	6,108 feet.

Item.	Number.	Height Above Surface of Rail.
Overhead highway crossings:		
Trestles.....	1	16 ft. 11 in.
Tunnels.....	8	12 ft. 8 in.

Gauge of track, 3 feet; length, 101 miles.

CHARACTERISTICS OF ROAD.

Working Divisions or Branches.	Miles.	Alignment.		
		Number of Curves.	Aggregate Length of Curved Line—Miles.....	Length of Straight Line—Miles.....
San Francisco to Santa Cruz	77.60	217	18.01	59.59
Alameda Junction to Fourteenth Street, Oakland	1.80	5	.45	1.35
Newark to Centerville	3.00	3	.50	2.50
Campbell to New Almaden	9.60	7	3.10	6.50
Felton to Boulder Creek	7.30	37	3.60	3.70
Junction south of Big Trees to Old Felton	1.70	15	.76	.94
	101.00			
Ferry—San Francisco to Alameda	3.00			
Totals	104.00	284	26.42	74.58

Working Divisions or Branches.	Profile.						
	Length of Level Lane—Miles.....	Number of Ascending Grades.	Sum of Ascents of Ascending Grades—Feet.....	Aggregate Length of Ascending Grades—Miles.....	Number of Descending Grades.	Sum of Descents of Descending Grades—Feet.....	Aggregate Length of Descending Grades—Miles.....
San Francisco to Santa Cruz	28.98	20	910.0	27.70	20	910.0	20.92
Alameda Junction to Fourteenth Street, Oakland	1.18	1	58.9	.62			
Newark to Centerville	2.61	3	7.8	.26	3	3.9	.13
Campbell to New Almaden	2.00	7	9.2	4.59	5	9.0	3.01
Felton to Boulder Creek	1.00	12	280.5	5.10	6	49.2	1.20
Junction south of Big Trees to Old Felton		1	5.1	1.70			
Totals	35.77	44	1,271.5	39.97	34	972.1	25.26

TELEGRAPH OWNED BY COMPANY MAKING REPORT, BUT OPERATED BY ANOTHER COMPANY.

Miles of Line.	Miles of Wire.	Name of Operating Company.
151	185.40	Operated by railroad employes, who report to Pacific Postal Telegraph Cable Co. for commercial business.

SUBJECTS REPORTED UPON BY LESSEE.

Information regarding the following subjects is contained in the report of the Southern Pacific Company, the lessee of this road:

- Earnings from Operation.
- Rentals Received.
- Operating Expenses.
- Rentals Paid.
- Contracts, Agreements, Etc.
- Passenger and Freight, and Train Mileage.
- Freight Traffic Movement.
- Description of Equipment.
- Renewals of Rails and Ties.
- Consumption of Fuel by Locomotives.
- Accidents to Persons.
- Car Mileage.

STATE OF CALIFORNIA,
 City and County of San Francisco. } ss.

We, the undersigned, C. F. Crocker, Vice-President, and N. T. Smith, Treasurer, of the South Pacific Coast Railway Company, on our oath, do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

CHAS. F. CROCKER,
 Vice-President.
 N. T. SMITH,
 Treasurer.

Subscribed and sworn to before me, this fourteenth day of September, 1894.

E. B. RYAN,
 Notary Public.

CALIFORNIA PACIFIC RAILROAD COMPANY.

HISTORY.

1. Name of common carrier making this report: California Pacific Railroad Company.
2. Date of organization: December 23, 1869.
3. Under laws of what Government, State, or Territory organized: General railroad laws of State of California.
4. Names of the constituent companies:

Name of Company.	Date of Incorporation.
California Pacific Railroad Company	January 6, 1865.
San Francisco and Marysville Railroad Company	October 26, 1857.
Sacramento and San Francisco Railroad Company	December 2, 1864.
California Pacific Extension Railroad Company	April 5, 1869.
Napa Valley Railroad Company	March 2, 1864.

5. Date of consolidation: December 23, 1869. Authority: General railroad laws of State of California.
7. Carrier operating the road of this company: Southern Pacific Company.

ORGANIZATION.

Names of Directors.	Post Office Address.
C. P. Huntington	New York.
T. H. Hubbard	New York.
H. E. Huntington	San Francisco.
C. F. Crocker	San Francisco.
N. T. Smith	San Francisco.
J. L. Willcutt	San Francisco.
C. G. Lathrop	San Francisco.

Date of expiration of terms of Directors: April 10, 1895.
 Number of stockholders at date of last election: 112.
 Last meeting of stockholders for election of Directors: April 11, 1894.
 Post Office address of general and operating office: Fourth and Townsend Streets, San Francisco.

OFFICERS.

Title.	Name.	Location of Office.
President	Thos. H. Hubbard	New York.
Vice-President	N. T. Smith	San Francisco.
Secretary	W. V. Huntington	San Francisco.
Treasurer	J. L. Willcutt	San Francisco.

Operating officers are reported by Southern Pacific Company, lessee.

PROPERTY LEASED OR OTHERWISE ASSIGNED FOR OPERATION.

Name of Road.	Miles.
California Pacific Railroad—Vallejo to Sacramento	60.39
Davis to Knight's Landing	18.57
Napa Junction to Calistoga	34.48
	113.44
Ferry—Vallejo Junction to Vallejo	2.00
Total mileage	115.44

Operated by Southern Pacific Company under lease.

The lines and property of this company are leased to the Southern Pacific Company for 50 years from November 1, 1886.

The lessee is to operate the property and receive all income therefrom. It is to pay the expenses of operation, maintenance, and taxes at its own expense; and is also to add to and better the property, which betterments and additions are to become a charge to this company, at the termination of the lease, at their value.

Rental is also paid by the lessee at the rate of \$600,000 per annum, payable semi-annually, on June 15th and December 15th of each year.

The terms of the agreement, including the amount of rentals, are subject to change at the expiration of each period of 5 years upon demand of either party thereto, and any revision proposed is to be determined by arbitration.

CAPITAL STOCK.

The total par value of authorized capital stock is \$12,000,000, divided into 120,000 shares of the par value of \$100 each. The total amount issued and outstanding is \$12,000,000. No dividends were declared.

Owing to consolidation, details as to the manner of payment for capital stock cannot be shown. There were 120,000 shares issued; cash realized, \$12,000,000.

FUNDED DEBT.

Class of Bond or Obligation, and Date of Issue and Maturity.	Authorized Issue.	Amount Outstanding.
First mortgage bonds—January 1, 1867; January 1, 1912	\$2,250,000 00	\$2,232,000 00
Second mortgage bonds—August 9, 1871; January 1, 1911	1,600,000 00	1,595,000 00
Third mortgage bonds, Series A—July 1, 1875; July 1, 1905	2,000,000 00	1,998,500 00
Third mortgage bonds, Series B—July 1, 1875; July 1, 1905	1,000,000 00	1,000,000 00
Totals	\$6,850,000 00	\$6,825,500 00

The bonds were issued to contractors for construction; also to take up bonds of prior issue. Interest upon above bonds, as follows:

Class of Bond or Obligation.	Rate.	When Payable.	Interest Accrued.	Interest Paid.
First mortgage bonds	4½	Jan. and July.	\$100,440 00	\$100,507 50
Second mortgage bonds	4½	Jan. and July.	71,775 00	71,775 00
Third mortgage bonds, Series A	6	Jan. and July.	120,000 00	120,555 00
Third mortgage bonds, Series B	3	Jan. and July.	30,000 00	29,992 50
Totals			\$322,215 00	\$322,830 00

RECAPITULATION OF FUNDED DEBT.

Class of Debt.	Amount Issued.	Amount Outstanding.
Mortgage bonds	\$6,850,000 00	\$6,825,500 00

Interest accrued during year, \$322,215; interest paid during year, \$322,830.

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.	Current Liabilities Accrued to and Including June 30, 1894.
Due from solvent companies and individuals.....	Matured interest coupons unpaid.....
Other cash assets.....	Miscellaneous.....
	Balance—cash assets.....
Total.....	Total.....

RECAPITULATION.

Account.	Amount Outstanding.	Apportionment to Railroads.	Miles.	Amount per Mile of Road.
Capital stock.....	\$12,000,000 00	\$12,000,000 00	113.44	\$105,782 79
Bonds.....	6,825,500 00	6,825,500 00		60,168 37
Current liabilities.....	206,006 90	206,006 90		1,815 99
Totals.....	\$19,031,506 90	\$19,031,506 90	113.44	\$167,767 15

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS.

Expenditures during year reported by Southern Pacific Company, lessee.

Total cost of construction, equipment, etc., to June 30, 1894, \$19,536,644 03; cost per mile, \$172,220 06. The total cost of construction and equipment includes real estate, etc. The cost per mile of road cannot be correctly stated. On account of consolidations details cannot be shown.

INCOME ACCOUNT.

Income from lease of road.....		\$600,000 00
Deductions from income:		
Salaries and maintenance of organization.....	\$1,153 50	
Interest on funded debt accrued.....	322,215 00	
Interest on interest-bearing current liabilities accrued, not otherwise provided for.....	1,081 91	
Other deductions.....	25,000 00	
Total deductions from income.....		349,450 41
Net income.....		\$250,549 59
Surplus June 30, 1893.....		1,466,732 92
Surplus June 30, 1894.....		\$1,717,282 51

STOCKS AND BONDS.

This company does not own any stocks or bonds.

COMPARATIVE GENERAL BALANCE SHEET.

June 30, 1893.	Assets.	June 30, 1894.	June 30, 1894— Increase.	
\$19,536,644 03	Cost of road and equipment	\$19,536,644 03		
983,713 06	Cash and current assets.....	1,212,145 38	\$228,432 32	
	Sinking fund.....	25,000 00	25,000 00	
\$20,520,357 09	Totals.....	\$20,773,789 41	\$253,432 32	
June 30, 1893.	Liabilities.	June 30, 1894.	June 30, 1894— Increase.	June 30, 1894— Decrease.
\$12,000,000 00	Capital stock	\$12,000,000 00		
6,825,500 00	Funded debt.....	6,825,500 00		
223,124 17	Current liabilities.....	206,006 90		\$22,117 27
1,466,732 92	Profit and loss	1,717,282 51	\$250,549 59	
	Income for sinking fund..	25,000 00	25,000 00	
\$20,520,357 09	Totals	\$20,773,789 41	\$253,432 32	

SECURITY FOR FUNDED DEBT.

Class of Bond or Obligation.	What Road Mortgaged.	Miles.
First mortgage bonds.....	Vallejo to Sacramento.....	60.39
Second mortgage bonds.....	Napa Junction to Calistoga.....	34.48
Third mortgage bonds.....	Davis to Knight's Landing.....	18.64

Mortgage covers railroad lines, rolling stock, etc. The amount per mile of road, cannot, therefore, be stated.

EMPLOYÉS AND SALARIES.

General officers, 4. Above officers' and employés' salaries, under terms of lease, are paid and reported by Southern Pacific Company, lessee.

MILEAGE OF ROAD OPERATED.

State or Territory.	Main Line.	Branches and Spurs.	Total Mileage Operated.	Steel Rails.
In State of California.....	60.39	53.05	113.44	113.44

BRIDGES, TRESTLES, TUNNELS, ETC.

Item.	Number.	Aggregate Length.	Minimum Length.	Maximum Length.
Bridges:				
Wooden.....	6	1,769 feet.	60 feet.	236 feet.
Trestles.....	153	17,633 feet.	5 feet.	3,251 feet.
Tunnels.....	1	400 feet.	400 feet.	400 feet.
Item.	Number.	Height Above Surface of Rail.		
Overhead Highway Crossings: Trestles.....	1	17 ft. 3 in.		

Gauge of track, 4 feet 8½ inches; length, 113.44 miles.

CHARACTERISTICS OF ROAD.

Working Divisions or Branches.	Miles.	Alignment.		
		Number of Curves.	Aggregate Length of Curved Line—Miles.	Length of Straight Line—Miles.
Vallejo to Sacramento.....	60.39	27	6.45	53.94
Napa Junction to Calistoga.....	34.48	34	7.30	27.18
Davis to Knight's Landing.....	18.57	5	.83	17.74
	113.44			
Ferry—Vallejo Junction to Vallejo.....	2.00			
Totals.....	115.44	66	14.58	98.86

Working Divisions or Branches.	Profile.						
	Length of Level Line—Miles.	Number of Ascending Grades.	Sum of Ascents of Ascending Grades—Feet.	Aggregate Length of Ascending Grades—Miles.	Number of Descending Grades.	Sum of Descents of Descending Grades—Feet.	Aggregate Length of Descending Grades—Miles.
Vallejo to Sacramento.....	16.32	40	454.5	21.63	41	436.9	22.44
Napa Junction to Calistoga.....	.78	65	492.1	21.85	35	205.2	11.85
Davis to Knight's Landing.....	4.80	14	50.9	7.17	13	60.4	6.60
Totals.....	21.90	119	997.5	50.65	89	702.5	40.89

TELEGRAPH OWNED BY ANOTHER COMPANY, BUT LOCATED ON PROPERTY OF ROAD MAKING THIS REPORT.

Miles of Line.	Miles of Wire.	Name of Owner.	Name of Operating Company.
113.44	559.71	Western Union Telegraph Co.	Western Union Telegraph Co.

SUBJECTS REPORTED UPON BY LESSEE.

Information upon the following subjects is reported by the Southern Pacific Company, lessee of the road of this company:

- Earnings from Operation.
- Rentals Received.
- Operating Expenses.
- Rentals Paid.
- Contracts, Agreements, Etc.
- Passenger and Freight, and Train Mileage.
- Freight Traffic Movement.
- Description of Equipment.
- Renewals of Rails and Ties.
- Consumption of Fuel by Locomotives.
- Accidents to Persons.
- Car Mileage.

STATE OF CALIFORNIA,)
 City and County of San Francisco, } ss.

We, the undersigned, N. T. Smith, Vice-President, and J. L. Willcutt, Treasurer, of the California Pacific Railroad Company, on our oath, do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

N. T. SMITH,
 Vice-President.
 J. L. WILLCUTT,
 Treasurer.

Subscribed and sworn to before me, this fourteenth day of September, 1894.

E. B. RYAN,
 Notary Public.

NORTHERN RAILWAY COMPANY.

HISTORY.

1. Name of common carrier making this report: Northern Railway Company.
2. Date of organization: May 15, 1888.
3. Under laws of what Government, State, or Territory organized: State of California general railroad laws.
4. Names of the constituent companies:

Name of Company.	Date of Incorporation.
Northern Railway Company	July 19, 1871.
Amador Branch Railroad Company	July 3, 1875.
Berkeley Branch Railroad Company	September 25, 1876.
Vaca Valley and Clear Lake Railroad Company	February 19, 1877.
Sacramento and Placerville Railroad Company	April 19, 1877.
Sacramento Valley Railroad Company	August 4, 1852.
Folsom and Placerville Railroad Company	September 29, 1876.
San Joaquin and Sierra Nevada Railroad Company	March 28, 1882.
West Side and Mendocino Railroad Company	September 2, 1886.
Santa Rosa and Carquinez Railroad Company	March 25, 1887.
Shingle Springs and Placerville Railroad Company	May 9, 1887.
Woodland, Capay, and Clear Lake Railroad Company	July 7, 1887.
Winters and Ukiah Railroad Company	August 9, 1887.

5. Date of consolidation: May 5, 1888. Authority: General railroad laws of California.
7. Carrier operating the road of this company: Southern Pacific Company.

ORGANIZATION.

Names of Directors: Chas. F. Crocker, C. G. Lathrop, N. T. Smith, W. V. Huntington, H. E. Huntington, all of San Francisco.
 Date of expiration of terms of Directors: April 10, 1895.
 Number of stockholders at date of last election: 56.
 Last meeting of stockholders for election of Directors: April 11, 1894.
 Post Office address of general and operating office: Fourth and Townsend Streets, San Francisco.

OFFICERS.

Title.	Name.	Location of Office.
President	C. F. Crocker	San Francisco.
Vice-President	C. G. Lathrop	San Francisco.
Secretary	W. V. Huntington	San Francisco.
Treasurer	N. T. Smith	San Francisco.

Operating officers are reported by Southern Pacific Company, lessee.

PROPERTY LEASED OR OTHERWISE ASSIGNED FOR OPERATION.

Name of Road.	Miles.
Northern Railway—Benicia to Suisun.....	16.33
Woodland to Tehama.....	100.74
Galt to Ione.....	27.20
West Oakland to Delaware Street.....	4.15
West Oakland to Berrymans.....	5.38
West Oakland to near Martinez.....	31.03
Napa Junction to Santa Rosa.....	36.7C
Willows to Fruto.....	17.10
Sacramento to Placerville.....	59.50
Elmira to Rumsey.....	51.05
Valley Spring to Bracks.....	40.20
Ferry: Carquinez Straits—Port Costa to Benicia.....	1.00
Total mileage.....	390.38

All operated by Southern Pacific Company under lease.

The property of this company is leased to the Southern Pacific Company for 99 years, from July 1, 1888.

The lessee is to operate the property, and out of the income derived therefrom is to pay the expenses of operation, maintenance, taxes, corporation expenses, and the interest on bonded and floating debt.

Of the net income remaining after such payments, so much thereof as shall amount to six (6) per cent on its capital stock is to be paid to this company, the balance to be retained by the lessee.

Betterments and additions to the leased property are to be made by the lessee, and the payments therefor become annually a charge to this company.

Majority of capital stock of this company is held by the Southern Pacific Company. Acquired in 1888.

CAPITAL STOCK.

The total par value of authorized capital stock is \$26,175,000, divided into 261,750 shares of a par value of \$100 each. The total amount issued and outstanding is \$12,896,000. No dividends were declared.

Owing to consolidations it is impossible to trace the manner of payment for stock. There were 128,960 shares issued; cash realized, \$12,896,000.

FUNDED DEBT.

Class of Bond or Obligation, and Date of Issue and Maturity.	Authorized Issue.	Issued and Outstanding.
First mortgage bonds—January 1, 1877; January 1, 1907.....	\$6,300,000 00	\$5,156,000 00
Fifty-year bonds—October 1, 1888; October 1, 1938.....	21,000,000 00	4,751,000 00
Totals.....	\$27,300,000 00	\$9,907,000 00

Class of Bond or Obligation.	Rate.	When Payable.	Interest Accrued.	Interest Paid.
First mortgage bonds.....	6	Jan. and July	\$309,360 00	\$309,360 00
Fifty-year bonds.....	5	April and Oct.	237,550 00	238,725 00
Totals.....			\$546,910 00	\$548,085 00

Bonds delivered to contractors in payment for construction, and exchanged for bonds of consolidated companies. Interest payable by lessee.

RECAPITULATION OF FUNDED DEBT.

Class of Debt.	Amount Issued.	Amount Outstanding.
Mortgage bonds.....	\$9,907,000 00	\$9,907,000 00

Interest accrued during year, \$546,910; interest paid by lessee during year, \$548,085.

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.		Current Liabilities Accrued to and Including June 30, 1894.	
Due from solvent companies and individuals.....	\$1,959,238 24	Miscellaneous	\$6,173 13
Total	\$1,959,238 24	Balance—cash assets	1,953,065 11
		Total	\$1,959,238 24

RECAPITULATION.

Account.	Amount Outstanding.	Apportionment to Railroads.	Miles.	Amount Per Mile of Road.
Capital stock.....	\$12,896,000 00	\$12,896,000 00	389.38	\$33,119 32
Bonds.....	9,907,000 00	9,907,000 00		
Total	\$22,803,000 00	\$22,803,000 00	389.38	\$58,562 33

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS.

Item.	Construction or Equipment During Year.
Construction:	
Real estate.....	\$1,462 45
Fences.....	205 31
Grading, and bridge and culvert masonry	766 55
Bridges and trestles.....	1,050 67
Buildings, furniture, and fixtures.....	1,049 02
Telegraph line.....	13 45
Sidings and yard extensions.....	7,069 33
Water supply.....	254 11
Other items.....	232 62
Total construction	\$12,103 51
Equipment:	
Passenger cars.....	Cr. \$1 00
Sleeping, parlor, and dining cars	15,623 97
Freight cars.....	5,268 14
Total equipment.....	\$20,891 11
Grand total cost construction, equipment, etc.....	\$32,994 62

Total cost construction, equipment, etc., to June 30, 1893, \$24,700,622 58; total cost to June 30, 1894, \$24,733,617 20; cost per mile, \$63,520 51.

Total cost of construction and equipment includes ferry steamers, etc. The cost per mile of road cannot therefore be correctly stated.

On account of consolidation, details cannot be shown.

STOCKS AND BONDS OWNED.

This company does not own any bonds or stocks.

MISCELLANEOUS INCOME.

Item.	Gross Income.	Net Income.
Earnings of Sinking Funds	\$13,390 00	\$13,390 00

INCOME ACCOUNT.

Income from lease of road	\$440,058 19	
Interest on bonds (paid by lessee)	546,910 00	\$986,968 19
Income from other sources		13,390 00
Total income		\$1,100,358 19
Deductions from income:		
Interest on funded debt accrued	\$546,910 00	
Other deductions	53,390 00	
Total deductions from income		600,300 00
Net income		\$400,058 19
Surplus from operations of year ending June 30, 1894		\$400,058 19
Surplus on June 30, 1893		3,311,917 45
Deductions for year:		\$3,711,975 64
Settlement of taxes as reassessed by State of California for years 1880-85, inclusive		20,205 32
Surplus on June 30, 1894		\$3,691,770 32

COMPARATIVE GENERAL BALANCE SHEET.

June 30, 1893.	Assets.	June 30, 1894.	June 30, 1894— Increase.
\$24,700,622 58	Cost of road and equipment	\$24,733,617 20	\$32,994 62
1,665,321 09	Cash and current assets	1,959,238 24	293,917 15
320,811 23	Sinking Fund	374,201 23	53,390 00
\$26,686,754 90	Totals	\$27,067,056 67	\$380,301 77
June 30, 1893.	Liabilities.	June 30, 1894.	June 30, 1894— Decrease.
\$12,896,000 00	Capital stock	\$12,896,000 00	
9,907,000 00	Funded debt	9,907,000 00	
59,114 23	Current liabilities	6,173 13	\$52,941 10
512,723 22	Income used for Sinking Funds	566,113 22	\$53,390 00
3,311,917 45	Profit and loss	3,691,770 32	379,852 87
\$26,686,754 90	Totals	\$27,067,056 67	\$380,301 77

SECURITY FOR FUNDED DEBT.

Class of Bond or Obligation.	What Road Mortgaged.	Miles.
First mortgage bonds of 1877	West Oakland to near Martinez	31.03
	Benicia to Suisun	16.34
	Woodland to Tehama	100.86
	West Oakland to Delaware Street	4.15
	West Oakland to Port Costa (second track)	26.74
First mortgage bonds of 1888	Galt to Lone	27.20
	West Oakland to Berrymans	5.38
	Shell Mound toward Berrymans (second track)	1.54
	Sacramento to Placerville	59.28
	Napa Junction to Santa Rosa	36.95
	Willows to Fruto	16.84
	Elmira to Rumsey	51.39
Bracks to Valley Spring	40.30	

Mortgage covers railroad and telegraph lines, rolling stock, steamers, etc. The amount per mile of road cannot therefore be stated.

EMPLOYÉS AND SALARIES.

General officers, 4. Under terms of lease salaries of officers and employés are paid and reported by Southern Pacific Company, lessee.

MILEAGE OF ROAD OPERATED.

State or Territory.	Main Line.	Branches and Spurs.	Total Mileage Operated.	Iron Rails.	Steel Rails.
In State of California.....	148.10	241.28	389.38	52.35	337.03

CHARACTERISTICS OF ROAD.

Working Divisions or Branches.	Miles.	Alignment.		
		Number of Curves.	Aggregate Length of Curved Line—Miles.....	Length of Straight Line—Miles.....
West Oakland to near Martinez	31.04	49	14.20	16.84
Oakland, Sixteenth Street, to Berrymans	5.39	7	.90	4.49
Oakland, Sixteenth Street, to Delaware Street	4.15	3	1.79	2.36
Benicia to Suisun.....	16.33	7	2.23	14.10
Woodland to Tehama.....	100.84	13	4.83	96.01
Willows to Fruto	16.84	48	5.76	11.08
Napa Junction to Santa Rosa.....	36.95	77	11.53	25.42
Elmira to Rumsey	51.39	70	9.54	41.85
Galt to Ione	27.21	28	4.85	22.36
Sacramento to Placerville.....	59.73	154	22.94	36.79
Valley Spring to Bracks	39.85	67	8.53	31.32
	389.72			
Ferry across Carquinez Straits, Port Costa to Benicia	1.00			
Totals.....	390.72	523	87.10	302.62
Less, to agree with operating mileage .....	.34			
	390.38			

Working Divisions or Branches.	Profile.						
	Length of Level Line—Miles.....	Number of Ascending Grades.....	Sum of Ascents of Ascending Grades—Feet.....	Aggregate Length of Ascending Grades—Miles.....	Number of Descending Grades	Sum of Descents of Descending Grades—Feet.....	Aggregate Length of Descending Grades—Miles.....
West Oakland to near Martinez	16.63	14	61.9	6.93	15	66.1	7.43
Oakland, Sixteenth St., to Berrymans.....	.65	3	246.6	4.43	3	2.8	.31
Oakland, Sixteenth St., to Delaware St.....	.73	4	17.3	1.87	4	15.1	1.55
Benicia to Suisun.....	13.09	12	8.0	1.74	14	11.0	1.50
Woodland to Tehama.....	18.83	60	485.1	52.10	50	319.9	29.91
Willows to Fruto	1.41	8	510.9	14.76	5	16.3	.67
Napa Junction to Santa Rosa.....	6.41	31	545.3	16.88	33	446.5	13.66
Elmira to Rumsey	7.39	42	66.8	29.83	37	285.7	14.17
Galt to Ione.....	4.71	40	366.6	16.83	19	122.6	5.67
Sacramento to Placerville.....	2.68	139	2,639.4	44.38	50	698.1	12.67
Valley Spring to Bracks	6.80	21	696.9	31.27	8	34.4	1.78
Totals.....	79.35	374	5,644.8	221.02	238	2,018.5	89.32

REPORT OF NORTHERN RAILWAY COMPANY.

BRIDGES, TRESTLES, TUNNELS, ETC.

Item.	Number.	Aggregate Length.	Minimum Length.	Maximum Length.
Bridges:				
Wooden	20	3,994 feet.	56 feet.	768 feet.
Trestles	586	31,357 feet.	5 feet.	840 ft. 6 in.
Tunnels	3	1,313 ft. 6 in.	338 feet.	604 feet.

Item.	Number.	Height Above Surface of Rail.
Overhead Highway Crossings:		
Trestles	3	19 feet.
Overhead Railway Crossings:		
Trestles	1	18 feet.
Tunnels	3	20 feet.

TELEGRAPH.

A. Owned by Company Making this Report, but Operated by Another Company.

Miles of Line.	Miles of Wire.	Name of Operating Company.
233.83	295.54	Operated by railroad employes, who report to Western Union Telegraph Company for commercial business.

B. Owned by Another Company, but Located on Property of Road Making this Report.

Miles of Line.	Miles of Wire.	Name of Owner.	Name of Operating Company.
228.72	982.88	Western Union Telegraph Co.	Western Union Telegraph Co.

SUBJECTS REPORTED UPON BY LESSEE.

Information upon the following subjects is reported by the Southern Pacific Company, lessee of the road of this company.

Earnings from Operation.
 Rentals Received.
 Operating Expenses.
 Rentals Paid.
 Contracts, Agreements, Etc.
 Passenger and Freight, and Train Mileage.
 Freight Traffic Movement.
 Description of Equipment.
 Renewals of Rails and Ties.
 Consumption of Fuel by Locomotives.
 Accidents to Persons.
 Car Mileage.

STATE OF CALIFORNIA,
 City and County of San Francisco. } ss.

We, the undersigned, Charles F. Crocker, President, and N. T. Smith, Treasurer, of the Northern Railway Company, on our oath, do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

CHARLES F. CROCKER,
 President.
 N. T. SMITH,
 Treasurer.

Subscribed and sworn to before me, this fourteenth day of September, 1894.

E. B. RYAN,
 Notary Public.

NORTHERN CALIFORNIA RAILWAY COMPANY.

HISTORY.

1. Name of common carrier making this report: Northern California Railway Company.
2. Date of organization: September 3, 1888.
3. Under laws of what Government, State, or Territory organized: General railroad laws of the State of California.
6. Name of original corporation, and laws under which it was organized: Chartered as California Northern Railroad Company, June 29, 1860. January 1, 1885, transferred to Northern California Railroad Company, whose charter dates September 6, 1884. January 28, 1889, transferred to existing corporation.
7. Carrier operating the road of this company: Southern Pacific Company.

ORGANIZATION.

Names of Directors: Charles F. Crocker, W. E. Brown, F. S. Douty, H. E. Huntington, and N. D. Rideout, all of San Francisco.

Date of expiration of terms of Directors: January 2, 1895.

Number of stockholders at date of last election: 6.

Last meeting of stockholders for election of Directors: January 2, 1894.

Post Office address of general and operating office: San Francisco.

OFFICERS.

Title.	Name.	Location of Office.
President	Charles F. Crocker	San Francisco.
Vice-President	H. E. Huntington	San Francisco.
Secretary and Treasurer	F. S. Douty	San Francisco.

Operating officers are reported by Southern Pacific Company, lessee.

PROPERTY LEASED OR OTHERWISE ASSIGNED FOR OPERATION.

Northern California Railway: Oroville to Knight's Landing, 53.60 miles. All operated by Southern Pacific Company, lessee.

Leased to the Southern Pacific Company, June 1, 1889, for term of forty years.

The lessee makes all expenditures, including betterments and interest on the funded debt, and provides a sinking fund for redemption of mortgage bonds. The balance, after such payments, is for the account of lessee.

CAPITAL STOCK.

The total par value of authorized capital stock is \$1,280,000, divided into 12,800 shares of a par value of \$100 each. The total amount issued and outstanding is \$1,280,000. No dividends were declared.

There were 12,800 shares issued; cash realized, \$1,280,000.

FUNDED DEBT.

In 1889 first mortgage bonds to the amount of \$1,100,000 were authorized to be issued; amount issued and outstanding, \$1,074,000; cash realized upon amount issued, \$1,074,000. These bonds are to run forty years; bear 5 per cent interest, payable semi-annually, in June and December. The amount of interest accruing during the year was \$51,012 50; amount paid, \$48,600.

RECAPITULATION OF FUNDED DEBT.

Class of Debt.	Amount Issued.	Amount Outstanding.
Mortgage bonds	\$1,074,000 00	\$1,074,000 00

Interest accrued during the year, \$51,012 50; interest paid during the year, \$48,600.

RECAPITULATION.

Account.	Amount Outstanding.	Miles.	Amount per Mile of Road.
Capital stock	\$1,280,000 00	53 $\frac{6}{10}$	\$23,880 60
Bonds	1,074,000 00		20,037 30
Totals	\$2,354,000 00	53 $\frac{6}{10}$	\$43,917 90

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS.

Item.	Construction During Year.
Construction—Rails	\$129,000 00

Total cost of construction, equipment, etc., to June 30, 1893, \$2,225,000; total cost to June 30, 1894, \$2,354,000; cost per mile, \$43,917 90.

During the past year the sum of \$129,000 has been paid for relaying the track with steel rails, from Marysville to Oroville, a distance of 25 $\frac{6}{10}$ miles, in accordance with agreement for the completion of the company's railway, and the terms of the lease.

INCOME ACCOUNT.

Income from lease of road, interest payable by lessee, \$51,012 50.

STOCKS AND BONDS OWNED.

This company owns no stocks or bonds.

COMPARATIVE GENERAL BALANCE SHEET.

June 30, 1893.	Assets.	June 30, 1894.	June 30, 1894—Increase.
\$2,225,000 00	Cost of road and equipment	\$2,354,000 00	\$129,000 00
June 30, 1893.	Liabilities.	June 30, 1894.	June 30, 1894—Increase.
\$1,280,000 00	Capital stock	\$1,280,000 00	\$129,000 00
945,000 00	Funded debt	1,074,000 00	
\$2,225,000 00	Total	\$2,354,000 00	

IMPORTANT CHANGES DURING THE YEAR.

December 1, 1893, new bonds amounting to \$129,000 were issued under the authorized issue of the first mortgage to provide for the relaying of track with steel rails between Marysville and Oroville, a distance of 25 $\frac{6}{10}$ miles.

SECURITY FOR FUNDED DEBT.

Class of Bond or Obligation.	What Road Mortgaged.	Miles.
First mortgage gold bonds	Oroville to Knight's Landing ...	53.60

Amount of mortgage per mile of line, \$20,000. All equipment mortgaged.

EMPLOYÉS AND SALARIES.

General officers, 3. Salaries of officers and employés under terms of lease are paid and reported by Southern Pacific Company, lessee.

MILEAGE OF ROAD OPERATED.

State or Territory.	Main Line.	Total Mileage Operated.	Steel Rails.
In California	53.60	53.60	53.60

CHARACTERISTICS OF ROAD.

Oroville to Knight's Landing: Length, 53.6 miles; number of curves, 63; aggregate length of curved line, 9.03 miles; length of straight line, 44.57 miles; length of level line, 18.54 miles; number of ascending grades, 74; sum of ascents, 338.1 feet; aggregate length of ascending grades, 26.79 miles; number of descending grades, 44; sum of descents, 179.3 feet; aggregate length of descending grades, 8.27 miles.

BRIDGES, TRESTLES, TUNNELS, ETC.

Item.	Number	Aggregate Length.	Minimum Length.	Maximum Length.
Bridges:				
Wooden	4	712 ft. 6 in.	60 feet.	348 feet.
Trestles	77	17,616 ft.	5 feet.	11,151 feet.

Gauge of track, 4 feet 8½ inches; length, 53.60 miles.

TELEGRAPH.

A. Owned by Company Making this Report, but Operated by Another Company.

Miles of Line.	Miles of Wire.	Name of Operating Company.
27.70	27.70	Operated by employés of railroad company, who report to Western Union Telegraph Company for commercial business.

B. Owned by Another Company, but Located on Property of Road Making this Report.

Miles of Line.	Miles of Wire.	Name of Owner.	Name of Operating Company.
25.90	25.90	N. D. Rideout, Marysville.....	..... Telephone Company.

SUBJECTS REPORTED UPON BY LESSEE.

The Southern Pacific Company, as lessee of the Northern California Railway, includes in its report, information upon the following subjects:

Earnings from Operation.
 Rentals Received.
 Operating Expenses.
 Rentals Paid.
 Contracts, Agreements, Etc.
 Passenger and Freight, and Train Mileage.
 Freight Traffic Movement.
 Description of Equipment.
 Renewals of Rails and Ties.
 Consumption of Fuel by Locomotives.
 Accidents to Persons.
 Car Mileage.

STATE OF CALIFORNIA,)
 County of San Francisco.) ss.

We, the undersigned, Charles F. Crocker, President, and F. S. Douty, Treasurer, of the Northern California Railway Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

CHARLES F. CROCKER,
 President.

F. S. DOUTY,
 Treasurer.

Subscribed and sworn to before me, this seventh day of September, 1894.

E. B. RYAN,
 Notary Public.

SAN FRANCISCO AND NORTH PACIFIC RAILWAY COMPANY.

HISTORY.

1. Name of common carrier making this report: San Francisco and North Pacific Railway Company.

2. Date of organization: March 19, 1889.

3. Under laws of what Government, State, or Territory organized: Laws of California.

4. Names of the constituent companies: San Francisco and North Pacific Railroad Company, organized June 29, 1877; San Francisco and San Rafael Railroad Company; Sonoma Railroad Company, organized July 24, 1878; Marin and Napa Railroad Company; Cloverdale and Ukiah Railroad Company. All these companies were chartered under the Civil Code of California, and sold, assigned, and transferred to the San Francisco and North Pacific Railway Company all their roadway, depot grounds, stations, rolling stock, and other material, on March 19, 1889.

5. Date and authority for consolidation: The San Francisco and North Pacific Railroad Company was formed by the consolidation of the Sonoma and Marin Railroad Company, organized November 13, 1874; the Fulton and Guerneville Railroad Company, organized May 23, 1876; and the reorganization of the San Francisco and Humboldt Bay Railroad Company.

The San Francisco and North Pacific Railway Company was formed in March, 1889, by transfer from the following companies: San Francisco and North Pacific Railroad Company, Sonoma Valley Railroad Company, Marin and Napa Railroad Company, Cloverdale and Ukiah Railroad Company, and San Francisco and San Rafael Railroad Company.

The San Francisco and North Pacific Railway Company issued \$6,000,000 stock, and \$4,000,000 first mortgage 5 per cent, 30-year, \$1,000 bonds, due January 1, 1919, interest payable, commencing July 1, 1889, on the 1st of January and 1st of July. The mortgage further provides for an additional issue of \$500,000 on extensions, at the rate of not exceeding \$25,000 per mile of railroad in excess of 160 miles already constructed. Provision is made for a sinking fund of \$25,000 per annum, for purchase of bonds in the market, at not exceeding 110 and interest.

The San Francisco and North Pacific Railroad Company (one of the said companies), 108.5 miles, was incorporated June 29, 1877, and formed by the consolidation of the Sonoma and Marin Railroad, chartered November 13, 1874, and the Fulton and Guerneville Railroad, chartered May 23, 1887. Road opened from Donahue to Santa Rosa, 23 miles, January 1, 1870; to Windsor, 9 miles, March 1, 1871; to Grants, 4 miles, April 10, 1871; to Healdsburg, 2 miles, July 1, 1871, and to Cloverdale, 18 miles, April 13, 1872. The Guerneville branch was opened May 29, 1876, and the Petaluma branch June 2, 1879. Included in the main line was a section of 9 miles, Point Tiburon to San Rafael, leased.

The Sonoma Valley Railroad (also one of the said companies), 21.43 miles, was incorporated July 24, 1878; road opened August 23, 1880. The Sonoma and Santa Rosa Railroad was opened August 15, 1882. The two companies were consolidated during 1885.

ORGANIZATION.

Names of Directors: Arthur W. Foster, P. N. Lilienthal, Sidney V. Smith, Andrew Markman, A. L. Seligman, R. J. Wilson, and H. T. Scott, all of San Francisco.

Number of stockholders at date of last election: 9.

Last meeting of stockholders for election of Directors: Third Tuesday in January.

Post Office address of general and operating office: Mutual Life building, San Francisco.

OFFICERS.

Title.	Name.	Location of Office.
President	Arthur W. Foster	San Francisco.
Vice-President	P. N. Lilienthal	San Francisco.
Secretary and Comptroller	Thos. Mellersh	San Francisco.
Treasurer	Alfred L. Seligman	San Francisco.
Attorney, or General Counsel	Sidney V. Smith	San Francisco.
General Manager	H. C. Whiting	San Francisco.
Chief Engineer	F. K. Zook	San Rafael.
Superintendent	W. G. Corbaley	San Rafael.
General Freight, Passenger, Ticket, and Baggage Agent	R. X. Ryan	San Francisco.
Assistant General Freight, Passenger, and Ticket Agent	W. J. McMullin	San Francisco.

PROPERTY OPERATED.

Name of Road.	Miles.
San Francisco and North Pacific Railway—	
Tiburon to Ukiah	106.00
Donahue to junction with main line	5.56
Fulton to Meekers	20.88
Santa Rosa to Sebastopol	6.25
Ignacio to Glen Ellen	26.63
Total	165.32

CAPITAL STOCK.

The total par value of authorized capital stock is \$6,000,000, divided into 60,000 shares of a par value of \$100 each. The total amount issued and outstanding is \$6,000,000.

Manner of payment for capital stock: Issued for reorganization, 60,000 shares; cash realized on amount issued, \$6,000,000. This stock was issued by San Francisco and North Pacific Railway Company in payment for the several properties acquired March 19, 1889, and reorganized.

FUNDED DEBT.

On January 1, 1889, first mortgage bonds were authorized to be issued to the amount of \$4,500,000; of this amount \$4,290,000 was issued, and \$4,162,000 is outstanding. The cash realized cannot be stated correctly. These bonds mature January 1, 1919, and bear 5 per cent interest, payable in January and July of each year. Amount of interest accruing during the year was \$208,426 50, all of which has been paid.

RECAPITULATION OF FUNDED DEBT.

Class of Debt.	Amount Issued.	Amount Outstanding.
Mortgage bonds	\$4,290,000 00	\$4,162,000 00

Interest accrued during year, \$208,462 50; interest paid during year, \$208,462 50.

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.	Current Liabilities Accrued to and Including June 30, 1894.
Cash	Audited vouchers and accounts
Due from agents	Wages and salaries
Due from solvent companies and individuals	
Balance—current liabilities	
Total	Total

Materials and supplies on hand, \$46,008 67.

RECAPITULATION.

A. For Mileage Owned by Road Making this Report.

Account.	Amount Outstanding.	Miles.	Amount per Mile of Road.
Capital stock	\$6,000,000 00	165.32	\$36,293 25
Bonds	4,162,000 00		25,175 42
Totals	\$10,162,000 00	165.32	\$61,468 67

B. For Mileage Operated by Road Making this Report (Trackage Rights Excluded), the Operations of which are Included in the Income Account.

Name of Road.	Capital Stock.	Funded Debt.	Current Liabilities.	Total.	Miles.	Amount per Mile of Road.
San Francisco & North Pacific Ry.	\$6,000,000	\$4,162,000	\$101,331 93	\$10,263,331 93	165.32	\$62,081 61

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS.

Item.	Total Cost From March 19, 1889, to June 30, 1894.
Construction:	
Right of way, etc.....	\$24,361 45
Fences.....	4,590 97
Grading, and bridge and culvert masonry.....	25,042 58
Bridges and trestles.....	31,982 59
Rails.....	72,291 25
Ties.....	9,057 81
Other superstructure.....	1,860 55
Buildings, furniture, and fixtures.....	36,010 84
Shop machinery and tools.....	2,627 19
Engineering expenses.....	4,838 05
Interest during construction.....	1,905 30
Discount on securities sold for construction.....	19,500 00
Telegraph line.....	2,008 75
Wharfing, etc.....	8,140 72
Sidings and yard extensions.....	14,555 08
Terminal facilities and elevators.....	163 98
Purchase of constructed road.....	24,548 06
Other items.....	109,153 82
Total construction.....	\$392,638 99
Equipment:	
Passenger cars.....	\$23,704 35
Baggage, express, and postal cars.....	2,061 10
Combination cars.....	2,702 07
Freight cars.....	15,672 46
Other cars of all classes.....	317 34
Total equipment.....	\$44,457 32
Purchase price of property under consolidation, but not segregated.....	\$10,000,000 00
Grand total cost construction, equipment, etc.....	\$10,437,096 31

Cost per mile (165.32 miles), \$63,132 69.

INCOME ACCOUNT.

Gross earnings from operation.....	\$808,336 69	
Less operating expenses.....	512,302 66	
Income from operation.....		\$296,034 03
Deductions from income:		
Interest on funded debt accrued.....	\$208,462 50	
Taxes.....	30,638 16	
Total deductions from income.....		239,100 66
Net income.....		\$56,933 37
Other payments from net income: Sinking Fund.....	\$25,000 00	
Subscription, settlement old claims, etc.....	9,848 14	
Cost, above insurance, rebuilding steamer "Tiburon".....	38,274 73	
Total.....		73,122 87
Deficit from operations of year ending June 30, 1894.....		\$16,189 50
Surplus on June 30, 1893.....		214,669 37
Surplus on June 30, 1894.....		\$198,479 87

EARNINGS FROM OPERATION.

Item.	Total Receipts.	Deductions, Etc.	Actual Earnings.
Passenger	\$388,262 79		
Conductors	20,019 70		
Total passenger revenue			\$408,282 49
Mail			17,390 76
Express			15,220 51
Extra baggage and storage			1,346 85
Other items			1,746 00
Total passenger earnings			\$443,986 61
Freight revenue	\$354,762 17		
Less overcharge to shippers and other repayments		\$4,076 54	
Total freight revenue			350,685 63
Total passenger and freight earnings			\$794,672 24
Other earnings from operation:			
Rents	\$13,296 33		
Other sources	368 12		
Total other earnings			13,664 45
Total gross earnings from operation			\$808,336 69

STOCKS AND BONDS OWNED.

This company does not own any stocks or bonds.

EMPLOYÉES AND SALARIES.

Class.	No.	No. Days Worked.	Yearly Compensation.	Average Daily Compensation.
General officers	4	1,460	\$18,016 72	\$12 34
Other officers	2	730	6,600 00	9 04
General office clerks	14	5,110	12,524 00	2 45
Station agents	34	12,410	27,832 60	2 24
Other station men	13	4,745	7,488 45	1 58
Enginemen	11	4,015	14,288 75	3 56
Firemen	11	4,015	8,141 40	2 03
Conductors	10	3,650	11,616 20	3 18
Other trainmen	14	5,110	10,788 00	2 11
Machinists	19	5,890	13,300 55	2 26
Carpenters	30	9,300	24,517 25	2 64
Other shopmen	21	6,510	17,222 20	2 65
Section foremen	28	8,680	20,754 05	2 39
Other trackmen	105	32,550	60,528 95	1 86
Switchmen, flagmen, and watchmen	2	730	1,551 80	2 13
Telegraph operators and dispatchers	1	365	735 00	2 02
Employés account floating equipment	29	10,585	27,896 90	2 64
All other employés and laborers	22	8,030	14,247 30	1 97
Totals (including general officers)	370	123,885	\$298,050 12	\$2 41
Less general officers	4	1,460	18,016 72	12 34
Total (excluding general officers)	366	122,425	\$280,033 40	\$2 28
Distribution of above:				
General administration	19	6,935	\$34,040 72	\$4 91
Maintenance of way and structures	159	49,290	103,396 20	2 01
Maintenance of equipment	54	16,740	40,953 40	2 44
Conducting transportation	138	50,920	119,659 80	2 35
Totals (including general officers)	370	123,885	\$298,050 12	\$2 41
Less general officers	4	1,460	18,016 72	12 34
Totals (excluding general officers)	366	122,425	\$280,033 40	\$2 28

OPERATING EXPENSES.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of way and structures:			
Repairs of roadway	\$31,243 97	\$26,615 23	\$57,859 20
Renewals of rails	5,141 57	4,379 84	9,521 41
Renewals of ties	10,424 58	8,880 20	19,304 78
Repairs of bridges and culverts	11,010 11	9,379 00	20,389 11
Repairs of fences, road-crossings, signs, and cattle guards	2,781 66	2,369 56	5,151 22
Repairs of buildings	5,351 09	4,566 34	9,909 43
Repairs of docks and wharves	4,049 45	3,449 54	7,498 99
Repairs of telegraph	9 35	7 97	17 32
Other expenses	6,729 64	5,732 64	12,462 28
Totals	\$76,741 42	\$65,372 32	\$142,113 74
Maintenance of equipment:			
Repairs and renewals of locomotives	\$7,774 77	\$6,622 97	\$14,397 74
Repairs and renewals of passenger cars	3,977 24	3,388 02	7,365 26
Repairs and renewals of freight cars	4,365 16	3,718 47	8,083 63
Repairs and renewals of ferry-boats, tugs, floats, and barges	1,658 31	1,412 64	3,070 95
Shop machinery, tools, etc.	1,824 21	1,553 95	3,378 16
Other expenses	4,969 67	4,233 41	9,203 08
Totals	\$24,569 36	\$20,929 46	\$45,498 82
Conducting transportation:			
Wages of enginemen, firemen, and round-housemen	\$12,136 23	\$10,338 27	\$22,474 50
Fuel for locomotives	29,605 14	25,219 19	54,824 33
Water supply for locomotives	1,114 97	949 78	2,064 75
All other supplies for locomotives	681 63	580 65	1,262 28
Wages of other trainmen	13,016 48	11,088 12	24,104 60
All other train supplies	3,142 66	2,677 08	5,819 74
Wages of switchmen, flagmen, and watchmen	838 63	714 38	1,553 01
Expenses of telegraph, including train dispatchers and operators	976 07	831 46	1,807 53
Wages of station agents, clerks, and laborers	18,407 92	15,680 82	34,088 74
Station supplies	1,690 81	1,440 32	3,131 13
Switching charges—balance	2,935 18	2,500 33	5,435 51
Car mileage—balance	821 64	699 92	1,521 56
Loss and damage	279 23	237 87	517 10
Injuries to persons	35,520 73	30,258 40	65,779 13
Barges, floats, tugs, ferry-boats, expenses of, including wages, fuel, and supplies	1,574 65	1,341 39	2,916 04
Other expenses			
Totals	\$122,741 97	\$104,557 98	\$227,299 95
General expenses:			
Salaries of officers	\$11,403 03	\$9,713 69	\$21,116 72
Salaries of clerks	6,989 76	5,954 24	12,944 00
General office expenses and supplies	928 36	790 83	1,719 19
Advertising	16,924 44	4,231 11	21,155 55
Insurance	4,291 69	3,655 89	7,947 58
Rents	6,484 42	15,709 74	22,194 16
Legal expenses	2,224 77	1,895 18	4,119 95
Stationery and printing	612 22	521 53	1,133 75
Other general expenses	1,626 16	3,403 09	5,059 25
Totals	\$51,514 85	\$45,875 30	\$97,390 15
Recapitulation of expenses:			
Maintenance of way and structures	\$76,741 42	\$65,372 32	\$142,113 74
Maintenance of equipment	24,569 36	20,929 46	45,498 82
Conducting transportation	122,741 97	104,557 98	227,299 95
General expenses	51,514 85	45,875 30	97,390 15
Grand totals	\$275,567 60	\$236,735 06	\$512,302 66
Percentage of operating expenses to earnings.	34.09	29.29	63.38

COMPARATIVE GENERAL BALANCE SHEET.

June 30, 1893.	Assets.	June 30, 1894.	June 30, 1894— Increase.	June 30, 1894— Decrease.
\$10,437,096 31	Cost of road and equip- ment	\$10,437,096 31		
90,392 99	Cash and current assets ..	81,541 96		\$8,851 03
40,385 74	Materials and supplies	46,008 67	\$5,622 92	
25,527 36	Sinking Fund	25,164 86		362 50
2,607 70	Sundries			2,607 70
\$10,596,010 10	Totals	\$10,589,811 80		\$6,198 30
June 30, 1893.	Liabilities.	June 30, 1894.	June 30, 1894— Increase.	June 30, 1894— Decrease.
\$6,000,000 00	Capital stock	\$6,000,000 00		
4,188,000 00	Funded debt	4,162,000 00		\$26,000 00
91,340 73	Current liabilities	101,331 93	\$9,991 20	
102,000 00	Sinking Fund paid cou- pon first mortgage bonds.	128,000 00	26,000 00	
214,669 37	Profit and loss	198,479 87		16,189 50
\$10,596,010 10	Totals	\$10,589,811 80		\$6,198 30

DESCRIPTION OF EQUIPMENT.

Item.	Total at End of Year.
Locomotives:	
Passenger	7
Freight	9
Switching	2
Total locomotives	18
Cars in passenger service:	
First-class passenger cars	34
Second-class passenger cars	3
Combination passenger cars	4
Special	1
Baggage, express, and postal cars	5
Other cars in passenger service	7
Total	54
Cars in freight service:	
Box cars	127
Flat cars	262
Stock cars	13
Total	402
Cars in company's service:	
Gravel cars	13
Caboose cars	2
Other road cars	67
Total	82
Total cars owned	538

Locomotives have Westinghouse brake attached; cars in passenger service have Westinghouse train-brake and Miller coupler; cars in freight service have ordinary train-brake.

CONTRACTS, AGREEMENTS, ETC.

1. Express with Wells, Fargo & Co.
2. Mails with United States Government.
4. California Transfer Company.
5. Southern Pacific Company.
7. Western Union Telegraph Company.
8. News privilege.

SECURITY FOR FUNDED DEBT.

Class of Bond or Obligation.	What Road Mortgaged.	Miles.	Amount of Mortgage per Mile of Line.
First mortgage, \$4,162,000; 4,162 bonds of \$1,000 each, payable January 1, 1919; interest payable semi-annually, 5 per cent -----	Entire road -----	165.32	\$25,175 41

Equipment mortgaged: including all the franchises, rights, and lines of the road, sidetrack, rolling stock, land and water terminals, stations, shops, steamers, and all other property.

PASSENGER AND FREIGHT, AND TRAIN MILEAGE.

Item.	Tonnage, Passengers, Etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue -----	871,078	
Number of passengers carried one mile -----	19,647,385	
Average distance carried—miles -----	22.55	
Total passenger revenue -----		\$408,282 49
Average amount received from each passenger -----		46.871
Average receipts per passenger per mile -----		02.078
Estimated cost of carrying each passenger one mile -----		01.402
Total passenger earnings -----		443,986 61
Passenger earnings per mile of road -----		2,469 64
Passenger earnings per train-mile -----		1 73.657
Freight traffic:		
Number of tons carried of freight earning revenue -----	168,803	
Number of tons carried one mile -----	7,203,417	
Average distance haul of one ton—miles -----	42.67	
Total freight revenue -----		350,685 63
Average amount received for each ton of freight -----		2 07.748
Average receipts per ton per mile -----		04.868
Estimated cost of carrying one ton one mile -----		03.286
Total freight earnings -----		350,685 63
Freight earnings per mile of road -----		2,121 25
Freight earnings per train-mile -----		3 30.895
Passenger and freight:		
Passenger and freight revenue -----		758,968 12
Passenger and freight revenue per mile of road -----		4,590 90
Passenger and freight earnings -----		794,672 24
Passenger and freight earnings per mile of road -----		4,806 87
Gross earnings from operation -----		808,336 69
Gross earnings from operation per mile of road -----		4,889 53
Expenses -----		512,302 66
Expenses per mile of road -----		3,098 85
Train mileage:		
Miles run by passenger trains -----	243,123	
Miles run by freight trains -----	68,343	
Miles run by mixed trains -----	50,184	
Total mileage trains earning revenue -----	361,650	
Miles run by switching trains -----	52,967	
Miles run by construction and other trains -----	8,872	
Grand total train mileage -----	423,489	
Mileage of loaded freight cars—north or east -----	529,345	
Mileage of loaded freight cars—south or west -----	583,514	
Mileage of empty freight cars—north or east -----	165,610	
Mileage of empty freight cars—south or west -----	130,567	
Average number of freight cars in train -----	18	
Average number of loaded cars in train -----	13	
Average number of empty cars in train -----	5	
Average number of tons of freight in train -----	75	
Average number of tons of freight in each loaded car -----	6	

FREIGHT TRAFFIC MOVEMENT.

Commodity.	Originating on this Road—Tons.	Total Freight Tonnage.	Per Cent.
Products of agriculture:			
Grain.....	9,662	9,662	6.75
Flour.....	2,733	2,733	1.91
Other mill products.....	6,827	6,827	4.77
Hay.....	3,765	3,765	2.63
Other products of agriculture.....	199	199	.14
Hops.....	1,496	1,496	1.04
Fruit and vegetables.....	11,934	11,934	8.33
Canned goods—fruit.....	2,684	2,684	1.87
Dried fruit.....	3,504	3,504	2.45
Products of animals:			
Live stock.....	4,682	4,682	3.27
Dressed meats.....	1,024	1,024	.72
Other packing-house products.....	5,389	5,389	3.76
Poultry, game, and fish.....	609	609	.43
Wool.....	666	666	.47
Hides and leather.....	264	264	.18
Products of mines:			
Coke and coal.....	2,040	2,040	1.42
Basalt blocks.....	8,601	8,601	6.01
Stone, sand, and other like articles.....	914	914	.64
Other products of mines.....	646	646	.45
Products of the forest:			
Lumber.....	13,634	13,634	9.52
Wood and other products.....	22,044	22,044	15.39
Manufactures:			
Petroleum and other oils.....	1,091	1,091	.76
Other castings and machinery.....	133	133	.09
Cement, brick, and lime.....	5,153	5,153	3.60
Agricultural implements.....	66	66	.05
Wagons, carriages, tools, etc.....	554	554	.39
Wines, liquors, and beers.....	13,778	13,778	9.62
Household goods and furniture.....	1,746	1,746	1.22
Other manufactures.....	7,560	7,560	5.28
Merchandise.....	4,448	4,448	3.11
Miscellaneous: other commodities not mentioned above.....	5,348	5,348	3.73
Total tonnage.....	143,194	143,194	100.00

RENEWALS OF RAILS AND TIES.

Rails Laid During Year.	Tons.	Weight per Yard.	Average Price per Ton at Distributing Point.
Iron:			
Main line.....	118,156.00	56 lbs.	About \$20 00
Sidings.....	43,138.00		
Total iron.....	162,294.00		
Steel:			
Main line.....	176,224.00	56 lbs.	About \$35 00
Sidings.....	61,083.00		
Total steel.....	182,130.00		
Ties Laid During Year.	Number.	Average Price at Distributing Point.	
Redwood:			
Main line.....	32,928	}	34 cents.
Sidings.....	1,603		
Total.....	34,531		

MILEAGE OF ROAD OPERATED.

Miles of single track, main line, 106; branches and spurs, 59.32. Total mileage operated, 165.32 miles. Iron rails, 49.40 miles; steel rails, 115.92 miles.
All within State of California and all owned by this company.

CONSUMPTION OF FUEL BY LOCOMOTIVES.

Locomotives.	Coal— Tons.	Wood— Cords.	Total Fuel Consumed— Tons.	Miles Run.	Average Pounds Consumed per Mile.
Passenger	1,715	5,397	4,413	255,669	34.52
Freight	710	2,236	1,823	105,981	34.52
Switching	356	1,118	915	52,967	34.52
Construction	60¼	188½	155	8,872	34.52
Totals	2,841¼	8,939½	7,311	423,489	34.52
Average cost at distributing point	\$6 61	\$3 79			

ACCIDENTS TO PERSONS.

Kind of Accident.	Trainmen and Employés Injured.	Passengers.		Trespassers.	
		Killed.	Injured.	Killed.	Injured.
Coupling and uncoupling	2				
Other causes	2		4	3	1
At stations		1			
Totals	4	1	4	3	1

An Indian named Charles Quormert was run over and killed near Healdsburg.

Patrick Sullivan, a laborer on Section No. 1, was struck by an engine backing in Tiburon yard; badly bruised, but no bones broken.

A man named George Ridley jumped from an excursion train at Santa Rosa; knocked senseless, but recovered consciousness in a short time; no bones broken.

J. F. Bailey was struck by a milk truck on steamer Tiburon; bones in ankle slightly injured.

J. Roher jumped from train No. 37 as it was passing Madrone; legs and several ribs broken; he was taken to County Hospital and died.

A boy named Arthur Hurlbert, while playing on a turntable at Santa Rosa, had one foot crushed by being caught between ends of rails.

Charles Garrison, brakeman, had first joint of little finger on left hand taken off by being caught between drawheads of cars while making coupling.

Joseph Kennedy, brakeman, squeezed between two cars while switching in San Rafael yard; no bones broken.

A man, presumably a tramp, was found dead on Sebastopol Ranch, with both feet almost severed; he is supposed to have fallen from brakebeam or end of car while stealing a ride.

John Murphy, a laborer on Section No. 5, caught his hand under lever of hand-car, lacerating it quite badly.

Alex. McClosky fell from special train about one mile south of Schellville; hands and face badly lacerated.

A tramp named A. D. Matson was struck by a detached portion of train No. 33 while switching in Fulton yard; he was knocked senseless, and had some slight cuts and bruises on his head; no bones were broken.

Thomas Young jumped from train No. 16 at Bellevue; his face was badly bruised, but he was not otherwise injured.

CHARACTERISTICS OF ROAD.

Main Line and Branches.	Length.	Alignment.		
		Number of Curves	Aggregate Length of Curved Line—Miles.....	Length of Straight Line—Miles.....
Main line—Tiburon to Ukiah.....	106.00	188	25.34	80.66
Branches—Donahue to junction with main line.....	5.56	5	.84	4.72
Fulton to Guerneville and Bohemia.....	20.88	84	8.76	9.78
Santa Rosa to Sebastopol.....	6.25	6	.92	5.33
Ignacio to Glen Ellen.....	26.63	46	5.21	21.42
Total.....	165.32			

Main Line and Branches.	Profile.						
	Length of Level Line—Miles.....	Number of Ascending Grades	Sum of Ascents of Ascending Grades—Feet.....	Aggregate Length of Ascending Grades—Miles.....	Number of Descending Grades.	Sum of Descents of Descending Grades—Feet.....	Aggregate Length of Descending Grades—Miles.....
Main line—Tiburon to Ukiah..	29.76	44	1,176.3	48.89	35	572.3	27.00
Branches—Donahue to junction with main line.....	2.44	7	20.5	1.48	5	19.5	1.64
Fulton to Guerneville and Bohemia.....	8.31	13	92.1	3.47	16	159.0	6.76
Santa Rosa to Sebastopol.....	1.36	1	3.0	.15	11	90.0	4.74
Ignacio to Glen Ellen.....	11.55	15	292.6	11.31	14	81.6	3.77

BRIDGES, TRESTLES, TUNNELS, ETC.

Item.	Number.	Aggregate Length.	Minimum Length.	Maximum Length.
Bridges:				
Steel.....	2	279 ft. 2 in.	51 ft. 8 in.	227 ft. 6 in.
Wooden.....	7	674 ft.	32 ft.	168 ft.
Combination.....	3	989 ft.	185 ft.	400 ft.
Totals.....	12	1,942 ft. 2 in.		
Trestles.....	457	38,087 ft.	5 ft. 6 in.	2,722 ft. 8 in.
Tunnels.....	9	8,985 ft.	248 ft.	1,851 ft.

Item.	Number.	Height Above Surface of Rail.
Overhead Highway Crossings:		
Trestles.....	2	18 ft.
Tunnels.....	9	16 ft. 8 in.

Gauge of track, 4 feet 8½ inches; length, 165.32 miles.

CAR MILEAGE.

This company pays mileage to the Southern Pacific Company for the use of cars.

TELEGRAPH OWNED BY ANOTHER COMPANY, BUT LOCATED ON PROPERTY OF ROAD MAKING THIS REPORT.

Miles of Line.	Miles of Wire.	Name of Owner.	Name of Operating Company.
106	212	Western Union Telegraph Co.	S. F. and N. P. Ry.

STATE OF CALIFORNIA,)
 City and County of San Francisco.) ss.

We, the undersigned, Arthur W. Foster, President, and Thomas Mellersh, Secretary, of the San Francisco and North Pacific Railway Company, on our oath, do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

A. W. FOSTER, President.
 THOMAS MELLERSH, Secretary.

Subscribed and sworn to before me, this twenty-fifth day of August, 1894.

E. H. THARP,
 Notary Public in and for the City and County of San Francisco.

NORTH PACIFIC COAST RAILROAD COMPANY.

HISTORY.

1. Name of common carrier making this report: North Pacific Coast Railroad Company.
2. Date of organization: December 16, 1871.
3. Under laws of what Government, State, or Territory organized: United States Government and State of California; incorporated under the general incorporation laws, relative to railroad companies, approved May 20, 1861.
4. Original corporation.

ORGANIZATION.

Names of Directors: J. B. Stetson, C. Xenervaud, A. Borel, C. DeGuigné, J. C. Coleman and A. H. Small, all of San Francisco, California.

Date of expiration of terms of Directors: August 13, 1894.

Number of stockholders at date of last election: 13.

Last meeting of stockholders for election of Directors: August 14, 1893.

Post Office address of general and operating office: 14 Sansome Street, San Francisco, California.

OFFICERS.

Title.	Name.	Location of Office.
Chairman of the Board and President.	J. B. Stetson	San Francisco.
Vice-President	C. Xenervaud	San Francisco.
Secretary	F. B. Latham	San Francisco.
Treasurer	A. Borel	San Francisco.
General Solicitor and Attorney	Chas. Page	San Francisco.
Auditor	F. B. Latham	San Francisco.
Superintendent	E. H. Shoemaker	Sausalito, Marin County.
Traffic Manager	W. F. Russell	San Francisco.
General Freight Agent	W. F. Russell	San Francisco.
General Passenger Agent	F. B. Latham	San Francisco.
General Ticket Agent	F. B. Latham	San Francisco.

PROPERTY OPERATED.

Name of Road.	Miles.
North Pacific Coast Railroad—	
San Francisco to Cazadero	86.75
San Anselmo to San Rafael	2.00
Mill Valley Junction to Mill Valley	1.75
San Rafael and San Quentin Railroad—	
San Rafael to San Quentin	3.50
Total	94.00

CAPITAL STOCK.

The total par value of authorized capital stock is \$3,000,000, divided into 30,000 shares of a par value of \$100 each. The total amount issued and outstanding is \$2,709,500. No dividends were declared.

FUNDED DEBT.

Class of Bond or Obligation, and Date of Issue and Maturity.	Authorized Issue.	Amount Issued.	Cash Realized on Amount Outstanding.
First mortgage—Nov. 14, 1881; Nov. 1, 1901 ..	\$600,000 00	\$600,000 00	\$590,000 00
Second mortgage—Nov. 14, 1881; Nov. 1, 1901..	500,000 00	500,000 00	7,000 00
First mortgage—Jan. 2, 1883; Jan. 2, 1889	150,000 00	150,000 00	100,000 00
General—July 1, 1892; July 1, 1912	1,500,000 00	903,000 00	900,000 00
Totals	\$2,750,000 00	\$2,153,000 00	\$1,600,000 00

Class of Bond or Obligation.	Rate.	When Payable.	Interest Accrued during Year.	Interest Paid during Year.
First mortgage	6	May 1 and Nov. 1.	\$35,400 00	\$34,950 00
Second mortgage	6	May 1 and Nov. 1.	420 00	390 00
First mortgage	5	Jan. 2 and July 2..	6,562 50	4,062 50
General	5	Jan. 1 and July 1..	38,587 50	16,637 50
Totals			\$80,970 00	\$56,040 00

RECAPITULATION OF FUNDED DEBT.

Class of Debt.	Amount Issued.	Amount Outstanding.
Mortgage bonds	\$2,153,000 00	\$1,600,000 00

Interest accrued during year, \$80,970; interest paid during year, \$56,040.

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.	Current Liabilities Accrued to and Including June 30, 1894.
Cash	Audited vouchers and accounts
Due from agents	Wages and salaries
Due from solvent companies and individuals	Matured interest coupons unpaid (including coupons due July 1st)
	Miscellaneous
	Balance—cash assets
Total	Total

RECAPITULATION.

A. For Mileage Owned by Road Making this Report.

Account.	Amount Outstanding.	Apportionment to Railroads.	Miles.	Amount per Mile of Road.
Capital stock	\$2,709,500 00	\$2,709,500 00	} 90.50	\$48,903 74
Bonds	1,600,000 00	1,600,000 00		
Current liabilities	116,288 74	116,288 74		
Totals	\$4,425,788 74	\$4,425,788 74	90.50	\$48,903 74

B. For Mileage Operated by Road Making this Report (Trackage Rights Excluded), the Operations of which are Included in the Income Account.

Name of Road.	Capital Stock.	Funded Debt.	Current Liabilities.	Total.	Miles.	Amount per Mile of Road.
North Pacific Coast R. R.	\$2,709,500	\$1,600,000	\$116,288 74	\$4,425,788 74	90.50	\$48,903 74
San Rafael and San Quentin R. R.	None.	None.	None.	None.	3.50	None.
Totals	\$2,709,500	\$1,600,000	\$116,288 74	\$4,425,788 74	94.00	\$48,903 74

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS.

Item.	Construction or Equipment During Year.
Construction:	
Grading, and bridge and culvert masonry	\$45,578 31
Rails	9,897 99
Buildings, furniture, and fixtures	3,684 77
Wharfing, etc.	29,616 76
Terminal facilities and elevators	12,366 16
Other items	743 99
Total construction	\$101,887 97
Equipment:	
Locomotives	\$7,060 72
Passenger cars	3,482 40
Other cars of all classes	94,309 75
Total equipment	\$104,852 87
Grand total cost construction and equipment	\$206,740 85

Total cost of construction and equipment to June 30, 1893, \$3,295,971 01; total cost of construction and equipment to June 30, 1894, \$3,502,711 86; cost per mile, \$38,704.

INCOME ACCOUNT.

Gross earnings from operation	\$383,195 30	
Less operating expenses	291,006 70	
Income from operation		\$92,188 60
Deductions from income:		
Interest on funded debt accrued	\$80,970 00	
Taxes	7,887 67	
Other deductions	1,252 45	
Total deductions from income		90,110 12
Net income		\$2,078 48
Deficit on June 30, 1893		786,414 34
Deficit on June 30, 1894		\$784,335 86

OPERATING EXPENSES.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of way and structures:			
Repairs of roadway	\$15,406 16	\$15,406 67	\$30,812 83
Renewals of rails	1,708 10	1,708 10	3,416 20
Renewals of ties	702 14	702 18	1,404 32
Repairs of bridges and culverts	5,827 60	5,827 93	11,655 53
Repairs of fences, road-crossings, signs, and cattle guards	1,038 08	1,038 18	2,076 26
Repairs of buildings	972 82	972 97	1,945 79
Repairs of docks and wharves	230 94	230 94	461 88
Other expenses	3 24	3 25	6 49
Totals	\$25,889 08	\$25,890 22	\$51,779 30
Maintenance of equipment:			
Repairs and renewals of locomotives	\$3,935 00	\$4,032 03	\$7,967 03
Repairs and renewals of passenger cars	1,554 02	-----	1,554 02
Repairs and renewals of freight cars	-----	3,564 42	3,564 42
Repairs and renewals of ferry-boats, tugs, floats, and barges	6,784 33	1,986 57	8,770 90
Shop machinery, tools, etc.	541 32	543 85	1,085 17
Other expenses	304 41	304 42	608 83
Totals	\$13,119 08	\$10,431 29	\$23,550 37
Conducting transportation:			
Wages of enginemen, firemen, and round-housemen	\$11,218 55	\$6,343 11	\$17,561 66
Fuel for locomotives	20,025 75	10,973 25	30,999 00
Water supply for locomotives	743 89	743 97	1,487 86
All other supplies for locomotives	665 84	665 84	1,351 68
Wages of other trainmen	8,686 56	6,201 90	14,888 46
All other train supplies	366 63	317 65	684 28
Wages of switchmen, flagmen, and watchmen	742 00	1,462 00	2,204 00
Expense of telegraph, including train dispatchers and operators	720 00	720 00	1,440 00
Wages of station agents, clerks, and laborers	9,593 27	19,346 04	28,939 31
Station supplies	906 76	913 43	1,820 19
Loss and damage	846 75	905 83	1,752 58
Injuries to persons	1,284 74	1,248 75	2,533 49
Barges, floats, tugs, ferry-boats, expenses of, including wages, fuel, and supplies	46,589 95	20,503 86	67,093 81
Other expenses	1,911 86	44 48	1,956 34
Totals	\$104,302 55	\$70,390 11	\$174,692 66
General expenses:			
Salaries of officers	\$7,400 00	\$7,400 00	\$14,800 00
Salaries of clerks	1,797 75	1,797 75	3,595 50
General office expenses and supplies	200 97	200 99	401 96
Advertising	3,130 68	16 10	3,146 78
Insurance	971 00	971 00	1,942 00
Rents for tracks, yards, and terminals	4,650 00	4,650 00	9,300 00
Rents not otherwise provided for	960 00	960 00	1,920 00
Legal expenses	1,129 00	1,129 00	2,258 00
Stationery and printing	1,660 27	928 15	2,588 42
Other general expenses	515 82	515 89	1,031 71
Totals	\$22,415 49	\$18,568 88	\$40,984 37
Recapitulation of expenses:			
Maintenance of way and structures	\$25,889 08	\$25,890 22	\$51,779 30
Maintenance of equipment	13,119 08	10,431 29	23,550 37
Conducting transportation	104,302 55	70,390 11	174,692 66
General expenses	22,415 49	18,568 88	40,984 37
Grand totals	\$165,726 20	\$125,280 50	\$291,006 70
Percentage of operating expenses to earnings			75.95

EARNINGS FROM OPERATION.

Item.	Actual Earnings.
Passenger revenue	\$196,633 25
Mail	6,667 80
Express	14,934 23
Extra baggage and storage	170 96
Other items	8,341 55
Total passenger earnings	\$226,797 79
Freight revenue	142,650 00
Total passenger and freight earnings	\$369,447 79
Other earnings from operation	13,747 51
Total gross earnings from operation	\$383,195 30

RENTALS PAID.

Item.	Cash.
Rents paid for leased roads: San Rafael and San Quentin Railroad	Nominal.
Other rentals paid:	
Property in San Francisco	\$7,800 00
Property in San Quentin	1,500 00
Total rents	\$9,300 00

COMPARATIVE GENERAL BALANCE SHEET.

June 30, 1893.	Assets.	June 30, 1894.	June 30, 1894— Increase.
\$3,295,971 01	Cost of road and equipment	\$3,502,711 86	
28,583 88	Cash and current assets	131,391 39	
7,278 66	Materials and supplies	7,349 63	
786,414 34	Profit and loss	784,335 86	
\$4,118,247 89	Totals	\$4,425,788 74	\$307,540 85
June 30, 1893.	Liabilities.	June 30, 1894.	June 30, 1894— Increase.
\$2,500,000 00	Capital stock	\$2,709,500 00	
1,490,000 00	Funded debt	1,600,000 00	
128,247 89	Current liabilities	116,288 74	
\$4,118,247 89	Totals	\$4,425,788 74	\$307,540 85

SECURITY FOR FUNDED DEBT.

Class of Bond or Obligation.	What Road Mortgaged.	Miles.	Amount of Mortgage per Mile of Line.
First mortgage bonds...	San Francisco to Cazadero	86.75	\$17,679 78
Second mortgage bonds...	Mill Valley Junction to Mill Valley ..	1.75	
General mortgage bonds...	San Anselmo to San Rafael	2.00	
First mortgage bonds...	Shops to Corte Madera	5.00	20,000 00

All equipment mortgaged. What securities mortgaged: 5.958 acres land in Sonoma County.

EMPLOYÉS AND SALARIES.

Class.	Number.	No. Days Worked.	Yearly Compensation.	Average Daily Compensation.
General officers	5	1,657	\$11,800 00	\$7 12
General office clerks	5	1,498	3,595 50	2 40
Station agents	23	8,057	15,984 60	1 98
Other station men	80	6,601	13,550 00	2 05
Enginemen	12	2,608	9,723 75	3 73
Firemen	12	2,550	5,649 31	2 21
Conductors	12	2,778	8,087 10	2 91
Other trainmen	19	3,930	6,762 00	1 87
Machinists	2	461	1,439 73	3 12
Carpenters	1	313	1,176 74	3 75
Other shopmen	23	6,280	14,744 63	2 33
Section foremen	12	4,150	9,595 73	2 31
Other trackmen	77	24,453	35,270 62	1 44
Switchmen, flagmen, and watchmen	1	342	684 00	2 00
Telegraph operators and dispatchers	1	365	1,420 00	3 89
Employés—account floating equipment	32	9,204	26,012 33	2 83
All other employés and laborers	17	819	2,112 24	2 58
Totals (including general officers)	334	76,066	\$167,608 28	\$2 20
Less general officers	5	1,657	11,800 00	7 12
Totals (excluding general officers)	329	74,409	\$155,808 28	\$2 09
Distribution of above:				
General administration	10	3,155	\$15,395 50	
Maintenance of way and structures	90	28,945	45,550 35	
Maintenance and equipment	26	7,054	17,361 10	
Conducting transportation	208	36,912	89,301 33	
Totals (including general officers)	334	76,066	\$167,608 28	
Less general officers	5	1,657	11,800 00	
Totals (excluding general officers)	329	74,409	\$155,808 28	

DESCRIPTION OF EQUIPMENT.

Item.	Total at End of Year.
Locomotives:	
Passenger	9
Freight	3
Total	12
Cars in passenger service:	
First-class passenger cars	27
Second-class passenger cars	1
Combination passenger cars	5
Baggage, express, and postal cars	3
Other cars in passenger service	14
Total	50
Cars in freight service:	
Box cars	43
Flat cars	284
Stock cars	12
Total	339
Cars in company's service:	
Caboose cars	2
Total cars owned	391

All the locomotives are equipped with the Westinghouse train-brake, and all the cars in passenger service are equipped with Westinghouse train-brake and Miller automatic coupler.

PASSENGER AND FREIGHT, AND TRAIN MILEAGE.

Item.	Tonnage, Passengers, Etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue	1,097,753	
Number of passengers carried one mile	15,390,783	
Average distance carried—miles	14.022	
Total passenger revenue		\$196,683 25
Average amount received from each passenger		17.917
Average receipts per passenger per mile		01.278
Estimated cost of carrying each passenger one mile		01.077
Total passenger earnings		226,797 79
Passenger earnings per mile of road		2,412 74.245
Passenger earnings per train-mile		1 05.634
Freight traffic:		
Number of tons carried of freight earning revenue	77,310	
Number of tons carried one mile	3,282,668	
Average distance haul of one ton—miles	42.461	
Total freight revenue		142,650 00
Average amount received for each ton of freight		1 84.517
Average receipts per ton per mile		04.345
Estimated cost of carrying one ton one mile		03.816
Total freight earnings		142,650 00
Freight earnings per mile of road		1,517 55.319
Freight earnings per train-mile		1 23.831
Passenger and freight:		
Passenger and freight revenue		339,333 25
Passenger and freight revenue per mile of road		3,609 92.819
Passenger and freight earnings		369,447 79
Passenger and freight earnings per mile of road		3,930 29.563
Gross earnings from operation		383,195 30
Gross earnings from operation per mile of road		4,076 54.575
Expenses		291,006 70
Expenses per mile of road		3,095 81.595
Train mileage:		
Miles run by passenger trains	214,702	
Miles run by freight trains	115,197	
Total mileage trains earning revenue	329,899	
Miles run by construction and other trains	39,670	
Total train mileage	369,569	

FREIGHT TRAFFIC MOVEMENT.

Commodity.	Originating on this Road—Tons.	Per Cent.
Products of agriculture:		
Grain	163	.21
Flour	27	.04
Hay	723	.94
Fruit and vegetables	3,464	4.48
Products of animals:		
Live stock	2,492	3.22
Dressed meats	609	.79
Poultry, game, and fish	22	.03
Butter	739	.95
Products of forest:		
Bark	1,179	1.52
Lumber	17,356	22.45
Wood	18,468	23.89
Charcoal	1,177	1.52
Manufactures:		
Wines, liquors, and beers	296	.38
Miscellaneous: other commodities not mentioned above	30,595	39.58
Total tonnage	77,310	100.00

CONTRACTS, AGREEMENTS, ETC.

1. Express with Wells, Fargo & Co.
2. United States mails from San Francisco to Cazadero, San Quentin, and Mill Valley.
5. Transportation of freight and passengers with San Francisco and North Pacific Railway Company.
7. Telegraph with Western Union Telegraph Company. We furnish agents and do their business "free" when one agent can attend to it; when it goes beyond that, they furnish their own agent and operator.

MILEAGE.

A. Mileage of Road Operated.

Line in Use.	Main Line.	Branches and Spurs.	Line Operated Under Lease.	Total Mileage Operated.	Iron Rails.	Steel Rails.
Length of single track.....	80.75	3.75	3.50	88.00	41.25	46.75
Length of yard track and sidings.....	12.00	-----	-----	12.00	12.00	-----
Total mileage operated (all tracks).....	92.75	3.75	3.50	100.00	53.25	46.75

B. Mileage of Line by States and Territories—1. Mileage Operated by Road Making this Report.

State or Territory.	Main Line.	Branches and Spurs.	Line Operated Under Lease.	Total Mileage Operated.	Rails. Iron	Steel Rails.
California.....	80.75	3.75	3.50	88.00	41.25	46.75

2. Mileage Owned by Road Making this Report.

State or Territory.	Operated Under Trackage Rights.	Iron Rails.	Steel Rails.
California.....	84.50	37.75	46.75

CONSUMPTION OF FUEL BY LOCOMOTIVES.

Locomotives.	Coal—Tons.	Wood—Cords.	Total Fuel Consumed—Tons.	Miles Run.	Average lbs. Consumed per Mile.
Passenger.....	1,496	3,526	3,259	214,702	30.359
Freight.....	103	3,440	1,823	115,197	31.650
Construction.....	92	1,082	633	39,670	31.913
Totals.....	1,691	8,048	5,715	369,569	

Average cost at distributing point: Coal, \$6 31 per ton; wood, \$3 per cord.

ACCIDENTS.

Persons.	Killed.	Injured.
Trainmen.....	2	1
Employés.....	3	3
Trespassers.....	3	4
Totals.....	8	5

BRIDGES, TRESTLES, TUNNELS, ETC.

Item.	Number.	Aggregate Length.	Minimum Length.	Maximum Length.
Bridges:				
Wooden.....	12	780 feet.	60 feet.	150 feet.
Combination.....	1			
Totals.....	13			
Tunnels.....	5	7,321 feet.	400 feet.	2,629 feet.

Item.	Height Above Surface of Rail.
Tunnels.....	13 ft. 6 in.

Gauge of track, 3 feet ; length, 48.50 miles.

TELEGRAPH OWNED BY ANOTHER COMPANY, BUT LOCATED ON PROPERTY OF ROAD MAKING THIS REPORT.

Miles of Line.	Miles of Wire.	Name of Owner.	Name of Operating Company.
88	88	Western Union.....	North Pacific Coast Railroad Company.

STATE OF CALIFORNIA,)
 City and County of San Francisco.) ss.

I, the undersigned, James B. Stetson, President of the North Pacific Coast Railroad Company, on oath do severally say that the foregoing return has been prepared, under my direction, from the original books, papers, and records of said company ; that I have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of my knowledge, information, and belief ; and I further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts ; and that the accounts and figures contained in the foregoing return embrace all the financial operations of said company during the period for which said return is made.

JAMES B. STETSON,
 President.

Subscribed and sworn to before me, this eighth day of August, 1894.

HARRY N. STETSON,

Notary Public in and for the City and County of San Francisco, State of California.

PACIFIC COAST RAILWAY COMPANY.

[For the year ending November 30, 1893.]

HISTORY.

1. Name of common carrier making this report: Pacific Coast Railway Company.
 2. Date of organization: April 18, 1882.
 3. Under laws of what Government, State, or Territory organized: State of California.
 4. Names of constituent companies: Consolidation of San Luis Obispo and Santa Maria Valley Railroad Company and the Pacific Coast Railroad Company.
- The Pacific Coast Railway Company is owned and operated by the Oregon Improvement Company.

ORGANIZATION.

Names of Directors.	Post Office Address.
John L. Howard	Oakland.
T. R. Hayes	Oakland.
George C. Perkins	Oakland.
Wm. Norris	San Francisco.
S. G. Murphy	San Francisco.
S. V. Smith	San Rafael.
W. H. Starbuck	New York.
C. B. Tedcastle	New York.
F. A. Prince	New York.

Directors elected annually on the first Monday after December 20th.

Number of stockholders at date of last election: 10.

Last meeting of stockholders for election of Directors: September 23, 1893.

Post Office address of general office: No. 16 California Street, San Francisco.

Post Office address of operating office: San Luis Obispo, Cal.

OFFICERS.

Title.	Name.	Location of Office.
President	John L. Howard	San Francisco.
Vice-President	Chas. Goodall	San Francisco.
Secretary	Edwin Goodall	San Francisco.
Treasurer	Oregon Improvement Co.	San Francisco.
Attorney, or General Counsel	Wilcoxon & Bouldin	San Luis Obispo.
Accountant	E. B. Rosenberger	San Luis Obispo.
Superintendent	C. O. Johnson	San Luis Obispo.
General Freight, Passenger, Ticket, and Baggage Agent	C. O. Johnson	San Luis Obispo.

PROPERTY OPERATED.

The Pacific Coast Railway Company operates by main line from Port Harford to Los Olivos, a distance of 76.1 miles.

CAPITAL STOCK.

The total par value of authorized capital stock is \$1,370,400, divided into 13,704 shares of a par value of \$100 each. The total amount issued and outstanding is \$1,370,400.

FUNDED DEBT.

In November, 1882, first mortgage bonds were issued by the company to the amount of \$1,370,000; cash realized on amount issued, \$1,370,000. These bonds mature in 1922, and bear 6 per cent interest, payable semi-annually. The amount of interest accruing during year was \$82,200, which was paid in full.

RECAPITULATION OF FUNDED DEBT.

Class of Debt.	Amount Issued.	Amount Outstanding.
Mortgage bonds	\$1,370,000	\$1,370,000

Interest accrued during year, \$82,200; interest paid during year, \$82,200.

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.		Current Liabilities Accrued.	
Due from agents.....	\$1,253 13	Audited vouchers and accounts	\$9,649 36
Due from solvent companies and individuals.....	7,659 41	Miscellaneous.....	2,966 12
Other cash assets (excluding "materials and supplies")....	751 27		
Balance—current liabilities	2,946 67		
Total	\$12,615 48	Total	\$12,615 48

Materials and supplies on hand, \$34,745 89.

Cash—All moneys are deposited to the credit of Oregon Improvement Co., Treasurer, by whom disbursements are made.

RECAPITULATION.

A. For Mileage Owned by Road Making this Report.

Account.	Amount Outstanding.	Miles.	Amount per Mile of Road.
Capital stock	\$1,370,400 00	76 ¹ / ₁₀	\$18,000 00
Bonds	1,370,000 00		18,000 00
Total	\$2,740,400 00	76 ¹/₁₀	\$36,000 00

B. For Mileage Operated by Road Making this Report (Trackage Rights Excluded), the Operations of which are Included in the Income Account.

Name of Road.	Capital Stock.	Funded Debt.	Current Liabilities.	Total.	Miles.	Amount per Mile of Road.
Pac. Coast Ry. Co...	\$1,370,400	\$1,370,000	\$12,615 48	\$2,752,615 48	76 ¹¹ / ₁₀	\$36,171 03

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS.

Item.	Construction or Equipment During Year.
Construction:	
Buildings, furniture, and fixtures.....	\$1,049 35
Engineering expenses	390 95
Wharfing, etc.	3,440 29
Other items	2,255 50
Total construction	\$6,136 09
Equipment:	
Locomotives	\$8,679 79
Other cars of all classes.....	391 25
Equipment destroyed by fire less cost to replace	Cr. 5,392 81
Total equipment.....	\$3,678 23
Grand total cost construction, equipment, etc.....	9,814 32

Total cost to November 30, 1893, \$2,985,887 15; cost per mile, \$39,236 36.

EARNINGS FROM OPERATION.

Item.	Total Receipts.	Deductions, Etc.	Annual Earnings.
Passenger revenue	\$33,884 45		
Tickets redeemed		\$108 40	
Total passenger revenue			\$33,776 05
Mail			4,507 69
Express			550 68
Total passenger earnings			\$38,834 42
Freight revenue	\$121,930 63		
Less overcharge to shippers		\$1,906 99	
Total freight earnings			120,023 64
Other earnings from operation			27,456 30
Total gross earnings from operation			\$186,314 36

OPERATING EXPENSES.

Item.	Total.
Maintenance of way and structures:	
Repairs of roadway	\$38,591 42
Repairs of bridges and culverts	2,433 44
Repairs of fences, road-crossings, signs, and cattle guards	670 62
Repairs of buildings	528 74
Repairs of docks and wharves	4,204 76
Repairs of telegraph	25 24
Other expenses	428 18
Total	\$46,882 40
Maintenance of equipment:	
Repairs and renewals of locomotives	\$7,855 03
Repairs and renewals of passenger cars	2,717 12
Repairs and renewals of freight cars	4,839 59
Shop machinery, tools, etc.	941 73
Total	\$16,353 47
Conducting transportation:	
Wages of enginemen, firemen, and roundhousemen	\$5,288 90
Fuel for locomotives	13,233 66
Water supply for locomotives	548 26
All other supplies for locomotives	457 95
Wages of other trainmen	5,524 53
All other train supplies	865 96
Wages of station agents, clerks, and laborers	19,365 62
Station supplies	915 58
Loss and damage	2,971 04
Other expenses	509 96
Total	\$49,681 46
General expenses:	
General office expenses and supplies	\$7,681 48
Advertising and printing	240 43
Insurance	2,061 39
Legal expenses	35 00
Other general expenses	2,737 88
Total	\$12,756 18
Recapitulation of expenses:	
Maintenance of way and structures	\$46,882 40
Maintenance of equipment	16,353 47
Conducting transportation	49,681 46
General expenses	12,756 18
Grand total	\$125,673 51
Percentage of operating expenses to earnings	67 $\frac{5}{16}$

INCOME ACCOUNT.

Gross earnings from operation	\$186,314 36	
Less operating expenses	125,673 51	
Income from operation		\$60,640 85
Deductions from income:		
Interest on funded debt accrued	\$82,200 00	
Taxes	6,229 03	
Total deductions from income		88,429 03
Deficit		\$27,788 18

PASSENGER AND FREIGHT, AND TRAIN MILEAGE.

Item.	Tonnage, Passengers, Etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue	38,848	
Number of passengers carried one mile	812,958.6	
Total passenger revenue		\$33,776 05
Average amount received from each passenger		86.95
Average receipts per passenger per mile		04.77
Estimated cost of carrying each passenger one mile		04.23
Total passenger earnings		38,834 42
Freight traffic:		
Number of tons carried of freight earning revenue	71,169.4	
Number of tons carried one mile	2,296,068.3	
Total freight revenue		120,023 64
Average amount received for each ton of freight		1 68.64
Average receipts per ton per mile		05.22
Total freight earnings		120,023 64
Passenger and freight:		
Passenger and freight revenue		153,799 69
Passenger and freight earnings		158,858 06
Gross earnings from operation		186,314 86
Expenses		125,673 51
Train mileage:		
Miles run by passenger trains	190,458	
Miles run by freight trains	297,536.1	
Total mileage trains earning revenue	487,994.1	
Mileage of loaded freight cars—north or east	205,248.2	
Mileage of loaded freight cars—south or west	92,287.3	
Mileage of empty freight cars—north or east	28,719.2	
Mileage of empty freight cars—south or west	138,112.4	

DESCRIPTION OF EQUIPMENT.

Item.	Total at End of Year.
Locomotives	6
Cars in passenger service	10
Cars in freight service	215
Total cars owned	225

FREIGHT TRAFFIC MOVEMENT. (Company's material excluded.)

Commodity.	Total Freight Tonnage.
Products of agriculture:	
Grain	27,467.6
Other mill products	1,948.3
Products of animals:	
Live stock	2,874.6
Wool	82.4
Hides and leather	104.4
Products of mines:	
Bituminous coal	547.9
Ores	149.6
Asphaltum and bituminous rock	7,008.5
Products of forest:	
Lumber	16,034.3
Manufactures:	
Agricultural implements	119.0
Merchandise	13,243.2
Miscellaneous: other commodities not mentioned above	1,589.7
Total tonnage	71,169.5

MILEAGE OF ROAD OPERATED.

Line in Use.	Main Line.	Branches and Spurs.	Total Mileage Operated.
Miles of single track	71.7	4.4	76.1

The entire mileage is in California.

STATE OF CALIFORNIA,)
City and County of San Francisco.) ss.

We, the undersigned, John L. Howard, President, and J. G. Whittington, Accountant, of the Pacific Coast Railway Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

JOHN L. HOWARD,
President.
J. G. WHITTINGTON,
Accountant.

Subscribed and sworn to before me, this first day of October, 1894.

JAMES L. KING,
Notary Public in and for the City and County of San Francisco, State of California.

CARSON AND COLORADO RAILWAY COMPANY.

HISTORY.

1. Name of common carrier making this report; Carson and Colorado Railway Company.
2. Date of organization: February 27, 1892.
3. Under laws of what Government, State, or Territory organized: State of California.
4. Names of the constituent companies: Carson and Colorado Railroad Company, incorporated in Nevada, May 10, 1880; Carson and Colorado Railroad Company (Second Division), incorporated in Nevada, November 3, 1881; Carson and Colorado Railroad Company (Third Division), incorporated in California, November 21, 1881.
5. Date of consolidation: August 2, 1892, and by the unanimous vote of the stockholders.
6. Name of original corporation: Carson and Colorado Railroad Company, State of Nevada.

ORGANIZATION.

Names of Directors.	Post Office Address.
D. O. Mills .....	..... New York.
George Whittell .....	..... San Francisco.
William M. Randol .....	..... San Francisco.
James M. Allen .....	..... San Francisco.
S. Prentiss Smith .....	..... San Francisco.
W. S. Wood .....	..... San Francisco.
John W. C. Maxwell .....	..... San Francisco.
H. M. Yerington .....	..... Carson City, Nev.
D. A. Bender .....	..... Carson City, Nev.

Date of expiration of terms of Directors: When successor is elected and qualified.
 Number of stockholders at date of last election: At present 16.
 Last meeting of stockholders for election of Directors: August 2, 1892.
 Post Office address of general office: San Francisco.
 Post Office address of operating office: Carson City, Nev.

OFFICERS.

Title.	Name.	Location of Office.
President	H. M. Yerington .....	..Carson City, Nev.
Vice-President	George Whittell .....	..San Francisco.
Secretary	D. A. Bender .....	..Carson City, Nev.
Treasurer	S. Prentiss Smith .....	..San Francisco.
Assistant Secretary	E. B. Yerington .....	..Virginia City, Nev.
General Solicitor	W. S. Wood .....	..San Francisco.
Auditor and Paymaster	George I. Mills .....	..Carson City, Nev.
General Superintendent	H. M. Yerington .....	..Carson City, Nev.
Superintendent of Telegraph	A. M. Ardery .....	..Carson City, Nev.
General Freight, Passenger, and Baggage Agent	D. A. Bender .....	..Carson City, Nev.

PROPERTY OPERATED.

Name.	Terminals.	Miles.
Carson and Colorado Railway	{ Mound House, Nev., to Keeler, Cal.	293.00
	{ Junction, Nev., to Candelaria, Nev.	7.00
	{ Hawthorne, Nev., to Cottonwood, Nev.	7.25
Total		307.25

CAPITAL STOCK.

The total par value of authorized capital stock is \$6,300,000, divided into 63,000 shares of a par value of \$100 each. The total amount issued and outstanding is \$4,380,000. No dividends were declared during year.

The manner of payment for capital stock is as follows: Number of shares issued for reorganization, 43,800; total cash realized, \$4,380,000. Issued per agreement between stockholders in exchange for an equal number of shares issued and outstanding of the Carson and Colorado Railroad Company; Carson and Colorado Railroad Company, second division; and the Carson and Colorado Railroad Company, third division.

FUNDED DEBT.

In 1892, the company authorized first mortgage bonds to the amount of \$3,500,000 to be issued, to run fifty years. The amount issued and now outstanding is \$2,000,000, upon which full value was realized. The bonds bear four per cent interest, payable in January and July. The amount of interest accruing during the year was \$80,000, but none was paid.

RECAPITULATION OF FUNDED DEBT.

Class of Debt.	Amount Issued.	Amount Outstanding.
Mortgage bonds	\$2,000,000 00	\$2,000,000 00

Interest accrued during year, \$80,000; interest paid during year, nothing.

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.	Current Liabilities Accrued to and Including June 30, 1894.
Cash	Miscellaneous, P. and L. account, etc.
Due from agents	Balance—cash assets
Due from U. S. Government ..	
Other cash assets (excluding materials and supplies).....	
Total	Total

Materials and supplies on hand, \$12,141 06. Matured interest coupons unpaid, but not charged or entered on company books, \$120,000.

RECAPITULATION.

A. For Mileage Owned by Road Making this Report.

Account.	Amount Outstanding.	Miles.	Amount per Mile of Road.
Capital stock	\$4,380,000 00	307.25	\$14,255 00
Bonds	2,000,000 00		
Totals	\$6,380,000 00	307.25	\$20,764 32

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS.

We are unable to furnish in detail the information called for, as this company purchased the railroad, equipment, and all other property of the following incorporations: Carson and Colorado Railroad Company, Carson and Colorado Railroad Company (Second Division), and Carson and Colorado Railroad Company (Third Division), the consideration being \$4,380,000 of its capital stock, and \$2,000,000 of its first mortgage, 50-year, 4 per cent bonds; which amount appears on the company's books as representing the cost of construction and equipment, viz., \$6,380,000.

INCOME ACCOUNT.

Gross earnings from operation.....	\$146,503 37	
Less operating expenses.....	96,511 18	
Income from operation.....		\$49,992 19
Deductions from income:		
Interest on funded debt accrued, but not entered on books.....	\$80,000 00	
Taxes.....	19,670 29	
Total deductions from income.....		99,670 29
Deficit from operations of year ending June 30, 1894.....		\$49,678 10

EARNINGS FROM OPERATION.

Item.	Actual Earnings.
Passenger revenue.....	\$32,203 38
Mail.....	13,775 10
Express.....	2,464 50
Extra baggage and storage, and other items.....	335 71
Total passenger earnings.....	\$48,778 69
Freight revenue.....	97,724 68
Total gross earnings from operation.....	\$146,503 37

COMPARATIVE GENERAL BALANCE SHEET.

June 30, 1893.	Assets.	June 30, 1894.	June 30, 1894— Increase.	June 30, 1894— Decrease.
\$6,380,000 00	Cost of road and equipment.....	\$6,380,000 00		
13,622 61	Cash and current assets.....	33,975 24	\$20,352 63	
13,835 07	Material and supplies.....	12,141 06		\$1,694 01
\$6,407,457 68	Totals.....	\$6,426,116 30	\$20,352 63	\$1,694 01
June 30, 1893.	Liabilities.	June 30, 1894.	June 30, 1894— Increase.	June 30, 1894— Decrease.
\$4,380,000 00	Capital stock.....	\$4,380,000 00		
2,000,000 00	Funded debt.....	2,000,000 00		
11,385 03	Current liabilities.....	15,794 40		\$4,409 37
16,072 65	Profit and loss.....			
\$6,407,457 68	Totals.....	\$6,395,794 40		\$4,409 37

Accrued interest on funded debt not yet payable, \$120,000 due. None entered on company's books.

CONTRACTS, AGREEMENTS, ETC.

Express.—This company has an agreement with Wells, Fargo & Co.'s Express, covering the haul of express matter, messengers, etc.

Mails.—The company has a contract with the United States Post Office Department for daily mail service between Mound House, Nevada, and Keeler, California, at the rate of \$64 98 per mile per annum, from which said department deducts 50 per cent thereof for failure to provide service three times per week over that portion of the road on which trains are run but three times per week.

Other Railroads.—No contracts or agreements, excepting such as are embraced in joint freight and passenger tariffs with Southern Pacific and companies.

Telegraph.—The telegraph line used by this company was built by the Western Union Telegraph Company, under contract, both companies using the line under conditions provided thereby. Said contract bears date October 1, 1880, and runs for twenty years and thereafter until one year's notice of expiration is given. In addition to allowing the railroad company the use of said line for the transaction of its own business, said telegraph company furnishes the company with free telegraphing over its lines throughout the United States, in amount not exceeding \$1,800 per annum.

OPERATING EXPENSES.

Item.	Chargeable to Passenger Traffic. (25 per cent.)	Chargeable to Freight Traffic. (75 per cent.)	Total.
Maintenance of way and structures:			
Repairs of roadway	\$5,083 74	\$15,251 20	\$20,334 94
Renewals of ties	330 30	1,400 00	1,733 30
Repairs of bridges and culverts	458 00	1,373 75	1,831 75
Repairs of telegraph	05	20	25
Totals	\$5,875 09	\$18,025 15	\$23,900 24
Maintenance of equipment:			
Repairs and renewals of locomotives	\$789 34	\$2,368 00	\$3,157 34
Repairs and renewals of passenger cars	77 75	233 25	311 00
Repairs and renewals of freight cars	500 53	1,502 13	2,002 66
Shop machinery, tools, etc.	100 00	300 00	400 00
Totals	\$1,467 62	\$4,403 38	\$5,871 00
Conducting transportation:			
Wages of enginemen, firemen, and round- housemen	\$4,172 42	\$12,517 28	\$16,689 70
Fuel for locomotives	3,152 42	9,357 28	12,509 70
Water supply for locomotives	76 98	230 95	307 93
All other supplies for locomotives	719 00	2,157 00	2,876 00
Wages of other trainmen	1,770 00	5,310 00	7,080 00
All other train supplies	327 00	980 00	1,307 00
Wages of switchmen, flagmen, and watch- men	150 00	450 00	600 00
Wages of station agents, clerks, and laborers	2,900 00	8,700 00	11,600 00
Station supplies	279 00	838 00	1,117 00
Loss and damage	2 59	7 76	10 35
Injuries to persons	1 50	4 50	6 00
Other expenses	81 53	244 58	326 11
Totals	\$13,632 44	\$40,797 35	\$54,429 79
General expenses:			
Salaries of officers	\$2,195 00	\$6,585 00	\$8,780 00
Salaries of clerks	550 00	1,650 00	2,200 00
General office expenses and supplies	18 25	54 75	73 00
Advertising	87 50	262 50	350 00
Legal expenses	69 00	207 00	276 00
Stationery and printing	156 54	469 61	626 15
Totals	\$3,076 29	\$9,228 86	\$12,305 15
Recapitulation of expenses:			
Maintenance of way and structures	\$5,875 09	\$18,025 15	\$23,900 24
Maintenance of equipment	1,467 62	4,403 38	5,871 00
Conducting transportation	13,632 44	40,797 35	54,429 79
General expenses	3,076 29	9,228 86	12,305 15
Grand totals	\$24,051 44	\$72,454 74	\$96,506 18
Percentage of operating expenses to earnings			66.00

SECURITY FOR FUNDED DEBT.

Class of Bond or Obligation.	What Road Mortgaged.	Miles.	Amount per Mile of Line.
First mortgage 50-year 4 per cent bonds; in amount, \$2,000,000	Mound House, Nev., to Keeler, Cal.	293	} \$6,509 35
	Hawthorne, Nev., to Cottonwood, Nev.	7.25	
	Junction, Nev., to Candelaria, Nev.	7	

Also, all equipment and all income are mortgaged.

EMPLOYÉS AND SALARIES.

Class.	Number.	Total Days Worked.	Total Compensation.	Average Daily Compensation.
General officers.....	4	1,460	\$8,780 00	-----
Station agents.....	14	5,110	11,500 00	-----
Other station men.....	5	1,825	2,340 00	-----
Enginemen.....	5	1,825	8,100 00	-----
Firemen.....	7	2,555	7,120 00	-----
Conductors.....	3	1,095	3,600 00	-----
Other trainmen.....	6	2,190	3,600 00	-----
Machinists.....	1	360	1,620 00	-----
Carpenters.....	1	360	1,440 00	-----
Other shopmen.....	3	1,080	3,300 00	-----
Section foremen.....	13	4,050	11,700 00	-----
Other trackmen.....	25	7,800	11,160 00	-----
Total (including general officers)...	87	28,710	\$74,260 00	-----
Less general officers.....	4	1,460	8,780 00	-----
Total (excluding general officers)...	83	27,250	\$65,480 00	-----
Distribution of above:				
General administration.....	14	1,460	\$8,780 00	\$6 00
Maintenance of way and structures.....	38	11,850	22,860 00	1 93
Maintenance of equipment.....	5	1,800	6,360 00	3 53
Conducting transportation.....	40	13,600	36,260 00	2 67
Total (excluding general officers)...	83	27,250	\$65,480 00	-----

PASSENGER AND FREIGHT, AND TRAIN MILEAGE.

Item.	Tonnage, Passengers, Etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue.....	8,699	
Number of passengers carried one mile.....	617,734	
Average distance carried.....	71	
Total passenger revenue.....		\$32,203 38
Average amount received from each passenger.....		3 70
Average receipts per passenger per mile.....		05.21
Estimated cost of carrying each passenger one mile.....		03.89
Total passenger earnings.....		48,778 69
Passenger earnings per mile of road.....		162 29
Freight traffic:		
Number of tons carried of freight earning revenue.....	16,405	
Number of tons carried one mile.....	2,009,111	
Average distance haul of one mile.....	122.47	
Total freight revenue.....		97,724 68
Average amount received for each ton of freight.....		5 95.70
Average receipts per ton per mile.....		04.86
Estimated cost of carrying one ton one mile.....		03.60
Total freight earnings.....		97,724 68
Freight earnings per mile of road.....		325 74
Passenger and freight:		
Passenger and freight revenue.....		129,928 06
Passenger and freight earnings.....		146,503 37
Passenger and freight earnings per mile of road.....		488 34
Gross earnings from operation.....		146,503 37
Gross earnings from operation per mile of road.....		488 34
Expenses.....		96,511 15
Expenses per mile of road.....		321 70
Train mileage:		
Miles run by mixed trains.....	145,935	

Three hundred miles of road operated earning revenue. Seven and a quarter miles of road operated not earning revenue.

FREIGHT TRAFFIC MOVEMENT. (Company's material excluded.)

Commodity.	Originating on this Road— Tons.	Received from Connecting Roads—Tons.	Total Freight Tonnage.
Products of agriculture:			
Grain	676	71	747
Flour	13	294	307
Hay	374	30	404
Honey	54		54
Potatoes	886		886
Products of animals:			
Live stock	1,957		1,957
Wool	257		257
Products of mines and forest:			
Soda	947		947
Bituminous coal		61	61
Salt	393	30	423
Ores	2,217		2,217
Marble	735		735
Borax	1,066		1,066
Lumber		1,501	1,501
Wood	813		813
Manufactures:			
Petroleum and other oils		16	16
Castings and machinery		68	68
Powder		20	20
Merchandise	1,035	2,881	3,916
Ice		10	10
Total tonnage	11,423	4,982	16,405

DESCRIPTION OF EQUIPMENT.

Item.	Total at End of Year.
Locomotives	8
Cars in passenger service:	
First-class passenger cars	3
Combination passenger cars	4
Baggage, express, and postal cars	2
Total	9
Cars in freight service:	
Box cars	62
Flat cars	103
Ore cars	19
Total	184
Cars in company's service:	
Other road cars	47
Total cars owned	240

All equipped with hand-brake.

MILES OF ROAD OPERATED.

State.	Main Line.	Branches and Spurs.	Total Mileage Operated.
Nevada	185	14.25	307.25
California	108		
Total mileage operated—single track	293	14.25	307.25

NEW TIES LAID DURING YEAR.

Kind.	Number.	Average Price at Distributing Point.
Pine, soft	1,567	\$0 40
Redwood	2,209	50
Totals	3,776	\$0 45

CONSUMPTION OF FUEL BY LOCOMOTIVES.

The locomotives on mixed trains, in running 147,942 miles, burned 2,607 cords of nut pine, equal to 1,955 tons of fuel. This is an average of 26.43 pounds per mile. The average cost of wood per cord, \$7 10; average cost of coal per ton, \$10 65.

CHARACTERISTICS OF ROAD.

Mound House, Nev., to Keeler, Cal : Length, 293 miles; number of curves, 576; aggregate length of curved line, 51.80 miles; length of straight line, 242.20 miles; length of level line, 50.80 miles; number of ascending grades, 189; sum of ascents, 3,312.65 feet; aggregate length of ascending grades, 63 miles; number of descending grades, 113; sum of descents, 4,552.88 feet; aggregate length of descending grades, 176 miles.

Junction, Nev., to Candelaria, Nev.: length, 7 miles; number of curves, 50; aggregate length of curved line, 3.40 miles; length of straight line, 3.60 miles; number of ascending grades, 1; sum of ascents, 511.24 feet; aggregate length of ascending grades, 4.54 miles; number of descending grades, 1; sum of descents, 178.64 feet; aggregate length of descending grades, 1.96 miles.

BRIDGES, TRESTLES, TUNNELS, ETC.

Item.	Number.	Aggregate Length.	Minimum Length.	Maximum Length.
Bridges:				
Wooden	2	601 ft. 10 in.	191 ft. 6 in.	210 feet.
Combination	1			
Trestles	5	1,198 ft.	195 ft.	315 feet.
Tunnels	1	238 ft.	238 ft.	238 feet.

Gauge of track, 3 feet; length, 307.25 miles.

TELEGRAPH OWNED BY ANOTHER COMPANY, BUT LOCATED ON PROPERTY OF ROAD MAKING THIS REPORT.

Miles of Line.	Miles of Wire.	Name of Owner.	Name of Operating Company.
300	300	Western Union Telegraph Co..	Operated jointly by owner and this company.

STATE OF NEVADA, }
County of Ormsby. } ss.

We, the undersigned, H. M. Yerington, President, and D. A. Bender, Secretary, of the Carson and Colorado Railway Company, on our oath, do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all the financial operations of said company during the period for which said return is made.

H. M. YERINGTON,
President.
D. A. BENDER,
Secretary.

Subscribed and sworn to before me, this nineteenth day of October, 1894.

FRANK E. MURPHY,
Notary Public.

NEVADA-CALIFORNIA-OREGON RAILWAY.

HISTORY.

1. Name of common carrier making this report: Nevada-California-Oregon Railway.
2. Date of organization: April 2, 1888.
3. Under laws of what Government, State, or Territory organized: Under the laws of the State of Nevada.

ORGANIZATION.

Names of Directors.	Post Office Address.
Charles Moran	New York City.
Daniel Comyn Moran	New York City.
Erasmus Gest	Reno, Nevada.
Robt. L. Fulton	Reno, Nevada.
A. H. Manning	Reno, Nevada.

Date of expiration of terms of Directors: Undetermined—Dependent upon further action of stockholders.

Number of stockholders at date of last election: 10.

Last meeting of stockholders for election of Directors: March 22, 1888.

Post Office address of general and operating office: Reno, Nevada.

OFFICERS.

Title.	Name.	Location of Office.
President	Charles Moran	New York City.
Vice-President	Erasmus Gest	Reno, Nevada.
Secretary	Frank R. Lewis	Reno, Nevada.
Treasurer	Moran Bros., bankers	New York City.
General Solicitor, Attorney, or General Counsel	Clifford H. Gest	Seattle, Wash.
Auditor	Frank R. Lewis	Reno, Nevada.
General Manager	Erasmus Gest	Reno, Nevada.
Chief Engineer	E. Gest	Reno, Nevada.
Master of Transportation	John M. Fulton	Reno, Nevada.
General Freight, Passenger, Ticket, and Baggage Agent	John M. Fulton	Reno, Nevada.

PROPERTY OPERATED.

The Nevada-California-Oregon Railway (so called) extends from Reno, in Nevada, to Amedee, in California, a distance of 79 miles.

CAPITAL STOCK.

The total par value of authorized capital stock is \$2,200,000, divided into 22,000 shares of a par value of \$100 each.

Of the above authorized capital stock 10 per cent, or 2,200 shares, have been subscribed, payable on demand in pursuance of the statutes of Nevada.

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.		Current Liabilities Accrued to and Including June 30, 1894.	
Cash	\$3,198 07	Loans and bills payable	\$28,205 22
Due from agents	882 77	Audited vouchers and accounts	1,977 65
Due from solvent companies and individuals	8,872 89	Wages and salaries	4,669 80
Balance—current liabilities	28,277 92	Net traffic balances due to other companies	6,378 98
Total	\$41,231 65	Total	\$41,231 65

Materials and supplies on hand, \$21,852 70.

RECAPITULATION.

Name of Road.	Current Liabilities.	Total.	Miles.	Amount per Mile of Road.
Nevada-California-Oregon Railway Company.	\$41,231 65	\$41,231 65	79	\$521 92

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS.

Item.	Construction or Equipment During Year.	Total Cost to June 30, 1893.	Total Cost to June 30, 1894.	Cost per Mile.
Construction:				
Right of way	\$850 00		\$850 00	\$10 75
Other real estate	785 83	\$504 80	1,290 63	16 33
Grading, and bridge and culvert masonry	10,372 54	10,249 37	20,621 91	261 03
Buildings, furniture, and fixtures	1,784 70	474 22	2,258 92	28 59
Sidings and yard extensions	3,392 23	265 77	3,658 00	46 30
Terminal facilities and elevators	95 52	253 47	348 99	4 41
Other items	1,234 86	785 08	2,019 94	25 56
Total construction	\$18,515 68	\$12,532 71	\$31,048 39	\$393 01
Equipment:				
Freight cars	1,783 24	141 02	1,924 26	24 35
Total cost construction, equipment, etc.	\$20,298 92	\$12,673 73	\$32,972 65	\$417 37

INCOME ACCOUNT.

Gross earnings from operation	\$59,501 09	
Less operating expenses	40,676 11	
Income from operation		\$18,824 98
Miscellaneous income—less expenses		80 15
Total income		\$18,905 13
Deductions from income:		
Rents	\$220 00	
Taxes	3,624 40	
Total deductions from income		3,844 40
Surplus from operations of year ending June 30, 1894		\$15,060 73
Surplus on June 30, 1893		5,922 56
Surplus on June 30, 1894		\$20,983 29

RENTALS RECEIVED.

Designation of Property.	Situation of Property Leased.	Name of Company Using Property Leased.	Item.
Stockyards	Amedee	Sundry parties	\$61 50
Warehouse	Amedee	D. W. Earl & Co.	480 00
Ground rent	Reno, Nev.	Sundry parties	126 00
Total rents			\$667 50

EARNINGS FROM OPERATION.

Item.	Total Receipts.	Actual Earnings.
Passenger revenue.....	\$14,001 14	
Mail.....	5,085 48	
Express.....	765 81	
Extra baggage and storage.....	214 47	
Total passenger earnings.....		\$20,066 90
Freight revenue.....	\$38,145 74	
Other items.....	289 60	
Total freight earnings.....		38,435 34
Total passenger and freight earnings.....		\$58,502 24
Other earnings from operation:		
Switching charges—balance.....	\$9 50	
Rents from tracks, yards, and terminals.....	667 50	
Other sources.....	321 85	
Total other earnings.....		998 85
Total gross earnings from operation.....		\$59,501 09

MISCELLANEOUS INCOME.

Item.	Gross Income.	Net Miscellaneous Income.
Miscellaneous receipts.....	\$80 15	\$80 15

RENTALS PAID.

To Southern Pacific Company for rent of realty necessary to the operating of the road, and which should have been supplied by purchase, \$220.

COMPARATIVE GENERAL BALANCE SHEET.

June 30, 1893.	Assets.	June 30, 1894.	June 30, 1894— Increase.	June 30, 1894— Decrease.
\$12,532 71	Cost of road.....	\$31,048 39	\$18,515 68	
141 02	Cost of equipment.....	1,924 26	1,783 24	
4,186 72	Cash and current assets.....	12,953 73	8,767 01	
24,894 95	Materials and supplies.....	21,852 70		\$3,042 25
\$41,755 40	Totals.....	\$67,779 08	\$29,065 93	\$3,042 25
June 30, 1893.	Liabilities.	June 30, 1894.	June 30, 1894— Increase.	
\$35,832 84	Current liabilities.....	\$41,231 65	\$5,398 81	
5,922 56	Profit and loss.....	20,933 29		20,624 87
	Profit and loss, book account.....	5,564 14		
\$41,755 40	Totals.....	\$67,779 08		\$26,023 68

OPERATING EXPENSES.

The apportionment of operating expenses between freight and passenger traffic is deductively obtained and approximates closer the actuality than if made by the captandum proportions of 3 to 1, as prescribed above.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of way and structures :			
Repairs of roadway	\$1,400 49	\$7,002 42	\$8,402 91
Renewals of ties	364 40	1,822 01	2,186 41
Repairs of bridges and culverts	59 50	297 52	357 02
Repairs of fences, road-crossings, signs, and cattle guards	19 03	95 14	114 17
Repairs of buildings	57 65	230 59	288 24
Other expenses	77 61	310 43	388 04
Extraordinary expenses	82 54	412 67	495 21
Totals	\$2,061 22	\$10,170 78	\$12,232 00
Maintenance of equipment :			
Repairs and renewals of locomotives	\$412 17	\$1,648 70	\$2,060 87
Repairs and renewals of passenger cars	361 97		361 97
Repairs and renewals of freight cars		1,345 60	1,345 60
Shop machinery, tools, etc.	32 02	128 10	160 12
Other expenses	64 71	258 84	323 55
Totals	\$870 87	\$3,381 24	\$4,252 11
Conducting transportation :			
Wages of enginemen, firemen, and round-housemen	\$771 24	\$3,084 96	\$3,856 20
Fuel for locomotives	992 21	3,968 84	4,961 05
Water supply for locomotives	92 43	369 71	462 14
Wages of other trainmen	445 48	1,781 92	2,227 40
All other train supplies	106 27	425 10	531 37
Wages of station agents, clerks, and laborers	866 12	3,464 48	4,330 60
Station supplies	48 95	195 81	244 76
Loss and damage		133 44	133 44
Other expenses	62 15	248 61	310 76
Totals	\$3,384 85	\$13,672 87	\$17,057 72
General expenses :			
Salaries of officers	\$733 00	\$2,928 00	\$3,660 00
Salaries of clerks	355 88	1,423 52	1,779 40
General office expenses and supplies	123 08	492 31	615 39
Advertising	146 98	49 00	195 98
Expense of stock yards and elevators		156 60	156 60
Legal expenses	187 87	187 88	375 75
Stationery and printing	49 41	197 63	247 04
Other general expenses	20 82	83 30	104 12
Totals	\$1,616 04	\$5,518 24	\$7,134 28
Recapitulation of expenses :			
Maintenance of way and structures	\$2,061 22	\$10,170 78	\$12,232 00
Maintenance of equipment	870 87	3,381 24	4,252 11
Conducting transportation	3,384 85	13,672 87	17,057 72
General expenses	1,616 04	5,518 24	7,134 28
Grand totals	\$7,932 98	\$32,743 13	\$40,676 11

Percentage of operating expenses to earnings, 68.36 per cent.

CONTRACTS, AGREEMENTS, ETC.

1. Wells, Fargo & Co.'s Express. Regular rate to Chat, 50 cents per 100 pounds; regular rate to Amedee, \$1 per 100 pounds; special rate to Chat, 25 cents per 100 pounds; special rate to Amedee, 50 cents per 100 pounds.
2. Mail according to Government rules.
3. No sleeping, parlor, or dining cars on the road.
4. No contracts with freight or transportation companies or lines
5. No contracts with other railroad companies.
6. No contracts with steamship companies.
7. No telegraph line along the road.
8. No other contracts.

EMPLOYÉS AND SALARIES.

Class.	Number.	Number of Days Worked.	Yearly Compensation.	Average Daily Compensation.
General officers.....	2	730	\$3,660 00	\$5 01
General office clerks.....	2	626	1,593 44	2 54
Station agents.....	3	1,095	2,927 61	2 67
Other station men.....	3	939	1,768 00	1 88
Enginemen.....	3	949	3,422 84	3 60
Firemen.....	3	949	2,158 66	2 27
Conductors.....	2	664	2,143 55	3 22
Machinists.....	1	365	1,003 89	2 75
Carpenters.....	1	365	1,222 40	3 34
Other shopmen.....	1	303	637 29	2 10
Section foremen.....	3	1,019	2,633 65	2 58
Other trackmen.....	21	6,543	11,177 80	1 70
All other employés and laborers.....	3	925	1,922 25	2 07
Total (including general officers).....	48	15,472	\$36,271 38	\$2 34
Less general officers.....	2	730	3,660 00	5 01
Total (excluding general officers).....	46	14,742	\$32,611 38	\$2 21
Distribution of above:				
General administration.....	4	1,356	\$5,253 44	\$3 87
Maintenance of way and structures.....	27	8,487	15,733 70	1 85
Maintenance of equipment.....	3	1,033	2,863 58	2 77
Conducting transportation.....	14	4,596	12,420 66	2 70
Total (including general officers).....	48	15,472	\$36,271 38	\$2 34
Less general officers.....	2	730	3,660 00	5 01
Total (excluding general officers).....	46	14,742	\$32,611 38	\$2 21

DESCRIPTION OF EQUIPMENT.

Item.	Total at End of Year.
Locomotives:	
Freight.....	1
Mixed service.....	3
Total locomotives.....	4
Cars in passenger service:	
First-class passenger cars.....	2
Second-class passenger cars.....	2
Combination passenger cars.....	1
Baggage, express, and postal cars.....	2
Total.....	7
Cars in freight service:	
Box cars.....	7
Flat cars.....	6
Stock cars.....	20
Total.....	33
Cars in company's service:	
Derrick cars.....	1
Caboose cars.....	2
Other road cars.....	13
Total.....	16
Total cars owned.....	56

PASSENGER AND FREIGHT, AND TRAIN MILEAGE.

Item.	Tonnage, Passengers, Etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue	5,081	
Number of passengers carried one mile	306,950.89	
Average distance carried—miles	60.411	
Total passenger revenue		\$14,001 14
Average amount received from each passenger		2 75.558
Average receipts per passenger per mile		04.561
Estimated cost of carrying each passenger one mile		02.584
Total passenger earnings		20,066 90
Passenger earnings per mile of road		254 01.139
Passenger earnings per train-mile		39.977
Freight traffic:		
Number of tons carried of freight earning revenue	13,492+	
Number of tons carried one mile	847,486.359	
Average distance haul of one ton—miles	62.812	
Total freight revenue		38,145 74
Average amount received for each ton of freight		2 82.728
Average receipts per ton per mile		04.501
Estimated cost of carrying one ton one mile		03.863
Total freight earnings		38,435 34
Freight earnings per mile of road		486 52.329
Freight earnings per train-mile		76.570
Passenger and freight:		
Passenger and freight revenue		52,146 88
Passenger and freight revenue per mile of road		660 08.708
Passenger and freight earnings		58,502 24
Passenger and freight earnings per mile of road		740 53.468
Gross earnings from operation		59,501 09
Gross earnings from operation per mile of road		753 17.835
Expenses		40,676 11
Expenses per mile of road		514 88.746
Train mileage:		
Miles run by mixed trains	50,196	
Total mileage trains earning revenue	50,196	
Miles run by switching trains	3,140	
Miles run by construction and other trains	5,460	
Grand total train mileage	58,796	
Mileage of loaded freight cars—north	44,361	
Mileage of loaded freight cars—south	80,916	
Mileage of empty freight cars—north	4,386	
Mileage of empty freight cars—south	13,228	
Average number of freight cars in train	5.224	
Average number of loaded cars in train	3.278	
Average number of empty cars in train	1.946	
Average number of tons of freight in train	21,484	
Average number of tons of freight in each loaded car	6.552	

MILEAGE OF ROAD OPERATED.

Line in Use.	Main Line.	Total Mileage Operated.	Iron Rails.	Steel Rails.
Miles of single track	79.00	79.00	26.50	52.50
Miles of yard track and sidings	4.40		4.40	
Total mileage operated	83.40	79.00	30.90	52.50

MILEAGE OF LINE BY STATES AND TERRITORIES.

State or Territory.	Main Line.	Total Mileage, Excluding Trackage Rights.	Iron Rails.	Steel Rails.
California	50.86	50.86	25.36	25.50
Nevada	28.14	28.14	1.14	27.00
Total mileage operated (single track).....	79.00	79.00	26.50	52.50

FREIGHT TRAFFIC MOVEMENT (Company's material excluded).

Commodity.	Originating on this Road—Tons.	Received from Connecting Roads—Tons.	Total Freight Tonnage.	Per Cent.
Products of agriculture:				
Grain	64	11	75	.56
Flour	113	76	189	1.40
Other mill products.....	18	45	63	.47
Hay	38	-----	38	.28
Fruit and vegetables.....	631	60	691	5.12
General farm products.....	208	16	224	1.66
Products of animals:				
Live stock	4,846	-----	4,846	35.92
Dressed meats	17	-----	17	.13
Other packing-house products	6	110	116	.86
Poultry, game, and fish	10	-----	10	.07
Wool	476	-----	476	3.53
Hides and leather	18	12	30	.22
Products of mines:				
Bituminous coal	19	10	29	.21
Ores and minerals	74	-----	74	.55
Stone, sand, and other like articles.....	4	4	8	.06
Products of forest:				
Lumber	293	-----	293	2.17
Cordwood	3,477	-----	3,477	25.77
Manufactures:				
Petroleum and other oils	5	142	147	1.09
Sugar	24	348	372	2.76
Iron and hardware	55	313	368	2.73
Castings and machinery.....	52	87	139	1.03
Bar and sheet metal	-----	32	32	.24
Cement, brick, and lime	41	67	108	.80
Agricultural implements	6	60	66	.49
Wagons, carriages, tools, etc.....	16	45	61	.45
Wines, liquors, and beers	83	159	242	1.79
Household goods and furniture.....	71	61	132	.98
Chemicals and drugs	3	37	40	.30
Merchandise	194	732	926	6.86
Tobacco	3	39	42	.31
Miscellaneous.....	58	81	139	1.03
Explosives	1	21	22	.16
Total tonnage.....	10,924	2,568	13,492	100.00

CONSUMPTION OF FUEL BY LOCOMOTIVES.

Locomotives.	Coal—Tons.	Wood—Cords.	Total Fuel Consumed—Tons.	Miles Run.	Average lbs. Consumed per Mile.
Passenger and freight	168.75	934.56	636.03	50,196	25.341
Switching	10.54	58.38	39.73	3,140	25.305
Construction	-----	115.50	57.75	5,460	21.153
Totals	179.29	1,108.44	733.51	58,796	24.950

Average cost of fuel at distributing point: Coal, \$7 80 per ton; wood, \$3 61 per cord.

RENEWALS OF TIES.

New ties laid during year: Soft pine, 8,812. Average price at distributing point, $19\frac{7}{10}$ cents.

CHARACTERISTICS OF ROAD.

Reno, Nevada, to Amedee, California: Length, 79 miles; number of curves, 284; aggregate length of curved line, 21.70 miles; length of straight line, 57.30 miles; length of level line, 18.86 miles; number of ascending grades, 11; sum of ascents, 1,176 feet; aggregate length of ascending grades, 11.84 miles; number of descending grades, 15; sum of descents, 1,672 feet; aggregate length of descending grades, 48.30 miles.

BRIDGES, TRESTLES, TUNNELS, ETC.

Item.	Number.	Aggregate Length.	Minimum Length.	Maximum Length.
Trestles:				
Cattle guards.....	41	271 feet.	6 feet.	10 feet.
Irrigating ditch.....	4	29 feet.	7 feet.	10 feet.
Single span W. P.....	27	265 feet.	6 feet.	18 feet.
Second span T.....	25	2,544 feet.	24 feet.	552 feet.

There are no truss bridges on the road.
Gauge of track, 3 feet; length, 79 miles.

CAR MILEAGE.

Only Nevada-California-Oregon Railway cars are used.

STATE OF NEVADA, }
County of Washoe. } ss.

We, the undersigned, Erasmus Gest, Vice-President, and Frank R. Lewis, Secretary and Auditor, of the Nevada-California-Oregon Railway Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

ERASMUS GEST,
Vice-President.
F. R. LEWIS,
Secretary and Auditor.

Subscribed and sworn to before me, this twenty-second day of August, 1894.

HENRY B. RULE,
Notary Public.

LOS ANGELES TERMINAL RAILWAY COMPANY.

HISTORY.

1. Name of common carrier making this report: Los Angeles Terminal Railway Company.
2. Date of organization: January 2, 1891.
3. Under laws of what Government, State, or Territory organized: California.
4. Names of constituent companies: Los Angeles and Glendale Railway Company, incorporated January 13, 1887; Los Angeles, Pasadena, and Glendale Railway Company, incorporated March 30, 1889; Los Angeles Terminal Railway Company, incorporated August 29, 1890.

ORGANIZATION.

Names of Directors.	Post Office Address.
Geo. B. Leighton	St. Louis, Mo.
T. B. Burnett	Los Angeles.
W. H. Workman	Los Angeles.
Charles Ferman	Los Angeles.
T. E. Gibbon	Los Angeles.

Date of expiration of terms of Directors: Second Tuesday in March, 1895.

Number of stockholders at date of last election: 22.

Last meeting of stockholders for election of Directors: March 13, 1894.

Post Office address of general and operating office: Los Angeles, California.

OFFICERS.

Title.	Name.	Location of Office.
President	George B. Leighton	St. Louis, Mo.
Vice-President	T. B. Burnett	Los Angeles.
Secretary	Wm. Wincup	Los Angeles.
General Solicitor and Attorney	T. E. Gibbon	Los Angeles.
Auditor	Ferd. K. Rule	Los Angeles.
General Manager	T. B. Burnett	Los Angeles.
Chief Engineer	T. B. Burnett	Los Angeles.
Superintendent	Wm. Wincup	Los Angeles.
Superintendent of Telegraph	J. O. Dodge	Los Angeles.
General Freight and Passenger Agent	Wm. Wincup	Los Angeles.

PROPERTY OPERATED.

Name.	Terminals.	Miles.
Los Angeles Terminal Railway	East San Pedro to Altadena	43.1
	Glendale Junction to Verdugo Park ..	7.1
Total		50.2

CAPITAL STOCK.

The total par value of authorized capital stock is \$3,000,000, divided into 30,000 shares of a par value of \$100 each. The total amount issued and outstanding is \$3,000,000. No dividends were declared.

The manner of payment for capital stock is as follows:

	Number of Shares Issued.	Total Cash Realized.
Issued for cash	1,500	\$15,000 00
Issued for construction	23,500	-----
Totals	39,000	\$15,000 00

FUNDED DEBT.

On July 15, 1891, first mortgage bonds were authorized to be issued to the amount of \$1,500,000. The entire amount was issued and is now outstanding. The bonds mature in 1931, and bear 5 per cent interest, payable semi-annually, in January and July. The amount of interest accruing during the year was \$75,000, which was assumed by contractors.

RECAPITULATION OF FUNDED DEBT.

Class of Debt.	Amount Issued.	Amount Outstanding.
Mortgage bonds	\$1,500,000 00	\$1,500,000 00

Interest accrued during year, \$75,000; assumed by contractor.

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.		Current Liabilities Accrued to and Including June 30, 1894.	
Cash	\$6,183 09	Loans and bills payable	\$6,250 00
Due from agents	828 93	Audited vouchers and accounts	6,391 29
Net traffic balances due from other companies	777 25	Wages and salaries	5,142 73
Due from solvent companies and individuals	14,077 70	Due on construction	64,180 46
Other cash assets (excluding "materials and supplies") ..	7,198 33		
Balance—current liabilities ..	52,899 18		
Total	\$81,964 48	Total	\$81,964 48

Materials and supplies on hand, \$8,819 65.

RECAPITULATION.

A. For Mileage Owned by Road Making this Report.

Account.	Amount Outstanding.	Apportionment to Railroads.	Miles of Road.	Amount per Mile of Road.
Capital stock	\$3,000,000 00	\$3,000,000 00	50.2	\$59,760 95
Bonds	1,500,000 00	1,500,000 00		29,880 47
Totals	\$4,500,000 00	\$4,500,000 00	50.2	\$89,641 42

B. For Mileage Operated by Road Making this Report (Trackage Rights Excluded), the Operations of which are Included in the Income Account.

Name of Road.	Capital Stock.	Funded Debt.	Current Liabilities.	Total.	Miles of Road.	Amount per Mile of Road.
Los Angeles Terminal Ry.	\$3,000,000	\$1,500,000	\$52,899 18	\$4,552,899 18	50.2	\$90,695 20

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS.

Item.	Construction During Year.	Total Cost to June 30, 1893.
Construction:		
Right of way	\$1,715 99	
Fences	97 35	
Bridges and trestles	503 33	
Buildings, furniture, and fixtures	1,132 64	
Interest during construction	1,802 01	
Sidings and yard extensions	720 65	
Road built by contract		\$4,350,000 00
Purchase of constructed road	19,167 00	19,227 22
Other items	234 91	156,865 33
Total construction	\$25,373 88	\$4,526,092 55

Total cost to June 30, 1894, \$4,551,466 43; cost per mile, \$90,666 66.

INCOME ACCOUNT.

Gross earnings from operation	\$152,410 52	
Less operating expenses	130,565 41	
Income from operation	\$21,845 11	
Miscellaneous income—less expenses	175 00	
Total income		\$22,020 11
Deductions from income:		
Taxes		7,995 59
Net income		\$14,024 52
Deficit on June 30, 1893		3,576 62
		\$10,447 90
Deductions for year (bills collectible, charged to P. & L.)		61 00
Surplus on June 30, 1894		\$10,386 90

EARNINGS FROM OPERATION.

	Actual Earnings.
Passenger revenue	\$102,973 50
Mail	732 74
Express	1,367 00
Total passenger earnings	\$105,073 24
Freight revenue	45,598 40
Total passenger and freight earnings	\$150,671 64
Other earnings from operation:	
Car mileage—balance	1,071 50
Rents	550 00
Other sources	117 38
Total gross earnings from operation	\$152,410 52

BONDS OWNED.

Pasadena and Mount Wilson Railway Co., par value, \$3,000; rate, 7 per cent; dividend received, \$175; valuation, \$3,000.

OPERATING EXPENSES.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of way and structures:			
Repairs of roadway.....	\$10,374 72	\$3,222 55	\$13,597 27
Repairs of bridges and culverts.....	709 85	222 49	930 34
Repairs of fences, road-crossings, signs, and cattle guards.....	21 66	6 72	28 38
Repairs of buildings.....	694 57	215 74	910 31
Repairs of docks and wharves.....	530 25	164 70	694 95
Totals.....	\$12,331 05	\$3,830 20	\$16,161 25
Maintenance of equipment:			
Repairs and renewals of locomotives.....	\$4,839 92	\$1,503 35	\$6,343 27
Repairs and renewals of passenger cars.....	5,217 07	-----	5,217 07
Repairs and renewals of freight cars.....	-----	1,367 33	1,367 33
Other expenses.....	12 90	4 00	16 90
Totals.....	\$10,069 89	\$2,874 68	\$12,944 57
Conducting transportation:			
Wages of enginemen, firemen, and round- housemen.....	\$9,873 16	\$3,066 76	\$12,939 92
Fuel for locomotives.....	30,298 72	9,411 27	39,709 99
Water supply for locomotives.....	658 24	204 46	862 70
All other supplies for locomotives.....	480 97	149 40	630 37
Wages of other trainmen.....	6,644 05	2,063 75	8,707 80
All other train supplies.....	237 60	54 89	292 49
Wages of switchmen, flagmen, and watch- men.....	1,876 98	583 02	2,460 00
Expense of telegraph, including train dis- patchers and operators.....	1,317 23	409 15	1,726 38
Wages of station agents, clerks, and laborers.....	9,260 53	2,876 47	12,137 00
Station supplies.....	823 75	255 87	1,079 62
Loss and damage.....	-----	362 10	362 10
Injuries to persons.....	1,777 15	-----	1,777 15
Other expenses.....	27 75	8 61	36 36
Totals.....	\$63,276 13	\$19,445 75	\$82,721 88
General expenses:			
Salaries of officers.....	\$5,798 80	\$1,801 20	\$7,600 00
Salaries of clerks.....	1,358 14	421 86	1,780 00
General office expenses and supplies.....	301 20	93 55	394 75
Advertising.....	1,543 95	479 57	2,023 52
Insurance.....	902 85	280 44	1,183 29
Rents for tracks, yards, and terminals.....	447 16	370 50	817 66
Legal expenses.....	2,303 41	715 48	3,018 89
Stationery and printing.....	1,427 36	443 36	1,870 72
Other general expenses.....	37 30	11 58	48 88
Totals.....	\$14,120 17	\$4,617 54	\$18,737 71
Recapitulation of expenses:			
Maintenance of way and structures.....	\$12,331 05	\$3,830 20	\$16,161 25
Maintenance of equipment.....	10,069 89	2,874 68	12,944 57
Conducting transportation.....	63,276 13	19,445 75	82,721 88
General expenses.....	14,120 17	4,617 54	18,737 71
Grand totals.....	\$99,797 24	\$30,768 17	\$130,565 41
Percentage of operating expenses to earnings.....	-----	-----	85.67

OPERATING EXPENSES—Continued.

We have followed the instructions of the Interstate Commerce Commission in dividing expenses between passenger and freight. Amounts naturally chargeable to one or the other have been so charged; otherwise, 23.7 per cent to freight.

Miles run by passenger trains, straight.....	123,564	135,454
Add 25 per cent of mixed trains.....	11,890	
Miles run by freight trains, straight.....	6,403	42,074
Add 75 per cent of mixed trains.....	35,671	
Total		177,528

RENTALS PAID.

Designation of Property.	Situation of Property Leased.	Name of Company Owning Property Leased.	Item.
Terminals	Los Angeles	Southern Pacific Co.	\$260 00
Lots	Pasadena	G. R. Thomas	51 00
Buildings	Long Beach	Jotham Bixby	240 00
Picnic grounds	Verdugo	T. Verdugo	166 66
Total rents			\$817 66

COMPARATIVE GENERAL BALANCE SHEET.

June 30, 1893.	Assets.	June 30, 1894.	June 30, 1894— Increase.	June 30, 1894— Decrease.
\$4,526,092 55	Cost of road and equipment....	\$4,551,466 43	\$25,373 88	
	Bonds of other companies owned	3,000 00	3,000 00	
11,021 76	Cash and current assets	29,065 30	18,043 54	
5,600 57	Materials and supplies	8,819 65	3,219 08	
3,576 62	Profit and loss			\$3,576 62
\$4,546,291 50	Totals.....	\$4,592,351 38	\$49,636 50	\$3,576 62
June 30, 1893.	Liabilities.	June 30, 1894.	June 30, 1894— Increase.	
\$3,000,000 00	Capital stock		\$3,000,000 00	
1,500,000 00	Funded debt		1,500,000 00	
46,291 50	Current liabilities.....		81,964 48	\$35,672 98
	Profit and loss		10,386 90	10,386 90
\$4,546,291 50	Totals		\$4,592,351 38	\$46,059 88

CONTRACTS, AGREEMENTS, ETC.

United States mail is carried between Los Angeles and Long Beach, 21 $\frac{9}{10}$ miles.

Have an agreement with the Southern California Railway Company on freight business between East San Pedro and Manhattan Junction, 24 $\frac{1}{2}$ miles.

Have an agreement with the Southern California Railway Company, Southern Pacific Company, and Redondo Railway Company on freight business between Los Angeles and the adjacent seaports.

Have an agreement with the Pacific Coast Steamship Company on freight business between Los Angeles and adjacent seaports.

Have an agreement with the Western Union Telegraph Company for line along this road.

SECURITY FOR FUNDED DEBT.

Class of Bond or Obligation.	What Road Mortgaged.	Miles.	Mortgage per Mile of Line.
First mortgage	Los Angeles to East San Pedro.....	27	\$34,324 94
	Los Angeles to Pasadena.....	8.5	
	Los Angeles to Verdugo Park	8.2	

All equipment is also mortgaged.

PASSENGER AND FREIGHT, AND TRAIN MILEAGE.

Item.	Tonnage, Passengers, Etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue.....	485,695	
Number of passengers carried one mile.....	5,741,619	
Average distance carried—miles.....	11.82	
Total passenger revenue.....		\$102,973 50
Average amount received from each passenger.....		21.201
Average receipts per passenger per mile.....		01.794
Estimated cost of carrying each passenger one mile.....		01.738
Total passenger earnings.....		105,073 24
Passenger earnings per mile of road.....		2,093 09.243
Passenger earnings per train mile.....		77.571
Freight traffic:		
Number of tons carried of freight earning revenue.....	51,964	
Number of tons carried one mile.....	939,212	
Average distance haul of one ton—miles.....	18.07	
Total freight revenue.....		45,598 40
Average amount received for each ton of freight.....		87.749
Average receipts per ton per mile.....		04.855
Estimated cost of carrying one ton one mile.....		03.276
Total freight earnings.....		45,598 40
Freight earnings per mile of road.....		908 33.466
Freight earnings per train mile.....		1 08.376
Passenger and freight:		
Passenger and freight revenue.....		148,571 90
Passenger and freight revenue per mile of road.....		2,959 59.960
Passenger and freight earnings.....		150,671 64
Passenger and freight earnings per mile of road.....		3,001 42.709
Gross earnings from operation.....		152,410 52
Gross earnings from operation per mile of road.....		3,036 06.613
Expenses.....		130,565 41
Expenses per mile of road.....		2,600 90.458
Train mileage:		
Miles run by passenger trains.....	123,564	
Miles run by freight trains.....	6,403	
Miles run by mixed trains.....	47,561	
Total mileage trains earning revenue.....	177,528	
Miles run by switching trains.....	25,437	
Miles run by construction and other trains.....	551	
Grand total train mileage.....	203,516	
Mileage of loaded freight cars—north or east.....	63,883	
Mileage of loaded freight cars—south or west.....	18,869	
Mileage of empty freight cars—north or east.....	3,075	
Mileage of empty freight cars—south or west.....	47,482	
Average number of freight cars in train.....	19.17	
Average number of loaded cars in train.....	11.90	
Average number of empty cars in train.....	7.27	
Average number of tons of freight in train.....	135.07	
Average number of tons of freight in each loaded car.....	11.35	

Mileage of switching trains based on reports of engineers showing number of hours on switch engines. Mileage calculated at ten miles per hour.

EMPLOYÉS AND SALARIES.

Class.	Number.	Total Days Worked.	Total Yearly Compensation.	Average Daily Compensation.
General officers	3	1,080	\$7,600 00	\$7 0370
General office clerks	3	780	1,781 00	2 2820
Station agents	10	3,309	4,784 10	1 4457
Other station men	9	3,421	4,655 05	1 3607
Enginemen	6	1,987	5,961 00	3 0000
Firemen	7	2,005	3,508 75	1 7500
Conductors	6	1,976	4,924 90	2 4923
Other trainmen	8	2,331	3,783 75	1 6232
Machinists, carpenters, and other shopmen	21	6,028	12,287 70	2 0384
Section foremen	8	2,372	6,149 74	2 5926
Other trackmen	17	4,932	8,639 96	1 7518
Switchmen, flagmen, and watchmen	9	3,210	3,519 50	1 0964
Telegraph operators and dispatchers	2	525	1,157 05	2 2039
Total (including general officers)	109	33,956	\$68,751 50	\$2 0246
Less general officers	3	1,080	7,600 00	7 0370
Total (excluding general officers)	106	32,876	\$61,151 50	\$1 8600
Distribution of above:				
General administration	6	1,860	\$9,380 00	\$5 0430
Maintenance of way and structures	25	6,985	13,592 70	1 9459
Maintenance of equipment	21	4,574	8,377 03	1 8314
Conducting transportation	57	20,537	37,401 77	1 8211
Total (including general officers)	109	33,956	\$68,751 50	\$2 0246
Less general officers	3	1,080	7,600 00	7 0370
Total (excluding general officers)	106	32,876	\$61,151 50	\$1 8600

DESCRIPTION OF EQUIPMENT.

Item.	Total.
Locomotives:	
Passenger	4
Freight	4
Total locomotives	8
Cars in passenger service:	
First-class passenger cars	13
Combination passenger cars	6
Other cars in passenger service	1
Total	20
Cars in freight service:	
Box cars	35
Flat cars	74
Stock cars	1
Coal cars	39
Total	149
Cars in company's service:	
Derrick cars	1
Caboose cars	2
Total	3
Total cars owned	172

All rolling stock is equipped with the Westinghouse air-brake.

Fitted with automatic coupler: 20 cars in passenger service, with Miller patent; 35 box cars, 74 flat cars, 1 stock car, 39 coal cars, 1 derrick car, and 2 caboose cars, with Safford patent.

FREIGHT TRAFFIC MOVEMENT.

No statements kept by which this can be shown.

MILEAGE.

Line in Use.	Main Line.	Branches and Spurs.	Total Mileage Operated.
Miles of single track.....	43.10	7.10	50.20
Miles of yard track and sidings	7.78	.38	8.16
Total mileage operated.....	50.88	7.48	58.36

CONSUMPTION OF FUEL BY LOCOMOTIVES.

The locomotives consumed 5,155.67 tons of coal in the year covered by this report. Miles traveled, 203,516. This is an average of about 50.66 pounds per mile traveled. Cost of coal at distributing point, \$7 50 per ton.

ACCIDENTS TO PERSONS.

There were 4 employes, 6 passengers, and 2 others injured, and 1 trespasser and 2 non-trespassers killed on the road of this company during the period covered by this report. The employes were hurt in coupling and uncoupling cars, and falling from train.

CHARACTERISTICS OF ROAD.

Working Divisions or Branches.	Miles.	Alignment.		
		Number of Curves.	Aggregate Length of Curved Line—Miles.....	Length of Straight Line—Miles.....
Los Angeles to East San Pedro	27.5	31	5.5	22.0
Los Angeles to Altadena	15.6	58	5.6	10.0
Glendale Junction to Verdugo Park	7.1	23	1.6	5.5
Totals	50.2	112	12.7	37.5

Working Divisions or Branches.	Profile.						
	Length of Level Line—Miles.....	Number of Ascending Grades..	Sum of Ascents of Grades—Feet.....	Aggregate Length of Ascending Grades—Miles ..	Number of Descending Grades.	Sum of Descents of Grades—Feet ..	Aggregate Length of Descending Grades—Miles
Los Angeles to East San Pedro	6.9	14	60.4	3.4	41	318.3	17.2
Los Angeles to Altadena.....	1.0	144	1,100.4	4.4	18	44.0	1.2
Glendale Junction to Verdugo Park..	0.4	50	439.6	6.1	4	30.5	0.7
Totals.....	8.3	208	1,600.4	13.9	63	392.8	19.1

BRIDGES, TRESTLES, TUNNELS, ETC.

Item.	Number.	Aggregate Length.	Minimum Length.	Maximum Length.
Trestles	29	5,450 t.	10 ft.	1,200 ft.

Item.	Number.	Height Above Surface of Rail.
Overhead Highway Crossings:		
Bridges	4	21 feet.
Conduits	2	16 feet.
Total	6	
Overhead Railway Crossings:		
Bridges	1	

Gauge of track, 4 feet 8½ inches; length, 50.20 miles.

TELEGRAPH OWNED BY ANOTHER COMPANY, BUT LOCATED ON PROPERTY OF ROAD MAKING THIS REPORT.

Miles of Line.	Miles of Wire.	Name of Owner.	Name of Operating Company.
43.1	43.1	Western Union Telegraph Co..	Western Union Telegraph Co.

CAR MILEAGE.

We pay ¾ cent per mile on all foreign freight cars that come on our road. We have no special agreements with any one.

STATE OF CALIFORNIA,) ss.
County of Los Angeles.)

We, the undersigned, T. B. Burnett, Vice-President, and Ferd. K. Rule, Auditor, of the Los Angeles Terminal Railway Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

T. B. BURNETT,
Vice-President.
FERD. K. RULE,
Auditor.

Subscribed and sworn to before me, this thirty-first day of August, 1894.

W. J. COX,
Notary Public in and for Los Angeles County, State of California.

COLUSA AND LAKE RAILROAD COMPANY.

HISTORY.

1. Name of common carrier making this report: Colusa and Lake Railroad Company.
2. Date of organization: November 27, 1886.
3. Under laws of what Government, State, or Territory organized: State of California.
4. Names of constituent companies: Colusa Railroad Company, incorporated July 23, 1885; Colusa and Lake Railroad Company, incorporated June 8, 1886.
5. Date of consolidation: November 27, 1886.

ORGANIZATION.

Names of Directors.	Post Office Address.
W. P. Harrington	Colusa.
E. W. Jones	Colusa.
E. A. Harrington	Colusa.
Geo. Hagar	Colusa.
J. W. Goad	Colusa.
P. Petersen	Sites.
John Sites	Sites.
John Boggs	Princeton.
J. H. Roberts	Sacramento.

Date of expiration of terms of Directors: First Monday in December, 1894.

Number of stockholders at date of last election: 94.

Last meeting of stockholders for election of Directors: December 4, 1893.

Post Office address of general and operating office: Colusa.

OFFICERS.

Title.	Name.	Location of Office.
President	W. P. Harrington	Colusa, Cal.
Vice-President	E. W. Jones	Colusa, Cal.
Secretary	T. Harrington	Colusa, Cal.
Treasurer	Colusa County Bank	Colusa, Cal.
General Superintendent	E. A. Harrington	Colusa, Cal.
General Freight and Passenger Agent	E. A. Harrington	Colusa, Cal.

PROPERTY OPERATED.

The Colusa and Lake Railroad Company operates a main line from Colusa to Sites, a distance of 22 miles.

CAPITAL STOCK.

The total par value of authorized capital stock is \$400,000, divided into 4,000 shares of a par value of \$100 each. The total amount issued and outstanding is \$100,500.

Manner of payment for capital stock: Issued for cash, 1,005 shares; amount realized, \$100,500.

FUNDED DEBT.

Bonds were authorized to be issued to the amount of \$70,000, to be secured by a deed of trust. Amount outstanding, \$68,000. Cash realized on amount issued, \$70,000. The bonds bear 6 per cent interest, payable semi-annually on April 1st and October 1st. The amount of interest accruing during the year was \$4,163, which was paid.

RECAPITULATION OF FUNDED DEBT.

Class of Debt.	Amount Issued.	Amount Outstanding.
Mortgage bonds	\$70,000	\$68,000

Interest accrued during year \$4,163; interest paid during year \$4,163.

CURRENT ASSETS.

Cash \$1,246 53

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS.

Item.	Construction During Year.	Total Cost to June 30, 1893.	Total Cost to June 30, 1894.
Construction		\$161,238 75	\$161,479 04
Rails	\$240 29		
Total construction	\$240 29	\$161,238 75	\$161,479 04
Equipment		31,846 27	31,846 27
Total cost construction, equipment, etc.....	\$240 29	\$193,085 02	\$193,325 31

INCOME ACCOUNT.

Gross earnings from operation	\$19,020 47	
Less operating expenses	12,535 06	
Income from operation		\$6,485 41
Deductions from income:		
Interest on funded debt accrued	\$4,163 00	
Taxes	919 52	
Total deductions from income		5,082 52
Net income		\$1,402 89
Other payments from net income, funded debt		2,000 00
Deficit from operations of year ending June 30, 1894		\$597 11
Surplus on June 30, 1893		26,671 92
Surplus on June 30, 1894		\$26,071 81

EARNINGS FROM OPERATIONS.

Items.	Total Receipts.	Deductions, Etc.	Actual Earnings.
Passenger revenue	\$10,556 92		
Less tickets redeemed		\$2,504 95	
Total passenger revenue			\$8,051 97
Mail			951 16
Express			480 00
Total passenger earnings			\$9,483 13
Freight revenue	\$10,030 32		
Less repayments		\$492 98	
Total freight revenue			9,537 34
Total passenger and freight earnings			\$19,020 47

MISCELLANEOUS INCOME.

Rents from buildings owned, \$710.

IMPORTANT CHANGES DURING THE YEAR.

Funded debt reduced \$2,000.

CONTRACTS, AGREEMENTS, ETC.

United States mails, \$951 16 per year. Wells, Fargo & Co.'s Express, \$480 per year.

COMPARATIVE GENERAL BALANCE SHEET.

June 30, 1893.	Assets.	June 30, 1894.
\$161,238 75	Cost of road	\$161,479 04
31,846 27	Cost of equipment	31,846 27
4,086 90	Cash and current assets	1,246 53
\$197,171 92	Total	\$194,571 84
June 30, 1893.	Liabilities.	June 30, 1894.
\$100,500 00	Capital stock	\$100,500 00
70,000 00	Funded debt	68,000 00
26,671 92	Profit and loss	26,071 84
\$197,171 92	Total	\$194,571 84

SECURITY FOR FUNDED DEBT.

Class of Bond or Obligation.	What Road Mortgaged.	Miles.	Amount of Mortgage per Mile of Line.
Bonds secured by deed of trust.....	Colusa to Sites.....	22	\$3,090 90

All equipment mortgaged.

EMPLOYÉS AND SALARIES.

Class.	Number.	Total Days Worked.	Yearly Compensation.
General officers.....	1	365	\$1,500 00
General office clerks.....	1	365	240 00
Station agents.....	2	730	420 00
Other station men.....	1	365	60 00
Enginemen.....	2	730	1,620 00
Firemen.....	1	365	720 00
Conductors.....	1	365	780 00
Other trainmen.....	1	365	660 00
All other employés and laborers.....	8	.....	3,000 00
Total (including general officers).....	.....	.....	\$9,000 00
Less general officers.....	.....	.....	1,740 00
Total (excluding general officers).....	.....	.....	\$7,260 00
Distribution of above:	.....	.....	.....
General administration.....	.....	.....	\$1,740 00
Conducting transportation.....	.....	.....	7,260 00
Total (including general officers).....	.....	.....	\$9,000 00
Less general officers.....	.....	.....	1,740 00
Total (excluding general officers).....	.....	.....	\$7,260 00

PASSENGER AND FREIGHT, AND TRAIN MILEAGE.

Item.	Tonnage, Passengers, Etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue.....	9,316	
Total passenger revenue.....		\$8,051 97
Total passenger earnings.....		9,483 13
Passenger earnings per mile of road.....		431 05
Freight traffic:		
Number of tons carried of freight earning revenue.....	12,217	
Total freight revenue.....		9,537 34
Total freight earnings.....		9,537 34
Freight earnings per mile of road.....		433 51
Passenger and freight:		
Passenger and freight revenue.....		17,589 31
Passenger and freight earnings.....		19,020 47
Expenses.....		12,535 06
Expenses per mile of road.....		569 77

FREIGHT TRAFFIC MOVEMENT. (Company's material excluded.)

Total tonnage, 12,217.

As we run mixed trains it is impossible for us to state how much of each commodity was hauled; but about 10,000 tons was grain.

DESCRIPTION OF EQUIPMENT.

Item.	Total.
Locomotives:	
Passenger.....	2
Freight.....	1
Total.....	3
Cars in passenger service:	
First-class passenger cars.....	2
Combination passenger cars.....	1
Baggage, express, and postal cars.....	2
Total.....	5
Cars in freight service:	
Box cars.....	4
Flat cars.....	20
Total.....	24
Total cars owned.....	29

MILEAGE OF ROAD OPERATED.

Miles of single track, 22; miles of yard track and sidings, 1½; total mileage operated, 23½. The rails on the entire mileage are steel.

RENEWALS OF RAILS.

New rails laid during year, steel, 4 tons; weight per yard, 35 pounds; average price per ton at distributing point, \$60.

CONSUMPTION OF FUEL BY LOCOMOTIVES.

Hard wood, 300 cords; average cost at distributing point, \$4 50 per cord.

BRIDGES, TRESTLES, TUNNELS, ETC.

Bridges: Wooden, 2.

Trestles: 2; aggregate length, 2,640 feet.

Gauge of track: 3 feet; length, 22 miles.

STATE OF CALIFORNIA, }
 County of Colusa. } ss.

We, the undersigned, W. P. Harrington, President, and T. Harrington, Secretary, of the Colusa and Lake Railroad Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

W. P. HARRINGTON,
 President.
 T. HARRINGTON,
 Secretary.

Subscribed and sworn to before me, this second day of October, 1894.

J. W. GOAD,
 Notary Public.

NEVADA COUNTY NARROW GAUGE RAILROAD COMPANY.

HISTORY.

1. Name of common carrier making this report: Nevada County Narrow Gauge Railroad Company.
2. Date of organization: April 4, 1874.
3. Under laws of what Government, State, or Territory organized: California.

ORGANIZATION.

Names of Directors.	Post Office Address.
John F. Kidder	Grass Valley.
Peter Johnston	Grass Valley.
Edward H. Brown	Grass Valley.
George Fletcher	Grass Valley.
George D. McLean	Grass Valley.
Frank G. Beatty	Alameda.
A. H. Parker	Nevada City.

Date of expiration of term: April, 1894.
 Number of stockholders at date of last election: 97.
 Last meeting of stockholders for election of Directors: April 4, 1894.
 Post Office address of general and operating office: Grass Valley, Cal.

OFFICERS.

Title.	Name.	Location of Office.
Chairman of the Board, and President.	John F. Kidder	Grass Valley.
Vice-President	Peter Johnston	Grass Valley.
Secretary	George Fletcher	Grass Valley.
Treasurer	Edward H. Brown	Grass Valley.
Auditor and General Manager	George Fletcher	Grass Valley.
Chief Engineer	John F. Kidder	Grass Valley.
General Superintendent	Edward H. Brown	Grass Valley.
Traffic Manager, General Freight, Passenger, Ticket, Baggage Agent.....	George Fletcher	Grass Valley.

PROPERTY OPERATED.

The Nevada County Narrow Gauge Railroad is operated by main line from Colfax, a station on the Central Pacific Railroad, in Placer County, to Nevada City, in Nevada County, a distance of 22.50 miles.

CAPITAL STOCK.

The total par value of authorized capital stock is \$400,000, divided into shares of a par value of \$100 each. The total amount issued and outstanding is \$242,000. No dividends were declared.

Manner of payment for capital stock: Number of shares issued, 2,422; cash realized on amount issued, \$242,850. There were 2,440 shares issued for their full par value. Six hundred and fifty dollars was all that was received on 18 shares, and at delinquent sale the stock was bought in by company, the \$650 being put to profit and loss account.

FUNDED DEBT.

In 1876 bonds to the amount of \$325,000 were authorized to be issued, a mortgage being given upon the road and its equipment. The amount issued was \$318,000, upon which \$298,600 50 was realized. The amount outstanding is \$260,000. The bonds mature in 1896, and bear 8 per cent interest, payable semi-annually, in January and July. The amount of interest accruing during the twelve months covered by this report was \$20,800, which was paid.

RECAPITULATION OF FUNDED DEBT.

Class of Debt.	Amount Issued.	Amount Outstanding.
Mortgage bonds	\$318,000	\$260,000

Interest accrued during year, \$20,800; interest paid during year, \$20,800.

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.		Current Liabilities Accrued to and Including June 30, 1894.	
Cash	\$12,544 52	Loans and bills payable	\$3,000 00
Due from agents	2,416 32	Audited vouchers and accounts	2,215 58
Net traffic balances due from other companies	755 79	Wages and salaries	4,099 17
Balance—current liabilities	3,998 12	Matured interest coupons unpaid	10,400 00
Total	\$19,714 75	Total	\$19,714 75

Materials and supplies on hand, \$14,911 63.

RECAPITULATION.

A. For Mileage Owned by Road Making this Report.

Account.	Amount Outstanding.	Apportionment to Railroads.	Miles.	Amount Per Mile of Road.
Capital stock	\$242,200 00	\$242,200 00	22.50	\$10,764 44
Bonds	260,000 00	260,000 00		
Totals	\$502,200 00	\$502,200 00	22.50	\$22,319 99

B. For Mileage Operated by Road Making this Report (Trackage Rights Excluded), the Operations of which are Included in the Income Account.

Capital Stock.	Funded Debt.	Current Liabilities.	Total.	Miles.	Amount per Mile of Road.
\$242,200 00	\$260,000 00	\$3,998 12	\$506,198 12	22.50	\$22,497 69

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS.

Item.	Construction or Equipment During Year.	Total Cost to June 30, 1893.	Total Cost to June 30, 1894.	Cost per Mile.
Construction:				
Right of way, fences, etc	\$492 65	\$25,779 27	\$26,271 92	\$1,167 64
Grading, and bridge and culvert masonry		245,024 88	245,024 88	10,889 99
Bridges and trestles		48,235 37	48,235 37	2,143 79
Rails and ties		164,285 09	164,285 09	7,301 56
Buildings, furniture, and fixtures	411 50	37,861 41	38,434 91	1,708 21
Shop machinery and tools	162 00			
Engineering expenses		12,901 32	12,901 32	573 39
Other items		13,885 05	13,885 05	617 11
Total construction	\$1,066 15	\$547,972 39	\$549,038 54	\$24,401 69
Equipment:				
Locomotives		\$27,904 28	\$27,904 28	\$1,240 19
Passenger cars	\$6 00	9,398 42	9,404 42	417 87
Combination cars		6,216 76	6,216 76	276 30
Freight cars		31,334 22	31,334 22	1,392 63
Other classes of all cars		1,445 54	1,445 54	64 25
Total equipment	\$6 00	\$76,299 22	\$76,305 22	\$3,391 24
Grand total cost construction, equipment, etc.	\$1,072 15	\$624,271 61	\$625,343 76	\$27,792 93

INCOME ACCOUNT.

Gross earnings from operation	\$98,136 30	
Less operating expenses	65,403 10	
Income from operation		\$32,733 20
Deductions from income:		
Interest on funded debt accrued	\$20,800 00	
Interest on interest-bearing current liabilities accrued, not otherwise provided for	400 00	
Taxes	2,789 23	
Commission paying coupons	54 10	
Total deductions from income		24,043 33
Net income		\$8,689 87
Surplus on June 30, 1893		122,367 40
Surplus on June 30, 1894		\$131,057 27

EARNINGS FROM OPERATION.

Item.	Actual Earnings.
Passenger revenue	\$36,396 08
Mail	1,713 20
Express	2,846 07
Extra baggage and storage	835 66
Total passenger earnings	\$41,791 01
Freight revenue	\$53,413 78
Other items	2,931 51
Total freight earnings	\$56,345 29
Total passenger and freight earnings	\$98,136 30

OPERATING EXPENSES.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of way and structures:			
Repairs of roadway, and renewals of rails and ties			\$12,727 92
Repairs of bridges and culverts			2,511 13
Repairs of fences, road-crossings, signs, and cattle guards			251 07
Repairs of buildings			1,628 57
Repairs of tunnels			1,500 35
Totals	\$7,075 24	\$11,543 80	\$18,619 04
Maintenance of equipment:			
Repairs and renewals of locomotives	\$1,246 83	\$2,034 56	\$3,281 39
Repairs and renewals of passenger cars	1,741 40		1,741 40
Repairs and renewals of freight cars		3,806 17	3,806 17
Shop machinery, tools, etc.	47 03	76 72	123 75
Other expenses	160 39	261 68	422 07
Totals	\$3,195 65	\$6,179 13	\$9,374 78
Conducting transportation:			
Wages of enginemen, firemen, and round-housemen			\$6,232 53
Fuel for locomotives			7,000 00
Water supply for locomotives			472 00
All other supplies for locomotives			145 20
Wages of other trainmen			4,699 14
All other train supplies			411 26
Wages of switchmen, flagmen, and watchmen			780 00
Wages of station agents, clerks, and laborers			7,479 40
Station supplies			235 60
Injuries to persons			130 95
Other expenses			70 00
Totals	\$10,509 32	\$17,146 76	\$27,656 08
General expenses:			
Salaries of officers			\$6,000 00
Salaries of clerks			870 00
Advertising			755 90
Insurance			774 15
Stationery and printing			310 15
Other general expenses			1,043 00
Totals	\$3,686 22	\$6,066 98	\$9,753 20
Recapitulation of expenses:			
Maintenance of way and structures	\$7,075 24	\$11,543 80	\$18,619 04
Maintenance of equipment	3,195 65	6,179 13	9,374 78
Conducting transportation	10,509 32	17,146 76	27,656 08
General expenses	3,686 22	6,066 98	9,753 20
Grand totals	\$24,466 43	\$40,936 67	\$65,403 10
Percentage of operating expenses to earnings			66.50

CONTRACTS, AGREEMENTS, ETC.

Agreement with Wells, Fargo & Co.'s Express for transportation of general merchandise by passenger trains at double first-class rates. Fruit, fish, butter, vegetables, and ice at one and one half first-class rates. Fare of messenger, \$75 per month.

United States mail contract, under laws for regulation of railway mail service, at \$80 37 per mile of road.

Agreement with Western Union Telegraph Company, giving them right of way for poles and wires on road, with free transportation for employes to repair line. The railroad company having use of line free between offices on road, and for railroad business to all points.

Agreement with Southern Pacific Company to conduct station business at Colfax at the rate of \$200 per month.

COMPARATIVE GENERAL BALANCE SHEET.

June 30, 1893.	Assets.	June 30, 1894.	June 30, 1894— Increase.
\$547,972 39	Cost of road	\$549,038 54	\$1,066 15
76,299 22	Cost of equipment	76,305 22	6 00
6,881 90	Materials and supplies	14,911 63	8,029 73
\$631,153 51	Totals	\$640,255 39	\$9,101 88
June 30, 1893.	Liabilities.	June 30, 1894.	June 30, 1894— Increase.
\$242,200 00	Capital stock	\$242,200 00	
260,000 00	Funded debt	260,000 00	
6,586 11	Current liabilities	6,998 12	\$412 01
122,367 40	Profit and loss	131,057 27	8,689 87
\$631,153 51	Totals	\$640,255 39	\$9,101 88

SECURITY FOR FUNDED DEBT.

Class of Bond or Obligation.	What Road Mortgaged.	Miles.	Amount of Mortgage per Mile of Line.
First mortgage	Colfax to Nevada City	22.50	\$11,555 55

The whole equipment mortgaged.

EMPLOYÉS AND SALARIES.

Class.	Number.	Yearly Com- pensation.	Average Daily Compensation.
General officers	3	\$6,000 00	-----
General office clerks	1	870 00	-----
Station agents	3	3,540 00	\$3 24
Other station men	5	3,761 10	2 06
Enginemen	2	2,541 50	4 00
Firemen	2	1,605 00	2 50
Conductors	2	2,590 00	3 82
Other trainmen	4	3,460 74	2 17
Machinists	1	1,121 30	3 75
Carpenters	2	2,135 64	3 90
Other shopmen	4	4,092 76	3 31
Section foremen	2	1,665 90	2 70
Other trackmen	18	7,790 70	1 65
Switchmen, flagmen, and watchmen	1	634 00	2 00
All other employés and laborers	1	67 60	2 00
Totals (including general officers)	51	\$41,876 24	
Distribution of above:			
General administration		\$6,870 00	
Maintenance of way and structures		10,090 60	
Maintenance of equipment		7,417 30	
Conducting transportation		17,498 34	
Total (including general officers)		\$41,876 24	
Less general officers		6,000 00	
Total (excluding general officers)		\$35,876 24	

PASSENGER AND FREIGHT, AND TRAIN MILEAGE.

Item.	Tonnage, Passengers, Etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue.....	45,493	
Number of passengers carried one mile.....	456,303	
Average distance carried—miles.....	10¼	
Total passenger revenue.....		\$36,396 08
Average amount received from each passenger.....		80
Average receipts per passenger per mile.....		07.804
Estimated cost of carrying each passenger one mile.....		05.361
Total passenger earnings.....		41,791 01
Passenger earnings per mile of road.....		1,812 93
Passenger earnings per train-mile.....		1 85.47
Freight traffic:		
Number of tons carried of freight earning revenue.....	23,993	
Number of tons carried one mile.....	395,884	
Average distance haul of one ton—miles.....	16½	
Total freight revenue.....		53,413 78
Average amount received for each ton of freight.....		2 22.62
Average receipts per ton per mile.....		13.49
Estimated cost of carrying one ton one mile.....		10.365
Total freight earnings.....		56,345 29
Freight earnings per mile of road.....		2,504 23
Freight earnings per train-mile.....		1 53.77
Passenger and freight:		
Passenger and freight revenue.....		89,809 86
Passenger and freight revenue per mile of road.....		3,991 55
Passenger and freight earnings.....		98,136 30
Passenger and freight earnings per mile of road.....		4,361 61
Gross earnings from operation.....		98,136 30
Gross earnings from operation per mile of road.....		4,361 61
Expenses.....		65,403 10
Expenses per mile of road.....		2,906 80
Train mileage:		
Miles run by passenger trains.....	10,319	
Miles run by mixed trains.....	48,854	
Total mileage trains earnings revenue.....	59,163	
Miles run by construction and other trains.....	30	
Grand total train mileage.....	59,193	
Average number of freight cars in train.....	4	
Average number of loaded cars in train.....	2	
Average number of empty cars in train.....	2	
Average number of tons of freight in train.....	25	
Average number of tons of freight in each loaded car.....	6½	

MILEAGE OF ROAD OPERATED.

Line in Use.	Total Mileage Operated.	Iron Rails.	Steel Rails.
Miles of single track.....	22.50	10.50	12
Miles of yard track and sidings.....	4.00	4.00	-----
Total miles operated (all tracks).....	26.50	14.50	12

RENEWALS OF RAILS AND TIES.

New rails laid during year: Steel, 110 tons; weight per yard, 35 pounds; average price per ton at distributing point, \$40.

New ties laid during year, 5,000; average price at distributing point, 33 cents.

CONSUMPTION OF FUEL BY LOCOMOTIVES.

The locomotives consumed 2,000 cords of wood, which cost \$3 50 per cord. Number of miles run, 61,402.

DESCRIPTION OF EQUIPMENT.

Item.	Total at End of Year.
Locomotives:	
Passenger.....	2
Freight.....	1
Total locomotives.....	3
Cars in passenger service:	
First-class passenger cars.....	2
Combination passenger cars.....	2
Other cars in passenger service.....	1
Total.....	5
Cars in freight service:	
Box cars.....	20
Flat cars.....	27
Total.....	47
Cars in company's service:	
Other road cars.....	4
Total cars owned.....	56

The Westinghouse air-brake is used on locomotives and cars in passenger service.

ACCIDENTS TO PERSONS.

Trespassers: Killed, 1. Others not trespassing: Killed, 1; injured, 3.

On the morning of September 6, 1893, a train transporting a circus was derailed by the tipping over of one of the cars. On this car were two men, one a circus employé, the other a boy who was stealing a ride on these cars. They were killed. The three who were injured were also riding on the flat cars. None of them were seriously injured.

CHARACTERISTICS OF ROAD.

Colfax to Nevada City: Length, 22.50 miles; aggregate length of curved line, 12.26 miles; length of straight line, 10.24 miles; length of level line, $\frac{6.8}{100}$ of a mile; number of ascending grades, 8; sum of ascents, 1,158 feet; aggregate length of ascending grades, 12.16 miles; number of descending grades, 7; sum of descents, 1,049 feet; aggregate length of descending grades, 9.66 miles.

BRIDGES, TRESTLES, TUNNELS, ETC.

Item.	Number.	Aggregate Length.	Minimum Length.	Maximum Length.
Bridges:				
Combination.....	2	320 ft.	160 ft.	160 feet.
Trestles.....	7	5,176 ft.		
Tunnels.....	2	810 ft.	390 ft.	420 feet.

Item.	Number.	Height Above Surface of Rail.
Overhead highway crossings:		
Trestles.....	1	45 feet.
Tunnels.....	2	14 feet.

Gauge of track, 3 feet; length, 22.50 miles.

TELEGRAPH OWNED BY ANOTHER COMPANY, BUT LOCATED ON PROPERTY OF ROAD MAKING THIS REPORT.

Miles of Line.	Miles of Wire.	Name of Owner.	Name of Operating Company.
17	17	Western Union Telegraph Co.	Western Union Telegraph Co.

STATE OF CALIFORNIA, }
 County of Nevada. } ss.

We, the undersigned, Edward H. Brown, General Superintendent, and George Fletcher, Secretary, of the Nevada County Narrow Gauge Railroad Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

EDWARD H. BROWN,
 General Superintendent.
 GEORGE FLETCHER,
 Secretary.

Subscribed and sworn to before me, this first day of October, 1894.

CHARLES W. KITTS,
 Notary Public in and for Nevada County.

REDONDO RAILWAY COMPANY.

HISTORY.

1. Name of common carrier making this report: Redondo Railway Company.
2. Date of organization: April 1, 1889.
3. Under laws of what Government, State, or Territory organized: California.

ORGANIZATION.

Name of Directors.	Post Office Address.
George J. Ainsworth	Redondo Beach.
R. H. Thompson	Redondo Beach.
L. T. Garnsey	Los Angeles.
D. McFarland	Los Angeles.
J. N. Sutton	Los Angeles.

Number of stockholders at date of last election: 7.

Last meeting of stockholders for election of Directors: January, 1894.

Post Office address of general and operating office: Redondo Beach, Cal.

OFFICERS.

Title.	Name.	Location of Office.
Chairman of the Board, and President.	George J. Ainsworth	Redondo Beach.
First Vice-President	R. H. Thompson	Redondo Beach.
Second Vice-President	J. N. Sutton	Los Angeles.
Secretary and Treasurer	S. P. Rees	Redondo Beach.
General Solicitor	A. M. Stephens	Los Angeles.
Attorney, or General Counsel	Sheldon Borden	Los Angeles.
Auditor	S. P. Rees	Redondo Beach.
Chief Engineer	L. Friel	Los Angeles.
General Superintendent	J. N. Sutton	Los Angeles.
Superintendent of Telegraph	F. M. Burleigh	Los Angeles.
General Freight Agent	J. Tanner	Los Angeles.
General Ticket Agent	J. M. Hatcher	Redondo Beach.
General Baggage Agent	B. B. Mallory	Los Angeles.

PROPERTY OPERATED.

The Redondo Railway is operated by main line from Redondo Beach to Los Angeles, a distance of 17.7 miles.

CAPITAL STOCK.

The total par value of authorized capital stock is \$500,000, divided into 5,000 shares of a par value of \$100 each. The total amount issued and outstanding is \$500,000. No dividends were declared. The manner of payment for capital stock is as follows:

Manner of Payment for Capital Stock.	Cash Realized on Amount Issued During Year.	Number of Shares Issued.	Total Cash Received.
Issued for cash	\$20,000	5,000	\$397,367 23
Net loss to capital stock June 30, 1894			9,291 00
Totals	\$20,000	5,000	\$388,076 23

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.	Current Liabilities Accrued to and Including June 30, 1894.
Due from agents	Loans and bills payable
Due from solvent companies and individuals	Audited vouchers and accounts
Balance—current liabilities	
Total	Total

Materials and supplies on hand, \$4,867 30.

RECAPITULATION.

Account.	Total Amount Outstanding.	Miles of Road.	Amount per Mile of Road.
Capital stock	\$388,076 23	17.7	\$21,925 20

EARNINGS FROM OPERATION.

Item.	Total Receipts.	Deductions, Etc.	Actual Earnings.
Passenger revenue			\$20,995 27
Mail			328 00
Total passenger earnings			\$21,323 27
Freight revenue	\$29,256 06		
Less overcharge to shippers		\$6 90	
Other repayments		9,123 56	
Total deductions		\$9,130 46	
Total freight revenue			20,125 60
Total passenger and freight earnings			\$41,448 87
Other earnings from operation:			
Switching charges—balance	\$4,730 09		
Telegraph companies	74 01		
Other sources	1,393 15		
Total other earnings			6,197 25
Total gross earnings from operation			\$47,646 12

STOCKS OWNED.

Redondo Hot Salt Water Bath Company, par value, \$500; valuation, \$318.

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS.

Item.	Construction or Equipment During Year.	Total Cost to June 30, 1893.	Total Cost to June 30, 1894.
Construction:			
Right of way		\$24,742 52	\$24,742 52
Fences	\$28 74	761 70	790 44
Grading, and bridge and culvert masonry	393 00	26,048 39	26,446 39
Bridges and trestles	23 36	570 88	594 24
Rails		100,727 44	100,727 44
Ties	866 64	25,158 81	26,025 45
Other superstructure		4,310 04	4,310 04
Buildings, furniture, and fixtures	195 65	16,946 76	17,142 41
Shop machinery and tools		4,956 09	4,823 88
Telegraph line		3,376 18	3,371 18
Sidings and yard extensions	35 28	5,770 93	5,806 21
Terminal facilities and elevators		10,000 00	10,000 00
Purchase of constructed road		25,000 00	25,000 00
Total construction	\$1,547 67	\$248,369 74	\$249,785 20
Equipment:			
Locomotives		\$45,983 59	\$45,983 59
Passenger cars		33,241 18	33,241 18
Combination cars		7,497 62	7,497 62
Freight cars		19,692 54	19,692 54
Other cars of all classes		661 44	661 44
Floating equipment	\$16 74	223 91	240 67
Total equipment	\$16 74	\$107,300 30	\$107,317 04
Total cost construction, equipment, etc....	\$1,564 41	\$355,670 04	\$357,102 24

Cost per mile: Construction, \$14,112 16; equipment, \$6,061 11; total, \$20,175 27.

INCOME ACCOUNT.

Gross earnings from operation	\$47,646 12	
Less operating expenses	57,427 83	
Deficit from operation		\$9,781 71
Deductions from income:		
Interest on interest-bearing current liabilities accrued, not otherwise provided for	\$983 85	
Taxes	1,456 01	
Total deductions from income		2,439 86
Deficit		\$12,221 57
Surplus from operations of year ending June 30, 1893		\$2,930 57
Deficit from operations of year ending June 30, 1894		12,221 57
Deficit on June 30, 1894		\$9,291 00

CONTRACTS, AGREEMENTS, ETC.

Contract with United States Government to carry mails between Redondo Beach and Los Angeles.

Agreement between Southern Pacific Company, Southern California Railway Company, Los Angeles Terminal Railway Company, Redondo Railway Company, Wilmington Transportation Company, and Pacific Coast Steamship Company to maintain rates.

Contract with Pacific Postal Telegraph Company, taking their business at Redondo.

COMPARATIVE GENERAL BALANCE SHEET.

June 30, 1893.	Assets.	June 30, 1894.	June 30, 1894— Increase.	June 30, 1894— Decrease.
\$248,369 74	Cost of road	\$249,785 20	\$1,415 46	
107,300 30	Cost of equipment	107,317 04	16 74	
	Stocks of other companies owned	318 00	318 00	
52,574 04	Lands owned	52,593 04	19 00	
13,347 02	Cash and current assets	18,217 83	4,870 81	
	Other assets:			
2,034 23	Materials and supplies	2,085 24		
2,531 68	Sundries	2,782 06	301 39	
17,576 17	Profit and loss	12,221 57		\$5,354 60
\$443,733 18	Totals	\$445,319 98	\$6,941 40	\$5,354 60
June 30, 1893.	Liabilities.	June 30, 1894.	June 30, 1894— Increase.	June 30, 1894— Decrease.
\$377,367 23	Capital stock	\$388,076 23	\$20,000 00	\$9,291 00
45,859 21	Funded debt			
	Current liabilities	45,022 18		837 03
20,506 74	Surplus Dec. 31, 1891			
	Profit and Loss: net loss capital stock	9,291 00		
	Surplus June 30, 1893	2,930 57		2,930 57
\$443,733 18	Totals	\$445,319 98	\$20,000 00	\$13,058 60

EMPLOYÉS AND SALARIES.

Class.	Number.	Total Days Worked.	Total Yearly Compensation.	Average Daily Compensation.
General officers	5	313	\$5,026 00	\$16 05
General office clerks	3	313	745 00	2 38
Station agents	2	360	1,800 00	5 00
Other station men	6	360	4,560 00	12 67
Enginemen	3	360	2,600 00	7 22
Firemen	2	360	1,400 00	3 88
Conductors	3	360	2,300 00	6 40
Other trainmen	2	360	1,498 00	4 16
Machinists	1	313	960 00	3 06
Carpenters	1	313	900 00	2 87
Other shopmen	4	313	2,128 00	6 80
Section foremen	3	313	2,284 00	7 30
Other trackmen	14	313	6,306 00	20 13
Switchmen, flagmen, and watchmen	3	313	2,044 00	6 54
All other employés and laborers	5	313	2,307 00	7 37
Totals (including general officers)	57		\$36,858 00	
Less general officers	5		5,026 00	
Totals (excluding general officers)	52		\$31,832 00	
Distribution of above:				
General administration			\$5,771 00	
Maintenance of way and structures			8,590 00	
Maintenance of equipment			3,988 00	
Conducting transportation			18,509 00	
Total (including general officers)			\$36,858 00	
Less general officers			5,026 00	
Total (excluding general officers)			\$31,832 00	

OPERATING EXPENSES.

Item.	Total.
Maintenance of way and structures:	
Repairs of roadway	\$8,589 69
Repairs of buildings	81 68
Other expenses	813 89
Total	\$9,485 26
Maintenance of equipment:	
Repairs and renewal of locomotives	\$2,121 80
Repairs and renewals of passenger cars	2,369 77
Repairs and renewals of freight cars	837 86
Repairs and renewals of ferry-boats, tugs, floats, and barges	9 30
Other expenses	813 88
Total	\$6,152 61
Conducting transportation:	
Wages of enginemen, firemen, and roundhousemen	\$4,745 59
Fuel for locomotives	8,611 32
Water supply for locomotives	271 90
All other supplies for locomotives	301 99
Wages of other trainmen	3,798 55
All other train supplies	217 82
Wages of switchmen, flagmen, and watchmen	2,044 39
Wages of station agents, clerks, and laborers	8,667 34
Other expenses	3,255 54
Total	\$31,913 95
General expenses:	
Salaries of officers	\$5,025 84
Salaries of clerks	745 00
Advertising	502 71
Legal expenses	200 04
Stationery and printing	493 51
Other general expenses	2,908 91
Total	\$9,876 01
Recapitulation of expenses:	
Maintenance of way and structures	\$9,485 26
Maintenance of equipment	6,152 61
Conducting transportation	31,913 95
General expenses	9,876 01
Grand total	\$57,427 83

DESCRIPTION OF EQUIPMENT.

Item.	Total at End of Year.	With Train-Brake.	With Automatic Coupler.
Locomotives (passenger, freight, switching, and leased).....	6	6	-----
Motor	1	-----	-----
Total locomotives	7	6	-----
Cars in passenger service:			
First-class passenger cars	16	16	16
Combination passenger cars	5	5	5
Other cars in passenger service	1	-----	-----
Totals	22	21	21
Cars in freight service:			
Box cars	16	12	-----
Flat cars	23	14	-----
Other cars	6	6	-----
Totals	45	32	21
Total cars owned	67	53	21

The Westinghouse train-brake is used on locomotives, first-class passenger cars, combination passenger cars, and on box and flat cars in freight service.

PASSENGER AND FREIGHT, AND TRAIN MILEAGE.

Item.	Tonnage, Passengers, etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue	52,924	
Number of passengers carried one mile	635,088	
Average distance carried—miles	12	
Total passenger revenue		\$20,995 27
Average amount received from each passenger		39.6706
Total passenger earnings		21,323 27
Passenger earnings per mile of road		1,204 70.52
Freight traffic:		
Number of tons carried of freight earning revenue	24,084	
Total freight revenue		20,125 60
Average amount received for each ton of freight		88.285
Average receipts per ton per mile		1,201 29.17
Total freight earnings		20,125 60
Freight earnings per mile of road		1,137 04
Passenger and freight:		
Passenger and freight revenue		41,120 87
Passenger and freight revenue per mile of road		2,323 21.243
Passenger and freight earnings		41,448 87
Passenger and freight earnings per mile of road		2,341 74
Gross earnings from operation		47,646 12.07
Gross earnings from operation per mile of road		2,691 87.113
Expenses		57,427 83
Expenses per mile of road		3,244 51
Train mileage:		
Miles run by passenger trains	103,900	
Miles run by freight trains	79,657	
Average number of freight cars in train	6	
Average number of loaded cars in train	6	
Average number of tons of freight in train	60	
Average number of tons of freight in each loaded car	10	

FREIGHT TRAFFIC MOVEMENT.

Commodity.	Originating on this Road—Tons.	Received from Connecting Roads—Tons.	Total Freight Tonnage.
Products of agriculture :			
Grain	5,704		5,704
Flour		200	200
Other mill products		90	90
Hay	193		193
Tobacco	1		1
Fruit and vegetables	199	201	400
Beans	58		58
Products of animals:			
Live stock	3	4	7
Dressed meats		1	1
Wool	19		19
Hides and leather		31	31
Products of mines:			
Bituminous coal	1,143	50	1,193
Coke		87	87
Stone, sand, and other like articles	50	228	278
Products of forest :			
Lumber	64	5,607	5,671
Manufactures:			
Petroleum and other oils	11	350	361
Sugar		1,943	1,943
Iron—pig and bloom		262	262
Castings and machinery	27	46	73
Bar and sheet metal		278	278
Cement, brick, and lime	10	752	762
Wagons, carriages, tools, etc.		40	40
Wines, liquors, and beers		439	439
Household goods and furniture	27	38	65
Merchandise	2,803	3,125	5,928
Total tonnage	10,312	13,772	24,084

MILEAGE OF ROAD OPERATED.

Miles of single track, $17\frac{7}{10}$; miles of yard track and sidings, $5\frac{3}{10}$; total mileage operated (all tracks), 23. All rails are steel (24 and 48 pounds).

MILEAGE OF LINE BY STATES AND TERRITORIES.

In California, 23 miles; steel rails (24 and 48 pounds); total mileage operated (single track), 23; total mileage owned (single track), 23.

CONSUMPTION OF FUEL BY LOCOMOTIVES.

Passenger, freight, and switching locomotives consumed 985 tons of coal. Average cost of coal at distributing point, \$8 75 per ton.

ACCIDENTS TO PERSONS.

One man killed at Redondo while walking on track. Stepped onto the track a few feet in front of the locomotive and was run over before it could be stopped; afterwards learned at the inquest he was totally deaf.

CHARACTERISTICS OF ROAD.

Redondo to Los Angeles: Length, $17\frac{7}{10}$ miles; number of curves, 23; aggregate length of curved line, $2\frac{1}{10}$ miles; length of straight line, $15\frac{6}{10}$ miles; length of level line, $2\frac{3}{4}$ miles; number of ascending grades, 27; sum of ascents, 305 feet; aggregate length of ascending grades, $7\frac{3}{4}$ miles; number of descending grades, 23; sum of descents, 181 feet; aggregate length of descending grades, $7\frac{1}{4}$ miles.

Gauge of track, 3 feet; length, 17.70 miles.

Telegraph: Miles of line and miles of wire operated by this company, 18.

REMARKS.

D. McFarland was elected President July 11, 1894, vice Geo. J. Ainsworth, resigned.

R. H. Thompson, Vice-President, resigned July 21, 1894; office not filled.

S. P. Rees resigns, to take effect October 1, 1894, as Secretary, Treasurer, and Auditor.

STATE OF CALIFORNIA, }
County of Los Angeles. } ss.

We, the undersigned, D. McFarland, President, and S. P. Rees, Secretary and Treasurer, of the Redondo Railway Company, on our oath, do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

D. McFARLAND,
President.
S. P. REES,
Treasurer.

Subscribed and sworn to before me, this first day of October, 1894.

J. W. ANDERSON,
Notary Public.

SAN DIEGO, CUYAMACA, AND EASTERN RAILWAY COMPANY.

HISTORY.

1. Name of a common carrier making this report : San Diego, Cuyamaca, and Eastern Railway Company.
2. Date of organization : March 6, 1888.
3. Under laws of what Government, State, or Territory organized : Laws of the State of California.

ORGANIZATION.

Names of Directors.	Post Office Address.
James S. Waterman	Brooklyn, N. Y.
Waldo S. Waterman	San Diego.
George J. Leovy	San Diego.
Joseph A. Allison	San Diego.
J. H. Barbour	San Diego.
Levi Chase	San Diego.
C. R. Johnson	San Francisco.

Date of expiration of term of Directors : January 1, 1895.

Number of stockholders at date of last election : 20.

Last meeting of stockholders for election of Directors : January 2, 1894.

Post Office address of general and operating office : San Diego, Cal.

OFFICERS.

Title.	Name.	Location of Office.
President	George J. Leovy	San Diego.
Vice-President	J. H. Barbour	San Diego.
Secretary and Treasurer	Waldo S. Waterman	San Diego.
General Manager	Waldo S. Waterman	San Diego.
General Counsel	George J. Leovy	San Diego.
Auditor	A. J. O'Connor	San Diego.
Superintendent, and General Freight, Passenger, and Ticket Agent	A. E. Kinney	San Diego.

PROPERTY OPERATED.

The San Diego, Cuyamaca, and Eastern Railway is operated by main line from San Diego to Foster, a distance of 25.37 miles.

CAPITAL STOCK.

The total par value of authorized capital stock is \$7,000,000, divided into shares of a par value of \$100 each. The total amount issued and outstanding is \$769,000. No dividends were declared.

The manner of payment for capital stock is as follows :

	Total Shares Issued.
Issued for cash	2,190
Issued for construction	5,500
Total	7,690

FUNDED DEBT.

Mortgage Bonds, Miscellaneous Obligations, and Income Bonds.

Class of Bond or Obligation, Date of Issue and Maturity.	Authorized Issue.	Amount Issued and Outstanding.
First mortgage—July 1, 1888; July 1, 1918.....	\$550,000	\$550,000

Interest, 6 per cent; payable semi-annually; amount accrued during year, \$33,000; amount paid during year, none.

Equipment Trust Obligations.—A. General Statement.

Series, or Other Designation.	Number of Payments	Equipment Covered.	Remarks.
New York Equipment Co.—Dec. 16, 1890; 5 years	60	1 combination passenger and baggage car	Car trust lease.
New York Equipment Co.—Dec. 27, 1893; 2 years	24	1 locomotive (No. 2).....	Car trust lease.
Series B 164 A; Dec. 15, 1893; 5 years	60	28 flat cars, 6 box cars, 1 coach (No. 2), and 1 locomotive	*New car trust lease.

* Includes balance of Old Lease Series B 164; 8 payments of \$278 03 each, which in old lease were due January 1st to August 1, 1894.

B. Statement of Amount.

Series, or Other Designation.	Cash Paid on Delivery of Equipment.	Deferred Payments—Principal.	
		Original Amount.	Amount Outstanding.
New York Equipment Co.....	\$70 00	\$11,930 00	\$3,800 00
New York Equipment Co.....		3,999 96	2,499 96
Series B 164 A		13,632 00	12,268 80
Totals		\$29,561 96	\$18,568 76

Series, or Other Designation, and Rate of Interest.	Deferred Payments—Interest.			
	Original Amount.	Amount Outstanding.	Amount Accrued During Year.	Amount Paid During Year.
New York Equipment Co.—6 per cent	\$1,921 43	\$997 50	\$444 00	\$444 00
New York Equipment Co.—6 per cent	204 61	179 49	{ *22 50 }	25 12 principal.
Series B 164 A	Interest	included	{ †2 62 }	
Totals	\$2,126 04	\$1,176 99	\$469 12	\$469 12

* Interest. † Compound.

RECAPITULATION OF FUNDED DEBT.

Class of Debt.	Amount Issued.	Amount Outstanding.
Mortgage bonds.....	\$550,000 00	\$550,000 00
Miscellaneous obligations.....	29,561 96	18,568 76
Totals.....	\$579,561 96	\$568,568 76

Interest accrued during year, \$33,469 12. Interest paid during year, \$469 12.

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.	Current Liabilities Accrued to and Including June 30, 1894.
Cash..... \$11 35	Loans and bills payable (exclusive of car trusts)..... \$600 00
Bills receivable..... 72 00	Audited vouchers and accounts..... 3,611 72
Due from agents..... 5,160 27	Wages and salaries..... 11 30
Due from solvent companies and individuals..... 3,597 23	Balance—cash assets..... 4,617 83
Total..... \$8,840 85	Total..... \$8,840 85

Materials and supplies on hand, \$256 97.

RECAPITULATION.

A. For Mileage Owned by Road Making this Report.

Account.	Amount Outstanding.	Apportionment to Railroads.	Miles.	Amount per Mile of Road.
Capital stock.....	\$769,000 00	\$769,000 00	22	\$34,954 54
Bonds.....	550,000 00	550,000 00	22	25,000 00
Equipment trust obligations.....	18,568 76	18,568 76	25	742 75
Totals.....	\$1,337,568 76	\$1,337,568 76	-----	\$60,697 29

B. For Mileage Operated by Road Making this Report (Trackage Rights Excluded), the Operations of which are Included in the Income Account.

Name of Road.	Capital Stock.	Funded Debt.	Total.
San Diego, Cuyamaca, and Eastern Railway ..	\$769,000 00	\$568,568 76	\$1,337,568 76

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS.

Item.	Construction or Equipment During Year.	Total Cost to June 30, 1893.	Total Cost to June 30, 1894.
Construction.....	\$1,223 66	\$554,704 98	\$555,928 64
Equipment:			
2 locomotives.....	\$5,253 32	\$12,480 02	\$17,733 34
4 passenger cars.....		13,479 10	13,479 10
1 combination car.....		3,576 50	3,576 50
34 freight cars.....	11,360 93	9,161 78	20,522 71
Total equipment.....	\$16,614 25	\$38,697 40	\$55,311 65
Grand total cost construction, equipment, etc.....	\$17,837 91	\$593,402 38	\$611,240 29

INCOME ACCOUNT.

Gross earnings from operation.....	\$46,279 17	
Less operating expenses.....	31,680 26	
Income from operation.....		\$14,598 91
Deductions from income:		
Interest on funded debt accrued—amount paid.....	\$469 12	
Interest on interest-bearing current liabilities accrued, not otherwise provided for.....	59 91	
Taxes.....	2,456 21	
Total deductions from income.....		2,985 24
Net income.....		\$11,613 67

EARNINGS FROM OPERATION.

Item.	Actual Earnings.
Passenger revenue.....	\$16,393 00
Mail.....	1,395 85
Other items.....	48 00
Total passenger earnings.....	\$17,836 85
Freight revenue.....	28,256 40
Total passenger and freight earnings.....	\$46,093 25
Other earnings from operation.....	185 92
Total gross earnings from operation.....	\$46,279 17

COMPARATIVE GENERAL BALANCE SHEET.

June 30, 1893.	Assets.	June 30, 1894.
\$554,704 93	Cost of road.....	\$555,928 64
38,697 40	Cost of equipment.....	55,311 65
	Cash and current assets.....	4,617 83
18 20	Materials and supplies.....	256 97
June 30, 1893.	Liabilities.	June 30, 1894.
\$550,000 00	Capital stock.....	\$769,000 00
9,814 39	Funded debt.....	568,568 76
	Car trust obligations.....	

SECURITY FOR FUNDED DEBT.

Class of Bond or Obligation.	What Road Mortgaged.	Miles.	Amount of Mortgage per Mile of Line.
First mortgage bonds.....	San Diego to Lakeside....	22	\$25,000 00
Equipment trust obligations:			
Car trust lease (N. Y. Equip. Co.).....			149 61
Car trust lease.....			98 42
Car trust lease, Series B 164 A.....			483 02

Equipment mortgaged: 3 coaches and 1 combination car; 1 locomotive; 1 coach, 28 flat cars, 6 box cars, and 1 locomotive.

Amount of mortgage per mile of line for trust obligations is based on total mileage of road, 25.4.

OPERATING EXPENSES.

Item.	Total.
Maintenance of way and structures:	
Repairs of roadway.....	\$3,444 84
Repairs of bridges and culverts.....	390 95
Repairs of fences, road-crossings, signs, and cattle guards.....	36 00
Repairs of buildings.....	63 67
Repairs of telegraph.....	4 00
Total.....	\$3,939 46
Maintenance of equipment:	
Repairs and renewals of locomotives.....	\$1,760 15
Repairs and renewals of passenger and freight cars.....	1,284 59
Total.....	\$3,044 74
Conducting transportation:	
Wages of enginemen, firemen, and roundhousemen.....	\$2,927 14
Fuel for locomotives.....	8,052 64
Water supply for locomotives.....	102 95
All other supplies for locomotives.....	426 59
Wages of other trainmen.....	2,674 97
All other train supplies.....	70 23
Expense of telegraph, including train dispatchers and operators.....	84 00
Wages of station agents, clerks, and laborers.....	2,597 03
Station supplies.....	58 44
Car mileage—balance.....	384 95
Loss and damage.....	16 40
Injuries to persons.....	5 00
Total.....	\$17,400 34
General expenses:	
Salaries of officers.....	\$5,930 00
General office expenses and supplies.....	502 77
Advertising.....	560 35
Stationery and printing.....	302 60
Total.....	\$7,295 72
Recapitulation of expenses:	
Maintenance of way and structures.....	\$3,939 46
Maintenance of equipment.....	3,044 74
Conducting transportation.....	17,400 34
General expenses.....	7,295 72
Grand total.....	\$31,680 26
Percentage of operating expenses to earnings.....	68.5

DESCRIPTION OF EQUIPMENT.

Item.	Added During Year.	Total at End of Year.
Locomotives.....	1	2
Cars in passenger service:		
First-class passenger cars.....		4
Combination passenger cars.....		1
Total.....		5
Cars in freight service:		
Box cars.....		6
Flat cars.....	20	28
Total.....	20	34
Total cars owned.....	20	39

All equipped with air train-brake.

EMPLOYES AND SALARIES.

Class.	Number.	Total Days Worked.	Total Compensation.	Average Daily Compensation.
General officers	4	1,460	\$5,580 00	\$3 82
Station agents	3	1,095	1,666 82	1 47
Other station men.....	3	1,095	1,082 26	99
Enginemen	2	462	1,350 00	2 81
Firemen	2	462	954 78	2 07
Conductors	2	452	1,205 77	2 67
Other trainmen	3	730	1,507 21	2 06
Section foremen	1	303	587 00	1 94
Other trackmen (including roadmaster).....	6	1,953	3,441 02	-----
All other employes and laborers (including wipers).....	3	803	1,593 86	1 98
Total (including general officers).....	30	8,815	\$18,908 72	\$2 15
Less general officers.....	5	1,460	5,580 00	3 82
Total (excluding general officers)	25	7,355	\$13,328 72	\$1 81
Distribution of above:				
General administration	5	1,460	\$5,580 00	\$3 82
Maintenance of way and structures.....	8	2,356	4,203 02	1 78
Maintenance of equipment.....	1	295	747 70	2 53
Conducting transportation.....	16	4,704	8,378 00	1 78
Total (including general officers).....	30	8,815	\$18,908 72	\$2 15
Less general officers.....	5	1,460	5,580 00	3 83
Total (excluding general officers).....	25	7,355	\$13,328 72	\$1 81

FREIGHT TRAFFIC MOVEMENT. (Company's material excluded.)

Commodity.	Total Freight Tonnage.
Products of agriculture:	
Grain	851
Flour	246
Other mill products.....	303
Hay	1,854
Fruit and vegetables.....	2,364
Trees (fruit).....	54
Products of animals:	
Wool.....	5
Honey	29
Products of mines:	
Bituminous coal	70
Coke	10
Stone, sand, and other like articles.....	29,995
Products of forest:	
Lumber (including box shooks)	1,902
Wood	1,317
Manufactures:	
Cement, brick, and lime	304
Wines, liquors, and beers.....	124
Household goods and furniture.....	60
Iron pipe	152
Merchandise.....	1,456
Miscellaneous: fertilizers.....	405
Total tonnage.....	41,501

PASSENGER, FREIGHT, AND TRAIN MILEAGE.

	Tonnage, Pas- sengers, Etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue.....	35,570	
Number of passengers carried one mile.....	581,434	
Average distance carried—miles.....	16.3	
Total passenger revenue.....		\$16,393 00
Average amount received from each passenger.....		46.087
Average receipts per passenger per mile.....		02.819
Estimated cost of carrying each passenger one mile.....		02.531
Total passenger earnings.....		17,836 85
Passenger earnings per mile of road.....		703 07
Passenger earnings per train-mile (mileage, 38,064, mixed).....		46.860
Freight traffic:		
Number of tons carried of freight earning revenue.....	41,501	
Number of tons carried one mile.....	948,915	
Average distance haul of one ton—miles.....	22.9	
Total freight revenue.....		23,256 40
Average amount received for each ton of freight.....		68.084
Average receipts per ton per mile.....		02.978
Estimated cost of carrying one ton one mile.....		02.046
Total freight earnings.....		28,256 40
Freight earnings per mile of road.....		1,113 77
Freight earnings per train-mile (mileage, 42,198, freight and mixed).....		66.961
Passenger and freight:		
Passenger and freight revenue.....		44,649 40
Passenger and freight revenue per mile of road.....		1,759 93
Passenger and freight earnings.....		46,093 25
Passenger and freight earnings per mile of road.....		1,816 84
Gross earnings from operation.....		46,279 17
Gross earnings from operation per mile of road.....		1,824 17
Expenses.....		31,680 26
Expenses per mile of road.....		1,248 73
Train mileage:		
Miles run by freight trains.....	4,134	
Miles run by mixed trains.....	38,064	
Total mileage trains earning revenue.....	42,198	
Mileage of loaded freight cars.....	68,504	
Mileage of empty freight cars.....	44,179	
Average number of freight cars in train.....	3.2	
Average number of loaded cars in train.....	1.9	
Average number of empty cars in train.....	1.3	
Average number of tons of freight in train.....	25.5	
Average number of tons of freight in each loaded car.....	13.5	

MILEAGE OF ROAD OPERATED.

Length of single track, 25.37 miles; total mileage operated, 25.37 miles. Iron rails, .26 of a mile; steel rails, 25.11 miles. The entire mileage is in California.

CONSUMPTION OF FUEL BY LOCOMOTIVES.

The locomotives consumed 1,071.97 tons of coal in running 47,446 miles. This is an average of 45.19 pounds per mile. The average cost of coal at distributing point was \$7 51 per ton of 2,000 pounds at San Diego.

CHARACTERISTICS OF ROAD.

San Diego to Foster: Length, 25.37 miles; number of curves, 51; aggregate length of curved line, 6.46 miles; length of straight line, 18.91 miles; length of level line, 5.53 miles; number of ascending grades, 65; sum of ascents, 821.3 feet; aggregate length of ascending grades, 12.96 miles; number of descending grades, 42; sum of descents, 311.5 feet; aggregate length of descending grades, 6.88 miles.

Bridges: Wooden, 37; aggregate length, 2,513 feet; minimum length, 14 feet; maximum length, 247 feet.

Overhead highway crossings: Number of bridges, 1; height of lowest above surface of rail, 16 feet 2 inches.

Gauge of track: 4 feet 8½ inches.

TELEGRAPH OWNED BY ANOTHER COMPANY, BUT LOCATED ON PROPERTY OF ROAD MAKING THIS REPORT.

Miles of Line.	Miles of Wire.	Name of Owner.	Name of Operating Company.
27.37	27.37	Western Union Telegraph Co...	S. D. C. & E. Ry. Co.

STATE OF CALIFORNIA,)
County of San Diego. } ss.

We, the undersigned, George J. Leovy, President, and Waldo S. Waterman, Treasurer, of the San Diego, Cuyamaca, and Eastern Railway Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

GEORGE J. LEOVY,
President.
WALDO S. WATERMAN,
Treasurer.

Subscribed and sworn to before me, this nineteenth day of October, 1894.

F. P. BRUNER,
Notary Public in and for San Diego County.

YREKA RAILROAD COMPANY.

HISTORY.

1. Name of common carrier making this report: Yreka Railroad Company.
2. Date of organization: May 28, 1888.
3. Under what laws organized: Laws of the State of California.

ORGANIZATION.

Names of Directors: J. Churchill, J. M. Walbridge, Charles Junker, H. B. Gillis, and F. A. Autenrieth, all of Yreka, California.

Date of expiration of terms of Directors: May 7, 1895.

Number of stockholders at date of last election: 190.

Last meeting of stockholders for election of Directors: May 7, 1894.

Post Office address of general and operating office: Yreka, California.

OFFICERS.

Title.	Name.	Location of Office.
Chairman of the Board, and President.	J. Churchill.	Yreka, Cal.
Vice-President	J. M. Walbridge	Yreka, Cal.
Secretary	F. A. Autenrieth	Yreka, Cal.
Treasurer	Siskiyou County Bank	Yreka, Cal.
General Manager	J. Churchill.	Yreka, Cal.
General Superintendent	F. A. Autenrieth	Yreka, Cal.
General Freight, Passenger, and Ticket Agent	F. A. Autenrieth.	Yreka, Cal.

PROPERTY OPERATED.

The Yreka Railroad is operated by main line from Montague, in Siskiyou County, to Yreka, in same county, a distance of 7.9 miles.

CONTRACTS.

Mails.—Contract to carry United States mails, for four years, at the rate of \$438 84 per annum.

Express.—Contract to carry Wells, Fargo & Co.'s Express; no fixed sum per annum; income depending on amount carried.

CAPITAL STOCK.

The total par value of authorized capital stock is \$100,000, divided into 4,000 shares of a par value of \$25 each. The total amount issued and outstanding is \$99,075.

Manner of payment for capital stock: Issued for cash, 3,963 shares; realized on amount issued, \$49,575; cash raised by note, \$45,000; total cash realized, \$94,575.

FUNDED DEBT.

In 1890, a mortgage was authorized to be executed on the road and its equipment, and first mortgage bonds to the amount of \$45,000 were issued. The cash realized on the bonds issued was \$45,000. The bonds mature in 1895, and bear 7 per cent interest, payable quarterly. The amount of interest accruing during the twelve months covered by this report was \$3,150, which was paid.

RECAPITULATION OF FUNDED DEBT.

Class of Debt.	Amount Issued.	Amount Outstanding.
Mortgage bonds	\$45,000 00	\$45,000 00
Interest accrued during year, \$3,150; interest paid during year, \$3,150.		

RECAPITULATION.

Account.	Amount Outstanding.
Capital stock	\$49,575 00
Bonds	45,000 00
Total	\$94,575 00

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS.

Item.	Total Cost to June 30, 1893.	Total Cost to June 30, 1894.
Construction:		
Right of way	\$1,775 00	\$1,775 00
Other real estate	2,561 90	2,561 90
Fences	1,107 37	1,107 37
Grading, and bridge and culvert masonry	37,454 71	38,505 31
Bridges and trestles	3,271 10	3,271 10
Rails	223 21	223 21
Ties	22 50	22 50
Other superstructure	40,330 92	40,330 92
Buildings, furniture, and fixtures	2,492 73	2,492 73
Engineering expenses	6,485 20	6,485 20
Terminal facilities and elevators	449 40	449 40
Other items	5,639 25	6,331 72
Total construction	\$101,866 29	\$103,556 36
Equipment:		
Other cars of all classes	64 25	64 25
All cars and engines	12,446 50	12,446 50
Total cost of construction, equipment, etc.	\$114,377 04	\$116,067 11

Cost per mile, \$14,692 01.

INCOME ACCOUNT.

Gross earnings from operation	\$11,387 65
Less operating expenses	6,990 28
Income from operation	\$4,397 37
Deductions from income:	
Interest on funded debt accrued	\$3,619 14
Taxes	607 30
Total deductions from income	\$4,226 44
Net income	\$170 93

EARNINGS FROM OPERATION.

Item.	Actual Earnings.
Passenger revenue	\$6,204 03
Mail	438 84
Express	516 30
Total passenger earnings	\$7,159 17
Freight revenue	4,228 48
Total passenger and freight earnings	\$11,387 65

OPERATING EXPENSES.

Item.	Total.
Maintenance of way and structures	\$1,050 60
Conducting transportation:	
Wages of enginemen, firemen, and roundhousemen	1,802 50
Fuel for locomotives	1,804 79
All other supplies for locomotives	198 76
Wages of other trainmen	36 85
Wages of station agents, clerks, and laborers	1,512 00
Station supplies	85 20
Car mileage—balance	126 50
Injuries to persons	75 00
Other expenses	238 10
Total	\$6,990 28

SECURITY FOR FUNDED DEBT.

Class of bond or obligation, mortgage; what road mortgaged, Montague to Yreka; miles, 7 $\frac{1}{2}$. All equipment mortgaged

EMPLOYES AND SALARIES.

Class.	Number.	Total Days Worked.	Yearly Compensation.	Average Daily Compensation.
Station agents	1	365	\$1,080 00	\$3 00
Other station men	1	365	180 00	49+
Enginemen	1	365	1,080 00	3 00
Firemen	1	365	720 00	2 00
Section foremen	1	312	624 00	2 00
Other trackmen		236	424 80	1 80

PASSENGER AND FREIGHT, AND TRAIN MILEAGE.

Item.	Tonnage, Pas- sengers, Etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue.....	11,507	
Total passenger revenue.....		\$6,204 03
Average amount received from each passenger.....		53.9
Average receipts per passenger per mile.....		06.8
Total passenger earnings.....		6,204 03
Passenger earnings per mile of road.....		785 32
Passenger earnings per train-mile.....		56.6
Freight traffic:		
Number of tons carried of freight earning revenue.....	2,363.7	
Total freight revenue.....		4,228 48
Average amount received for each ton of freight.....		1 79.5
Total freight earnings.....		4,228 48
Freight earnings per mile of road.....		535 25
Freight earnings per train-mile.....		48.8
Passenger and freight:		
Passenger and freight revenue.....		10,432 51
Passenger and freight revenue per mile of road.....		1,320 57
Train mileage:		
Miles run by mixed trains.....	10,950	

DESCRIPTION OF EQUIPMENT.

Item.	Number at End of Year.
Passenger locomotive.....	1
Cars in passenger service:	
Combination passenger cars.....	1
Cars in freight service:	
Box cars.....	1
Flat cars.....	2
Total cars owned.....	4

Locomotive equipped with Westinghouse train-brake. Combination passenger car equipped with Westinghouse train-brake and Miller automatic coupler. Freight cars equipped with Westinghouse train-brake.

MILEAGE OF ROAD OPERATED.

Line in Use.	Main Line.
Miles of single track.....	7.5
Miles of yard track and sidings.....	.4
Total mileage operated (all tracks).....	7.9

All steel rails.

CONSUMPTION OF FUEL BY LOCOMOTIVES.

The locomotive running on this road consumed 400 cords of soft wood during the year ending June 30, 1894. The average cost at distributing point is \$4 50 per cord.

ACCIDENTS TO PERSONS.

Two section men killed in December, 1889. Report under "Operating Expenses" includes amount paid to compromise suit. No accidents since that date.

CHARACTERISTICS OF ROAD.

Montague to Yreka: Length, 7.9 miles; number of curves, 32; aggregate length of curved line, 25,278 feet; length of straight line, 14,178 feet; length of level line, 1,250 feet; number of ascending grades, 1; sum of ascents, 289.89 feet; aggregate length of ascending grades, 14,300 feet; number of descending grades, 2; sum of descents, 216.24 feet; aggregate length of descending grades, 24,957 feet.

Bridges: Wooden, 1; 80-foot span.

Trestles: 9; aggregate length, 826 feet; minimum length, 64 feet; maximum length, 244 feet.

Gauge of track, 4 feet 8½ inches.

CAR MILEAGE.

This company pays mileage to the Southern Pacific Company for the use of cars.

STATE OF CALIFORNIA, }
 City and County of San Francisco. } ss.

I, Fred. A. Autenrieth, Secretary of the Yreka Railroad Company, on my oath do say that the foregoing return has been prepared, under my direction, from the original books, papers, and records of said company; that I have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of my knowledge, information, and belief; and I further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

FRED. A. AUTENRIETH,
 Secretary.

Subscribed and sworn to before me, this twenty-ninth day of October, 1894.

JAMES L. KING,

Notary Public in and for the City and County of San Francisco, State of California.

ARCATA AND MAD RIVER RAILROAD COMPANY.

HISTORY.

1. Name of common carrier making this report: Arcata and Mad River Railroad Company.
2. Date of organization: December 29, 1881.
3. Under laws of what Government, State, or Territory organized: State of California.

ORGANIZATION.

Names of Directors: F. Korbel, A. Korbel, J. Korbel, Anna Korbel, Theresa Korbel, all of San Francisco.

Date of expiration of terms of Directors: January, 1895.

Number of stockholders at date of last election: 5.

Last meeting of stockholders for election of Directors: January 3d.

Post Office address of general office: San Francisco.

Post Office address of operating office: Arcata.

OFFICERS.

Title.	Name.	Location of Office.
President	F. Korbel	San Francisco.
Secretary	J. Korbel	San Francisco.
Treasurer	A. Korbel	San Francisco.
Counsel	S. M. Buck	Eureka.
General Superintendent	V. Zaruba	Arcata.
General Freight Agent	W. Ogilby	Arcata.
General Passenger Agent	M. F. Wagner	Arcata.

PROPERTY OPERATED.

Name.	Terminals.	Miles.
Arcata and Mad River Railroad.....	{ Arcata Wharf to Korbel Korbel to Mad River.....	14 3/4

CAPITAL STOCK.

The total par value of authorized capital stock is \$300,000, divided into 15,000 shares, at \$20 per share. The total amount issued and outstanding is \$187,740. Dividends declared during year, \$6,589 70.

Manner of payment for capital stock: Number of shares issued, 9,387; cash realized on amount issued, \$187,740.

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.		Current Liabilities Accrued to and including June 30, 1894.	
Cash	\$279 97	Receiver's certificates.....	\$2,167 87
Bills receivable	6,480 57	Wages and salaries	526 99
		Balance—cash assets.....	4,065 68
Total	\$6,760 54	Total	\$6,760 54

RECAPITULATION.

Account.	Amount.
Capital stock outstanding.....	\$187,740 00
Current liabilities.....	2,694 86

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS.

Item.	Expenditures Included in Operating Expenses.	Permanent Improvements.	Total Cost to June 30, 1894.
Construction			\$131,987 46
Real estate			17,642 50
Fences		\$236 08	
Grading, and bridge and culvert masonry	\$1,940 45		
Buildings, furniture, and fixtures		842 92	
Shop machinery and tools			330 00
Engineering expenses			2,102 58
Telephone			186 00
Other items			2,198 40
Total construction	\$1,940 45	\$1,079 10	\$154,447 62
Equipment:			
All rolling stock			\$38,530 00
Floating equipment.....			3,050 00
Total equipment.....			\$41,580 00
Grand total cost construction, equipment, etc.			\$196,027 62

INCOME ACCOUNT.

Gross earnings from operation	\$57,526 01	
Less operating expenses	60,333 96	
Deficit	\$2,857 95	
Miscellaneous income, less expenses	19,133 24	
Total income		\$16,275 29
Deductions from income:		
Taxes	\$1,773 86	
Permanent improvements	1,079 10	
Other deductions	6,832 63	
Total deductions from income		9,685 59
Net income		\$6,589 70

EARNINGS FROM OPERATION.

Item.	Total Receipts.	Deductions, Etc.	Actual Earnings.
Passenger revenue	\$16,047 50		
Less deductions		\$2 50	
Total passenger revenue			\$16,045 00
Mail	\$1,849 76		1,849 76
Express	144 00		144 00
Total passenger earnings			\$18,038 76
Freight revenue	\$28,666 60	\$128 21	\$28,538 39
	18,275 95	7,327 09	10,948 86
Total freight earnings			\$39,487 25
Total gross earnings from operation			\$57,526 01

STOCK OWNED.

Name.	Par Value.	Income or Dividend Receipts.
9,387 shares	\$187,740 00	\$6,589 70

MISCELLANEOUS INCOME.

Item.	Gross Income.	Less Expenses.	Net Miscellaneous Income.
Waterworks	\$713 50	\$25 65	\$687 85
Rent of buildings, wharf, and land	5,018 42		5,018 42
Row-piling and storing lumber	7,363 45		7,363 45
Wharf crew	9,215 46	4,611 31	4,604 15
Interest	1,339 38	13 50	1,325 88
Commission	209 99	76 50	133 49
Totals	\$23,860 20	\$4,726 96	\$19,133 24

OPERATING EXPENSES.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of way and structures:			
Repairs of roadway	\$7,051 90	\$7,051 91	\$14,103 81
Repairs of bridges and culverts.....	1,015 34	1,015 35	2,030 69
Repairs of fences, road-crossings, signs, and cattle guards.....	104 37	104 37	208 74
Repairs of buildings.....	92 40	92 40	184 80
Repairs of docks and wharves.....		3,047 71	3,047 71
Repairs of telephone	45 00	48 00	93 00
Totals	\$8,309 01	\$11,359 74	\$19,668 75
Maintenance of equipment:			
Repairs and renewals of locomotives.....	\$448 30	\$448 30	\$596 60
Repairs and renewals of passenger and freight cars.....	1,057 15	1,057 15	2,114 30
Repairs and renewals of ferry-boats, tugs, floats, and barges.....	885 46	885 47	1,770 93
Shop machinery, tools, etc.....		322 27	322 27
Totals	\$2,390 91	\$2,713 19	\$5,104 10
Conducting transportation:			
Wages of enginemen, firemen, and round-housemen	\$2,105 63	\$2,105 64	\$4,211 27
Fuel of locomotives	1,161 54	1,161 55	2,323 09
Water supply for locomotives	24 00	24 00	48 00
All other supplies for locomotives.....	128 48	128 49	256 97
Wages of other trainmen.....	846 90	846 90	1,693 80
Wages of station agents, clerks, and laborers.....	330 00	330 00	660 00
Loss and damage		55 00	55 00
Barges, floats, tugs, ferry-boats, expenses of, including wages, fuel, and supplies.....	2,523 72	2,523 73	5,047 45
Totals	\$7,120 27	\$7,175 31	\$14,295 58
General expenses:			
Salaries of officers		\$15,000 00	\$15,000 00
Salaries of clerks	\$1,800 00	1,800 00	3,600 00
General office expenses and supplies.....		101 03	101 03
Advertising	90 00	85 00	175 00
Insurance	106 25	106 25	212 50
Legal expenses		250 00	250 00
Stationery and printing	35 00	35 33	70 33
Other general expenses		1,906 67	1,906 67
Totals	\$2,031 25	\$19,284 28	\$21,315 53
Recapitulation of expenses:			
Maintenance of way and structures	\$8,309 01	\$11,359 74	\$19,668 75
Maintenance of equipment.....	2,390 91	2,713 19	5,104 10
Conducting transportation	7,120 27	7,175 31	14,295 58
General expenses	2,031 25	19,284 28	21,315 53
Grand totals.....	\$19,851 44	\$40,532 52	\$60,383 96

ASSETS.

Assets.	June 30, 1894.
Cost of road.....	\$131,987 46
Cost of equipment.....	41,580 00
Permanent investments.....	2,198 40
Lands owned.....	17,972 50
Cash and current assets.....	279 97
Materials and supplies.....	4,945 05
Total	\$198,963 38

IMPORTANT CHANGES DURING THE YEAR.

During the winter 1,250 feet of track was washed away on the branch from Korbel to Mad River, which track had to be graded into the sidehill. On the main line, changed two sharp curves and filled up trestle work.

CONTRACTS, AGREEMENTS, ETC.

Agreement to carry express from Eureka to Arcata and Korbel.

Carry mail from Eureka to Arcata Wharf six times a week, twice a day; from Arcata to Korbel six times a week, twice a day.

Agreement to haul lumber from mills, unload, pile, and store the lumber on the wharf, with mills: Glendale, Warren Creek, Riverside, Shingle Mill Arcata Mill.

EMPLOYÉES AND SALARIES.

Class.	Number.	Total Yearly Compensation.	Average Daily Compensation.
General officers.....	5	\$15,000 00	\$41 10
General office clerks.....	2	1,680 00	6 10
Station agents.....	1	1,920 00	5 32
Other station men.....	1	660 00	1 83
Enginemen.....	3	2,820 00	7 83
Firemen.....	3	1,800 00	6 00
Conductors.....	1	960 00	2 66
Other trainmen.....	1	720 00	2 00
Carpenters.....	2	2,380 56	6 63
Section foremen.....	3	2,520 00	8 07
Other trackmen.....	12	8,496 00	27 20
Switchmen, flagmen, watchmen, and wharf foreman.....	1	960 00	3 08
Employés—account floating equipment.....	4	3,540 00	9 69
All other employés and laborers.....	5	3,741 22	11 95
Total (including general officers).....	44	\$47,197 78	\$139 46
Less general officers.....	5	15,000 00	41 10
Total (excluding general officers).....	39	\$32,197 78	\$98 36
Distribution of above:			
General administration.....	9	\$19,260 00	\$54 35
Maintenance of way and structures.....	15	11,016 00	35 27
Maintenance of equipment.....	2	2,380 56	6 63
Conducting transportation.....	18	14,541 22	43 21
Total (including general officers).....	44	\$47,197 78	\$139 46
Less general officers.....	5	15,000 00	41 10
Total (excluding general officers).....	39	\$32,197 78	\$98 36

PASSENGER AND FREIGHT, AND TRAIN MILEAGE.

Item.	Tonnage, Passengers, Etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue.....	29,382	
Total passenger revenue.....		\$16,045 00
Average amount received from each passenger.....		54.6
Total passenger earnings.....		18,038 76
Freight traffic:		
Number of tons carried of freight earning revenue.....	7,491½	
Total freight earnings.....		39,487 25
Passenger and freight revenue per mile of road.....		57,526 01
Gross earnings from operation.....		57,526 01
Expenses.....		60,333 96
Train mileage:		
Miles run by mixed trains.....	17,640	
Average number of freight cars in train.....	14	
Average number of loaded cars in train.....	14	
Average number of empty cars in train.....	14	
Average number of tons of freight on train.....	56	
Average number of tons of freight in each loaded car.....	4	

FREIGHT TRAFFIC MOVEMENT. (Company's material excluded.)

Commodity.	Originating on this Road—Tons.	From Connecting Roads—Tons.	Total Freight Tonnage.	Per Cent.
Products of agriculture:				
Grain		803 $\frac{3}{10}$	803 $\frac{3}{10}$	101 $\frac{3}{10}$
Flour		556 $\frac{2}{5}$	556 $\frac{2}{5}$	72 $\frac{2}{5}$
Potatoes	141 $\frac{3}{5}$		141 $\frac{3}{5}$	17 $\frac{3}{5}$
Peas	358 $\frac{1}{20}$		358 $\frac{1}{20}$	44 $\frac{1}{20}$
Products of animals:				
Wool	35 $\frac{1}{20}$		35 $\frac{1}{20}$	4 $\frac{1}{20}$
Hides and leather	132 $\frac{1}{10}$		132 $\frac{1}{10}$	16 $\frac{1}{10}$
Butter	153 $\frac{3}{10}$		153 $\frac{3}{10}$	19 $\frac{3}{10}$
Products of forest:				
Bolts	376 cords.			
Lumber	18,845,192 feet.			
Shingles	42,760,550.			
Shakes	1,529,200.			
Manufactures:				
Petroleum and other oils		149 $\frac{7}{10}$	149 $\frac{7}{10}$	18 $\frac{7}{10}$
Wines, liquors, and beers		202 $\frac{9}{10}$	202 $\frac{9}{10}$	25 $\frac{9}{10}$
Merchandise	1,428 $\frac{1}{2}$	3,529 $\frac{1}{2}$	4,958	61 $\frac{1}{2}$
Total tonnage	2,249 $\frac{2}{5}$	5,241 $\frac{4}{5}$	7,491 $\frac{1}{5}$	100.00

DESCRIPTION OF EQUIPMENT.

Item.	Total at End of Year.	With Train-Brake.
Locomotives:		
Passenger	1	1
Freight	3	3
Total locomotives	4	4
Cars in passenger service:		
Second-class passenger cars	3	3
Combination passenger cars	1	1
Totals	4	4
Cars in freight service:		
Box cars	3	3
Flat cars	160	18
Totals	163	21
Cars in company's service	22	22
Total cars owned	189	47

Locomotives are equipped with steam train-brake. Cars in passenger, freight, and company's service are equipped with hand-brake.

MILEAGE OF ROAD OPERATED.

Line in Use.	Main Line.	Branches and Spurs.	Total Mileage Operated.	Iron Rails.	Steel Rails.
Miles of single track	14	3 $\frac{1}{4}$	17 $\frac{1}{4}$	1 $\frac{3}{4}$	15 $\frac{1}{2}$
Miles of yard track and sidings	3 $\frac{3}{4}$		3 $\frac{3}{4}$	3 $\frac{3}{4}$	
Total mileage operated (all tracks)	17 $\frac{3}{4}$	3 $\frac{1}{4}$	21	5 $\frac{1}{2}$	15 $\frac{1}{2}$

MILEAGE OF LINE BY STATES AND TERRITORIES.

State or Territory.	Main Line.	Branches and Spurs.	Iron Rails.	Steel Rails.
California	14	7	5½	15½

RENEWALS OF TIES.

New Ties Laid During Year.	Number.	Average Price at Distributing Point.
Redwood	2,939	22 cents.
Pine	155	30 cents.
Total	3,094	

CONSUMPTION OF FUEL BY LOCOMOTIVES.

Locomotives.	Wood—Cords.	Total Fuel Consumed—Tons.	Miles Run.	Average Pounds Consumed per Mile.
Passenger	775 $\frac{7}{16}$	387 $\frac{11}{16}$	17,640	43.95
Freight				
Switching				
Construction				
Steamer	667	333½	7,506	99.12
Totals	1,442 $\frac{7}{16}$	721 $\frac{3}{16}$	25,146	143.07

Average cost at distributing point: Pine, \$3 25; redwood, \$1 75 per cord.

CHARACTERISTICS OF ROAD.

Working Divisions or Branches.	Miles.	Number of Curves.	Straight Line—Miles.
Arcata to Arcata Wharf	2	1	1¾
Arcata to Korbel	12	36	3
Korbel to Mad River	3¼	10	2
Eureka to Arcata Wharf	4½		
Totals	21¾	47	6¾

Running between Eureka and Arcata Wharf is a ferry-boat, carrying passengers, freight, express, and mail.

Telephone line: 3 miles long.

BRIDGES, TRESTLES, ETC.

Item.	Number.	Aggregate Length.	Minimum Length.	Maximum Length.
Bridges:				
Wooden	1	140 feet.		
Combination	1	750 feet.		
Totals	2	890 feet.		
Trestles	21	17,230 feet.	24 feet.	10,560 feet.

Overhead highway crossings: Trestles, 1. Gauge of track, 3 feet 9½ inches; miles, 21.

STATE OF CALIFORNIA,
 City and County of San Francisco. } ss.

We, the undersigned, F. Korbel, President, and J. Korbel, of the Arcata and Mad River Railroad Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

F. KORBEL,
 President.
 J. KORBEL,
 Secretary.

Subscribed and sworn to before me, this seventh day of August, 1894.

AUGUSTA W. DUSENBERG,

Notary Public in and for the City and County of San Francisco, State of California.

EEL RIVER AND EUREKA RAILROAD COMPANY.

HISTORY.

1. Name of common carrier making this report: Eel River and Eureka Railroad Company.
2. Date of organization: November 14, 1882.
3. Under what laws organized: Laws of the State of California.

ORGANIZATION.

Names of Directors.	Post Office Address.
John M. Vance	Eureka, Cal.
William Carson	Eureka, Cal.
E. P. Vance	Salmon Creek, Cal.
John Dolbeer	San Francisco, Cal.
J. N. Gillett	Eureka, Cal.
C. L. Rose	South Bay, Cal.
H. H. Buhne, Jr.	Eureka, Cal.

Date of expiration of term of Directors: January 8, 1895.

Total number of stockholders at date of last election: 7.

Date of last meeting of stockholders for election of Directors: Second Tuesday in January of each year.

Post Office address of general and operating office: Eureka, Cal.

OFFICERS.

Title.	Name.	Location of Office.
Chairman of the Board, and President.	John M. Vance	Eureka.
Vice-President	William Carson	Eureka.
Secretary	T. R. Lever	Eureka.
Treasurer	Humboldt County Bank	Eureka.
Auditors	J. N. Gillett, H. H. Buhne, and C. L. Rose	Eureka.
General Manager	John M. Vance	Eureka.
General Superintendent	C. L. Rose	South Bay.
General Ticket Agent	T. R. Lever	Eureka.
General Baggage Agent	A. G. Painter	Eureka.

PROPERTY OPERATED.

The Eel River and Eureka Railroad is operated by main line from Eureka to Burnells, a distance of 25 miles.

CAPITAL STOCK.

The total par value of authorized capital stock is \$1,200,000, divided into 12,000 shares of a par value of \$100 each. The total amount issued and outstanding is \$480,000. A dividend was declared at the rate of 2½ per cent, which amounted to \$12,000.

Manner of payment for capital stock: Issued for cash, 4,800 shares; amount realized, \$480,000.

FUNDED DEBT.

On October 1, 1883, and July 9, 1892, first mortgage bonds to the amount of \$600,000 were authorized to be issued. The amount issued and now outstanding is \$488,000, upon which amount but \$487,700 cash was realized. These bonds mature on December 1, 1903, and bear 6 per cent interest, payable semi-annually, in April and October. There accrued \$29,280 interest; interest to the amount of \$29,280 was paid.

RECAPITULATION OF FUNDED DEBT.

Class of Debt.	Amount Issued and Now Outstanding.
Mortgage bonds.....	\$488,000 00

Interest accrued during year, \$29,280; interest paid during year, \$29,280.

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.		Current Liabilities Accrued to and Including June 30, 1894.	
Cash.....	\$13,551 93	Audited vouchers and accounts..	\$5,334 84
Due from agents.....	4,942 87	Matured interest coupons unpaid (including coupons due July 1)-	7,320 00
		Balance—cash assets.....	5,839 96
Total.....	\$18,494 80	Total.....	\$18,494 80

Materials and supplies on hand, \$5,500.

RECAPITULATION.

Account.	Total Amount Outstanding.	Apportionment to Railroads.	Miles.	Amount per Mile of Road.
Capital stock.....	\$480,000 00	\$480,000 00	30	\$16,000 00
Bonds.....	488,000 00	488,000 00	30	16,266 66
Totals.....	\$968,000 00	\$968,000 00	30	\$32,266 66

INCOME ACCOUNT.

Gross earnings from operation.....	\$94,369 26	
Less operating expenses.....	68,413 02	
Total income.....		\$25,956 24
Deductions from income:		
Interest on funded debt accrued.....	\$29,280 00	
Permanent improvements.....	4,451 32	
Total deductions from income.....		34,731 32
Deficit.....		\$8,775 08
Dividends, 2½ per cent, common stock.....	\$12,000 00	

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS.

Item.	Permanent Improvements.	Construction or Equipment.	Total Cost to June 30, 1893.	Total Cost to June 30, 1894.	Cost per Mile Including Sidings.
Construction:					
Right of way.....			\$26,150 75	\$26,150 75	\$871 69
Other real estate.....	\$50 00		9,667 94	9,717 94	323 93
Fences.....	67 35		5,181 38	5,248 73	174 95
Grading, and bridge and culvert masonry.....	1,873 34		332,264 12	334,137 46	11,137 91
Bridges and trestles.....			11,137 97	11,137 97	371 26
Rails.....			164,013 01	164,013 01	5,467 10
Ties.....			7,906 10	7,906 10	263 53
Other superstructure.....			3,067 63	3,067 63	102 25
Buildings, furniture, and fixtures.....	748 98		36,059 66	36,808 64	1,226 95
Shop machinery and tools.....	179 01		1,971 56	2,150 57	71 68
Telegraph line.....			1,345 49	1,345 49	44 84
Wharfing, etc.....	1,342 26		14,813 35	16,155 61	538 52
Sidings and yard extensions.....			525 81	525 81	17 52
Other items.....	37 50		906 42	943 92	31 46
Total construction.....	\$4,298 44		\$615,011 19	\$619,309 63	
Equipment:					
Locomotives.....			\$27,567 35	\$27,567 35	\$918 91
Passenger cars.....			23,652 26	23,652 26	788 40
Baggage, express, and postal cars.....			221 99	221 99	7 73
Freight cars.....			8,515 04	8,515 04	283 83
Other cars of all classes.....	\$50 00		23,498 49	23,548 49	784 94
Floating equipment.....		102 88	5,864 02	5,966 90	198 89
Total equipment.....		\$152 88	\$89,319 15	\$89,472 03	
Grand total cost construction, equipment, etc.....	\$4,298 44	\$152 88	\$704,330 34	\$708,781 66	\$23,626 05

EARNINGS FROM OPERATION.

Item.	Actual Earnings.
Passenger revenue.....	\$29,150 83
Mail.....	2,468 40
Express.....	660 00
Extra baggage and storage.....	246 62
Total passenger earnings.....	\$32,525 85
Freight revenue.....	52,589 11
Other items.....	159 75
Total passenger and freight earnings.....	\$85,274 71
Other earnings from operation:	
Telephones.....	94 94
Rents.....	2,420 35
Wharfage.....	3,481 56
Miscellaneous.....	433 04
Ferriage.....	2,664 66
Total gross earnings from operation.....	\$94,369 26

OPERATING EXPENSES.

Items.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of way and structures:			
Repairs of roadway	\$7,543 71	\$7,543 71	\$15,087 42
Repairs of bridges and culverts	41 19	41 19	82 38
Repairs of fences, road-crossings, signs, and cattle guards	80 81	80 82	161 63
Repairs of buildings	281 95	281 95	563 90
Repairs of docks and wharves	13 80	13 80	27 60
Repairs of telegraph	132 37	132 37	264 74
Other expenses	823 99	824 00	1,647 99
-----	255 02	255 02	510 04
Totals	\$9,172 84	\$9,172 84	\$18,345 70
Maintenance of equipment:			
Repairs and renewals of locomotives	\$632 08	\$632 08	\$1,264 17
Repairs and renewals of passenger cars	235 62	235 62	471 24
Repairs and renewals of freight cars	108 32	108 32	216 64
Repairs and renewals of ferry-boats, tugs, floats, and barges	563 00	563 00	1,126 00
Shop machinery, tools, etc.	244 72	244 73	489 45
Other expenses	14 33	14 33	28 66
-----	92 79	92 79	185 58
Totals	\$1,890 86	\$1,890 88	\$3,781 74
Conducting transportation:			
Wages of enginemen, firemen, and round-housemen	\$2,245 04	\$6,735 13	\$8,980 17
Fuel for locomotives	1,646 70	4,940 11	6,586 81
Water supply for locomotives	12 50	37 50	50 00
All other supplies for locomotives	45 66	136 98	182 64
Wages of other trainmen	153 12	459 36	612 48
All other train supplies	13 80	41 40	55 20
Wages of switchmen, flagmen, and watchmen	109 34	328 02	437 36
Expense of telephone	56 26	168 80	225 80
Wages of station agents, clerks, and laborers	2,383 66	7,150 98	9,534 64
Station supplies	154 84	464 55	619 39
Loss and damage	7 50	-----	7 50
Injuries to persons	5,999 50	-----	5,999 50
Barges, floats, tugs, ferry-boats, expenses of, including wages, fuel, and supplies	614 54	614 54	1,229 08
Other expenses	263 08	789 24	1,052 32
Totals	\$13,705 54	\$21,866 61	\$35,572 15
General expenses:			
Salaries of officers	\$2,262 50	\$2,262 50	\$4,525 00
Advertising	204 20	204 20	408 40
Legal expenses	454 15	454 16	908 31
Stationery and printing	201 16	201 16	402 32
Taxes paid	2,234 70	2,234 70	4,469 40
Totals	\$5,356 71	\$5,356 72	\$10,713 43
Recapitulation of expenses:			
Maintenance of way and structures	\$9,172 84	\$9,172 86	\$18,345 70
Maintenance of equipment	1,890 86	1,890 88	3,781 74
Conducting transportation	13,705 54	21,866 61	35,572 15
General expenses	5,356 71	5,356 72	10,713 43
Grand totals	\$30,125 95	\$38,287 07	\$68,413 02

Percentage of operating expenses to earnings, 72.

COMPARATIVE GENERAL BALANCE SHEET.

June 30, 1894.	Assets.	June 30, 1894.
\$609,591 69	Cost of road	
89,472 03	Cost of equipment	
9,717 94	Lands owned	
18,494 80	Cash and current assets	
5,500 00	Materials and supplies	
	Profit and loss	\$732,776 46
\$732,776 46	Totals	\$732,776 46
June 30, 1894.	Liabilities.	June 30, 1894.
	Capital stock	\$480,000 00
	Funded debt	488,000 00
	Current liabilities	5,334 84
	Accrued interest on funded debt not yet payable	7,320 00
\$980,654 84	Profit and loss	
\$980,654 84	Totals	\$980,654 84

CONTRACTS, AGREEMENTS, ETC.

Contract with Wells, Fargo & Co.'s Express to carry treasure boxes and other express from Eureka to all express offices on the line of this road.

United States mails from Eureka and Hydesville, and way stations.

Freight contract with Pacific Lumber Company to transport lumber from Alton Junction to South Bay, and material for constructing and equipping their road.

Freight contract with Milford Land and Lumber Company to transport lumber from their Salmon Creek Mill to South Bay.

SECURITY FOR FUNDED DEBT.

Class of Bond or Obligation.	What Road Mortgaged.	Miles.	Mortgage per Mile of Line.
First mortgage	Eureka to Burnells	30	\$16,266 66

All equipment mortgaged.

EMPLOYÉS AND SALARIES.

Class.	Number.	Average Daily Compensation.
General officers	3	\$4 50
General office clerks	1	2 00
Station agents	12	2 00
Other station men	2	2 00
Enginemen	3	2 75
Firemen	3	1 80
Conductors	2	2 80
Other trainmen	5	2 25
Machinists	1	3 50
Carpenters	2	2 75
Section foremen	2	2 25
Other trackmen	12	2 00
Switchmen, flagmen, and watchmen	2	2 00
All other employés and laborers	9	2 00
Total (including general officers)	59	
Less general officers	3	
Total (excluding general officers)	56	

PASSENGER AND FREIGHT, AND TRAIN MILEAGE.

Item.	Tonnage, Passengers, Etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue	37,143	
Number of passengers carried one mile	668,574	
Average distance carried—miles	18	
Total passenger revenue		\$29,150 83
Average amount received from each passenger		78
Average receipts per passenger per mile		04
Total passenger earnings		29,150 83
Freight traffic:		
Number of tons carried of freight earning revenue	63,440	
Number of tons carried one mile	1,268,800	
Average distance haul of one ton—miles	20	
Total freight revenue		52,589 11
Average amount received for each ton of freight		82
Average receipts per ton per mile		04
Passenger and freight:		
Passenger and freight revenue		81,739 94
Passenger and freight revenue per mile of road		4,302 10
Gross earnings from operation		94,369 26
Gross earnings from operation per mile of road		4,966 80
Expenses		68,413 02
Expenses per mile of road		2,280 43
Train mileage:		
Miles run by passenger, freight, and mixed trains	56,100	

FREIGHT TRAFFIC MOVEMENT. (Company's material excluded.)

Commodity.	Originating on this Road— Tons.
Products of agriculture:	
Grain	1,230
Hay	844
Fruit and vegetables	544
Products of animals:	
Live stock	118
Poultry, game, and fish	513
Wool	207
Butter	1,706
Products of mines: Gravel	1,200
Products of forest:	
Lumber	16,019,779 feet.
Shingles	10,961,650
Shakes	4,783,569
Merchandise	5,392
Miscellaneous: Other commodities not mentioned above	1,902
Total tonnage	63,440

MILEAGE OF ROAD OPERATED.

Length of single track, 25 miles; length of yard track, sidings, and spurs, 5 miles; aggregate length of all tracks, 30 miles. Rails are steel.

CONSUMPTION OF FUEL BY LOCOMOTIVES.

In running 561 miles locomotives of mixed trains consumed 16.25 cords of soft wood; average cost at distributing point, \$3 50 per cord.

CHARACTERISTICS OF ROAD.

From Eureka to Burnells, 25 miles; number of curves, 52; aggregate length of curved line, 5,405 miles; length of straight line, 19,594 miles; length of level line, 8,742 miles; number of ascending grades, 12; sum of ascents, 208 feet; aggregate length of ascending grades, 11,930 miles; number of descending grades, 24; sum of descents, 90 feet; aggregate length of descending grades, 4,327 miles.

DESCRIPTION OF EQUIPMENT.

Item.	Total at End of Year.
Locomotives:	
Passenger	1
Freight	1
Switching	1
Total locomotives	3
Cars in passenger service:	
First-class passenger cars	3
Second-class passenger cars	4
Combination passenger cars	2
Total	9
Cars in freight service:	
Box cars	10
Flat cars	28
Total	38
Cars in company's service:	
Other road cars	115

All equipped with ordinary hand-brake and all equipment fitted with link coupler.

BRIDGES, TRESTLES, TUNNELS, ETC.

Item.	Number.	Aggregate Length.
Bridges:		
Wooden	1	60 feet.
Combination	1	60 feet.
Total	2	
Trestles	3	1,873 feet.
Tunnels	1	1,945 feet.

Overhead railway crossings: Trestles, 2; height above surface of rail, 22 feet.

Gauge of track: 4 feet 8½ inches.

Telegraph owned and operated by company making this report: 25 miles of line; 25 miles of wire.

STATE OF CALIFORNIA,)
 County of Humboldt.) ss.

We, the undersigned, John M. Vance, President, and T. R. Lever, Secretary, of the Eel River and Eureka Railroad Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

JOHN M. VANCE,
 President.
 T. R. LEVER,
 Secretary.

Subscribed and sworn to before me, this fourteenth day of August, 1894.

G. R. GEORGEON,
 Notary Public.

VISALIA AND TULARE RAILROAD COMPANY.

HISTORY.

1. Name of common carrier making this report: Visalia and Tulare Railroad Company.
2. Date of organization: November 4, 1887.
3. Under laws of what Government, State, or Territory organized: California.

ORGANIZATION.

Name of Directors.	Post Office Address.
Jasper Harrell	Visalia.
T. H. Thompson	Tulare.
J. Goldman	San Francisco.
V. D. Knapp	Visalia.
G. A. Botsford	Visalia.
A. J. Harrell	Visalia.
G. D. Smith	Visalia.

Date of expiration of terms of Directors: June 4, 1895.

Number of stockholders at date of last election: 11.

Last meeting of stockholders for election of Directors: June 4, 1894.

Office address of general and operating office: Visalia, California.

OFFICERS.

Title.	Name.	Location of Office.
President	Jasper Harrell	Visalia.
Vice-President	J. Goldman	San Francisco.
Secretary	A. J. Harrell	Visalia.
Treasurer	Producers' Bank	Visalia.
General Manager	A. J. Harrell	Visalia.
Chief Engineer	Geo. Wright	Tulare.
General Freight Agent	W. S. Hammond	Tulare.
General Passenger Agent	T. H. Thompson	Tulare.

PROPERTY OPERATED.

The Visalia and Tulare Railroad is operated by main line from Visalia to Tulare, a distance of 11½ miles.

CAPITAL STOCK.

The total par value of authorized capital stock is \$100,000, divided into 1,000 shares of a par value of \$100 each. The total amount issued and outstanding is \$60,000. No dividends were declared.

Manner of payment for capital stock: Total number of shares issued, 1,000; total cash realized, \$60,000.

FUNDED DEBT.

In 1888 an issue of first mortgage bonds to the amount of \$50,000 was authorized, and which amount is now outstanding. The amount realized was \$49,000. The bonds mature in 1898, and pay 7 per cent interest, payable semi-annually. The interest accruing during the year covered by this report amounted to \$3,500, of which sum \$1,750 was paid.

RECAPITULATION OF FUNDED DEBT.

Class of Debt.	Amount Issued and now Outstanding.
Mortgage bonds	\$50,000

Interest accrued during year, \$3,500; interest paid during year, \$1,750.

CURRENT LIABILITIES.

Current liabilities accrued to and including June 30, 1894: Loans and bills payable, \$16,571 12.

RECAPITULATION.

A. For Mileage Owned by Road Making this Report.

Account.	Amount Outstanding.	Apportionment to Railroads.	Miles of Road.	Amount Per Mile.
Capital stock.....	\$60,000	\$60,000	11½	\$5,217 39
Bonds.....	50,000	50,000	11½	4,347 82
Totals.....	\$110,000	\$110,000		

B. For Mileage Operated by Road Making this Report (Trackage Rights Excluded), the Operations of which are Included in the Income Account.

Name of Road.	Capital Stock.	Funded Debt.	Current Liabilities.	Total.	Miles of Road.	Amount per Mile.
Visalia and Tulare	\$60,000	\$50,000	\$16,571 12	\$126,571 12	11½	\$1,100 61

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS.

Item.	Total Cost to June 30, 1893.	Total Cost to June 30, 1894.
Construction:		
Right of way, all construction included.....	\$91,154 66	\$91,154 66
Other real estate.....	1,601 50	1,601 50
Buildings, furniture, and fixtures.....	2,612 12	2,612 12
Total construction.....	\$95,368 28	\$95,368 28
Equipment: Total cost of rolling stock.....	21,150 78	21,150 78
Grand total cost construction, equipment, etc.....	\$116,519 06	\$116,519 06

Total cost of construction per mile, \$8,292 88; grand total cost construction, equipment, etc., per mile, \$10,132 09.

INCOME ACCOUNT.

Gross earnings from operation.....	\$10,295 72	
Less operating expenses.....	9,341 89	
Income from operation.....		\$953 83
Deductions from income:		
Interest on funded debt—amount paid.....	\$1,750 00	
Interest on interest-bearing current liabilities accrued, not otherwise provided for.....	1,435 79	
Taxes.....	743 70	
Other deductions—legal expenses.....	8,690 30	
Total deductions from income.....		12,619 79
Deficit from operations of year ending June 30, 1894.....		\$11,665 96
Surplus on June 30, 1893.....		\$3,771 73

EARNINGS FROM OPERATION.

Item.	Actual Earnings.
Passenger revenue.....	\$9,218 00
Extra baggage and storage.....	105 65
Total passenger earnings.....	\$9,323 65
Freight revenue.....	972 07
Total passenger and freight earnings.....	\$10,295 72

OPERATING EXPENSES.

Item.	Total.
Maintenance of way and structures, all included:	
Repairs of roadway.....	\$2,670 09
Maintenance of equipment:	
Repairs of locomotives.....	\$268 61
Repairs and renewals of passenger cars.....	171 39
Total.....	\$440 00
Conducting transportation:	
Wages of enginemen, firemen, and conductors.....	\$2,874 21
Fuel for locomotives.....	1,277 50
Water supply for locomotives.....	120 00
All other supplies for locomotives.....	129 06
All other train supplies.....	55 74
Station supplies.....	12 00
Loss and damage.....	50 00
Injuries to persons.....	8,627 00
Other expenses.....	1,014 62
Total.....	\$14,160 13
General expenses:	
Salaries of officers.....	\$270 00
Advertising.....	51 00
Rents not otherwise provided for.....	288 00
Legal expenses.....	63 30
Stationery and printing.....	40 25
Other general expenses.....	49 42
Total.....	\$761 97
Recapitulation of expenses:	
Maintenance of way and structures.....	\$2,670 09
Maintenance of equipment.....	440 00
Conducting transportation.....	14,160 13
General expenses.....	761 97
Grand total.....	18,032 19

SECURITY FOR FUNDED DEBT.

Class of Bond or Obligation.	What Road Mortgaged.	Miles.
First mortgage.....	Visalia to Tulare.....	11½

All equipment mortgaged.

COMPARATIVE GENERAL BALANCE SHEET.

June 30, 1893.	Assets.	June 30, 1894.	June 30, 1894, Increase.
\$91,054 66	Cost of road	\$91,054 66	
21,150 78	Cost of equipment	21,150 78	
2,612 12	Buildings	2,612 12	
257 83	Bills receivable	257 83	
1,601 50	Lands owned	1,601 50	
-----	Assessments unpaid	2,000 00	\$2,000 00
1,411 34	Profit and loss	11,665 96	10,254 62
\$118,088 23	Totals	\$130,342 85	\$12,254 62

June 30, 1893.	Liabilities.	June 30, 1894.	June 30, 1894, Increase.	June 30, 1894, Decrease.
\$50,000 00	Capital stock	\$60,000 00	\$10,000 00	
50,000 00	Funded debt	50,000 00	-----	
12,905 16	Current liabilities	16,571 12	3,665 96	
5,183 07	Surplus	3,771 73	-----	\$1,411 34
\$118,088 23	Totals	\$130,342 85	\$13,665 96	\$1,411 34

EMPLOYÉS AND SALARIES.

Class.	Number.	Total days Worked.	Yearly Com- pensation.	Average Daily Compensation.
General officers	1	270	\$270 00	\$1 00
Enginemen	1	365	1,175 21	3 22
Firemen and roundhousemen	1	365	690 00	1 89
Conductors	1	365	1,009 00	2 71
Section foremen	1	312	820 00	2 62
Other trackmen not regular employés	-----	-----	1,447 10	-----
Totals (including general officers)	5	-----	\$5,411 31	\$11 44

PASSENGER AND FREIGHT, AND TRAIN MILEAGE.

Item.	Tonnage, Passengers, Etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue	18,219	
Average distance carried—miles	11½	
Total passenger revenue		\$9,218 00
Average amount received from each passenger		55.06
Average receipts per passenger per mile		04.83
Total passenger earnings		9,323 65
Passenger earnings per train-mile		810 75.2
Freight traffic:		
Number of tons carried of freight earning revenue	796	
Average distance haul of one ton—miles	11½	
Total freight revenue		972 07
Average amount received for each ton of freight		99.5
Estimated cost of carrying one ton one mile		08.65
Total freight earnings		972 07
Freight earnings per train-mile		845 27
Passenger and freight:		
Passenger and freight revenue		10,295 72
Passenger and freight revenue per mile of road		895 28
Passenger and freight earnings		10,295 72
Passenger and freight earnings per mile of road		895 28
Expenses—legal expenses included		18,032 19
Expenses per mile of road		1,568 01

FREIGHT TRAFFIC MOVEMENT. (Company's material excluded.)

Commodity.	Originating on this Road—Tons.	Received from Connecting Roads—Tons.
Products of agriculture:		
Grain	15	-----
Flour	57	-----
Fruit and vegetables	10	-----
Products of animals:		
Live stock		10
Dressed meats	2	-----
Hides and leather		3
Products of mines:		
Stone, sand, and other like articles		10
Products of forest:		
Lumber		106
Wood	32	-----
Manufactures:		
Petroleum and other oils		30
Naval stores		15
Castings and machinery	14	35
Cement, brick, and lime	74	-----
Wagons, carriages, tools, etc.		20
Wines, liquors, and beers		10
Household goods, and furniture		20
Merchandise		80
Miscellaneous: other commodities not mentioned above		181
Articles not kept separate		72
Total tonnage	204	592

The entire freight movement over the road was 796 tons.

DESCRIPTION OF EQUIPMENT.

Item.	Total at End of Year.
Locomotives:	
Passenger	2
Cars in passenger service:	
First-class passenger cars	3

The Southern Pacific furnishes us with cars as we need them.

MILEAGE OF ROAD OPERATED.

Miles of single track, main line, 11½ miles; steel rails, 30 lbs.

CONSUMPTION OF FUEL BY LOCOMOTIVES.

The passenger locomotives in running 251.85 miles burned 3.65 cords of hard wood. The average cost of wood at distributing point, \$3 50 per cord.

CHARACTERISTICS OF ROAD.

Visalia to Tulare: Length, 11½ miles; number of curves, 4; aggregate length of curved line, 1½ miles; length of straight line, 10 miles; length of level line, 11½ miles.

Bridges: Wooden; aggregate length, 208 feet; minimum length, 16 feet; maximum length, 32 feet.

Gauge of track: 4 feet 8½ inches; length, 11½ miles.

STATE OF CALIFORNIA, }
 County of Tulare. } ss.

We, the undersigned, Jasper Harrell, President, and A. J. Harrell, Secretary, of the Visalia and Tulare Railroad Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

JASPER HARRELL,
 President.
 A. J. HARRELL,
 Secretary.

Subscribed and sworn to before me, this twenty-fourth day of July, 1894.

G. A. BOTSFORD,
 Notary Public.

VISALIA RAILROAD COMPANY.

HISTORY.

1. Name of common carrier making this report: Visalia Railroad Company.
2. Date of organization: May 24, 1874.
3. Under laws of what Government, State, or Territory organized: State of California.

ORGANIZATION.

Names of Directors.	Post Office Address.
R. E. Hyde.....	..... Visalia.
S. Sweet.....	..... San Francisco.
E. Jacob.....	..... Visalia.
L. C. Hyde.....	..... Visalia.
S. Mitchell.....	..... Visalia.

Date of expiration of term of Directors: June 16, 1895.
 Number of stockholders at date of last election: 5.
 Last meeting of stockholders for election of Directors: June 16, 1894.
 Post Office address of general and operating office: Visalia.

OFFICERS.

Title.	Name.	Location of Office.
President.....	R. E. Hyde.....	..... Visalia.
Vice-President.....	S. Sweet.....	..... San Francisco.
Secretary.....	Julius Levy.....	..... Visalia.
Treasurer.....	E. Jacob.....	..... Visalia.

PROPERTY OPERATED.

Name.	Terminals.	Miles.
Visalia Railroad.....	Visalia to Goshen.....	7 3/8

CAPITAL STOCK.

The total par value of authorized capital stock is \$100,000, divided into 1,000 shares of \$100 each. The total amount issued and outstanding is \$82,025.

RECAPITULATION.

For Mileage Owned by Road Making this Report.

Account.	Amount Outstanding.	Miles.	Amount per Mile of Road.
Capital stock	\$100,000 00	7 $\frac{5}{8}$	\$23,808 20

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS.

Item.	Permanent Improvements During Year.	Construction or Equipment During Year.
Construction:		
Real estate	\$5,600 00	
Rails		\$2,047 60
Ties		4,080 65
Buildings, furniture, and fixtures	3,872 90	
Engineering expenses		583 00
Telegraph line		103 50
Total construction	\$9,472 90	\$6,814 81
Equipment:		
Baggage, express, and postal cars—painting	\$264 75	

Grand total cost of construction, equipment, etc., to June 30, 1893, \$151,329 26; expenditures during year, \$16,552 46; total cost to June 30, 1894, \$167,881 72.

INCOME ACCOUNT.

Gross earnings from operation	\$17,186 69	
Less operating expenses	9,683 00	
Income from operation		\$7,503 69
Surplus on June 30, 1893		\$107,503 69
Deficit on June 30, 1894		288,485 41

EARNINGS FROM OPERATION.

Item.	Actual Earnings.
Passenger revenue	\$7,661 25
Mail	283 96
Express	660 00
Total passenger earnings	\$8,605 21
Freight revenue	8,581 48
Total passenger and freight earnings	\$17,186 69

STOCKS OWNED.

Name.	Par Value.
R. E. Hyde	\$43,500 00
S. Sweet	31,100 00
E. Jacob	24,700 00
L. C. Hyde	400 00
S. Mitchell	300 00

MISCELLANEOUS INCOME.

Item.	Gross Income.	Less Expenses.
Fares	\$7,661 25	
Freights	8,581 48	
Mail	283 96	
Express	660 00	
Salaries		\$6,958 00
Cars to Southern Pacific Railroad		1,031 00
Full		944 00
Station supplies		500 00
Totals	\$17,186 69	\$9,433 00

OPERATING EXPENSES.

Item.	Total.
Conducting transportation:	
Wages of enginemen, firemen, and roundhousemen	\$1,320 00
Fuel for locomotives	944 00
Wages of other trainmen	3,360 00
Wages of switchmen, flagmen, and watchmen	978 00
Wages of station agents, clerks, and laborers	1,300 00
Station supplies	500 00
Car mileage—balance	1,031 00
Total	\$9,433 00
General expenses:	
Legal expenses	\$100 00
Stationery and printing	150 00
Total	\$250 00
Recapitulation of expenses:	
Conducting transportation	\$9,433 00
General expenses	250 00
Grand total	\$9,683 00

GENERAL BALANCE SHEET.

Assets.	June 30, 1894.
Cost of road	\$167,616 97
Cost of equipment	264 75
Stocks of other companies owned	100,000 00
Lands owned	9,100 00
Materials and supplies	4,000 00
Grand total	\$288,485 41
Liabilities.	June 30, 1894.
Capital stock	\$100,000 00
Profit and loss	7,509 69
Grand total	\$107,509 69

IMPORTANT CHANGES DURING THE YEAR.

Extended road $\frac{1}{2}$ mile.

EMPLOYÉS AND SALARIES.

Class.	Number.	Total Yearly Compensation.
General officers	3	None.
Station agents	1	\$1,200 00
Enginemen	1	1,320 00
Conductors	1	900 00
Section foreman	1	1,080 00
Other trackmen	4	1,558 00
All other employés and laborers		900 00
Total (including general officers)	11	\$6,958 00
Less general officers	3	
Total (excluding general officers)	8	

PASSENGER AND FREIGHT, AND TRAIN MILEAGE.

Item.	Tonnage, Number Pas- sengers, Etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers	14,322	
Average distance carried—miles	7½	
Total passenger revenue		\$7,661 25
Average amount received from each passenger		50
Average receipts per passenger per mile		07
Total passenger earnings		8,605 21
Freight traffic:		
Number of tons carried of freight earning revenue	10,096	
Total freight revenue		8,581 48
Average amount received for each ton of freight		85
Average receipts per ton per mile		12
Total freight earnings		8,581 48
Passenger and freight:		
Passenger and freight earnings		17,186 69

FREIGHT TRAFFIC MOVEMENT. (Company's material excluded.)

Commodity.	Originating on this Road—Tons.	Received from Connecting Roads—Tons.
Products of agriculture:		
Grain	493	20
Flour		256
Hay	124	
Fruit and vegetables	895	
Products of animals:		
Live stock	2,015	
Hides and leather	10	
Charcoal	62	48
Products of forest:		
Lumber		1,151
Manufactures:		
Petroleum and other oils		79½
Sugar		70
Cement, brick, and lime		68
Agricultural implements		30
Wagons, carriages, tools, etc.		24½
Wines, liquors, and beers	120	269
Household goods and furniture	60	30
Merchandise	1,037	2,451
Miscellaneous: other commodities not mentioned above	165	618
Total tonnage	4,981	5,115

Total freight tonnage, 10,096.

CONTRACTS, AGREEMENTS, ETC.

Carry express at \$5 per ton. Mail at Government price. No contract with any transportation companies, railroad, steamboat, telegraph, or telephone.

DESCRIPTION OF EQUIPMENT.

Item.	Total at End of Year.
Locomotive:	
Passenger, freight, and switching.....	3
Cars in passenger service:	
Second-class passenger cars.....	1
Combination passenger cars.....	1
Total.....	2

MILEAGE OF ROAD OPERATED.

Line in Use.	Main Line.	Branches and Spurs.
Miles of single track.....	7½	
Miles of yard track and sidings.....		½

RENEWALS OF RAILS AND TIES.

New rails laid during year: Steel, 41 tons; weight per yard, 50 pounds; average price per ton at distributing point, \$50.

New ties laid during year: Redwood and cedar, 4,000; average price at distributing point, 37 cents.

CONSUMPTION OF FUEL BY LOCOMOTIVES.

Locomotives—passenger, freight, switching, and construction—consumed, 9.44 cords of hard wood in running 48 miles.

CHARACTERISTICS OF ROAD.

From Visalia to Goshen, 7½ miles.

Telegraph: 7½ miles of line owned and operated by this company.

CAR MILEAGE.

This company pays mileage to the Southern Pacific Railroad Company for the use of its cars.

STATE OF CALIFORNIA,)
County of Tulare.) ss.

We, the undersigned, R. E. Hyde, President, and Julius Levy, Secretary, of the Visalia Railroad Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing herein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

R. E. HYDE,
President.
JULIUS LEVY,
Secretary.

Subscribed and sworn to before me, this twenty-eighth day of July, 1894.

C. J. GIDDINGS,
Notary Public, Tulare County, Cal.

SOUTHERN CALIFORNIA RAILWAY COMPANY.

HISTORY.

1. Name of common carrier making this report: Southern California Railway Company.
2. Date of organization: November 7, 1889.
3. Under laws of what Government, State, or Territory organized: Under the general statutes of California.
4. Names of constituent companies:

Names of Companies.	Date of Incorporation.
California Southern Railroad Company	January 10, 1882.
California Central Railway Company	May 20, 1887.
Redondo Beach Railway Company	April 23, 1888.
San Bernardino and Eastern Railway Company	August 11, 1890.
Santa Fe and Santa Monica Railway Company	April 4, 1892.

5. Date and authority for each consolidation: Charters filed with the Secretary of the State of California, November 7, 1889, and June 27, 1892.

ORGANIZATION.

Names of Directors.	Post Office Address.
J. W. Reinhart	New York, N. Y.
Geo. C. Magoun*	New York, N. Y.
John J. McCook	New York, N. Y.
K. H. Wade	Los Angeles, Cal.
D. Freeman	Los Angeles, Cal.
H. W. Hellman	Los Angeles, Cal.
T. D. Stinson	Los Angeles, Cal.
Simon Levi	San Diego, Cal.
R. Egan	Capistrano, Cal.
J. N. Victor	San Bernardino, Cal.
L. C. Waite	Riverside, Cal.

* Deceased, December, 1893.

Date of expiration of term of Directors: November 1, 1894.

Number of stockholders at date of last election: 338.

Last meeting of stockholders for election of Directors: November 2, 1893.

Post Office address of general office: Los Angeles, California, and Boston, Massachusetts.

Post Office address of operating office: Los Angeles, California.

OFFICERS,

Title.	Name.	Location of Office.
Chairman of the Board	Geo. C. Magoun	New York.
President	J. W. Reinhart	New York.
Vice-President	D. B. Robinson	Chicago.
Secretary	L. C. Deming	Boston.
Treasurer, Ass't Sec'y, and Tax Com.	G. Holterhoff, Jr.	Los Angeles.
Assistant Treasurer	Geo. L. Goodwin	Boston.
General Solicitor	Geo. R. Peck	Chicago.
General Counsel	John J. McCook	New York.
Solicitor	W. J. Hansaker	Los Angeles.
Comptroller	John P. Whitehead	Boston.
General Auditor	W. K. Gillett	Chicago.
Assistant General Auditor	W. A. Burroughs	New York.
Auditor	H. C. Whitehead	Los Angeles.
General Manager	K. H. Wade	Los Angeles.
Chief Engineer	F. T. Perris	San Bernardino.
Superintendent	W. B. Beamer	Los Angeles.
Train Master	J. L. Hibbard	Los Angeles.

OFFICERS—Continued.

Title.	Name.	Location of Office.
Superintendent of Telegraph.....	W. A. McGovern.....	Los Angeles.
Freight Traffic Manager.....	J. A. Hanley.....	Chicago.
Passenger Traffic Manager.....	W. F. White.....	Chicago.
General Freight Agent.....	S. B. Hynes.....	Los Angeles.
General Passenger Agent.....	H. G. Thompson.....	Los Angeles.
Ass't General Passenger Agent.....	H. K. Gregory.....	Los Angeles.
General Baggage Agent.....	P. Walsh.....	Topeka.
Division Baggage Agent.....	H. Isaacs.....	Los Angeles.

PROPERTY OPERATED.

Name.	Terminals.	Miles of Line for Each Road.	Miles of Line for Each Class of Roads.
Southern California Railway.	1 A—Barstow to National City.....	210.61	396.30
	San Bernardino to Los Angeles..	61.91	
	Los Angeles to Los Angeles J'ct..	83.10	
	East Riverside to Orange.....	40.68	
	1 B—Perris to San Jacinto.....	19.38	94.63
	Escondido J'ct to Escondido....	21.23	
	San Bernardino to Mentone.....	12.50	
	Balona J'ct to Santa Monica J'ct.	12.46	
	Santa Monica Junction to Santa Monica.....	5.42	
	Inglewood to Redondo Beach....	10.81	
Highland Junction to Mentone..	12.88		
Total.....			490.98

CAPITAL STOCK.

Description.	Shares Authorized.	Par Value of Shares.	Par Value Authorized.	Amount Issued and Outstanding.
Capital stock—Common.....	93,250	\$100	\$9,325,000	\$6,732,000
Preferred.....	80,000	100	8,000,000	6,072,000
Totals.....	173,250		\$17,325,000	\$12,804,000
Manner of Payment for Capital Stock.				Number of Shares Issued.
Issued for consolidation—Common.....				67,320
Preferred.....				60,720
Total.....				128,040

Common stock issued share for share for stock of California Central Railway Company and Redondo Beach Railway Company. Preferred stock issued share for share for stock of the California Southern Railroad Company.

FUNDED DEBT.

Class of Bond or Obligation, and Date of Issue and Maturity.	Authorized Issue.	Amount Issued.	Amount Outstanding.	Cash Realized on Amount Issued.
California Southern R. R. Co. first mortgage bonds—Jan. 12, 1882; Jan. 1, 1922-----	\$3,101,000	\$3,101,000	\$1,000	See remarks.
California Southern R. R. Co. first mortgage bonds—Jan. 1, 1886; March 1, 1926-----	2,106,000	2,106,000	2,056,000	\$2,056,000
California Central Ry. Co. first mortgage bonds—June 1, 1887; June 1, 1932-----	6,457,000	6,457,000	6,457,000	See remarks.
Redondo Beach Ry. Co. first mortgage bonds—June 1, 1888; June 1, 1932-----	270,000	270,000	270,000	See remarks.
California Southern R. R. Co. income bonds—March 1, 1886; March 1, 1926-----	3,505,000	{ 3,497,000 *3,740	{ 3,497,000 *3,740	{ Seerem'rks.
Totals-----	\$15,439,000	\$15,434,740	\$12,234,740	-----

Class of Bond or Obligation.	Rate.	Payable.	Interest Accrued During Year.	Interest Paid During Year.
California Southern Railroad Company first mortgage bonds-----	6	-----	None.	-----
California Southern Railroad Company first mortgage bonds-----	6	Jan. and July.	\$123,360	None.
California Central Railway Company first mortgage bonds-----	6	June and Dec.	152,880	None.
Redondo Beach Railway Company first mortgage bonds-----	6	June and Dec.	6,480	None.
California Southern Railroad Company income bonds-----	6	Mar. and Sept.	-----	Interest payable only if earned—non-cumulative.
Total-----	-----	-----	\$282,720	

* Scrip.

The California Southern Railroad Company first mortgage bonds of 1882 were sold in blocks, together with \$3,036,000 California Southern Railroad Company capital stock, for \$3,324,000.

The California Central Railway Company first mortgage bonds were issued, together with \$5,051,000 capital stock, under contract for construction of road.

The Redondo Beach Railway Company first mortgage bonds were issued, together with \$275,000 capital stock, for construction of the road of that company.

The California Southern Railroad Company income bonds were issued in exchange for that company's first mortgage bonds of 1882, and in payment of accrued interest on same.

The interest on \$2,548,000 California Central Railway Company first mortgage bonds and \$108,000 Redondo Beach Railway Company first mortgage bonds only accrued, the balance of those issues participating in the income equally with the income bonds from date of consolidation, November 1, 1889, in accordance with agreement of Atchison, Topeka, and Santa Fe Railroad Company (owner of said bonds) with the security holders of California Southern Railroad Company.

EQUIPMENT TRUST OBLIGATIONS.

A. General Statement.

Series or Other Designation.	Date of Issue.	Term.	Number of Payments.	Equipment Covered.
Equipment lease warrants-----	Dec. 20, 1893	*	30	4 locomotives.

* Two years and six months after date of delivery of the locomotives, which occurred Feb. 27, 1891.

B. Statement of Amount.

Series or Other Designation.	Deferred Payments— Principal.	
	Original Amount.	Amount Outstanding.
Equipment lease warrants	\$43,421 70	\$37,632 14

There was no cash paid on delivery of equipment. No interest outstanding.

RECAPITULATION OF FUNDED DEBT.

Class of Debt.	Amount Issued.	Amount Outstanding.	Interest Acrued During Year.
Mortgage bonds.....	\$11,934,000 00	\$8,784,000 00	\$282,720 00
Miscellaneous obligations.....	43,421 70	37,632 14	-----
Income bonds.....	3,500,740 00	3,500,740 00	None.
Totals	\$15,478,161 70	\$12,322,372 14	\$282,720 00

No interest paid during year.

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.		Current Liabilities Accrued to and Including June 30, 1894.	
Cash	\$112,699 91	Audited vouchers and accounts	\$131,997 03
Bills receivable.....	1,484 65	Wages and salaries.....	94,884 56
Due from agents.....	20,211 16	Net traffic balances due to other companies.....	92,205 45
Due from solvent companies and individuals.....	55,716 50	Matured interest coupons unpaid	1,380,965 00
A., T. & S. F. R. R. Co.	669,333 92	Total	\$1,700,052 04
Balance—current liabilities ..	840,605 90		
Total	\$1,700,052 04		

Materials and supplies on hand, \$79,280 77.

RECAPITULATION.

A. For Mileage Owned by Road Making this Report.

Account.	Amount Outstanding.	Apportionment to Railroads.	Miles.	Amount per Mile of Road.
Capital stock	\$12,804,000 00	----- All	} 490.98 }	\$26,078 45
Bonds	12,284,740 00	----- All		25,020 86
Equipment trust obligations.....	37,632 14	----- All		76 65
Totals.....	\$25,126,372 14	----- All	490.98	\$51,175 96

B. For Mileage Operated by Road Making this Report (Trackage Rights Excluded), the Operations of which are Included in the Income Account.

Name of Road.	Capital Stock.	Funded Debt.	Current Liabilities.	Total.	Miles.	Amount per Mile of Road.
Southern California Ry.	\$12,804,000	\$12,322,372 14	\$1,700,052 04	\$26,826,424 18	490.98	\$54,638 53

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS.

Item.	Permanent Improvements During Year.	Construction or Equipment During Year.	Total Cost to June 30, 1893.	Total Cost to June 30, 1894.
Construction:				
Right of way	\$4,307 31	\$466 01	\$42,408 64	\$42,874 65
Fences	565 59		28,298 42	28,298 42
Grading, and bridge and culvert masonry	677 47	57 67	1,469,586 63	1,469,644 30
Bridges and trestles	327 49		348,100 59	348,100 59
Rails	Cr. 4,397 91		1,343,164 72	1,343,164 72
Ties	Cr. 796 25		352,598 75	352,598 75
Other superstructure	337 63	23 66		
Buildings, furniture, and fixtures	18,639 39	265 97	295,608 50	295,874 47
Shop machinery and tools	4,514 81		156,971 30	156,971 30
Engineering expenses			150,040 63	150,040 63
Interest and discount—account construction			3,629,022 75	3,629,022 75
Telegraph line	25 00		14,190 87	14,190 87
Wharfing, etc.	Cr. 1,045 00		221,286 71	221,286 71
Sidings and yard extensions	15,408 38	672 36	163,761 79	164,434 15
Road built by contract			16,059,587 27	16,059,587 27
Other items	12,447 73	23 66	557,577 43	557,601 09
Total construction	\$51,011 64	\$1,485 67	\$24,832,205 00	\$24,833,690 67
Equipment:				
Locomotives	\$471 46		\$227,019 83	\$227,019 83
Passenger cars	87 22		59,739 73	59,739 73
Baggage, express, and postal cars			12,139 57	12,139 57
Combination cars			22,806 57	22,806 57
Freight cars			106,741 65	106,741 65
Floating equipment			38,398 03	38,398 03
Total equipment	\$558 68		\$466,845 38	\$466,845 38
Grand total cost construction, equipment, etc.	\$51,570 32	\$1,485 67	\$25,299,050 38	\$25,300,536 05

Cost per mile for construction, \$50,579 84; cost per mile for equipment, \$950 84; total cost per mile for construction, equipment, etc., \$51,530 68.

INCOME ACCOUNT.

Gross earnings from operation	\$2,121,204 58	
Less operating expenses	1,690,616 69	
Income from operation		\$430,587 89
Miscellaneous income, less expenses		550 00
Total income		\$431,137 89
Deductions from income:		
Interest on funded debt accrued	\$282,720 00	
Interest on interest-bearing current liabilities accrued, not otherwise provided for	9,606 55	
Taxes	79,043 69	
Permanent improvements	51,570 32	
Total deductions from income		422,940 56
Net income		\$8,197 33
Deficit on June 30, 1893		614,352 23
Additions for year		\$606,154 90
Deficit on June 30, 1894		7,093 07
		\$599,061 83

EARNINGS FROM OPERATION.

Item.	Total Receipts.	Deductions, Etc.	Actual Earnings.
Passenger revenue	\$837,455 53		
Less tickets redeemed		\$2,830 37	
Excess fares refunded		2,911 97	
Other repayments		1,628 88	
Total deductions		\$7,371 22	
Total passenger revenue			\$830,084 31
Mail			58,144 27
Express			46,293 05
Extra baggage and storage			20,445 59
Other items			10,252 19
Total passenger earnings			\$965,219 41
Freight:			
Freight revenue	\$1,131,725 55		
Less overcharge to shippers		\$100,936 48	
Other repayments		2,863 02	
Total deductions		\$103,799 50	
Total freight revenue			\$1,027,926 05
Other items			95,170 21
Total freight earnings			\$1,123,096 26
Total passenger and freight earnings			\$2,088,315 67
Other earnings from operation:			
Switching charges—balance			\$9,379 42
Telegraph companies			6,146 13
Rents not otherwise provided for			7,253 34
Other sources			10,110 02
Total other earnings			\$32,888 91
Total gross earnings from operation			\$2,121,204 58

STOCKS OWNED.

Name.	Par Value.	Valuation.
Marine Railway and Dry Dock Company (146 shares)	\$14,600 00	\$15,257 00
San Antonio Water Company (6 shares)	600 00	34 90
Santa Ana Valley Irrigation Company (4½ shares)	22 50	4 50
Totals	\$15,222 50	\$15,296 40

No income derived from the stocks.

MISCELLANEOUS INCOME.

Item.	Net Miscellaneous Income.
Donation for depot at Val Verde	\$550 00

OPERATING EXPENSES.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of way and structures:			
Repairs of roadway.....	\$94,861 34	\$56,112 46	\$150,973 80
Renewals of ties.....	19,025 33	11,286 78	30,312 11
Repairs of bridges and culverts.....	25,150 17	15,172 53	40,322 70
Repairs of fences, road-crossings, signs, and cattle guards.....	572 84	349 75	922 59
Repairs of buildings.....	9,133 73	5,360 20	14,493 93
Repairs of docks and wharves.....		914 27	914 27
Repairs of telegraph.....	1,090 72	639 37	1,730 09
Other expenses.....	8,528 03	5,052 75	13,580 78
Totals.....	\$158,362 16	\$94,888 11	\$253,250 27
Maintenance of equipment:			
Repairs and renewals of locomotives.....	\$58,769 46	\$35,178 58	\$93,948 04
Repairs and renewals of passenger cars.....	24,722 08		24,722 08
Repairs and renewals of freight cars.....		32,988 16	32,988 16
Shop machinery, tools, etc.....	1,292 49	771 17	2,063 66
Other expenses.....	2,649 75	1,571 27	4,221 02
Totals.....	\$87,433 78	\$70,509 18	\$157,942 96
Conducting transportation:			
Wages of enginemen, firemen, and round-housemen.....	\$93,649 64	\$50,787 81	\$144,437 45
Fuel for locomotives.....	235,921 28	210,005 42	445,926 70
Water supply for locomotives.....	8,764 46	5,221 10	13,985 56
All other supplies for locomotives.....	4,618 47	3,264 58	7,883 05
Wages of other trainmen.....	67,268 69	50,779 77	118,048 46
All other train supplies.....	26,817 40	8,065 71	34,883 11
Wages of switchmen, flagmen, and watchmen.....	23,244 75	13,835 79	37,080 54
Expense of telegraph, including train dispatchers and operators.....	20,494 05	12,147 26	32,641 31
Wages of station agents, clerks, and laborers.....	44,361 57	60,288 73	104,650 30
Station supplies.....	3,776 96	2,430 76	6,207 72
Car mileage—balance.....	69,484 87	57,541 03	127,025 90
Loss and damage.....	2,727 98	11,267 12	13,995 10
Injuries to persons.....	1,870 60	1,698 01	3,568 61
Other expenses.....	5,348 17	8,480 10	13,828 27
Totals.....	\$608,348 89	\$495,813 19	\$1,104,162 08
General expenses:			
Salaries of officers.....	\$19,264 04	\$14,122 49	\$33,386 53
Salaries of clerks.....	30,190 55	26,472 40	56,662 95
General office expenses and supplies.....	4,977 65	3,124 90	8,102 55
Agencies, including salaries and rent.....	13,363 51	11,158 58	24,522 09
Advertising.....	11,296 21	158 11	11,454 32
Commissions.....	9,313 04		9,313 04
Insurance.....	2,636 74	1,563 26	4,200 00
Expense of traffic associations.....	65 59	365 74	431 33
Expense of stock yards and elevators.....		10 00	10 00
Rents not otherwise provided for.....	288 34	228 66	517 00
Legal expenses.....	9,431 62	5,649 99	15,081 61
Stationery and printing.....	6,534 08	4,884 88	11,418 96
Other general expenses.....	104 33	56 67	161 00
Totals.....	\$107,465 70	\$67,795 68	\$175,261 38
Recapitulation of expenses:			
Maintenance of way and structures.....	\$158,362 16	\$94,888 11	\$253,250 27
Maintenance of equipment.....	87,433 78	70,509 18	157,942 96
Conducting transportation.....	608,348 89	495,813 19	1,104,162 08
General expenses.....	107,465 70	67,795 68	175,261 38
Grand totals.....	\$961,610 53	\$729,006 16	\$1,690,616 69
Percentage of operating expenses to earnings.....	99.63	64.91	79.70

COMPARATIVE GENERAL BALANCE SHEET.

June 30, 1893.	Assets.	June 30, 1894.	June 30, 1894— Increase.	June 30, 1894— Decrease.
\$24,832,205 00	Cost of road	\$24,833,690 67	\$1,485 67	
466,845 38	Cost of equipment	466,845 38		
14,631 15	Stocks of other companies owned	15,296 40	665 25	
	Equipment leases	45,248 36	45,248 36	
1,283 27	Lands owned	1,283 27		
751,854 41	Cash and current assets	859,446 14	107,591 73	
75,665 01	Materials and supplies	79,280 77		
6,075 86	Sundries	42,894 72	40,434 62	
614,352 23	Profit and loss	599,061 83		\$15,290 40
\$26,762,912 31	Totals	\$26,943,047 54	\$180,135 23	
June 30, 1893.	Liabilities.	June 30, 1894.	June 30, 1894— Increase.	
\$12,804,000 00	Capital stock	\$12,804,000 00		
12,284,740 00	Funded debt	12,322,372 14	\$37,632 14	
1,562,354 85	Current liabilities	1,700,052 04	137,697 19	
13,280 00	Accrued interest on funded debt not yet pay- able	13,280 00		
48,537 46	Sundry accrued liabilities not yet payable	53,343 36	4,805 90	
50,000 00	Canceled bonds California Southern Railroad Company	50,000 00		
\$26,762,912 31	Totals	\$26,943,047 54	\$180,135 23	

CONTRACTS, AGREEMENTS, ETC.

1. Wells, Fargo & Co.'s Express.
2. United States Government, Post Office Department.
3. Pullman Palace Car Company.
7. Western Union Telegraph Company.

SECURITY FOR FUNDED DEBT.

Class of Bond or Obligation.	What Road Mortgaged.	Miles.	Mortgage per Mile of Line.
California Southern Rail- road Company first mort- gage (1882)	San Bernardino to National City	129.59	\$7 71
California Southern Rail- road Company first mort- gage (1886)	Barstow to National City	210.61	9,761 20
California Central Rail- way Company first mortgage	San Bernardino to Los Angeles	251.26	25,698 48
	Los Angeles to Los Angeles Junction		
	East Riverside to Orange		
	Perris to San Jacinto		
	Escondido Junction to Escondido		
Redondo Beach Railway Company first mortgag- e	San Bernardino to Mentone	10.81	24,974 10
	Ballona Junc. to Santa Monica Junc.		
California Southern Rail- road Company income bonds	Inglewood to Redondo Beach		
	None.		

All the equipment is also mortgaged for the California Southern Railroad Company first mortgage bonds of 1882 and 1886, and the California Central Railway Company first mortgage bonds.

EMPLOYÉS AND SALARIES.

Class.	Number.	Total Days Worked.	Yearly Compensation.	Average Daily Compensation.
General officers	8	2,920	\$34,200 00	\$11 71
General office clerks.....	67	23,404	63,090 00	2 70
Station agents*.....	97	22,488	54,300 00	2 41
Other station men.....	123	36,445	74,970 00	2 06
Enginemen.....	51	16,488	75,530 00	4 46
Firemen.....	55	16,468	44,800 00	2 72
Conductors.....	39	13,543	50,710 00	3 74
Other trainmen.....	85	26,824	68,490 00	2 55
Machinists.....	74	20,434	54,700 00	2 68
Carpenters.....	77	19,454	52,310 00	2 69
Other shopmen.....	107	31,619	63,690 00	2 01
Section foremen.....	56	20,139	42,140 00	2 09
Other trackmen.....	210	58,151	105,100 00	1 81
Switchmen, flagmen, and watchmen.....	45	14,647	38,010 00	2 60
Telegraph operators and dispatchers.....	10	3,597	10,590 00	2 94
All other employés and laborers.....	133	33,638	76,370 00	2 27
Total (including general officers)	1,237	360,259	\$907,000 00	\$2 52
Less general officers.....	8	2,920	34,200 00	-----
Total (excluding general officers).....	1,229	357,339	\$872,800 00	\$2 44
Distribution of above:				
General administration.....	75	26,324	\$97,290 00	\$3 70
Maintenance of way and structures.....	370	107,069	213,959 00	2 00
Maintenance of equipment.....	154	42,728	103,981 00	2 43
Conducting transportation.....	638	184,138	491,770 00	2 67
Total (including general officers).....	1,237	360,259	\$907,000 00	\$2 52
Less general officers.....	8	2,920	34,200 00	-----
Total (excluding general officers).....	1,229	357,339	\$872,800 00	\$2 44

* Forty-four station agents are also telegraph operators.

DESCRIPTION OF EQUIPMENT.

Item.	Added During Year.	Total at End of Year.	With Train Brake.
Locomotives:			
Passenger.....		12	12
Freight.....	4	12	12
Switching.....		1	1
Total locomotives.....	4	25	25
Cars in passenger service:			
Second-class passenger cars.....		9	9
Combination passenger cars.....		7	7
Baggage, express, and postal cars.....		3	3
Totals.....		19	19
Cars in freight service:			
Box cars.....		43	43
Flat cars.....		99	99
Coal cars.....		30	30
Totals.....		172	172
Cars in company's service:			
Gravel cars.....		16	16
Derrick cars.....		1	1
Other road cars.....		8	8
Totals.....		25	25
Total cars owned.....		216	216

All rolling stock is equipped with Westinghouse air-brake, and the Miller automatic coupler is used on cars in passenger service.

PASSENGER AND FREIGHT, AND TRAIN MILEAGE.

Item.	Tonnage, Passengers, etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue.....	923,690	
Number of passengers carried one mile.....	33,068,260	
Average distance carried—miles.....	35.80	
Total passenger revenue.....		\$830,084 31
Average amount received from each passenger.....		89.866
Average receipts per passenger per mile.....		2.510
Estimated cost of carrying each passenger one mile.....		2.908
Total passenger earnings.....		965,219 41
Passenger earnings per mile of road.....		1,965 90
Passenger earnings per train-mile.....		1 09.054
Freight traffic:		
Number of tons carried of freight earning revenue.....	472,174	
Number of tons carried one mile.....	42,743,310	
Average distance haul of one ton—miles.....	90.52	
Total freight revenue.....		1,027,926 05
Average amount received for each ton of freight.....		2 17.701
Average receipts per ton per mile.....		02.405
Estimated cost of carrying one ton one mile.....		01.706
Total freight earnings.....		1,123,096 26
Freight earnings per mile of road.....		2,287 46
Freight earnings per train-mile.....		2 36.509
Passenger and freight:		
Passenger and freight revenue.....		1,858,010 36
Passenger and freight revenue per mile of road.....		3,784 29
Passenger and freight earnings.....		2,088,315 67
Passenger and freight earnings per mile of road.....		4,253 36
Gross earnings from operation.....		2,121,204 58
Gross earnings from operation per mile of road.....		4,320 35
Expenses.....		1,690,616 69
Expenses per mile of road.....		3,443 35
Train mileage:		
Miles run by passenger trains.....	857,579	
Miles run by freight trains.....	392,347	
Miles run by mixed trains.....	110,023	
Total mileage trains earning revenue.....	1,359,949	
Miles run by switching trains*.....	238,960	
Miles run by construction and other trains.....	22,200	
Grand total train mileage.....	1,621,109	
Mileage of loaded freight cars—north or east.....	2,515,411	
Mileage of loaded freight cars—south or west.....	1,832,743	
Mileage of empty freight cars—north or east.....	893,539	
Mileage of empty freight cars—south or west.....	1,425,004	
Average number of freight cars in train.....	18	
Average number of loaded cars in train.....	11	
Average number of empty cars in train.....	7	
Average number of tons of freight in train.....	39	
Average number of tons of freight in each loaded car.....	3.6	

* Miles of switch engine used for miles of switching trains.

FREIGHT TRAFFIC MOVEMENT (Company's material excluded).

Commodity.	Originating on this Road— Tons.	Received from Connecting Roads—Tons.	Total Freight Tonnage.	Per Cent.
Products of agriculture:				
Grain	58,456	4,231	62,687	13.28
Flour	2,561	2,992	5,553	1.18
Other mill products.....	6,119	125	6,244	1.32
Hay	8,596	649	9,245	1.96
Fruit and vegetables.....	66,104	14,262	80,366	17.02
Products of animals:				
Live stock.....	4,341	4,218	8,559	1.81
Dressed meats	71	33	104	.03
Other packing-house products	338	3,162	3,500	.74
Poultry, game, and fish	177	248	425	.09
Wool	1,136	127	1,263	.27
Hides and leather.....	448	45	493	.10
Products of mines:				
Anthracite coal		18	18	
Bituminous coal	1,631	60,777	62,408	13.22
Coke		858	858	.18
Ores	78	10	88	.02
Stone, sand, and other like articles.....	6,659	869	7,528	1.59
Products of forest:				
Lumber	28,251	75,242	103,493	21.92
Manufactures:				
Petroleum and other oils	1,611	13,832	15,443	3.27
Sugar	179	646	825	.18
Iron—pig and bloom		150	150	.03
Iron and steel rails		547	547	.12
Other castings and machinery.....	1,220	3,299	4,519	.96
Bar and sheet metal	1,164	2,697	3,261	.69
Cement, brick, and lime	13,820	9,805	23,625	5.00
Agricultural implements	134	615	749	.16
Wagons, carriages, tools, etc.....	450	981	1,431	.30
Wines, liquors, and beers	2,523	2,593	5,116	1.08
Household goods and furniture.....	3,174	5,515	8,689	1.84
Merchandise	24,159	14,615	38,774	8.21
Miscellaneous: other commodities not mentioned above	12,257	3,956	16,213	3.43
Total tonnage.....	245,657	226,517	472,174	100.00

MILEAGE OF ROAD OPERATED.

Line in Use.	Main Line.	Branches and Spurs.	Total Mileage Operated.	New Line Constructed During Year.	Steel Rails.
Miles of single track.....	396.30	94.68	490.98	-----	490.98
Miles of yard track and sid- ings	74.05	11.54	85.59	2.84	85.59
Total mileage operated (all tracks).....	470.35	106.22	576.57	2.84	576.57

The entire mileage is in the State of California.

NEW TIES LAID DURING YEAR.

Kind.	Number.	Average Price at Distributing Point.
Redwood cross	72,554	\$0 37
Oregon pine, bridge	2,490	47
Oregon pine, switch	3,393	23
Total	78,437	\$0 37

CONSUMPTION OF FUEL BY LOCOMOTIVES.

Locomotives.	Bituminous Coal—Tons.	Hard Wood —Cords.	Total Fuel Consumed —Tons.	Miles Run.	Average lbs. Consumed per Mile.
Passenger	29,518	326 $\frac{1}{8}$	29,735 $\frac{830}{2000}$	945,570	62.90
Freight	32,209	334	30,431 $\frac{1330}{2000}$	562,075	108.28
Switching	4,803	52 $\frac{1}{8}$	4,838 $\frac{830}{2000}$	238,960	40.50
Construction	498 $\frac{200}{2000}$	5 $\frac{1}{8}$	501 $\frac{1000}{2000}$	21,321	47.04
Total	65,028 $\frac{200}{2000}$	718 $\frac{3}{4}$	65,507 $\frac{20}{2000}$	1,767,926	74.11

Average cost of coal at distributing point, \$6 87 per ton; average cost of wood at distributing point, \$4 03 per cord.

ACCIDENTS TO PERSONS.

Kind of Accident.	Employés Injured.	Passengers Injured.	Others Trespassing and not Trespassing.	
			Killed.	Injured.
Coupling and uncoupling	12			
Falling from trains and engines	5			
Collisions		5		
Derailments	4	1		
Other train accidents	4			
At highway crossings			2	2
At stations	6	4		2
Other causes	30	4	2	3
Total	61	14	4	7

Other train accidents:

Employés—Trainmen injured—Engineer and trainman injured by side rod breaking	2
Fireman injured by jerk of train	1
Other employés injured—Train freight agent ankle sprained by sudden jerk of train	1
Total	4

Other causes:

Employés—Trainmen injured—Stepping from train	2
Leg bruised climbing on coal car	1
Letting off brake foot caught in draw bar	1
Struck by car that did not clear	1
Engineer's hand caught in lever	1
Fireman's eye injured by puff of fire	1
Back wrenched lifting baggage	1
Scalded by escaping steam	2
Foot caught between engine and tank	1
Switchmen, flagmen, and watchmen injured—Switchman's foot caught in frog ..	1
Other employés injured—Section-men, shopmen, and others injured by tools, etc.	13
Total	30

Passengers injured:

Falling lamp in coach	1
Falling from train	1
Stone thrown through car window	1
Walked off moving train	1
Total	4

Others:

Trespassing—Killed—Tramps fell from brake-beam stealing ride	2
Trespassing—Injured—Attempting to get on truck of moving train	1
Foot cut off getting off truck of moving train	1
Not trespassing—Injured—Grain door fell on man unloading freight	1

CHARACTERISTICS OF ROAD.

Working Divisions or Branches.	Miles.	Alignment.		
		Number of Curves	Aggregate Length of Curved Line—Miles	Length of Straight Line—Miles
National City to San Bernardino.....	129.61	292	39.10	90.51
San Bernardino to Barstow.....	81.00	154	20.30	60.70
San Bernardino to Los Angeles.....	61.91	64	10.70	51.21
Los Angeles to Los Angeles Junction.....	83.10	85	13.10	70.00
East Riverside to Orange.....	40.68	52	9.50	31.18
Perris to San Jacinto.....	19.38	4	1.90	17.48
Escondido Junction to Escondido.....	21.23	54	8.70	12.53
San Bernardino to Highland Junction, via Mentone.....	25.38	32	8.40	16.98
Ballona Junction to Santa Monica.....	17.88	24	2.80	15.08
Inglewood to Redondo Beach.....	10.81	20	3.90	6.91
Totals.....	490.98	781	118.40	372.58

Working Divisions or Branches.	Profile.						
	Length of Level Line—Miles	Number of Ascending Grades.	Sum of Ascents of Ascending Grades—Feet.	Aggregate Length of Ascending Grades—Miles	Number of Descending Grades.	Sum of Descents of Descending Grades—Feet.	Aggregate Length of Descending Grades—Miles
National City to San Bernardino.....	28.01	35	2,691	76.80	17	1,631	24.0
San Bernardino to Barstow.....	8.50	11	854	29.10	30	1,824	43.40
San Bernardino to Los Angeles.....	3.90	12	749	17.70	12	1,585	40.31
Los Angeles to Los Angeles Junction.....	18.30	31	886	26.80	31	965	38.00
East Riverside to Orange.....	9.00	16	131	5.00	16	896	26.68
Perris to San Jacinto.....	2.28	7	213	12.20	6	127	4.90
Escondido Junction to Escondido.....	2.63	10	909	14.10	10	309	4.50
San Bernardino to Highland Junction, via Mentone.....	.70	6	734	12.68	7	676	12.00
Ballona Junction to Santa Monica.....	5.38	5	113	3.10	6	267	9.40
Inglewood to Redondo Beach.....	2.71	4	147	6.10	3	52	2.00
Totals.....	81.41	137	9,427	203.58	138	8,332	205.99

TELEGRAPH.

A. Owned by Company Making this Report.

Miles of Line.	Miles of Wire.	Name of Operating Company.
491.05	630.70	Owned and operated jointly by this company and the Western Union Telegraph Company.

B. Owned by Another Company, but Located on Property of Road Making this Report.

Miles of Wire.	Name of Owner.	Name of Operating Company.
494.40	Western Union Telegraph Co.	Western Union Telegraph Co.

BRIDGES, TRESTLES, TUNNELS, ETC.

Item.	No.	Aggregate Length.	Minimum Length.	Maximum Length.
Bridges:				
Iron.....	2	277 feet.	90 feet.	187 feet.
Wooden.....	10	1,872 feet.	32 feet.	492 feet.
Totals.....	12	2,149 feet.		
Trestles.....	592	57,893 feet.	7 feet.	1,725 feet.

Item.	No.	Height Above Surface of Rail.
Overhead highway crossings:		
Bridges.....	3	20 feet.
Conduits.....	2	16 feet 10 inches.
Trestles.....	1	17 feet 2 inches.
Total.....	6	

Gauge of track: 4 feet 8½ inches; length, 490.98 miles.

CAR MILEAGE.

This company pays mileage to the following companies for the use of their cars:

American Refrigerator Transit Co.	Interstate Ventilator-Refrigerator Car Co.
Armour Refrigerator Line.	Kansas City Dressed-Beef Line.
American Brewing Company.	Kansas Manufacturers' Despatch.
Abernathy Furniture Co.	Libby, McNeil & Libby Refrigerator Line.
Blue Line.	Merchants' Despatch Transportation Co.
Bear Creek Refining Co.	Morris Refrigerator Line.
Central Equipment Co.	Missouri Valley Refrigerator Line.
Chicago Refrigerator Car Co.	Mann Bros.
California Fruit Transportation Co.	New England Car Co.
California Fruit Express Co.	National Refrigerator Transit Co.
Canada Cattle Car Co.	National Despatch Line.
Climax Gasoline Co.	National Fruit Despatch.
Cottolene Refrigerator Line.	Peavy Grain Line.
Cudahy Refrigerator Line.	Provision Dealers' Despatch.
Continental Fruit Express.	Pittsburg Plate Glass Co.
Empire Line.	Swift Refrigerator Line.
Great Eastern Line.	St. Louis Refrigerator Car Co.
Hicks' Stock Car Co.	Street's Western Stable Car Line.
Heim F. Brewing Co.	Union Tank Line.
Independent Refining Co.	Union Refrigerator Transit Co.

STATE OF ILLINOIS, }
 County of Cook. } ss.

I, W. K. Gillett, General Auditor of the Southern California Railway Company, on my oath do say that the foregoing return has been prepared, under my direction, from the original books, papers, and records of said company; that I have carefully examined the same, and do declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of my knowledge, information, and belief; and I further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made, excepting always such statements as have been made in accordance with rules prescribed by the Interstate Commerce Commission, the accuracy of which the company neither admits nor denies.

W. K. GILLETT,
 General Auditor.

Subscribed and sworn to before me, this twenty-first day of November, 1894.

EDGAR P. H. WEST,
 Notary Public.

ATLANTIC AND PACIFIC RAILROAD COMPANY.

ALBUQUERQUE, N. M., October 8, 1894.

To the honorable Board of Railroad Commissioners of the State of California, San Francisco, California:

GENTLEMEN: Pursuant to the understanding reached at a conference had between the honorable Board of Railroad Commissioners and William C. Hazledine, the then solicitor of this company, on the 10th day of February, 1887, I have the honor to submit, attached hereto, a report of the Atlantic and Pacific Railroad Company for the year ending June 30, 1894, which I have had compiled as nearly as possible in the form prescribed by your Board, from the report made by our company to the Secretary of the Interior of the United States, as provided for in the Act of Congress incorporating this company.

In submitting this report I desire to call your attention to the position assumed by this company, which is, that being a Federal corporation created by the supreme legislative authority of the nation, and being by that Act constituted a Federal agency, fully empowered to fix and determine our own rates of fares and freights, and being required to make an annual report to the Secretary of the Interior, according to a form prescribed by his department, we do not believe that we could be lawfully required or legally compelled to make any report to your honorable Board; but being willing and anxious to aid you, so far as may be, in the performance of your duties, we take pleasure in handing you as full a report as can conveniently be compiled from the one furnished the Secretary of the Interior as aforesaid, hoping and believing it will give you generally such information as you may require; at the same time protesting that in making this report, we do not do so under compulsion, but voluntarily, not intending thereby to waive any rights the Atlantic and Pacific Railroad Company has or may have under its Federal charter, or otherwise, but hereby expressly reserving to it every right and immunity from State control, or otherwise, it may have as a national corporation, Federal agency, and interstate railroad.

Respectfully submitted.

C. N. STERRY,
General Attorney.

HISTORY.

1. Name of common carrier making this report: Atlantic and Pacific Railroad Company; J. W. Reinhart, John J. McCook, and Joseph C. Wilson, receivers.
3. Under laws of what Government, State, or Territory organized: Act of Congress, approved July 27, 1866.

ORGANIZATION.

Names of Directors.	Post Office Address.
George C. Magoun*	New York.
J. W. Reinhart	Boston.
Thomas Baring	New York.
Cecil Baring	New York.
John J. McCook	New York.
Wm. Libbey	New York.
Robert Harris †	New York.
B. P. Cheney	Boston.
Alden Speare	Boston.
D. B. Robinson	Chicago.
George R. Peck	Chicago.
J. A. Williamson	Chicago.
Samuel Hayes	St. Louis.

* Died December 20, 1893. † Died.

OFFICERS.

Title.	Name.	Location of Office.
Chairman of the Board	George C. Magoun*	New York.
President	J. W. Reinhart	Boston.
Vice-President	D. B. Robinson	Chicago.
Secretary and Treasurer	H. W. Gardiner	Boston.
General Solicitor	George R. Peck	Chicago.
General Counsel	John J. McCook	New York.
General Attorney	C. N. Sterry	Albuquerque.
Deputy Comptroller	F. H. Hamilton	New York.
General Auditor	W. K. Gillett	Chicago.
Assistant Auditor	W. A. Burroughs	Chicago.
Auditor	W. E. Walsh	Albuquerque.
General Superintendent	F. R. Gabel	Albuquerque.
Superintendent of Transportation	John Denair	Albuquerque.
Superintendent of Telegraph	Andrew Smith	Albuquerque.
General Freight and Passenger Agent	W. A. Bissell	San Francisco.
Assistant General Passenger Agent	C. H. Spears	San Francisco.
General Agent	H. S. Slyck	Albuquerque.
Land Commissioner	J. A. Williamson	Chicago.
Receivers	J. W. Reinhart	New York.
	J. J. McCook	New York.
	J. C. Wilson	Topeka, Kan.

Receivers appointed January 4, 1894.

* Died December 20, 1893.

COST OF ROAD, EQUIPMENT, AND PERMANENT IMPROVEMENTS.

Item.	Permanent Improvements During Year.	Construction or Equipment During Year.	Total Cost to June 30, 1893.	Total Cost to June 30, 1894.
Construction:				
Fences			\$626 30	\$626 30
Grading, and bridge and culvert masonry			808 84	808 84
Bridges and trestles			5,818 44	5,818 44
Rails			52,759 45	52,759 45
Ties			689 50	689 50
Buildings, furniture, and fixtures	\$942 26		26,260 57	27,202 83
Shop machinery and tools			3,940 04	3,940 04
Engineering expenses			1,850 68	1,850 68
Sidings and yard extensions	1,246 64		12,599 50	13,846 14
Other items			10,125 70	10,125 70
Total construction	\$2,188 90		\$115,479 02	\$117,667 92
Equipment:				
Locomotives		\$54,114 32	\$51,688 97	\$105,803 29
Passenger cars, sleeping, parlor, and dining cars, baggage, express, and postal cars, combination cars, freight cars, and other cars of all classes		27,219 84	166,387 13	193,606 97
Tools and machinery			2,041 76	2,041 76
Total equipment		\$81,334 16	\$220,117 86	\$301,452 02
Grand total cost construction, equipment, etc.	\$2,188 90	\$81,334 16	\$335,596 88	\$419,119 94

INCOME ACCOUNT.

Gross earnings from operation.....	\$812,348 79	
Less operating expenses.....	786,613 24	
Income from operation.....		\$25,735 55
Deductions from income:		
Interest on interest-bearing current liabilities accrued, not otherwise provided for.....	\$404 24	
Taxes.....	37,775 00	
Permanent improvements.....	2,188 90	
Total deductions from income.....		\$40,368 14
Deficit.....		\$14,632 59

EARNINGS FROM OPERATION.

Item.	Actual Earnings.
Passenger revenue.....	\$216,673 52
Mail.....	35,439 53
Express.....	49,004 51
Extra baggage and storage.....	2,227 56
Total passenger earnings.....	\$303,345 12
Freight revenue.....	488,071 64
Total passenger and freight earnings.....	\$791,416 76
Other earnings from operation.....	20,932 03
Total gross earnings from operation.....	\$812,348 79

EMPLOYEES AND SALARIES.

Class.	Number.	Total Days Worked.	Yearly Compensation.	Average Daily Compensation.
General officers.....	6	1,872	\$8,589 16	\$13 76
General office clerks.....	27	8,424	8,976 81	3 31
Station agents.....	7	2,555	7,972 35	3 12
Other station men.....	12	4,380	10,698 53	2 44
Enginemen.....	33	8,712	46,216 90	5 30
Firemen.....	57	15,048	37,133 85	2 47
Conductors.....	23	6,072	23,514 50	3 87
Other trainmen.....	50	11,200	26,105 34	2 33
Machinists.....	18	5,116	19,004 70	3 38
Carpenters.....	20	6,240	14,301 00	2 29
Other shopmen.....	23	7,176	19,235 75	2 68
Section foremen.....	27	8,424	18,900 00	2 24
Other trackmen.....	260	81,120	87,543 25	1 08
Switchmen, flagmen, and watchmen.....	6	2,160	6,643 25	3 08
Telegraph operators and dispatchers.....	11	3,960	11,705 00	2 95
All other employees and laborers.....	72	22,464	45,203 93	2 01
Total (including general officers).....	652	195,423	\$391,744 32	\$2 00
Less general officers.....	6	1,872	8,589 16	-----
Total (excluding general officers).....	646	193,551	\$383,155 16	\$1 98
Distribution of above:.....				
General administration.....	33	10,296	\$17,565 97	\$5 65
Maintenance of way and structures.....	379	100,776	129,045 21	1 28
Maintenance of equipment.....	131	30,264	75,143 42	2 48
Conducting transportation.....	109	54,087	169,989 72	3 14
Total (including general officers).....	652	195,423	\$391,744 32	\$2 00
Less general officers.....	6	1,872	8,589 16	-----
Total (excluding general officers).....	646	193,551	\$383,155 16	\$1 98

OPERATING EXPENSES.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of way and structures:			
Repairs of roadway.....	\$44,821 33	\$56,906 61	\$101,727 94
Renewals of ties.....	19,949 67	25,328 75	45,278 42
Repairs of bridges and culverts.....	7,380 86	9,370 98	16,751 84
Repairs of fences, road-crossings, signs, and cattle guards.....	31 52	40 01	71 53
Repairs of buildings.....	4,945 02	6,278 36	11,223 38
Other expenses.....	2,232 04	2,833 88	5,065 92
Totals.....	\$79,360 44	\$100,758 59	\$180,119 03
Maintenance of equipment:			
Repairs and renewals of locomotives.....	\$39,248 77	\$49,831 50	\$89,080 27
Repairs and renewals of passenger cars.....	18,335 19		18,335 19
Repairs and renewals of freight cars.....		56,663 34	56,663 34
Other expenses.....	2,108 05	2,676 45	4,784 50
Totals.....	\$59,692 01	\$109,171 29	\$168,863 30
Conducting transportation:			
Wages of enginemen, firemen, and round-housemen.....	\$30,064 90	\$55,834 84	\$85,899 74
Fuel for locomotives.....	17,499 15	49,805 30	67,304 45
Water supply for locomotives.....	7,385 62	13,129 99	20,515 61
All other supplies for locomotives.....	1,424 09	2,531 72	3,955 81
Wages of other trainmen.....	11,412 56	38,207 28	49,619 84
All other train supplies.....	2,448 18	3,672 28	6,120 46
Wages of switchmen, flagmen, and watchmen.....	5,131 35	9,122 40	14,253 75
Expense of telegraph, including train dispatchers and operators.....	4,608 01	8,192 02	12,800 03
Wages of station agents, clerks, and laborers.....	5,974 68	12,696 20	18,670 88
Station supplies.....	658 27	1,222 49	1,880 76
Car mileage—balance.....	20,939 59	46,607 48	67,547 07
Loss and damage.....	371 85	4,223 94	4,595 79
Injuries to persons.....	492 12	436 41	928 53
Other expenses.....	7,558 57	14,037 35	21,595 92
Totals.....	\$115,968 94	\$259,719 70	\$375,688 64
General expenses:			
Salaries of officers.....	\$3,784 40	\$4,804 79	\$8,589 19
Salaries of clerks.....	3,955 18	5,021 63	8,976 81
General office expenses and supplies.....	375 70	477 01	852 71
Agencies, including salaries and rent.....	10,435 15	3,859 44	14,294 59
Advertising.....	2 03	2 57	4 60
Insurance.....	1,176 22	1,493 37	2,669 59
Expense of stock yards and elevators.....		2 92	2 92
Rents for tracks, yards, and terminals.....	579 85	736 19	1,316 04
Rents not otherwise provided for.....	6,261 12	7,949 31	14,210 43
Legal expenses.....	2,978 53	3,781 64	6,760 17
Stationery and printing.....	415 38	527 39	942 77
Other general expenses.....	1,463 87	1,858 58	3,322 45
Totals.....	\$31,427 43	\$30,514 84	\$61,942 27
Recapitulation of expenses:			
Maintenance of way and structures.....	\$79,360 44	\$100,758 59	\$180,119 03
Maintenance of equipment.....	59,692 01	109,171 29	168,863 30
Conducting transportation.....	115,968 94	259,719 70	375,688 64
General expenses.....	31,427 43	30,514 84	61,942 27
Grand totals.....	\$286,448 82	\$500,164 42	\$786,613 24
Percentage of operating expenses to earnings.....			96.83

RENTALS PAID.

Situation of Property Leased.	Name of Company Owning Property Leased.	Item.
Barstow.....	Southern California Ry. Co. ...	\$1,316 04

PASSENGER AND FREIGHT, AND TRAIN MILEAGE.

Item.	Tonnage, Passengers, Etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue	68,277	
Number of passengers carried one mile	13,071,663	
Average distance carried—miles	191	
Total passenger revenue		\$216,673 52
Average amount received from each passenger		3 17.34
Average receipts per passenger per mile		01.66
Estimated cost of carrying each passenger one mile		02.19
Total passenger earnings		303,345 12
Passenger earnings per mile of road		1,202 38
Passenger earnings per train-mile		1 02.46
Freight traffic:		
Number of tons carried of freight earning revenue	248,804	
Number of tons carried one mile	48,940,389	
Average distance haul of one ton—miles	197	
Total freight revenue		488,071 64
Average amount received for each ton of freight		1 96.17
Average receipts per ton per mile		00.997
Estimated cost of carrying one ton one mile		01.022
Total freight earnings		488,071 64
Freight earnings per mile of road		1,934 63
Freight earnings per train-mile		1 29.85
Passenger and freight:		
Passenger and freight revenue		704,745 16
Passenger and freight revenue per mile of road		2,793 48
Passenger and freight earnings		791,416 76
Passenger and freight earnings per mile of road		3,137 01
Gross earnings from operation		812,348 79
Gross earnings from operation per mile of road		3,220 00
Expenses		786,613 24
Expenses per mile of road		3,117 83.38
Train mileage:		
Miles run by passenger trains	296,059	
Miles run by freight trains	375,863	
Total mileage trains earning revenue	671,922	
Miles run by switching trains	100,439	
Miles run by construction and other trains	1,350	
Grand total train mileage	773,711	
Mileage of loaded freight cars—north or east	2,695,883	
Mileage of loaded freight cars—south or west	2,248,230	
Mileage of empty freight cars—north or east	820,036	
Mileage of empty freight cars—south or west	1,106,434	
Average number of freight cars in train	20	
Average number of loaded cars in train	14	
Average number of empty cars in train	6	
Average number of tons of freight in train	74	
Average number of tons of freight in each loaded car	5	

MILEAGE OF ROAD OPERATED IN CALIFORNIA.

Line in Use.	Main Line.	Line Operated Under Lease.	Total Mileage Operated.	Steel Rails.
Miles of single track	9.912	242.37	252.282	252.282
Miles of yard track and sidings	20.851		20.851	20.851
Total mileage operated	30.763	242.37	273.133	273.133

FREIGHT TRAFFIC MOVEMENT (Company's material excluded).

Commodity.	Originating on this Road—Tons.	Received from Connecting Roads—Tons.	Total Freight Tonnage.	Per Cent.
Products of agriculture:				
Grain	48	5,224	5,272	2.12
Flour	21	1,585	1,606	.65
Other mill products.....	1	2,235	2,236	.90
Hay.....	18	3,691	3,709	1.49
Fruit and vegetables.....	7	38,838	38,845	15.61
Products of animals:				
Live stock.....	368	7,464	7,832	3.15
Dressed meats.....	1	93	94	.04
Other packing-house products.....		5,176	5,176	2.08
Poultry, game, and fish.....		227	227	.09
Wool.....		1,326	1,326	.53
Hides and leather.....	13	250	263	.11
Products of mines and forest:				
Anthracite coal.....		14	14	.01
Bituminous coal.....	1	45,437	45,438	18.26
Coke.....		57	57	.02
Ores.....	78	773	851	.34
Stone, sand, and other like articles.....		1,158	1,158	.47
Borax.....	5,109	172	5,281	2.12
Lumber.....	1,237	14,352	15,589	6.27
Manufactures:				
Petroleum and other oils.....	2	13,595	13,597	5.46
Sugar.....	7	22,779	22,786	9.16
Iron—pig and bloom.....		34	34	.01
Iron and steel rails.....		741	741	.30
Other castings and machinery.....	65	5,247	5,312	2.14
Bar and sheet metal.....		1,227	1,227	.49
Cement, brick, and lime.....		460	460	.18
Agricultural implements.....		710	710	.29
Wagons, carriages, tools, etc.....	17	1,427	1,444	.58
Wines, liquors, and beers.....	15	5,591	5,607	2.25
Household goods and furniture.....	151	6,825	6,976	2.80
Hardware.....	12	3,073	3,085	1.24
Merchandise.....	163	50,855	51,018	20.51
Miscellaneous: other commodities not mentioned above.....	165	538	703	.28
Total tonnage.....	7,500	241,304	248,804	100.00

NEW TIES LAID DURING YEAR.

Redwood: 82,347. Average price at distributing point, 45 cents.

CONSUMPTION OF FUEL BY LOCOMOTIVES.

Locomotives.	Bituminous Coal—Tons.	Soft Wood—Cords.	Total Fuel Consumed—Tons.	Miles Run.	Average lbs. Consumed per Mile.
Passenger.....	12,989	84	13,031	307,085	84.87
Freight.....	32,092	250	32,217	428,743	150.29
Switching.....	1,280	6	1,283	100,439	25.54
Construction.....	49		49	7,963	12.31
Totals.....	46,410	340	46,580	844,230	110.35

Average cost at distributing point, \$1 49 per ton for coal; 66 $\frac{3}{4}$ cents per cord for wood.

DESCRIPTION OF EQUIPMENT.

Item.	Number at End of Year.	With Train-Brake.	With Automatic Coupler.
Locomotives:			
Passenger	25	25	
Freight	89	89	
Switching	6	6	
Total locomotives	120	120	
Cars in passenger service:			
First-class passenger cars	23	23	23
Baggage, express, and postal cars	13	13	13
Other cars in passenger service	2	2	
Totals	38	38	38
Cars in freight service:			
Box cars	160	160	
Flat cars	484	190	
Stock cars	250	181	
Coal cars	1,157	940	
Totals	2,051	1,471	
Cars in company's service:			
Derrick cars	2	2	
Caboose cars	54	40	
Other road cars	150		
Totals	206	42	
Total cars owned	958	214	
Cars leased	1,337	1,337	
Grand total cars	2,295	1,551	38

The Westinghouse train-brake is used exclusively. On the cars in passenger service the Miller automatic coupler is used.

ACCIDENTS TO PERSONS.

Kind of Accident.	Employés Killed.	Employés Injured.	Passengers Killed.
Falling from trains and engines	1		
Other causes	1	1	2
Totals	2	1	2

One passenger injured while trying to board moving train—thrown under wheel.
 One laborer injured by hand-car running over him.
 One switchman killed—caught between stock car and cattle chute.
 One trainman killed by falling under car.
 One passenger injured—fell from train while crossing to another car.

CHARACTERISTICS OF ROAD.

Colorado River, near Needles, to Mojave: Length, 252.282 miles; number of curves, 208; aggregate length of curved line, 46.3 miles; length of straight line, 205.982 miles; length of level line, 19.3 miles; number of ascending grades, 381; sum of ascents, 5,276.1 feet; aggregate length of ascending grades, 135.4 miles; number of descending grades, 170; sum of descents, 301.5 feet; aggregate length of descending grades, 86.2 miles.

Bridges: Wooden, 627; aggregate length, 35,332 feet; minimum length, 15 feet; maximum length, 1,942 feet.

Gauge of track, 4 feet 8½ inches; length, 252.282 miles.

CAR MILEAGE.

The Atlantic and Pacific Company pays mileage to the following companies for the use of their cars:

American Live Stock Transportation Co.	Kansas Manufacturers' Despatch.
American Refrigerator Transit Co.	Kansas City Refrigerator Car Line.
Armour Packing Co.	Live Poultry Transportation Co.
Arms Palace Horse Car Co.	Merchants' Despatch.
Arnold Refrigerator Car Co.	Morris & Co. Refrigerator Line.
Blue Line.	National Despatch.
Burton Stock Car Co.	National Fruit Despatch.
Bear Creek Refrigerator Co.	Pullman's Palace Car Co.
Bear Creek Star Line.	Peavy Grain Line Co.
Continental Oil Co.	Red Line.
Canada Southern Line.	St. Louis Refrigerator Car Line.
Cudahy Refrigerator Line.	St. Charles Car Co.
Dold & Son, J.	Street's Stable Car Line.
Erie Despatch.	Union Line.
Empire Line.	Union Tank Line.
Goodall Refrigerator Co.	Union Refrigerator Transit Line.
Great Eastern Line.	White Line.
Globe Tank Line.	White Star Line.
Green Line.	West Shore Line.
Hicks' Stock Car Co.	

TERRITORY OF NEW MEXICO, }
County of Bernalillo. }

C. N. Sterry, General Attorney for the receivers of the Atlantic and Pacific Railroad Company (Western Division), being duly sworn, deposes and says that the statements, tables, and answers contained in the foregoing report have been compiled and prepared under his supervision from the report of said company to the honorable Secretary of the Interior of the United States, in accordance with an understanding had with the said Railroad Commissioners on February 10, 1887, by William C. Hazledine, the then solicitor of said company, and that, to the best of his knowledge, and as he verily believes, the same contains a true and full exhibit of the condition and affairs of said company on the thirtieth day of June, 1894, as the same is shown by said report to said Secretary of the Interior.

C. N. STERRY.

Subscribed and sworn to before me, this eighth day of October, A. D. 1894.

KARL A. SNYDER,
United States Commissioner, District of New Mexico.

NATIONAL CITY AND OTAY RAILWAY COMPANY.

HISTORY.

1. Name of common carrier making this report: National City and Otay Railway Company.
2. Date of organization: December 28, 1886.
3. Under laws of what Government, State, or Territory organized: Laws of California.
4. Names of constituent companies: National City and Otay Railway, incorporated Dec. 28, 1886; Otay Railway Company, incorporated Sept. 28, 1887. Copy of articles of incorporation filed with Secretary of State as follows: National City and Otay Railway, Jan. 13, 1887; Otay Railway Company, Oct. 10, 1887. Copy of articles of association, incorporation, amalgamation, and consolidation filed Oct. 12, 1888. Certificate of issuance of capital stock filed Jan. 5, 1889.
5. Date and authority for each consolidation: October 1, 1888; Statutes of State of California.

ORGANIZATION.

Names of Directors.	Post Office Address.
B. P. Cheney, Jr.	Boston, Mass.
W. L. Frost	Boston, Mass.
Chas. W. Shattuck	Boston, Mass.
Geo. H. Hill	Coronado, Cal.
Jno. E. Boal	National City, Cal.
W. C. Kimball	National City, Cal.
R. C. Allen	National City, Cal.

Date of expiration of term of Directors: May 21, 1895.

Number of stockholders at date of last election: 7.

Last meeting of stockholders for election of Directors: May 21, 1894.

Post Office address of general office: Boston, Mass.

Post Office address of operating office: National City.

OFFICERS.

Title.	Name.	Location of Office.
President	B. P. Cheney, Jr.	Boston, Mass.
Vice-President	John E. Boal	National City.
Secretary, and Assistant Treasurer	E. A. Hornbeck	National City.
Treasurer, and Assistant Secretary	C. D. Lanning	Boston, Mass.
General Solicitor	Messrs. Works & Works	San Diego, Cal.
Auditor	Work done in Asst. Treas. Department.	
Superintendent	E. A. Hornbeck	National City.
General Freight Agent*		
General Passenger Agent*		
General Ticket Agent*		

* Duties performed by Superintendent.

PROPERTY OPERATED.

Name.	Terminals.	Miles of Line.
National City and Otay Railway ----	San Diego to Tia Juana	18.95
	Tia Juana Junction to Tia Juana	1.82
	Sweetwater Junction to La Presa	7.80
Total		28.57

CAPITAL STOCK.

The total par value of authorized capital stock is \$1,300,000, divided into 13,000 shares of a par value of \$100 each. Total amount issued and outstanding, \$200,000. No dividends were declared.

FUNDED DEBT.

Class of Bond or Obligation.	Date of Issue.	When Due.	Amount Issued.	Amount Outstanding.
First mortgage 6 per cent gold bonds	Dec 1, 1888..	Dec. 1, 1933..	\$451,000 00	\$451,000 00

Interest at the rate of 6 per cent, payable in June and December.

INCOME ACCOUNT.

Gross earnings from operation	\$28,395 33	
Less operating expenses.....	29,954 92	
Deficit.....		\$1,559 59

EARNINGS FROM OPERATION.

Item.	Actual Earnings.
Passenger revenue.....	\$18,018 83
Mail	1,276 08
Freight revenue	8,801 12
Total passenger and freight earnings	\$28,096 03
Rent engine	\$299 80
Total gross earnings from operation.....	\$28,395 83
Total passenger earnings.....	\$18,018 83
Total freight earnings.....	8,801 12
Total mail earnings.....	1,276 08
Total sundry earnings.....	299 80
	\$28,395 33
Less total operating expenses.....	29,954 92
Deficit.....	\$1,559 59

Passenger and freight expenses not kept separate.

PASSENGER AND FREIGHT, AND TRAIN MILEAGE.

Item.	Tonnage, Passengers, Etc.	Revenue and Rates.
Passenger traffic:		
Number of passengers carried earning revenue.....	108,804	
Total passenger revenue.....		\$18,018 83
Freight traffic:		
Total freight revenue.....		8,801 12
Train mileage:		
Miles run by passenger trains.....	36,672.56	
Miles run by freight trains.....	894.67	
Miles run by mixed trains.....	9,357.30	
Total mileage trains earning revenue	46,924.53	
Grand total train mileage.....	46,924.53	

DESCRIPTION OF EQUIPMENT.

Item.	Total at End of Year.
Locomotives:	
Passenger.....	6
Cars in passenger service:	
First-class passenger cars.....	7
Combination passenger cars.....	3
Total.....	10
Cars in freight service:	
Box cars.....	4
Flat cars.....	31
Total.....	35
Grand total cars.....	51

Locomotives are equipped with steam brake. Cars in passenger and freight service are equipped with hand brake.

MILEAGE OF ROAD OPERATED.

Line in Use.	Main Line.	Branches and Spurs.	Rails—Steel.
Miles of single track	16.29	12.29	23 58

STATE OF CALIFORNIA, }
County of San Diego. } ss.

We, the undersigned, John E. Boal, Vice-President, and E. A. Hornbeck, Secretary and Assistant Treasurer of the National City and Otay Railway Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

JOHN E. BOAL,
Vice-President.
E. A. HORNBECK,
Secretary and Assistant Treasurer.

Subscribed and sworn to before me, this twenty-first day of November, 1894.

C. H. SAWYER,
Notary Public in and for San Diego County, Cal.

REPORT

OF THE

COMMISSIONER OF PUBLIC WORKS

TO THE

GOVERNOR OF CALIFORNIA.

A. H. ROSE, Commissioner.

MARSDEN MANSON,

C. E. GRUNSKY,

Consulting Engineers.



SACRAMENTO:

STATE OFFICE, : : : : A. J. JOHNSTON, SUPT. STATE PRINTING.

1895.

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SACRAMENTO, CAL., December 15, 1894.

Hon. H. H. MARKHAM, Governor of California:

SIR: I have the honor to submit herewith my report upon the drainage of the valley of California.

As the operations of the past forty years have been extensive and costly, I have first embodied a general history of swamp land protection and levee district work.

The map accompanying this portion of the report plainly outlines the lack of system which has attended the past attempts at solving the great problems of valley drainage and flood control. It is impossible to reach results at all proportioned to the cost of those works without systematic planning and control of these portions, which constitute essential parts of the general drainage lines. Hence these works have not given that control of flood waters which is an essential element in the reclamation and protection of the valley lands. The report of the consulting engineers goes very fully into the fundamental conditions and facts which must determine the extent and character of works designed to control the flood volumes passing down the valley. They have, since 1878, been engaged from time to time in both special and general examinations of the rivers of the State, and I feel confident that their studies and conclusions have resulted in a plan of drainage and protection which will, when constructed, add vast wealth to the State.

A very valuable and exhaustive paper on gauging California rivers is contributed without cost to the State by Mr. C. E. Grunsky, Consulting Engineer. This paper embodies the results of several years' work, and should be printed at State expense, as a guide to further work, and for the use of those interested in the volumes of discharge of our streams.

Respectfully,

A. H. ROSE,
Commissioner of Public Works.

NOTE.

All elevations noted in this report are referred to mean low-tide low-water of Suisun Bay, which is about 0.50 feet higher than the low-tide of San Francisco Bay.

ABBREVIATIONS.

L. W.	.....	Low Water.
L. T.	.....	Low Tide.
H. W.	.....	High Water.
H. T.	.....	High Tide.
S. E. D.	.....	State Engineer Department, or State Engineer Report.
U. S. E.	.....	United States Engineer Corps.
Ex. Com. R. and H.	.....	Examining Commission on Rivers and Harbors, Cal., 1889-90.

REPORT OF THE COMMISSIONER OF PUBLIC WORKS.

To his Excellency H. H. MARKHAM, Governor of California:

SIR: Upon entering upon the office of Commissioner of Public Works, on the 12th day of August, 1893, by virtue of an Act of the Legislature of the State of California, approved March 24, 1893 (Stats. Cal. 1893, p. 345), I proceeded to organize the department by the appointment of Hon. Judson C. Brusie, Secretary; Robert T. Devlin, Attorney; Marsden Manson and C. E. Grunsky, Consulting Engineers; M. A. Nurse, Engineer in Charge in the Field; J. C. Henkenius, Draughtsman, and Wm. Wicks, Porter.

At my request, the Secretary of State turned over to me the maps, books, records, other appliances and property remaining in the office of the late State Engineer Department, thus furnishing much valuable data that were not otherwise obtainable without extensive field operations.

OFFICE AND FIELD WORK.

Office work has been continuous, and field work nearly so, since the organization of the Commission. The extent and character of the office work are indicated by the report of the consulting engineers and accompanying maps, submitted herewith. The field work done under my direction has necessarily been limited, from the fact that time has not elapsed since my appointment to permit of covering the vast field of operations. This work has principally been confined to gauging the Sacramento River at Iron Cañon, the Feather River at Oroville, and to levels in the region between Collinsville and Knight's Landing through the Yolo Basin.

Special examinations and studies of the discharge of American River at Folsom and gauge records at that point and at the works of the Folsom Water Power Company were also conducted by the consulting engineers.

Examinations and surveys were made of the region between Stockton and Bellota, to furnish the data necessary for a study of the drainage of that locality. These data were furnished to the local authorities, in map form. Special surveys were also made of Bear River from Camp Far West to Feather River. The data collected by this survey were combined with previous information in a map furnished to the local authorities. In this way all information available has been made of service to those most to be benefited thereby. The number of miles of levels run is 383.

The consulting engineers and myself have been over the entire valley of California, inspected the gauging stations, and made special studies of the important points, such as Montezuma Hills, Denverton Slough, and the points of present uncontrolled escape of flood waters from the rivers. The field work has been conducted by the following gentlemen, to whom my special acknowledgments are due:

The gauging of Sacramento and Feather Rivers has been in the direct charge of Mr. H. B. Shackelford.

The general and check levels through Yolo Basin, Bear River, and on Calaveras River, east of Stockton, have been in charge of Mr. M. A. Nurse.

The leveling north of Stockton and on the lower portion of Calaveras River was done by Mr. George A. Atherton.

The books containing records of surveys and original maps are on file in my office.

HISTORY OF LAWS AND OPERATIONS AFFECTING SWAMP AND OVERFLOWED LANDS.

Before a discussion of systematic measures for the drainage and protection of the lands of the valley in danger of, or annually subjected to, inundations, a brief account will be given of past operations and their cost as closely as it can be ascertained. The questions involved require statesmanship and engineering of the highest type, for the results affect land measured only by states and empires.

The State of California became the possessor of some one and three fourths millions acres of swamp and overflowed, tide, and salt marsh lands by grant from the United States, through the Arkansas Act of September 28, 1850, and by virtue of the Act admitting the State into the Union.

The purposes of the grant were simple, namely, that the land should be reclaimed; and the State in accepting these lands is under the obligation to reclaim all that can be practically reclaimed, without too greatly decreasing tidal action in the lower rivers.

The Legislature at an early day realized the importance of this munificent grant, and, in 1851, took steps to ascertain the capabilities of the land by making a concession of 640 acres of swamp land on Merritt Island to John F. Booth and David Calloway, provided they should levee and drain the land and bring it under cultivation, and report to the Legislature the results of their work. (Stats. of California, 1851, p. 409.)

In 1855 a law was enacted allowing the land to be taken up in 320-acre tracts, at \$1 per acre. No reclamation was required if paid for in cash, but if on a credit of five years, one half was to be reclaimed, or the claim was to be forfeited. (See Stats. of California, 1855, p. 189.) The credit system thus established did not lure many to invest, as there were only a few thousand acres sold in the three years during which the law remained in force.

In 1858 the above plan was amended by abolishing the credit system, and placing the proceeds of cash sales to the credit of a swamp land fund, but made no provision for the very essential matter of reclamation. (Stats. of 1858, p. 198.)

Again, in 1859, amendments were made increasing the limit from 320 acres to 640, and reestablishing the credit system by requiring 20 per cent cash to be paid, and leaving the remaining 80 per cent on a credit of five years. (See Stats. of 1859, p. 340.)

These laws were still further amended in 1861. A general system of reclamation was adopted. A Board of Swamp Land Commissioners was created, engineers employed, and in the immediately succeeding years some \$567,483.86 were expended. (Stats. of 1861, p. 355.)

These laws did not permit the acquisition of lands in sufficiently large bodies to attract capitalists to undertake their reclamation; so, in 1868, an Act was passed repealing all laws just reviewed; but reënacting their general terms, and prescribing a method of organization resulting in the formation of hundreds of reclamation districts, which districts are shown on the accompanying map, showing the location and boundaries of each so far as they can be ascertained from the records of the State Surveyor-General's office. It will be observed that districts frequently overlap, and that other inconsistencies occur. No limit whatever was placed upon the area any one might take up. (Stats. Cal. 1868, pp. 507-530.)

Through this law the State parted with the greater portion of her magnificent holdings. About 1,000,000 acres were taken up in bodies of from a few hundred to 98,120 acres, or over four townships—153 square miles in one body. The law at present limits the area which can be taken up by any one person to 640 acres.

Many of the parties acquiring these lands have made strong efforts to reclaim their possessions. Some have impoverished themselves in such efforts. Where naturally favorable conditions and persistent work have been combined, a reasonable success has been attained, so far as land protection is concerned, but the important factor of adequate channel capacity for floods has been neglected.

The swamp and overflowed lands constitute those large areas situated on the lower San Joaquin and Sacramento Rivers, and their tributaries; and embrace the islands and adjacent swamp lands on the San Joaquin from the mouth of the Stanislaus to Suisun Bay, and whose elevation is from 5 to 18 feet above low tide; and the islands and low lands of the Sacramento and tributaries known as the Yolo Basin, the "Pocket," American, Sutter, Butte, and Colusa basins. The mean elevation of the basin lands above low tide in Suisun Bay is about as follows:

Of the Yolo Basin.....	12 feet.
Of the American Basin.....	20 feet.
Of the Sutter Basin.....	22 feet.
Of the Colusa Basin.....	35 feet.
Of the Butte Basin.....	65 feet.

The aggregate area of these bodies of land is about 750,000 acres, and they have been, and are now, the theater of large operations of drainage and reclamation.

Most of these operations have met with but partial success. Where successful, it has been from a combination of vigorous work and favorable circumstances, or an ability on the part of the owners on one side of the river to construct more powerful levees than there are on the other side.

EXPENDITURES.

The expenditures, which have been traced in an incomplete manner, have been upon the swamp lands bordering the lower rivers. Upon these lands and adjoining river channels vast sums of money have been expended, much of which is generally acknowledged to have been without adequate return. Instead of treating the subject as a whole, which it is, it is divided into several hundred Reclamation Swamp Land or Protection Districts. These districts sometimes have natural boundaries, although most of them are arbitrarily bounded by property or

other lines. The authorities of each district have been supreme so far as the works in that district are concerned, and have located and built them in many instances irrespective of the effect upon the river or other lands; the prime object being the protection of the lands of their district according to the local objects to be obtained, which generally means the construction of levees powerful enough to overtop or force a break on the opposite side. The provision of adequate channel way and proper outfall for flood waters has never been considered the prime step for successful reclamation. This unfortunate condition has been the direct outgrowth of the policy of the State to sell these lands prior to their reclamation by the State; or even to prescribe the limits and location of levees and drainage channels.*

We will review these expenditures.

State Funds.

Since the initial operations, commencing in 1855, the State of California spent the following amounts:

General Swamp Land Fund.....	\$152,040 51
District Swamp Land Funds.....	547,546 74
State Engineer's Department, since May, 1878.....	259,023 70
Drainage—district law of 1877.....	20,000 00
Act to promote drainage, 1880.....	699,577 25
Swamp Land Commission (22d Ses., Vol. 4).....	1,470,000 00
River and Harbor Commission.....	13,400 00
Commission Public Works, 1893-1894.....	30,000 00
Total.....	\$3,191,588 20

United States Funds.

Since the admission of the State, the United States have spent or placed available for the closely allied works of improving the navigation of Sacramento, Feather, and San Joaquin Rivers, the sum of \$1,115,696.45.

District Funds.

So far as it has been possible to trace them, the expenditures of the districts have been as follows:

Sacramento Districts (Reclamation Districts Nos. 108, 124, 494).

Jacinto to Knight's Landing.....	\$1,400,000 00
East bank Jacinto to Feather.....	1,250,000 00
Feather and Yuba Rivers.....	2,818,474 00
Grand Island.....	1,200,000 00
Andrus Island.....	316,500 00
Ryer Island.....	182,500 00
Sherman Island.....	523,180 00
Small districts.....	180,000 00
Total.....	\$7,870,654 00
On the Sacramento and American Rivers, from Feather River to Grand Island, including Sacramento and Washington (approximate).....	2,000,000 00
Total.....	\$9,870,654 00

* These data are compiled and rewritten from the Transactions of the Technical Society of the Pacific Coast.

San Joaquin Districts.

McMullen District	\$18,000 00
District No. 17	149,500 00
Small districts, near Stockton	208,000 00
Robert's Island	822,000 00
Bouldin Island	238,060 00
Bacon and Mandeville Islands	370,000 00
Union Island	1,250,000 00
Staten Island	607,500 00
Twitchell Island	132,000 00
Rough and Ready Island	117,750 00
Total	\$3,912,810 00

Recapitulation.

By the State	\$3,191,588 20
By the United States	1,115,696 45
Sacramento and tributaries	9,870,654 00
San Joaquin and tributaries	3,912,810 00
Total	\$18,090,748 65

Especial attention is called to the fact that of the \$18,000,000 expended upon the rivers, the United States Government has expended about \$1,000,000, and the people of the State, \$17,000,000. Experience in other States is to the effect that this ratio of expenditures is likely to be continued, or in other words that the combined expenditures of the various districts and land owners are many times the congressional appropriations.

It is therefore much more important to look to the systematic expenditures of the State, district, and individual funds, than to look after the appropriations made by Congress. These appropriations, it is needless to state, are expended under the direction of the officers of the Engineer Corps of the U. S. A., and may therefore be expected to be made in the most useful and economic manner.

Should the State only prescribe a system and furnish the supervision and advice necessary to secure unity of action on the part of the disjointed interests now at work, a great advance toward ultimate success would at once be made.

The following is a brief historical account of the early attempts and steps taken in the protection of swamp and overflowed lands in the lower portion of the Great Valley. Some of the data is from unpublished records in the State Engineer Department.

HISTORY OF RECLAMATION OF SWAMP AND OVERFLOWED LANDS.

As early as 1852-53, protection by levee building was undertaken. The authorities from whom these facts were ascertained are given in each instance, and a brief account of the work and results accomplished. Many of these attempts have since been enlarged to a great extent, and have grown into the extensive works of to-day.

It will be seen by merely reading this meager history that the attempts to reclaim swamp and overflowed lands were almost coincident with the settling of the State, and that the fertility of these lands prompted those agriculturally inclined to make their first attempts at agriculture upon them, rather than upon the less inviting plains.

LOWER SACRAMENTO LANDS.

Sherman Island. (Area, 14,000 acres.)

[Authorities: Mr. Jno. McCall, Mr. A. J. Bigelow, Mr. J. M. Upham, and Mr. O. A. Lindsey.]

The history of the partial reclamation of this magnificent body of land is probably more interesting and peculiar than that of any other large swamp-land area in the State.

This island stands at the upper end of Suisun Bay and between the two great rivers of the valley of California. Its banks were just flooded at high tide; they were comparatively firm, but the interior of the island was of peaty formation. "Hardpan" was found at a depth of about 40 feet. The warm, early spring, incident to its proximity to Suisun Bay, prompted its early settlement, and in 1859 the settlers had constructed small levees of 3 or 4 feet in height and a base width of some 8 feet, along the banks of the Sacramento River and the sloughs. Until 1861-62 the lands were used principally for vegetables and stock. In that season nearly all the stock on the island was drowned. After this flood additional levees were built, but no concerted action was had even on this one island, although the levees were extended to the San Joaquin River front. In 1868 the island was organized into a district, and 49 miles of levee were constructed, inclosing the entire island, at a cost of \$63,000. This levee rapidly settled on the San Joaquin front, and an additional \$10,500 was expended in raising this barrier.

The lower portion of the island was less firm than the upper, and irregular settlement and the drying out of the peaty soil caused cracks to form both across and parallel with the levees. Into these cracks, which were sometimes twenty or more feet deep and a quarter of a mile long, immense quantities of peat and soil were rammed. Filling one cost from \$10,000 to \$12,000; and during the decade from 1868 to 1878 they caused heavy expenditures and loss from breaks.

The island was also subdivided by a cross-levee some $\frac{3}{4}$ mile long. Two dams were built in Mayberry Slough above the junction of the cross-levee, and the slough levees extended to the junction; the cost of these improvements was \$10,000. The lower portion of the island, some 4,500 acres, was thus left out, and after 1875 was abandoned. The agricultural results obtained up to 1878 were favorable during dry years and disastrous during wet years.

When under complete cultivation the lands yielded enormous crops. The entire amounts expended in the district organizations amounted to \$523,180, but full accounts were not kept of the expenditures of individuals, which were large. The losses during flood years were very severe. Since 1878 only a small portion of the upper part of the island has been cultivated, the rest of this fertile area being a dreary waste of water. Projects for the reclamation of the island are being revived at the present time; the method of procedure has not been announced.

Brannan Island. (Area, 7,000, acres.)

[Authorities: Mr. Hart F. Smith, J. W. Ferguson, and S. Hodapp.]

Small protecting levees were constructed on Brannan Island in 1858. These levees were near the upper end of the island, and were merely intended to shut out high tides. The peaty formation of the soil caused

these levees to sink in 1860, but they were reconstructed, the total cost being about \$5,000. The memorable flood of 1861-2 submerged all that was constructed, and no very extensive operations were undertaken until the general revival of improvements incident to the inauguration of the Tide Land Reclamation Company.

In 1872-73 levees were constructed entirely around Brannan Island, and during the succeeding five years excellent crops were obtained, and all levees strengthened and raised.

Lands rented at \$20 to \$25 per acre for vegetable land, and \$10 per acre for grain lands. The flood of 1878 devastated the island severely, but repairs were made. Again, in 1879, the island suffered severely, partly by direct breaks and partly by the levee being forced into San Joaquin River by the excessive pressure when the rivers fell.

Portions of this island have been partially protected except in extreme flood years since 1879, but the greater portion of the island has been uncultivated. During the present year extensive additions to the levees have been made by the use of powerful clam-shell dredgers, which excavate sand and silt and deposit it upon the levee. In a few places the excessive load has compressed and displaced the underlying peaty and soft strata, but these points have been repaired.

Brannan Island is peculiarly exposed to the great volume of floods entering from Cache Slough at too obtuse an angle. Rectification both below and just at the junction of the rivers will greatly enlarge flood capacity and render this valuable island much more secure, and consequently much more valuable.

Andrus Island. (Area, 7,600 acres.)

[Authorities: Josiah Poole and J. H. Butler.]

As early as 1855, parts of Andrus Island were protected by low levees. These levees were about 2 feet high, and 6 feet wide at the base. During succeeding years to the flood of 1862 they were extended and strengthened by the settlers. After the flood of this year, the individual land owners extended the lines of levees, but they were broken, and the interior of the island was flooded; high bank lands only being partially protected. In 1870 district organization was undertaken, and the entire island was inclosed in 1872-73.

Disasters to first one river front and then another caused dissensions among the owners, and finally the island was subdivided into four districts. Cross-levees were constructed in several instances, which system is still continued.

Pumping works and drainage canals have been constructed, and the levees materially repaired and raised. These pumping works have sometimes been overtaxed during the rainy season, but have pumped out the island in time to raise excellent crops, so that the island now ranks as one of the best and most fertile divisions in the valley. The mistakes of previous years are being remedied, although much remains to be done.

Andrus Island is peculiarly well situated under existing circumstances. Like the other districts on the left bank of the Sacramento as far up as Sacramento, it is protected by the great north levee of Sacramento City, which forces American and Sacramento river floods through the Yolo Basin.

Again, on the opposite side of Old River it is protected by the immense works of Grand Island districts.

Grand Island. (Area, 17,000 acres.)

[Authority: Robert Kercheval.]

In 1852-53, 12 miles of levee were built by Mr. Kercheval, near the upper end of Grand Island. This levee was 13 feet wide on the base, 3 feet high, and 3 feet wide on the crest.

The materials for its construction were taken from the inside and no berme was left. The object of course was to prevent the overflow of water during floods, which overflow at that time always occurred in thin sheets practically over the whole bank.

During the succeeding three or four years settlers on adjacent portions of the island commenced building small levees. These levees were joined so as to make a continuous line along the banks of Old River and Steamboat Slough. In this way the levees "jest growed" until they inclosed the upper end of the island entirely, and aggregated about 18 miles in length. The lower end of the island was left open, and from this end flood water backed up into the lower land. Levees having been constructed by the individual owners were not systematic in location, height, nor slope. These low levees were completely overtopped in the great flood of 1861-62. After this flood they were rebuilt, strengthened, and withstood all floods until that of 1868. In 1868 the flood continued so late that repairs were not undertaken until late in the autumn, and were executed on a much larger scale than the previous levees. Many of the levees were built 30 to 40 feet wide on the base, 8 feet high, and 3 feet in crest width. Some were even larger than this. There was, however, no system, each individual building as he pleased.

In 1871, according to Mr. William Holltum, the first district organization was effected; \$110,000 was levied and collected, and an attempt was made to make the system of protection uniform in strength throughout. The levee, however, failed on the Steamboat Slough front, and a portion of the work done was destroyed, and the island damaged in the autumn of that year. In 1872-73 these damages were repaired and the levee made of uniform strength entirely around the island. The results of these operations were the reclamation of 17,000 acres of land, requiring $29\frac{1}{2}$ miles of levee. Several magnificent crops were raised upon the island, but in the spring of 1876 the island was again flooded, and the loss of all crops followed.

In the following autumn the sum of \$156,000 was raised. The levee was repaired and strengthened throughout. In some places the width of the base was extended to 100 feet, the height to 12 feet, and the crest width to 5 feet. The material for this strengthening was taken from the outside, carried across the levee, and used inside. Excellent crops were obtained the succeeding year.

The flood of February, 1878, destroyed a large portion of the levees, washing them down from both inside and outside, wave action being very severe. In the two succeeding years voluntary subscriptions and contributions, amounting to \$1.55 per acre, were collected and used for repairing the breaks.

The total assessments for reclamation purposes to 1879 amounted to about \$35 per acre.

The average cost of the levees has not been under 20 cents per cubic yard. Systematic attempts to reclaim the interior of the island were, in the main, suspended until within the last four years; since which time levees have been greatly strengthened by dredging material from the bottom of the channels, and depositing it upon the levees. Extensive pumping works have been constructed, and a large canal built through the lowest portion of the island to the pumping stations.

Owing to the fact that these levees are stronger and higher than adjacent ones, the island is reasonably safe.

LOWER SAN JOAQUIN LANDS.

Bouldin Island. (Area, 6,400 acres.)

[Authorities: Capt. Levi Stevens and Mr. Geo. Oelton.]

In 1871, Stevens, Baker & Co. undertook to reclaim this island, and in the three years next succeeding, built $21\frac{1}{2}$ miles of levee at a cost of \$9,675; including cost of land and preparation for cultivation and buildings, there was spent in addition \$57,000.

The peaty formation of the island caused cracks and subsidences to such an extent that the work was abandoned in 1874.

In 1877 Messrs. Schutz and Voorman strengthened and raised the levee and covered it with 2 feet of sediment at a cost of \$43,000.

Flood-gates and raising places where the weight of the levee compressed the strata cost \$5,000 additional in 1879.

Since this date continuous additions have been made to the works. The drying out of the interior of the island causes it to slowly settle, but the fine yield of vegetables and fruit has stimulated and encouraged the owners to maintain the levees.

Bacon and Mandeville Islands. (Area, 13,200 acres.)

[Authorities: H. D. Bacon, Sherman Day, and T. Budy.]

These islands lie between Middle River and the San Joaquin River, and are separated by a tortuous slough known as "Connection Slough." They aggregate some 13,200 acres. The soil is peaty to a depth of 30 to 40 feet.

Operations of an extensive nature were commenced in 1872. The two islands were inclosed by levees aggregating about 50 miles in length, built of peat. These levees were from 11 to 14 feet wide at the base and 5 feet high; crest 5 to 6 feet in width. The materials were taken from the inside.

Within the next few seasons many breaks occurred, and repairs and additions were made to the levees; portions of the islands were cultivated.

The peaty and compressible character of the surface stratum was a source of great trouble. Dredgers and pile-drivers were employed, but after driving 10,000 piles, and reconstructing many miles of levee, attempts to reclaim the main portions of these islands were abandoned in 1874. The total expenditures were about \$370,000.

Roberts Island. (Area, 60,000 acres.)

[Authorities: E. E. Tucker, C. D. Rhodes, and J. W. Ferris.]

Reclamation operations were commenced on Roberts Island in 1856. The same general method of procedure was followed, namely: The individual settlers built small levees along the banks of the river in a disconnected and desultory manner. Back of these levees the bank land was cultivated in fruit and vegetables.

Following the law of 1868 district organizations were effected, and levees and cross-levees were built around the entire island. These levees were from 3 to 5 feet high; with a crown width of 4 feet, and slopes of 1 to 1½. In 1877-78 the greater portion of the island was acquired by the Glasgow-California Land Company. This company, with Mr. John W. Ferris as Superintendent, constructed about 32 miles of levee and dammed ten sloughs of various sizes. The levee was greatly enlarged, being raised to about 9 feet with slopes of 1 on 3 and 1 on 4 on the river side, and a crest width of from 8 to 30 feet. In this work there were about 3,000,000 yards of earth used, at a cost of \$360,000. The area protected was about 38,000 acres, known as the lower division of Roberts Island, and separated from the upper portion by the Duck Slough and Honker's Ridge cross-levees. Some of the levee is upon peaty formation, having a stratum of this material in places 30 feet deep. At these points excessive width and height were adopted.

Rough and Ready Island. (Area, 1,630 acres.)

As early as 1853, Mr. Richard Crozier and W. L. Wright raised or warped about 5 acres of land above the level of flood water. This work was accomplished by wheeling the material from ditches several hundred feet back from the river upon the highest of the bank land. The cost of thus raising the land was about \$1,200 per acre. It however furnished magnificent crops of early vegetables and fruit.

The ditches which were excavated for this purpose were connected with the river, and during floods were partly or entirely refilled with sediment. This same process was followed by Mr. Darque, who succeeded in raising about 5 acres of land just below the tract above mentioned. By 1872 some 23 acres had been thus warped above the level of the floods, at an average cost of \$600 per acre.

In this year the owners of the island entirely inclosed it by levees about 9 miles in length. The cost of this work was \$16,280, and by this means some 1,630 acres were reclaimed. The island was seeded, but the crops were largely destroyed by seepage water during the spring of 1873.

Under district organization in the five years between 1872-1877, the levees were strengthened and repaired. Through negligence the levee was broken in 1875, and the succeeding year repairs were finished too late to cultivate the land.

In 1878 a system of cross-levees and ditches were constructed for draining the lands, and steam pumps were put in to remove seepage water. The land is exceedingly fertile and yields as much as 10 tons of alfalfa hay per acre each year since it was planted in 1876. The yield of small fruits, vegetables, and berries is both valuable and large.

Owing to a break in the levee in 1892, a large clam-shell dredger was

built by the owners and used in strengthening the entire levee around the islands. This work has been thoroughly done, and with a systematic improvement of the flood-carrying capacity of the various outlets of the San Joaquin will give security.

Union Island. (Area, 42,000 acres.)

[Authorities: E. E. Tucker, C. E. W. Burke, John Petty, Capt. C. M. Lawton, Gen. T. H. Williams.]

This large body of highly fertile land has been the scene of very extensive and costly works. Every general type of dredging machinery has been used at one period or another upon this island and upon Roberts Island.

The work commenced in 1857 by the construction of small levees, by Mr. John Petty. The method was the same as heretofore described, namely: a small embankment, 3 to 3½ feet high, and with a base width of some 16 feet, and crest about 6 feet; this was principally intended to shut off water overtopping the banks during flood stages.

As the district law of 1868 came into force this island was organized into several districts.

As the ownerships were large, the operations were extensive. The complete history of these works is interesting and instructive, but to give it in detail would be burdensome. For each mile of the fifty odd of existing levees it is safe to say that an additional mile has been abandoned or washed away. The total expenditures cannot have been less than \$1,250,000. The losses incident to floods are in addition to this sum, but impossible to approximate.

Much of the work has been in duplicate by reason of disputes and disagreements.

GENERAL REMARKS CONCERNING EXISTING WORKS, AND CONCLUSIONS.

Many other areas upon both rivers have been partially reclaimed and protected, and extensive protecting works are in progress, but the above constitute the larger areas, and a history of their operations embraces in general the experience of nearly all. As a general thing, these attempts were the result of the efforts of adjacent owners, with no conception of the fact that the works they were endeavoring to construct and maintain were parts of the great arterial drainage systems of valleys receiving the flood waters of 57,000 square miles of mountain and rolling lands. When we compare their disconnected and systemless efforts with the volumes and forces of the floods which they attempted to control, the cause of failure stands out in bold lines, and the useless character of a systemless struggle becomes very apparent. It will be seen by comparing the general results that the prime cause of failure has been the same throughout, namely: the endeavor to construct through individuals or small districts, and without unity of action, the integral parts of a vast drainage and protection system, itself without design or conception.

The plan of individuals leveeing their farms has grown into one but a little more advanced, namely: small district organizations. In the lower portions of the Sacramento and San Joaquin River there are several hundreds of these organizations, each carrying on its

own independent operations like the early settlers. These districts are operating on a larger scale; they construct and maintain large dredging and pumping plants, yet their safety depends, in most instances, upon disasters to adjacent districts. Until this error be corrected, and the work be systematically undertaken as a unit, the safety of districts will depend solely upon the comparative height and strength of their levees, one or the other being bound to suffer in even ordinary flood years. With a united and systematic effort throughout the valley much less loss will be inflicted, and the various sections will be made safe by reason of the rational control and disposal of flood waters.

Under the present system, the passage of an ordinary flood down either valley means the destruction and loss of crops to one side or the other. The providing of adequate channel capacity to pass floods through the valley has never been made the especial purpose of any individual effort, nor of any law. A "cross" levee cannot be constructed without a flood-gate, yet millions of dollars may be spent, millions jeopardized, and even life risked, in efforts to protect isolated or adjoining areas, but no provision is made, neither in law nor in fact, for the construction of flood-channels through the valleys.

That these channels must be provided is recognized by every resident of the valley—not an acre of land within the reach of flood waters throughout the entire length of the Great Valley of California is reasonably safe until these channels be provided; they can be systematically planned, prescribed, and constructed, at little more than the regular yearly expenditures of the districts benefited, and the property and lives of the valley residents made reasonably secure.

The estimated cost of these works, \$9,287,000, as hereinafter given, would seem to be large. But it will be observed that they are designed upon a scale to pass the vast flood volumes entering the valley to a proper outfall in Suisun Bay without injury—in other words to drain and protect lands and properties of great value. The construction of these works would afford adequate protection to vast areas now but partly protected, and would bring into existence a wealth several times the cost of the works, at a figure less than one half that which has already been expended upon the existing lines of levees and protection works. The consulting engineers have, for prudential and wise reasons, placed their figures higher than might, at first glance, appear best; but when it is considered that the construction of master-dykes of the requisite size will necessitate modifications of existing machinery and methods, these figures may be found reasonable. In addition to this the larger part of the beds of the by-pass areas will, after the passage of the winter floods, be available for agricultural uses.

The successful execution and operation of these works are dependent upon the proper restraint of debris now in the beds of the mountain tributaries of Feather River, and also of the coarse gravel and sand in the lower reaches of Yuba, Bear, and American Rivers. The relation of the proper storage of this material therefore becomes of great importance to the problem of the drainage of the valley.

The existence of a large area of swamp and overflowed land of difficult drainage, and so situated as to be made the recipient of the debris carried by the three rivers draining the greater portion of the hydraulic mining field, has suggested a final solution of the vexed "debris problem." The solution involves the turning of the rivers directly into this swamp and overflowed depression, American Basin. This, if coupled

with proper measures, would insure free unlimited hydraulic mining on the Yuba, Bear, and American Rivers and their tributaries; moreover, it will afford complete protection to the Sacramento and Feather Rivers, Suisun and San Francisco Bays, and the adjacent lands, from the danger of injury or destruction by the debris now stored in the channels of the Yuba, Bear, and American Rivers, and their tributary streams and cañons. It will settle at once and forever the vexed question between miners and farmers of the deposit of mining debris in the streams of Northern California. It will be acceptable and satisfactory to all classes of citizens. It will make mining investments much more permanent, secure, and profitable; and, by adding largely to the output of gold from the mines, will go far toward the restoration of prosperity and business enterprises, and contribute to the general welfare and happiness of the whole people of the State.

The cost of these works should be borne by the General Government, by direct appropriations from the general treasury, and their construction should be under the direction and supervision of the California Debris Commission.

The construction of these works is of no less importance to the owners of the lands referred to than to the miners operating the mines, as the reclamation of the basin lands depends upon the ability to protect the Sacramento and Feather Rivers from the debris now stored in the mountain rivers and cañons.

The undertaking and consummation of this work is, in my judgment, second to none other in point of importance that could at this time be undertaken in California.

The cost of acquiring the necessary low lands and constructing the diverting works, etc., is estimated at \$1,689,749.00, the expenditure of which sum would be extended over two years, and, considering the magnitude of the industries to be set in operation by the carrying out of this project, should be at once undertaken. More than 50 per cent of the cost of the project under the above estimate would ultimately be returned in the lands after being warped up to a sufficient elevation to permit of drainage by gravity.

LACK OF BASE LEVELS THROUGHOUT THE VALLEY.

The necessity for absolutely knowing the elevations above sea-level, and comparatively the elevation above or below flood stages, is as great as to know the township and section lines. There have been numerous accurate lines of levels run throughout portions of the valley; the instrumental work for this data has been done with much greater precision than that for locating the land subdivisions, but these lines have different datum planes, and to connect them is always difficult and frequently unreliable and uncertain. Many of the bench-marks are obliterated after a few years, so that it is difficult to connect this scattered data both in the office and in the field.

It therefore becomes necessary for me to urge the importance of having thoroughly checked lines of base levels run throughout the valley, and the establishment of permanent bench-marks from Red Bluff to Bakersfield at each county seat, and upon all prominent public buildings and other permanent and convenient points.

The need for thus accurately knowing the relative elevation of lands

is fully recognized by every resident of the valley who has had anything to do with constructing levees, drainage, and irrigating canals and ditches; and the desire to have this reliable data is growing each year.

The longer this work be put off, the greater will be the irregularity in the construction of great drainage lines and in relative heights of works in the various districts. This full knowledge of elevations serves also as a guide to owners concerning the comparative values and needs of their lands.

OPERATIONS IN THE SAN JOAQUIN VALLEY.

It has been impossible in the limited time since my appointment to collect all of the necessary data for formulating a plan of drainage and protection for the San Joaquin Valley. Operations have therefore been restricted to the most vital point in that valley, namely: the district embracing the city of Stockton. Several months were spent in making the surveys and maps necessary to form the basis of protecting the valuable lands east of Stockton, and that city itself, from inundation.

These data were furnished to the local authorities, and are available when extended to the rest of the valley for a more general study. It is intended to extend work to this valley during and subsequent to the June rise of the San Joaquin River. Last season no opportunity was offered to study flood volumes on this river, nor on any of its tributaries, owing to the light rains of the winter of 1893-94. This was in a measure true of the streams of the Sacramento Valley also.

RECOMMENDATIONS.

The report of the consulting engineers gives in full the data upon which their studies are based, and a definite project for draining and protecting the valley lands. Although much time and study have in the past been devoted to desultory attempts to perfect a system of drainage and protection for the valley, this is the first time that the people of the valley have had laid before them a definite plan and estimate of cost of general works for flood control, which, supplemented by the necessary local and district works, will constitute a thorough and complete system of drainage and protection works for the valley. Messrs. Grunsky and Manson are to be congratulated upon the results of their labors. Only their training and long familiarity with the topographical and hydrographic features of the State have enabled them to perform this work in the limited time available. The adoption and construction of the works now presented are earnestly recommended, and I hold myself in readiness to aid in preparing the necessary laws to put this important work under way.

For extending this work to the San Joaquin Valley, at least two years' time will be necessary, as much data have to be collected before the proper basis for drainage works for that valley can be definitely formulated. To collect these data and to furnish the proper supervision of those portions of district and private works being extended continually, which may become parts of the great drainage lines of the valley, I recommend that an appropriation of \$50,000 be made. The financial statement appended shows that on December 1, 1894, an unexpended balance of \$4,840.65 remained in the State Treasury.

A. H. ROSE,
Commissioner of Public Works.

FINANCIAL STATEMENT.

SACRAMENTO, CAL., December 12, 1894.

Hon. A. H. ROSE, *Commissioner of Public Works:*

SIR: I submit the following as a correct statement of the expenditures of your office from August 12, 1893, to December 1, 1894:

Salary—Commissioner	\$5,555 50
Salary—Secretary	2,270 50
Salary—Attorney	1,600 50
Salary—Consulting Engineers	2,345 50
Salary—Draughtsmen	3,084 96
Salary—Engineers in charge in the field	1,750 96
Salary—Assistants to engineers in charge in the field	1,739 30
Salary—Gauging Stations	1,545 35
Expense engineering parties in the field	2,733 25
Stenographer	61 65
Salary—Janitor	140 00
Expense Gauging Stations	694 17
Traveling and miscellaneous expenses	1,637 71
Total	\$25,159 35
Balance unexpended December 1, 1894	4,840 65

Respectfully,

JUDSON BRUSIE,
Secretary.

SAN FRANCISCO, December 10, 1894.

Hon. A. H. ROSE, Commissioner of Public Works, Sacramento, Cal.:

DEAR SIR: On the 11th of September, 1893, we were employed by you as consulting engineers, and amongst other duties were directed to propose a system of drainage and protection works for the Sacramento Valley.

We now submit the results of our studies, in the form of a report, accompanied by maps and diagrams, a list of which is appended.

Upon a tracing accompanying the valley map is delineated the alignment and protection works of general benefit designed for the Sacramento Valley.

The valley map now issued may be deemed supplemental to the one published by the State Engineer Department of the San Joaquin Valley, and will supersede the map of the Sacramento Valley which was issued by the Examining Commission on Rivers and Harbors, since this latter map could only be issued in a very limited edition, and therefore did not have a sufficiently large circulation.

Our report contains an estimate of \$9,287,000 as the cost of the proposed general drainage and protection works. It will be borne in mind that there has been already expended upon the lower rivers more than \$17,000,000 for reclamation and protection purposes, without adequate return, and that from a quarter to a half million dollars is annually being spent.

It is needless to further urge the necessity for the adoption of a general drainage system looking to the control of flood waters. The execution of the works involved in such a system would vastly increase the wealth of the State.

Very respectfully,

MARSDEN MANSON,
C. E. GRUNSKY,
Consulting Engineers.

REPORT OF CONSULTING ENGINEERS.

GENERAL DESCRIPTION OF THE FIELD OF OPERATIONS.

SACRAMENTO AND SAN JOAQUIN RIVER DELTAS.

Sacramento and San Joaquin Rivers, the drainways of the Great Central Valley of California, have a common outfall channel into Suisun Bay. This bay has a surface area of about 50 square miles, and its tidal area is increased by 100 square miles of swamp or marsh lands which are submerged at each high tide. Through this bay the waters of the rivers flow toward, and through, Carquinez Straits.

This bay is the recipient of the drainage from an area of about 57,000 square miles, and in it a large portion of the lighter grades of silt carried by the rivers is deposited. Here the building of mud flats, the encroachment of the tule lands upon the formerly open water surface of the bay, is rapid.

Suisun Bay may be regarded as the remnant of the inland sea which at one time covered the interior valley, and which more recently covered all those portions of this valley which are now embraced in the deltas of the two rivers under discussion.

Between the bay and the river deltas, the rivers with the swamp lands adjacent to them, are confined between the Montezuma Hills on the north and a spur from the Coast Range on the south. At this point at the low stage of the rivers, the mean rise and fall of the tide is about 6 feet. A great body of very low land extends from here to the north, to the east, and to the southeast. Over five hundred square miles of the swamp land in the river deltas, and adjacent thereto, have less elevation than 10 feet above low tide, or about 7 feet above half-tide in the bay. More than half of this tract was, before the reclamation of the swamp-land tracts had been commenced, subject to inundation at each high tide, twice in twenty-four hours. To cover and uncover one half of this tract with water one foot deep twice in twenty-four hours would require an average flow of water back and forth through the Straits of Carquinez of more than 300,000 cubic feet per second.

This rate of flow is far below the actual rate of flow back and forth through the tidal portions of the rivers before levees interfered with the water's spreading over the land. The importance of such tidal flow in forming and maintaining the lower river channels can be better appreciated when this volume is compared with the present greatest possible flow of the Sacramento River at points between Sacramento and the head of Grand Island, where the river at flood does not carry one third of this volume.

As works of reclamation progress, this flow will continue to decrease, until it is limited to the small tidal flow required to raise the water surface in the waterways alone. Thereafter a new regimen will have to be gradually established for the channels of the lower rivers, adjusted to

the flow of drainage water from above, and to the needs of navigation, and preserved to some extent, at least, by artificial work of channel building or deepening.

Perhaps it is a fortunate circumstance that the difficulties in the way of the reclamation of some of the many unreclaimed tracts of land in the river deltas appear almost insurmountable to their present owners, and have retarded reclamation, because it is certainly undesirable to reduce suddenly to a minimum the tidal area above the river mouths.

It is interesting to note how the lands of the deltas have been built up, and no discussion of the conditions to be considered in devising a rational system of river treatment can be complete without a reference to their character, and to the causes which led to the formation of the peat deposits, of which the delta lands are in large parts composed. As soon as the general surface of the valleys near the outfall of the rivers into the bay had been raised to such a height that the main flow of water was in clearly defined waterways, the land building progressed with greater rapidity on the banks of these channels than at points remote from them. As soon as these were elevated above the low-water plane, so that vegetation could take root, they were covered with a growth of tules. The tule extended farther and farther from the waterways, as freshet after freshet brought down more sediment. Floating plants took possession of the ponds back of the tule-land rim around the islands; decaying vegetable matter was added to the sediment brought down by the water, and very soon the vegetable matter, entering into the soil composition, predominated to such an extent that, except on the banks of the streams, the peat formation became characteristic of the river islands. So slowly was heavier material added, and so rapidly did the rank swamp-land growth add more material to its edges, that not infrequently the peat was formed without contact with subsoils floating on water. Such floating tracts of peat land are found back of Mandeville Landing, on San Joaquin River, and at other points.

On the banks of all streams in the tule lands of the valley, soil is a heavy loam or sediment containing some vegetable matter, generally enough of partially decayed roots, etc., to make it non-erosive. Receding from the bank, the proportion of sediment decreases more or less rapidly, merging into peat. The peat, or peat soil, forms a layer of varying thickness, 4 to 12 feet, resting on a soft muck or slush, and this in turn rests upon a continuous hardpan bed which dips from east to west, being 14 to 20 feet below the surface near the eastern limit of peat lands, and 40 to 60 feet below the surface near the outfall of the rivers.

The river bank land, or the rim land of the tule islands, rises gradually toward the north and east, along the main channel and delta branches of the Sacramento River; and it rises, though less rapidly, to the south and east along the San Joaquin River and its branches. At the head of Grand Island (near Courtland), on Sacramento River, the elevation of the high river bank land is 14 feet above low-tide low-water of Suisun Bay, and at the head of Roberts Island (head of Old River), on the San Joaquin, it is 18 feet.

From the river banks toward the interior of each island, and from these banks toward the main land, there is, throughout the entire lower portions of the valley now under discussion, a rapid fall inland of the ground's surface. Each island is saucer-shaped, being encompassed by

a rim of land higher than its interior, and upon each side of the valley's drainways, between them and the high plains, lies a depression or trough.

The general elevation of the bottom of the depression west of the Sacramento River, opposite the head of Grand Island, is about 5 feet above low water in Suisun Bay (to which reference plane all elevations noted in this report are referred).

The lowest points on Grand Island (in a shallow lake bed) are 10 to 15 feet lower than low water in Suisun Bay.

On Roberts Island the lowest ground is at or below the elevation of low water in Suisun Bay.

Examples could thus be multiplied showing the great extent of the region whose surface is near the same elevation as the low-water plane of the ocean.

Before any attempts were made to transform portions of this region into cultivable fields, the rivers in times of flood swept over their banks and converted portions of these swamp-land tracts into a shallow sea connecting with and discharging into Suisun Bay. The river banks were long, low, overfall weirs, over which water flowed in thin sheets until the water surface in the depression adjacent to the river so overtopped the banks that, at the height of the floods, all trace of a channel was lost. This condition prevailed along Sacramento River to Sacramento, and along the San Joaquin to and above the head of Old River.

In the floods of 1853 and 1862, Sacramento River water extended in a broad expanse from the Sutter Fort site, in Sacramento, westward to Davisville, standing 3 feet deep across the natural river banks at and near Sacramento. The steamer course from Stockton to San Francisco was, during the latter flood, a direct line across country from Rough and Ready Island to Antioch.

General elevations of bank lands along the main rivers are practically the same to-day as they were thirty years ago. The same is true of the elevations of all the land in the river deltas. Thirty years in the history of the growth of these valley lands is too short a period to produce apparent changes other than local ones, which are an insufficient basis from which to determine the aggregate change. What we do note in this connection on both rivers near their outfall into the bay, is a very strong tendency to build mud banks or flats in the river channels. These are generally in contact with bank lands, and have their tops covered with a tule growth. Bank lands are thus encroaching upon the river channels, and the recent changes to which residents along the rivers bear witness indicate that this tendency to reduce the waterways has been much more pronounced since 1850 than it could by any possibility have been before that time. Two causes can be assigned to this increased rate of bank building, to each of which the effect is due in part:

(1) The operations of man have increased the quantity of material to be transported in suspension by the river waters.

(2) The reclamation works have reduced the tidal area above the river mouths, and the consequent decrease of the erosive force of the tidal water flowing in the lower rivers must result in a decrease of waterway by a deposit of silt in the river channels.

Into the main swamp-land region of the Great Central Valley of California, as the same has above been briefly described, Sacramento River brings its waters from the north, and San Joaquin River from the south. The portions of the two rivers which we desire to describe with

some attention to detail, in this report, are the Sacramento River from the head of the Great Central Valley, a few miles above Red Bluff, to its mouth, and the San Joaquin River below Hill's Ferry. Of the rivers above these points, we have but a few general remarks to make at this time.

SACRAMENTO VALLEY.

Emerging from Iron Cañon, about 4 miles above Red Bluff, Sacramento River enters Sacramento Valley. This valley, from the Cosumnes and Mokelumne Rivers on the south, to its northern apex, has a length of 140 miles. Above Colusa the foothills upon the eastern and western margins of the valley gradually approach each other, being only 25 miles apart in the latitude of Chico, and closing around the head of the valley just above Red Bluff.

The valley lands are very smooth-surfaced, and have a remarkably uniform slope from the base of the hill lands toward the trough of the valley. At Red Bluff the general elevation of the valley is 300 feet. Near Colusa the trough of the valley has an elevation of 50 feet, and the valley edge at the base of the hills to the east and to the west may be noted at 120 feet. At Sacramento the valley trough is only 11 feet in elevation, and the base of the Coast Range hills is at 140 feet, while the base of the hills to the east is at about 120 feet.

These figures present clearly a picture in rudest outline of the valley, showing a rapid slope from Red Bluff to Colusa (250 feet in 65 miles), a very much lighter slope from Colusa to Sacramento (39 feet in 50 miles), and thence to the outfall of the river into Suisun Bay, an almost level surface.

The area of the Sacramento Valley is 4,252 square miles, which may be classified as follows:

High hill lands (Sutter Buttes)	56 square miles.
High plains, not overflowed	2,454 square miles.
Land subject to occasional overflow from tributary streams	450 square miles.
Lands naturally subject to flooding	1,254 square miles.
Channel surface of perennial streams	38 square miles.

The Sierra Nevada slopes toward this valley from the east. The waters draining from it are collected in the Feather River and its tributaries, in the American River, and in the many small streams entering Sacramento Valley from the east. The waters of the small tributaries—Big Antelope, Little Antelope, Salt, Dry, Deer, Pine, Rock, and Mud Creeks—enter directly into the Sacramento River channel; also a portion of Chico Creek water. Butte Creek, Table Mountain Creek, and other small streams, however, which enter the valley between Chico Creek and Feather River, have no direct outlets to the river. Their waters are discharged into the east-side valley trough, or depression, which here also, as in the case of the lower rivers, lies between high river bank land on the west and high plain land on the east, and in this trough they flow southerly—sometimes in channels or sloughs, and again in the broad swale without channels to a passage just east of the Sutter Buttes, into a continuation of the east-side trough, the Sutter Basin, and through this into Sacramento or Feather River, just above their junction.

The water of the small streams which drain the low foothill region between Honcut Creek and Yuba River is discharged into the pocket

between Feather River and Yuba River, just to the north and northeast of Marysville, and at falling stages of Feather River reaches this stream above that city. Bear River, one of the principal tributaries of Feather River, after passing that point in its lower course generally referred to as "The Narrows," spreads over the bank lands of Feather River, and has no well-defined mouth.

All of the foothill drainage collecting in Coon Creek, Auburn Ravine, Arcade Creek, and other small watercourses between Bear River and American River, is discharged into the trough or basin on the east side of the Sacramento River, just north of American River, and thence it finds its way into the Sacramento River across the river banks, or through the sloughs draining this basin (American Basin) at low stages of the river.

The drainage from the hills south of the American River nearly all finds its way into tributaries of Cosumnes River, a small amount only being collected by Willow Slough and other small surface drains south of Sacramento, and collecting in the depression between Sacramento and Mokelumne Rivers.

The Coast Range rises from the western edge of the Sacramento Valley. Its eastern slope, to the extent of 4,500 square miles, drains into the Sacramento Valley. The streams descending from this part of the Coast Range, which are directly tributary to Sacramento River, are Reeds Creek, Red Bank Creek, Thomes Creek, and Stony Creek, besides a few smaller watercourses above Stony Creek. All the water entering the valley from the west, south of Stony Creek, and above the country tributary to Cache Creek, flows into the great west-side depression, the Colusa Basin, which extends from above Colusa to the ridge built out by Cache Creek from the west to the river bank at Knight's Landing. Collecting in this basin this water is at low stages of the river delivered into Sacramento River through Lower Sycamore Slough.

Cache Creek, Putah Creek, and the smaller streams which collect the drainage from the eastern slope of the Coast Range, south of Cache Creek to the Montezuma Hills, all discharge into the Yolo Basin, which extends for 40 miles along the west side of Sacramento River, from Knight's Landing, almost due south to the mouth of Cache Slough, at the lower end of Grand Island. This basin has an average width of over 5 miles, and, as already stated, its points of greatest depression are below the level of mean tide in the bay, and its complete drainage by gravity flow through natural channels is not possible.

At times of extreme high water there has always been a great discharge of water from Sacramento River across natural banks and through crevasses in the levee into this basin. The result has been that the basin has at such times always acted as a by-pass for the river. That it has carried no inconsiderable amount of water at such flood stages is evidenced by the fact that its water surface at such stages has a slope from north to south of very nearly 6 inches per mile. It was in 1879, when not within 6 feet of its extreme flood height, carrying 66,000* cubic feet per second through the openings under the railroad track between Sacramento and Davis, and at its greatest height of water in 1881 its flow was at least 185,000 cubic feet per second.

The water thus flowing parallel to the river reënters its channel

*Careful measurement by C. H. Klugel, for State Engineer Department, in February, 1879.

through Cache Slough. While the basin is being filled by a flood it is, to some extent at least, an outfall point for a portion of the river water. At such times there may be a strong flow of water up Cache Slough into the basin. This, as soon as the basin is full, in returning, augments the flow of the main stream below Cache Slough, and produces at the point where the water reënters the river greater water elevations than would there result, if only the water in excess of a full Yolo Basin were returned to the stream.

Referring to the extent of inundations in Sacramento Valley, the State Engineer in his report of 1880 says:

“During the high water of March, 1879, the low lands of the Sacramento Valley, to the extent of about 847 square miles, were covered with water. This area includes all flooded for a short period of time, as well as that upon which the water rested for several months. Above the mouth of Feather River, in what may be called the upper flood region, the area covered was about 483 square miles; and below that point, in what is called the lower flood region, the flooded area was about 364 square miles in extent.

“Although the waters flowing through Sacramento Valley and the surface drainage of the valley itself, commingle with the waters flowing to the bay through San Joaquin Valley at and near the point of the outfall to the bay, there is no reason why the drainage of the one valley should not be treated as a problem entirely distinct from the drainage problem of the other valley, in so far as the same relates to the bringing of water to the common point of outfall.”

SACRAMENTO RIVER.

The water from a large portion of northeastern California collects in the Upper Sacramento, McCloud, and Pit Rivers, and, flowing in a southerly direction, breaks through the low ridge of hills called the Hooker Divide, in a rocky gorge generally known as Iron Cañon. The river, thus entering the Sacramento Valley at its extreme northern apex, has an aggregate drainage area of about 9,900 square miles. This area includes the Goose Lake drainage basin, into which flow the drainage waters from some 900 square miles in the southern portion of Oregon, besides those from 400 square miles of territory in California. This basin is a portion of the Pit River watershed, and almost takes rank as an interior basin. No water flows from the lake into Pit River, except in years which follow a season of extraordinary rainfall. It is quite probable that no water from this part of its watershed has reached Sacramento River since 1862. The mean annual rainfall within the watershed of Pit River is 10 to 15 inches. For some points in the mountain region tributary to McCloud and Upper Sacramento Rivers it exceeds 60 inches. Pit River from its source at Goose Lake to its junction with the Upper Sacramento, is a very long stream, with a comparatively narrow drainage basin. Consequently it rises and falls but slowly.

The main flood volume of the Sacramento at times of great freshets comes from the region drained by the McCloud and the Upper Sacramento Rivers, and from the district tributary to the main river between the mouth of the Pit and Iron Cañon.

A protracted heavy rainfall or a warm rain or snow may, in a very

few days, cause the river at Red Bluff to rise from almost low-water stage to the height of ordinary winter floods, or about 22 feet above low water.

The highest water* recorded at Red Bluff, on February 4, 1881, attained an elevation of $28\frac{1}{2}$ feet above the low-water plane of 1878. But the high-water stage at this point is never protracted. The river rises rapidly, and upon the passage of the flood falls rapidly.

It is interesting to note in this connection that the extreme high-water flow of the river at Red Bluff, which occurred on February 4, 1881, was about 195,000 cubic feet per second, while its average flood flow is very much less. Thus, for example, at the time of the freshets in March, 1879, its average flow for the flood period from March 4th to March 20th, inclusive, was only about 37,000 cubic feet per second. For a short time during this high stage the river was nearly 23 feet above its low-water stage at Red Bluff, and was discharging water into Sacramento Valley at the rate of about 133,000 cubic feet per second.

In Iron Cañon the Sacramento River is, at its lowest stages, confined to a narrow gorge, through which its water flows with great swiftness. The narrowest portion of this gorge is less than 60 feet in width at the surface. The rise of water in the cañon has quite recently been fully 50 feet above its low-water plane. The rapids in the cañon have been passed by steamboats, but the perils to navigation extend through so long a portion of the river, and are so great, that the navigation of this part of the river is impracticable at the present time.

Sacramento River has, however, by legislative enactment, been declared a public way to the mouth of Middle Creek (several miles above Anderson), in Shasta County.

SACRAMENTO RIVER THROUGH THE VALLEY.

Through the Sacramento Valley, as above described, Sacramento River flows in a southerly direction, dividing the valley into two almost equal portions. Its total length, from the head of the Sacramento Valley to a point in its mouth opposite New York, is 260 miles. Its low-water fall in this distance is very nearly 260 feet, making the average fall for the entire course of the river through the valley about one foot per mile. This fall is not, however, uniformly distributed from the upper to the lower end of the valley. The gradient of the river is light in its lower reaches, and very much greater near the head of the valley. The character of the river, of its bank lands, and of its behavior at times when taxed to the utmost as a drainway, is very different at different points of its course, and a consideration of these conditions and phenomena enables a ready division of the valley portion of Sacramento River into the following natural divisions:

- (1)—Iron Cañon to Stony Creek.
- (2)—Stony Creek to Butte Slough.
- (3)—Butte Slough to Feather River.
- (4)—Feather River to head of Steamboat Slough.
- (5)*a*—Old Sacramento River.
- (5)*b*—Steamboat (Merritt) Slough.
- (6)—Foot of Grand Island to Collinsville.

*The Red Bluff "Independent" of January 24, 1862, says that the high water of January 23d was 34 feet above low water, being 1 foot higher than the high water of December, 1861. This statement is believed to be incorrect, as the $23\frac{1}{2}$ feet rise on February 4, 1881, is cited by Red Bluff residents as the highest ever known.

TABLE OF DISTANCES AND LOW-WATER GRADES.

Stations.	Length of Channel—Miles.	Low Water, 1880 to 1889—Elevation.	Total Fall Low Water—Feet.	Grade, Fall per Mile—Feet.
Iron Cañon	58.2	258.5	149.5	2.57
Stony Creek	52.8	109.0	68.0	1.29
Butte Slough	64.6	41.0	22.0	0.34
Feather River.....	47.5	19.0	13.5	0.29
Head Steamboat Slough	*18.3	5.5	*4.3	*0.23
Foot of Grand Island.....	15.8	1.2	1.2	0.076
Collinsville		0.0		

* Via old Sacramento River, the main channel.

Without describing each of these several river divisions in detail, it is necessary to say a few words about the general character of the river in each.

In the first division, to Stony Creek, the river follows the thread of the valley. Lands rise from both banks of the river toward the hills. All small streams from the east and west discharge their waters directly into the main stream. There are no extensive continuous basins or depressions lower than bank lands to the right and left along this part of the river. The river's capacity is insufficient to pass ordinary floods within bank heights, but the waters of greater floods, which overtop portions of the bank lands, are all returned to the main channel within this division. In this division the river is constantly changing its alignment, but the extent of change is limited by two lines of hardpan, or firm clay banks, which break off toward the river at the distance of one to two miles from each other. The position of these is sometimes, though not always, marked by a rise of the valley's surface. Between them the soil is alluvial, of recent formation, easily eroded, forming steep, rapidly caving banks.

In the second division, from Stony Creek to Butte Slough, the river receives no tributaries. Bank lands slope away from the river. The bottoms of the east- and west-side basins are sometimes 4 to 6 miles from the river, and toward these the slope of the valley surface is gradual, and generally very uniform. The river is deficient in capacity. Ordinary floods overtop the river banks. The water which escapes from the river channel collects on the east side in a perfect network of sloughs, which are fed by this water and by water from Chico Creek, Little Chico Creek, and other streams. Through these sloughs the east-side overflow reaches Angel Slough and flows southward into Butte Basin, and thence further southward through Sutter Basin, being joined by the flood waters escaping through Butte Slough and crevasses in the levees on the east bank. Thus Angel Slough, Butte Slough, and Sutter Basin act as a natural by-pass to the lower end of Sutter Basin at Sacramento Slough.

The water which escapes from the river channel toward the west holds a southerly course, parallel to the river, and cannot reënter the main channel until the water in Colusa Basin at the mouth of lower Sycamore Slough is higher than the river water at that point. But it

remains to be said of this division, that its capacity, insufficient though it be to pass ordinary floods at bank heights, shows a slight, very nearly uniform decrease from its upper to its lower end.

The same decrease of capacity of the natural waterway which was noted from the first division to the second, is to be noted also for the river as it enters the third division at Butte Slough. In this division, from Butte Slough to the Feather River, which is 65 miles in length, the river has remarkably uniform channel dimensions. Its capacity is less than one third of that required to pass the extreme flood flow of the river. In some respects it is similar to the second division. The land slopes from the river toward the Sutter and Colusa basins. Drainage water from the hill and valley lands accumulates in the basins and does not enter the river directly. Bank lands are here firm and yield very slowly to the erosive action of the river. The regimen of the river is well established, and the only recent change to be noted is the rise of the low-water plane from Feather River up to Knight's Landing, which is due to the recent great deposit of sand in the Sacramento River channel below Feather River.

At the head of the fourth division, or rather just above the same, much of the water which escapes from the river at the head of the second and third river divisions reënters the river channel. Here the river receives, also, the water of Feather River, and 20 miles below it is reinforced by the American River. It has no other direct tributaries in this division. In the division from Feather River to the head of Grand Island the river has, of late years, always been relieved of enormous volumes of flood waters by breaks on the right bank. These escaping waters have used Yolo Basin as a by-pass, and have reëntered the river at the mouth of Cache Slough. The sands brought down by the two rivers just named have caused recent changes of great magnitude in this part of the river, which now affords less than two thirds of its original waterway when bank full. In its original condition the river, when bank full, could not pass such flood volumes as those of 1853 and 1862. It requires no argument to show the necessity of increasing the drainage capacity of this part of the Sacramento River. The rise and fall of the tides in the river at Sacramento was about 2 feet in the years 1849 to 1860. It was 9 inches in 1871. Now there is none. Low water was below zero on the gauge-rod at Sacramento in 1849; it was zero as late as 1856; it was $5\frac{1}{2}$ feet in 1878, and it has been between 7 and 8 feet in the years 1880 to 1889. In 1890 we note it at $10\frac{1}{2}$ feet (September 27th), and 7.5 in September, 1894. The bottom of the river bed is now higher than the old low-water surface of the river.

The extent to which the river has deteriorated as a navigable waterway will be made plain by a comparison of Major Heuer's official reports of 1870, and of 1888 and 1889, to the Chief of Engineers, U. S. Army. But in making the comparison it must be remembered that the gauge reading at Sacramento in October, 1870, was about 3 feet, and that the low-water gauge reading in 1887 and in 1888 was $7\frac{1}{10}$ feet. It must also be remembered that the boats in use on the Sacramento at the late dates had a draught of only 4 feet, and frequently had to be lightered before they could cross the bar below the city of Sacramento.

The Sacramento River, in the fifth division, as above noted, is a divided stream. Its main channel is Old Sacramento River, from which Georgiana Slough breaks off toward Mokelumne River. Its lesser

branch is Steamboat Slough, also called Merritt Slough, below the mouth of Sutter Slough. Grand Island in this division lies within reach of tides, but the tidal flow is relatively small.

In the sixth division, from the foot of Grand Island to its mouth, Sacramento River is a broad tidal stream. Its natural banks, except at Rio Vista and near Toland's Landing, where spurs of the Montezuma Hills break off toward the river, are low. In this division the tendency to shoal, as at Newtown, above Rio Vista, where the river has more than average width, and near the mouth of the stream, where mud banks are building, will require correction as hereafter noticed.

The following extracts are from the report of the State Engineer for 1880:

"After this examination of the river throughout its valley course, if we glance over the field we find a channel which, in its present condition, is not, in any one single division of its course, capable of affording passage to the maximum volume of the ordinary high floods of the valley as they would be presented to it, if confined between banks with levees all brought to a height uniform with the average of those which now exist in the several divisions, and in most divisions, even if the levees were brought to a height uniform with the highest that exist.

"We find, moreover, several divisions of small capacity, generally throughout their length—as, for instance, from Butte Slough to the mouth of Feather River—deficient in grade and width, and suffering from excessive bend resistance, thus diminishing the flood flow by reason of its tortuous course. And, again, where the river is restricted in capacity, by the effect of the division of its waters at Grand Island, and the construction of levees close up to the banks of streams already too narrow.

"The river has always been one of poor regimen—great variation of capacity to pass the waves of flood through its various divisions—and its channel has always had serious local defects, which have acted as obstructions to the passage of flood waters. Thus, for 106 miles and more above the head of Butte Slough, there is a channel of greater grade and greater dimensions than there is below, all the way to the mouth of the Feather River, a distance of $64\frac{1}{2}$ miles."*

FEATHER RIVER.

At Oroville, where the Feather River breaks from the hills into Sacramento Valley from the east, it has a drainage basin of 3,654 miles. The summit of the Sierra Nevada forms the eastern limit of its watershed for about 130 miles.

Its mountain drainage basin is fan-shaped, and the water collected by the river from it, when rains are general, sometimes causes tremendous freshets, usually of short duration. The river has at such times overtopped its right bank and overflowed the relatively high plain lands to the northward of the Sutter Buttes. Such flooding has occurred even before the great reduction of waterway below the mouth of the Yuba River impeded the outflow of flood waters along the channel of the river.

*For more detailed description of Sacramento River, see Report of the Examining Commission on Rivers and Harbors, 1890, pp. 13-50. Also Reports of State Engineer Department, 1880 and 1881, and Reports of Chief of Engineers, U. S. A.

Upon entering Sacramento Valley, the river turns toward the south and holds a quite direct course to its junction with Sacramento River. This part of the river is 67 miles long.

In 1849 it was a clear-water stream, flowing over bars of gravel and cobble, between well-defined banks, to its junction with Yuba River. It maintained a very uniform channel below that point, and its water was clear and deep to its mouth at the low stages of the water. Tidal influence extended for some distance up this river.

The following is from the State Engineer's report for 1880: "The channel of Feather River has been subjected to such considerable changes during the last ten or fifteen years that a description of its present condition would not convey a just idea of the real character of the river. It was, in 1848, a clear-water river, with a well-defined high bank channel. It left the mountains in a rocky bed, and ran alternately over short cobble-bottom rapids, where, at low water, but one or two feet of depth was found, and through pools of several miles in length, sometimes with water 10 to 25 feet in depth at the lowest stages. This character continued to near the point of entrance of the Yuba, from whence, on down, fine gravel and sandbars appeared in place of these coarser materials, with long reaches intervening, where the water was from 8 to 15 feet deep on the average at its lowest stages, but becoming less deep, and sand only appearing on the bars, as it approached the Sacramento."

The bottom lands along Yuba and Feather Rivers in their original condition were inundated only in times of extraordinary floods.

Now the channel of Feather River below Yuba River presents a very different appearance. It has become the repository of so much mining detritus that its bed has been nearly filled. Its bottom is nearly at the height of its former banks. The water-plane at Marysville, at the low stage of the Yuba and Feather Rivers, is now at least 15 feet higher than it was in 1849, and the rise of the river bottom is still greater. Even ordinary stages of water are now so high on the levee and above natural ground surface that the limit of usefulness of the present levee systems seems to have been almost reached. Though levees may be built high enough to prevent their being overtopped, and broad enough to prevent their breaking, they cannot be made to check the seepage water, which, during protracted mean stages, as in the spring of 1890, must bring disaster to vegetation of every class for a great distance out from the river.

Where crevasses occur in the river levees at points where the levee is close to the bank of the river, as in the case of the Nelson Point crevasse, just below Nicolaus, on the right bank of the river, the possibility now exists of permanent changes being made in the river's alignment. It may leave its channel whenever the sandbar in the river below the crevasse is higher than the natural ground, out to which bank erosion extends, and the water can thus secure a lower point of outfall.

The sand flow in the Feather River is greater than its ordinary volume of flow can handle. The freshets cut out the material in the mountain cañons, and pile it into the rivers just where they reach the valley. Succeeding years of slight but protracted rises keep carrying some of it down stream. This process must continue so long as the mountain cañons afford material to come down in quantity. Feather River below the mouth of the Yuba River needs a lower outfall point, and this is to be secured in but one way—by the lowering of the water-

plane in Sacramento River, at and below the junction of this river with the Feather.*

YUBA AND BEAR RIVERS.

Both of these streams were, in 1849, tortuous watercourses, flowing in more or less well-cut channels through bottom lands, from the hills to the Feather River.

In the cases of both, the bottom lands have been covered with silt, sand, and slickens (as locally called) to a great depth; so great, in fact, that we now find levees on the old upland plains to prevent their inundation. A space 2 to 3 miles wide between these levees has, in case of the Yuba, been given up to the waters of the river, while on the Bear, small areas of the original bottom lands, at and above Wheatland, still afford excellent opportunity to study the magnitude of the changes.

At its escape from the mountains, where the foothills recede and give width to the plain, the Yuba spreads out its load of sand and gravel over a plain of 15,000 to 16,000 acres, which has been gradually raised until now it stands above the level of the adjoining country on either side. This plain has a slope of about 10 feet to the mile, varying above and below this limit as you ascend or descend the river bed, being 15 feet at the foothills and 5 feet at Marysville, 10 miles below. The sizes of materials over which the river flows decrease with the grades.

This eruption from the mountains has destroyed thousands of acres of alluvial land. The State Engineer, in 1880, estimated that 15,220 acres had been seriously injured by these deposits from the Yuba.

The bottom of the Yuba River, at De Guerre Point, about 9 miles above Marysville, has an elevation of 118 feet. The river bed under the D-Street bridge had an elevation of 57 feet (July 10, 1890). There is an average fall of about 6 feet per mile between these two points. With this fall in a bed of sand and a decrease of the quantity of the material annually delivered into the river, it is not surprising to find that the river is actually making channel. It has already carried off the mud or slickens with which the sand was intermingled a few years ago, and the river bed now presents all the peculiarities of rivers which flow through vast beds of sand.

The brush which has been growing so densely between the river levees, and which now stands in clumps from one to the other, forces the water into tortuous channels. In these the sand seeks the horizontal position; and the evil of widely separated levees becomes apparent in a peculiar way. Who can tell what point of the levee on the south bank of the river is opposite a given point on the north levee, perhaps $2\frac{1}{2}$ miles distant? The river may here be flowing parallel to the levee direction, or it may be flowing almost at right angles to it. In the latter case, there is a rapid deposit of sand just at and below the point where the turn to the direction across the stream is made, and the irregular gradient thus established for a protecting levee system may puzzle the shrewdest engineer.

If the river continues thus to scour from year to year, as there is every reason to believe that it will, then protection from high water on

* For a more detailed description of Feather River, see Report of the Examining Commission on Rivers and Harbors, 1890, pp. 51-56; also Reports of State Engineer Department, 1880 and 1881, and Reports of Chief of Engineers, U. S. A.

the south side of Marysville may soon be sought in channel-building rather than in raising levees.

The direction at which Yuba River enters Feather River was until 1892-93 almost directly opposed to the direction of the latter's flow. This was rectified in that season by the United States Government, and the new alignment has caused the scouring out of the channel.

In the case of Bear River the same ability to scour out a new channel through the great beds of recent deposits is manifest. But, in the case of this river, an absence of an adequate outfall channel to Feather River is to be noted. The river has no mouth—the former mouth being almost obliterated. It can hardly be found from Feather River. The river water, after passing through the Narrows, near the lower bridges, spreads out over a great expanse of brush-covered bank lands.*

AMERICAN RIVER.

At Folsom, about 20 miles east of Sacramento, the American River breaks out of the mountains, carrying into the valley the drainage waters from an area of 1,999 square miles of the western slope of the Sierra Nevada Mountains. The river is torrential in character. It has a small summer flow, but during winter and spring its waters sometimes rise very rapidly, and to very high stages.

Its flood flow is generally of very short duration. It remains at its highest point only a few hours, and in flood rarely more than a day.

At Folsom, where the river leaves its granite cañon, it enters upon a long flow over and between cobble bars. It has an elevation at its low stages of about 112 feet at Folsom.

The hills upon its south break away from the river just below Folsom, and a high gravel bar rises from the water's edge. North of the river small patches of bottom land lie between a high table-land and the river.

The river's bed changes from cobble to gravel and then to sand as it approaches the Central Pacific Railroad bridge, east of Sacramento.

Its water, near the river's mouth, flows in a broad, shallow channel. The river's sandy bottom is only 4 to 10 feet below tops of natural banks. At high stages the water spreads over its banks toward the Sacramento River, connecting on the north with the American Basin, and on the south standing against the Sacramento City levees, and entering the channel of the Sacramento River close above Sacramento.

The American Basin thus becomes the outfall point of the American River at its high stages, and during the protracted floods of the Sacramento the sand deposits in this vicinity from American River water, particularly in its own river channel, are very extensive.

American River water enters the Sacramento in a direction almost at right angles to that of the main stream. An improvement of this confluence should be planned on the basis of special surveys covering the whole region to the north and east of Sacramento, because, as has often been suggested, it may be found advisable to cut an entirely new channel

* For a more detailed account of Yuba and Bear Rivers, see Report of the Examining Commission on Rivers and Harbors, 1890, pp. 56-59, Reports of State Engineer Department, 1880 and 1881, and Final Report on Mining Debris, Col. G. H. Mendell, 47th Cong. 1st session, Ex. Doc. No. 98.

for the river from near Brighton to a point on the Sacramento River near Freepoint.*

SACRAMENTO RIVER FLOOD BASINS.

The great volume of water which enters Sacramento Valley through Iron Cañon, during a flood stage of from twelve to forty-eight hours' duration, does not flow past any point of the 250 miles of river channel below Red Bluff as rapidly as it is delivered through Iron Cañon. A large portion of the flood may be required to fill the channel bank-full, and as soon as this has occurred, then the flow across the banks into the flood basins, hundreds of square miles in area, whose waters subsequently rise and fall with the river, further delays the flood-wave in its passage to the bay. Weeks of time are sometimes required to deliver into the bay the water which may have passed Red Bluff in a few hours.

No further illustration is needed to show that that part of the flow of Sacramento River due to the entry of a flood-wave at the upper end of the valley decreases as the mouth of the river is approached; because, if the aggregate volume requires a longer time in passing, the rate of flow per unit of time must be less. At first view it appears, therefore, as though the flood basins along the river could not be other than desirable regulators of its flow in its lower portions, and that their conservation would be desirable. This is, however, not always the case, and it may happen, as after protracted high stages of the upper river, that the flood basins increase instead of decrease the flow of water in the lower river. This is particularly liable to occur when, by reason of the formation of some crevasse, there is a sudden and very great precipitation of water from one basin into another.

In order to be effective reducers of the river's flow, the basins should receive no water from the river until the river channel is taxed to its utmost capacity, and no water which has passed a river division of small capacity should flow into the same basin with water from above that division. Whenever this occurs, and it is the condition which prevails in the case of the Yolo, the American, and the Sutter basins, then water accumulates in the basins which should have been delivered to the bay, and the output of the basins is increased by this amount when they are finally filled to the highest stage of the river.

Butte Basin.

The depression east of Sacramento River to the northwest and west of the Sutter Buttes, is known as Butte Basin. It receives the water of Butte and Table Mountain Creeks, the east-side overflow from Sacramento River in the second division, particularly the overflow which reaches the Angel Slough country, and in times of great floods some of the Feather River flood waters which flow westward past the northern slope of the Buttes. This basin is a very broad, flat-bottomed depression, in which the water flows from north to south, until the rising of Sacramento River, by discharging water through Butte Slough and across banks into the lower end of this basin (and into its outlet to the Sutter Basin), forms a water dam holding back the Butte Basin waters to a contour line of about 60 feet (above low water of Suisun Bay), or, if the basin be not already full, fills it to this height.

* For distances and grades along the American River, see Report of Examining Commission on Rivers and Harbors, 1890, p. 61.

The bottom of the basin has a gradual slope from north to south. It had a free outfall toward the south between the Buttes and Butte Slough, but the same is being rapidly choked by a dense growth of willow.

During a general flood stage of the river the basin holds a slow-moving sea of water from 30 to nearly 150 square miles in area, according to the amount of inflow into the basin.

The contents of the basin cannot be determined with precision, because in times of flood the water surface of the basin has more or less slope, depending upon the locality from which it receives its greatest accession of water, and the high-water stages indicated around its margin may not have all prevailed at the same time.

When the outflow of the basin is checked at the lower end by a river stage above banks, its contents generally range between 5,000,000,000 and 20,000,000,000 cubic feet of water.

Much less land would be covered by water in this depression, if the water leaving Sacramento River, across the east bank, below Colusa, were all led directly into Sutter Basin, instead of partly into Butte Basin, and if the outlet from Butte into Sutter Basin were enlarged and kept free from obstructions, and if finally no water from the river were let into the basin at the lower stage of water than high bank heights.

No attempt has yet been made to shut off all river water from entry into this basin. River levees to the east of the basin have not been extended above Butte City, although some of the sloughs and depressions leading eastward and southeastward from the overflow at the head of Angel Slough have been closed by dams and levees. Chico Creek flood waters are poured into the basin from the north, which is, in short, an important supplemental valley drainway.

The discharge from this basin, as already stated, is into Sutter Basin. Under ordinary circumstances no water from it effects a direct reentry into Sacramento River. Such discharge could only be had at times when the river falls more rapidly than the water in the basin. This inflow, at less than bank heights, would be through Butte Slough, which is connected with Butte Basin only by a circuitous route.

Sutter Basin.

Above the confluence of Sacramento and Feather Rivers, lying between the relatively high bank lands of these streams, and to the south of the Sutter Buttes, lies a flat depression whose lowest points are 10 to 20 feet below the general elevation of the banks of the rivers. This depression is known as the Sutter Basin.

If the entire district along this part of the Sacramento River, which is occasionally submerged, be considered a part of the flood basin, then it has a length of over 30 miles and an average width of 6 miles. The upper 10 miles of this district are, however, so much higher than the rest of the basin that as soon as the inflow of water from above ceases they are quickly drained into the lower portion of the flood basin, whence there is no escape for the water under present conditions, except at the height and to the capacity of the Sacramento River below its confluence with Feather River.

The elevation of high water at the mouth of Feather River in ordinary floods is about 34 feet. When the Sutter Basin is full of water to this height, its surface has an area of 138 square miles, and its contents

range from 25,000,000,000 to 39,000,000,000 cubic feet of water, according to the prevailing conditions of inflow.

When there is a great rush of water from the north into the basin (as there was during the winter of 1889-90 at the highest stage) and the water surface at the mouth of Feather River is at an elevation of 35 feet, then there are approximately 39,000,000,000 cubic feet of water in the basin, or more than four times the amount which would fill the entire Sacramento River channel below Iron Cañon from a low-water to a high-water plane.

At every high stage of Sacramento River the Sutter Basin is filled. It receives the river water from below as well as that from above, and not infrequently its greatest supply is received from its lower end. Long before the river is at a height which would endanger levees at or below the mouth of the Feather River, its waters have been flowing through Sacramento Slough and other outlet channels of Sutter Basin northward into the basin, and even across banks into it.

All of the water which, at such stages, flows northward into the basin, should have been discharged through the river channel into Suisun Bay. In Sutter Basin it lies as a menace to the lower portions of the valley if the freshet which filled the basin be long continued or be followed by a second one.

The general elevation of the lowest portion of this basin is 19 to 20 feet. It is barely as low as the low-water plane of Sacramento River at the mouth of the Feather, and its complete drainage is therefore difficult. The river does not fall to its lowest stage till in the fall of the year, and the feeders of the drainways leading to the river do not connect in all cases with the lowest portions of the depression. Under these circumstances drainage is imperfect, and water stands in some portions of this flood basin throughout the entire year.

Before the filling in of the channel of Sacramento River had taken place, the flow of water toward this river—then some 9 feet lower than it now is—was more rapid, and evaporation from land-locked pools in the flood basin extended over a greater time-period. The basin was comparatively dry in the summer and fall months.

The outlets of this basin are a number of deep sloughs which discharge into Sacramento and Feather Rivers close above their confluence.

Sutter Basin is the recipient of all the water flowing southward past Sutter Buttes from Butte Basin. It receives the flow of Butte Slough, one of nature's by-pass outlets in the east bank of Sacramento River, which begins to carry off river water into the Sutter Basin long before the river is really in need of an easement, to the injury of the river channel below. Butte Slough thus contributes unnecessarily toward the filling of Sutter Basin, which, when considered as a regulator of the river's flow, should not be receiving a drop of water until the river channel is taxed to its full capacity.

Sutter Basin also receives all the water from breaks in the east-bank levees of Sacramento River, from Butte Slough to Knight's Landing, and, indirectly, the water from all east-side levee breaks above Butte Slough. It receives the Feather River floods which break out toward the west across the plains below Oroville, and all the water from breaks in the west-side levees of Feather River.

Colusa Basin.

A glance at the contour map of Sacramento Valley will show that Cache Creek has built a broad ridge, 10 to 20 feet in height, across the west side of the Sacramento Valley. The creek, at present, flows on the southern slope of this ridge, and discharges its waters into the upper end of Yolo Basin. The ridge is continuous across the west side of Sacramento Valley from the foothills to the west bank of the river at Knight's Landing. Above this ridge, and between high plain lands on the west and the river bank on the east, lies Colusa Basin. This basin, like the one upon the east side of the river, has no outlet except into the river, and can discharge no water except at an elevation as great as that of the water in the river at Knight's Landing.

The drainage from the entire Coast Range foothill region, between the watersheds of Cache and Stony Creeks, flows into Colusa Basin, which receives also all the water escaping from the channel of Sacramento River across its west bank, at points between Stony Creek and Knight's Landing.

When, in times of general inundation, the water in this flood basin stands as high as the water in the river at Knight's Landing, it becomes closely connected with Sutter Basin by water across the west and east banks of Sacramento River, and the two basins are practically one, the stage of water in both depending upon the stage of the river at and below Knight's Landing.

By the maintenance of a continuous line of levee from Knight's Landing up the west side of the Sacramento River to near Stony Creek, some success has been met with in preventing the spreading of the Sacramento River water from its channel across the west-side plain into Colusa Basin. Inundation of the lands in this flood basin has thus been confined in many seasons of less than average rainfall to a small area of greatest depression; but recent experience has demonstrated that even Coast Range waters alone may cause a general submersion of the lands in the southern portion of this basin.

A general river flood, before waters were confined by levees, converted the entire west-side trough, from a point west of Princeton to the ridge at Knight's Landing, into a long and narrow inland sea, nearly 50 miles long and 2 to 7 miles in width. Its waters were all slowly moving from north to south, and its reëntry into Sacramento River was effected through lower Sycamore Slough at Knight's Landing, or across river banks. The breaks in the levees during the last twelve years, and the drainage from the Coast Range together, have barely filled the basin at any time to more than the elevation of ordinary high water at Knight's Landing (about 36 feet). At this elevation of the water surface, Colusa Basin has a capacity of about 30,000,000,000 cubic feet. The amount of water which may have been spread over the entire west-side plain at a time of general flood, before any levees were built, may have reached 45,000,000,000 cubic feet.

The Knight's Landing ridge, as above explained, forces the water of Colusa Basin eastward into Sacramento River. If this ridge had not been extended across the west-side trough of Sacramento Valley, then Colusa Basin would have been in direct connection with Yolo Basin, and it would have had an outlet through it to the lower rivers. No complete drainage (by a gravity flow of water) is possible for this flood

basin during high stages of Sacramento River, except through the Knight's Landing ridge. Its inundation in seasons of more than ordinary average rainfall, so long as no such drainway exists, can be prevented only by a system of works designed to keep out the river water, and to divert the Coast Range drainage past the basin. Several sloughs, natural high-water relief channels, lead westward from Sacramento River into Colusa Basin, and these have, in every case, built up their banks above the general surface of the country. By reason of this building up of low, flat ridges into the basin from the river bank, which is itself 10 to 20 feet higher than the general surface of the bottom of the basin, the continuous slope of the bottom of the basin from the north to the south has been interrupted to some extent, and a number of pockets have been formed which lie between or above these sloughs. Upper Sycamore Slough has thus extended its course nearly across the west-side trough, and formed a lesser upper basin, which, except in times of general inundations, is connected with the lower or main portion of Colusa Basin only by a narrow throat between Sycamore Slough and the higher west-side plain.

American Basin.

The east-side depression which lies just above American River, and extends northward along the east side of Feather River to Nicolaus, is known as American Basin. This flood basin receives the water which escapes through breaks in the south-side Bear River levees and in the east-side Feather and Sacramento River levees below Bear River, and also the Sierra Nevada foothill drainage which reaches Sacramento Valley between Bear and American Rivers.

Before the low-water plane at Sacramento was raised, as already explained, the drainage of American Basin through its outlet channels (Bannon Sloughs) was complete at the low stage of the rivers. While the low-water plane at Sacramento remains at or above 7 to 8 feet on the rod at Sacramento, as in the last ten years, the lower portion of the basins are not completely drained. The low-water stage is attained so late each season that water now remains in the lowest portions of this basin throughout the entire year.

The Sacramento River, when in flood, or at any stage at or above banks, fills American Basin to the height of its own water at the mouth of American River. The filling commences by an inflow of water through a number of sloughs, deep channels leading from the interior of the basin to Sacramento River, just above the American River, and as soon as the Sacramento River is bank-full it sends water across banks, unobstructed near the mouth of American River, and through breaks in its east-side levees, just below the mouth of the Feather River, into the basin, until the whole surface of the same rises and falls with the river.

At the high stage of the Sacramento River, in December, 1889, just before the breaking of the west-side levee below Sacramento (Paine crevasse), American Basin had thus been filled to an elevation of 32 feet at its lower end. It was receiving water in large quantities near the mouth of Feather River, and the average elevation of its water surface was about 33 feet. It contained at that time about 25,000,000,000 cubic feet of water, and the area of its water surface was 110 square miles.

In falling one foot at Sacramento this vast reservoir was drawn upon

to the extent of one foot in depth over its whole surface. The quantity of water drawn from the reservoir at its highest stage, by a fall of one foot, or added to it by a rise of one foot, is about 3,000,000,000 cubic feet, or the equivalent of ten hours' flow of Sacramento River, at flood stage, past Sacramento City.

The American Basin's water, at flood stage, not only stands above banks along Sacramento River, being confined on the west by the west-side levees, but it spreads southward across American River to the north levee of Sacramento City. It would, if Sacramento City levees were not built out from high land westward to the river bank, extend still farther south along the ridge to Sutterville.

At flood stages this basin is the practical outfall point of American River waters. Its contents, at ordinary flood heights, exceed 15,000,000,000 cubic feet.

Sacramento Basin.

That portion of the east-side trough which lies above the river delta lands, and to the south of Sacramento, has been protected from annual inundation better than the other portions of the submersible plain adjacent to Sacramento River. It is not, for this reason, generally classed among the flood basins of the river; and like Colusa Basin, it is not accessible to flood waters while the reclamation works withstand these waters.

This basin is long and narrow. A ridge of relatively high ground which approaches Sacramento River from the northeast at Freeport, cuts it into an upper and a lower section. About 35 square miles of the lowest portion of this basin has an elevation of less than 10 feet above low water of Suisun Bay, and lies 10 to 15 feet lower than the elevation of extreme high water in the river channel. It is through this depression, by way of a drainage ditch to Snodgrass Slough, that the drainage waters from Sacramento City are delivered into branches of San Joaquin River, and through this river into Suisun Bay.

Yolo Basin.

The largest of the several flood basins which lie along the Sacramento River is Yolo Basin. It extends from near Knight's Landing on the north to Cache Slough on the south. It has a length of over 40 miles and an average width of 7 miles. Its capacity in times of general inundation, when its water surface slopes from the north toward the south at the rate of 4 to 6 inches per mile, is about 50,000,000,000 cubic feet of water, and even this would be exceeded if the inflow of water from above were sufficiently rapid.

This basin has an outlet into Sacramento River at the lower end of Grand Island, and it becomes a steady flowing sea in times of general floods. During the high stages of the Sacramento River, after the west-bank crevasse had occurred in December, 1889, Yolo Basin was delivering more than twice as much water into lower Sacramento River as was delivered by the main stream. It has a surface area (when measured on the inclined plane represented by the water surface of about 30 feet, near Knight's Landing, and about 11 feet near the lower end of Grand Island) of nearly 300 square miles.

Cache and Putah Creeks discharge into this basin. About 90 square miles of the bottom of this depression is less than 10 feet higher than

the low water of Suisun Bay, and the lowest portion of it is always covered with water (Big Lake).

Yolo Basin, as is the case with some of the others above described, begins to receive river water long before the river is bank-full or in need of relief. Through Cache Slough the tides ebb and flow. Their rise and fall ranges from nearly 6 feet at low water to about 1 foot at extreme flood stages. At every rise of the river the water quantity in the basin is increased, and when the river reaches its ordinary flood stage, even before an overtopping of banks takes place, Yolo Basin is full to the level of the river water at the foot of Grand Island. If, now, any quantity of water be turned suddenly into the basin at any point above, it will cause a crowding of water to the point of inflow into Sacramento River, and higher stages of the water may thus result than could have been produced had the river been confined throughout to a well-regulated channel, or had the spreading of waters into the basin been gradual, as would be the case if there were no levees along the river.

SAN JOAQUIN VALLEY.

Sacramento and San Joaquin Valleys together are but one great depression between the Sierra Nevada Mountains and the Coast Range. Through the former valley, nearly midway between the outlying hills of the two mountain ranges, Sacramento River flows from the north to its outfall into Suisun Bay. San Joaquin Valley meets the Sacramento Valley opposite this point of outfall. It extends thence toward the southeast a distance of about 250 miles, and has an average width of over 40 miles. The Coast Range watershed area tributary to this valley is small—3,487 square miles—compared with that of the Sierra Nevada Mountains, which is 16,089 square miles.

From the Coast Range the drainage waters descend in numerous small creeks and gulches having no summer flow, unless fed by springs, while most of the water in the Sierra Nevada reaches the valley in rivers of considerable summer flow.

The lower portion of the valley, that lying within the river deltas, has already been described. Above this region the valley consists of two great plains of unequal extent, which slope from the hills upon either side of the valley toward the valley trough. Of these the east-side plain is by far the widest; the trough of the valley lies near the base of the Coast Range. Land building has been much more rapid by the rivers which descend from the long western slope of the Sierra Nevada than by the small streams from the abrupt short eastern slope of the Coast Range.

The building process has not been equally rapid along the lines of all the east-side rivers, being in general proportioned to the area drained. There are two points where silt deposited from rivers has, in the course of the ages that have passed since the valley has been raised above the level of the sea, formed flat ridges entirely across the valley trough, converting portions of the valley above, or south of each of these ridges, into basins, which become the recipients of drainage water and prevent its flow down the valley to the extent of their capacities as reservoirs.

One of these ridges of high land has been built by Kings River, and above the same is Tulare Lake, which, at high stages, has an area of about 800 square miles. The other is along the northern portion of

the Kern River delta, and in the basin above the same lie Kern and Buena Vista Lakes.

Elevations of the valley land along the east and southeast of the delta of San Joaquin River range from 10 to 20 feet. Thence, following the trough of the valley southeastward, elevations gradually increase to 214 feet, the general surface of the ground on the flat saddle below Tulare Lake. The lowest point in the bottom of Tulare Lake is at about 175 feet, and thence there is a rise of about 120 feet to the outfall point of Buena Vista Lake. This lake and Kern Lake lie in the two lowest points of the depression above Kern River ridge, and their beds have an elevation of about 285 feet.

From the eastern extremity of Kern Lake the valley rapidly rises toward the south and east to an elevation of over 500 feet at the extreme southeastern end or apex of the valley.

Toward the valley trough the eastern plain extends with a gradual slope from northeast to southwest. The fall is generally within the limits of 5 to 15 feet per mile. Steeper slopes generally prevail near the edge of the hills than at the approach to the trough of the valley.

The edge of the valley to the east of Stockton, at the base of the foothills, has an elevation of about 110 feet. It is 150 feet in elevation to the east of Modesto; 400 feet to the east of Fresno, and continues to rise to over 500 feet at the upper end of the valley.

The narrower west-side plain has a more rapid fall than the east-side plain. From the hills to the head of the overflow region which lies adjacent to the main drainage lines of the valley, this fall is generally 10 to 20 feet per mile.

The area of San Joaquin Valley is about 11,500 square miles, which may be classified as follows: East-side plain, 7,700 square miles; west-side plain, 1,850 square miles; lands covered with water and lands subject to occasional inundation, about 1,950 square miles; of which 300 to over 900 square miles, according to the stage of Tulare Lake, are lake surfaces.

Precipitation of moisture is so light throughout the southern portions of the Sierra Nevada Mountains, the upper parts of the San Joaquin Valley, and the eastern slope of the Coast Range, that the years in which more water has reached this part of the valley than is required to replace the amount annually evaporating from the surface of the San Joaquin Valley lakes have been very rare. The entire drainage basin above Tulare Lake, including a part of the flow of Kings River, therefore becomes tributary to San Joaquin River only at long intervals. This can be best illustrated by a brief history of the fluctuations of the Tulare Lake water surface.

After several wet winters preceding 1853 the lake was found full, though possibly not quite as high as in 1862 or in 1868.

From 1853 until 1861 the low-water plane of the lake receded—at what rate each year cannot now be determined; but in 1861 the water surface was as low as 204 feet, if the testimony of some of the residents at the lake at that time, in reference to the rise of water the following winter, can be relied upon. The heavy rainfall of 1861 to 1862 caused the water surface of the lake to rise to the highest stage at which it has been known—220 feet above low tide in Suisun Bay. Its area was increased from about 300 to nearly 800 square miles. Its contents were increased by 300,000,000,000 cubic feet of water during this one winter.

It continued to overflow in the following winter and spring, but owing to less than average rainfall in the seasons preceding 1867 and 1868 it receded gradually, with annual fluctuations of a few feet, until the water surface was only at about 208 feet in 1867. It rose between 11 and 12 feet in the winter and spring of 1867 and 1868, almost if not quite, reaching the high-water stage of 1861-62.

The water surface fluctuated between 211 and 217 feet in the years 1872 to 1876, then receded rapidly to the lowest stage at which the lake has ever been known to be, 192 feet, in November, 1883. From that time to this year, 1894, the lake has not received sufficient water to cause it to overflow. It is generally believed that the diversion of water for irrigation purposes from Kern, Tule, Kaweah, and Kings Rivers has been the cause of the decrease of water volume in the lake, but this is not true. Although such diversion must produce some effect on the lake, the evidence that protracted low stages preceded that of 1883 is conclusive. On the northeastern shore of the lake, close by the mouth of Mussel Slough, there is a group of tree stumps, at an elevation of about 200 feet. These were found at the water's edge in 1882. They presented the appearance of having been broken off at a height of 3 to 4 feet above ground. They were well preserved, and must have been under water for nearly thirty years succeeding the high stage of the lake of 1853. These stumps are the remnants of a grove of willow trees, one hundred and more, of which some had grown to a diameter of 4 feet. It would not have been possible for these trees to attain such growth if the lake had not been at a low stage for many years in succession at some time preceding 1853.

All drainage basins above the lake, including at least one half the lands drained by Kings River, are thus ordinarily cut off from the region above noted as tributary to San Joaquin River. That part of its drainage basin thus cut off has an area of about 12,000 square miles.

The total drainage area of San Joaquin River, at its outfall into Suisun Bay, is 31,900 square miles. The area ordinarily tributary to the river is only 19,900 square miles, and this includes 7,500 square miles of valley land for which there is, ordinarily, little or no drainage into the river.

The mean annual rainfall in that part of the river's drainage basin which is directly tributary to the river is about 20 inches; it is less than 10 inches in the district draining into the river through Tulare Lake.

When the lake overflows, its waters unite with Kings River water, and flow northwesterly through Fresno swamp in a network of channels, and enter San Joaquin River at Las Juntas.

SAN JOAQUIN RIVER.

The general character of the country encompassed by the watershed line of San Joaquin River is not unlike that of the drainage basin of the Sacramento River, but it is a region of less rainfall.

About 31,900 square miles of Sierra Nevada, Coast Range, and valley lands send their drainage water into tributaries of the San Joaquin. But some of these tributaries, like the streams which fall into Goose Lake, in the case of the Sacramento, do not have a direct outfall into the main drain of San Joaquin Valley. All streams

south of Kings River flow into or toward Tulare Lake, which they must fill to overflowing before any of their water reaches the San Joaquin River. Even Kings River water does not all flow into the sloughs of the Fresno swamp region and thence to the San Joaquin River, but a large portion of it follows the main channel of Kings River and enters Tulare Lake from the north, until the same, as in 1862, and in the years following 1867, sends its overflow northward, completely intercepting and turning the flow of Kings River. It thus happens that nearly 12,000 square miles of the drainage basin of the San Joaquin River become directly tributary to this river only during or after seasons of very great rainfall.

The upper San Joaquin River breaks from the Sierra Nevada foothills about 140 miles below the southeastern end of San Joaquin Valley. It flows thence directly down the eastern valley slope in a broad gorge, half a mile to a mile wide, being flanked by narrow strips of bottom land, and, upon reaching the trough of the valley, turns abruptly to the northwest at Las Juntas. It falls from this point 156 feet in its course to the bay, and its length (measured along the main stream) is about 210 miles.

It is flanked by strips of relatively low land, except at a few points, such as Grayson and San Joaquin City, where the high western plain slopes down to the river bank. The extensive east- and west-side low tracts are subject to frequent inundation. The capacity of the river channel falls far short of that which would be required to confine flood waters to a single channel, and the river water therefore spreads over large areas, flowing in innumerable sloughs or waterways, which sometimes are arms of the main stream, and again appear as continuations of the Coast Range or Sierra Nevada drainways, or may even appear as independent waterways without well-defined heads or mouths.

The area of the country thus subject to frequent inundation along the upper San Joaquin River—that is, above the head of Old River—is about 150 square miles. This entire region becomes a reservoir of slowly moving waters when the San Joaquin is in flood; and to the accumulation of waters along this portion of the river the fact is due that relatively small waterways at points just below have come so near being adequate to pass all the water of the many seasons of less than average rainfall since the reclamation work has been taken well in hand.

The delta formation of San Joaquin River begins at the head of Old River, and it is a particularly noteworthy fact that the low-water elevation at this point is less than 6 feet above low tide of Suisun Bay, or only 3 feet above mean low tide in the bay, making the low-water fall of the river from here to its mouth, in a distance of 60 miles, less than one inch per mile.*

* For details of distances, grades, and elevations, see Report of the Examining Commission on Rivers and Harbors, 1890, pp. 83-106, and authorities there quoted.

NOTE.—The above description of the field of operations is in large part rewritten and condensed from the Report of the Examining Commission on Rivers and Harbors, 1890

FUNDAMENTAL ELEMENTS OF THE DRAINAGE PROBLEM.

STATE AID NECESSARY.

There can be no question that to the extent at least of devising a project for the drainage of the lands of the Sacramento and San Joaquin Valleys which are subject to inundation, and of supervising the execution of such portions of the project as are of general benefit, the State of California is under obligations to render aid. The owners of the low portions of the great Central Valley have the right to insist that the State make suitable provision for securing unity of plans and harmony of action in the work of converting the vast uninhabitable flood-basin areas into profitable farms, gardens, and homes, and that it assist to this limited extent, at least, in rendering these regions reasonably secure from the disasters which now even in the most favored of the reclaimed lands are annually averted only at the expense of disasters to neighboring tracts.

The swamp lands, and other lands subject to overflow, were granted to California by the United States to be reclaimed.*

No disposition should have been made of these lands to individual owners until the plan for their reclamation had been made by competent authority, and until it had been put into successful operation, and then, in disposing of the lands, the cost of reclaiming them, or rather the cost of providing suitable drainage channels, should have been apportioned to the land thus reclaimed. Instead of adopting this policy, the State has practically given away the swamp land, and the attempts at reclamation have often been abortive.

Now that the necessity for harmony of action is generally recognized, and a plan of works is being called for, it will be found very difficult to arrive at a satisfactory solution of the financial and economic problems that must be disposed of, before even an unobjectionable plan of works can be put into execution.

THE OUTFALL OF FLOOD WATERS INTO SUISUN BAY.

(A) *The Present River Channel.* (B) *Montezuma Hills Cut.*

We realize, thoroughly, that it is not even probable that any plan of works will at once meet with general favor. For the project which we now present we may safely claim the merit of extreme simplicity.

As all works for the betterment of the river as a drainway should be made in their order up stream, it will not be out of place to preface the discussion of the project which we are about to submit, with a brief allusion to a relief measure that has not been made a part of the project. We refer to the cut through the Montezuma Hills, from somewhere near Maine Prairie in the Yolo Basin, to tide water in Montezuma Slough, at the western base of the hills. There can be no doubt as to the feasibility of such a cut, if considered apart from the question of cost, and only with reference to its effect on the water in Yolo Basin and in Sacramento River above the foot of Grand Island. Though the cut may be planned to effect rapid delivery of Yolo Basin waters into the bay, and to prevent a gorging of the river at the point where Cache

*Act of Congress, approved September 28, 1850.

Slough enters it, its effect on the river below Grand Island must not be overlooked. Provided that the cut be really efficient, and have a capacity as great as that of the necessary by-pass on the Yolo side of the river, and that the mouth of Cache Slough be closed, the reduction in the flood-flow of the lower Sacramento River would be so great that silt deposits would be rapidly formed; channel bars would obstruct the waterway more than at present, the floating bars would become stationary, and nature would gradually reduce this division of the river to the capacity of the river above Grand Island, and would thereby compel a rise of flood height at the foot of Grand Island—the very thing which the Montezuma Hills cut is intended to obviate.

The capacity of Sacramento River from the foot of Grand Island to Three-Mile Slough may safely be accepted as the capacity of the river thence to the bay. Estimated for the elevations of the water surface in February, 1878, this capacity is about 170,000 cubic feet per second at mean tide, being more than the ordinary flood flow in the lower Sacramento Valley, without making any allowance for the flow of Georgiana Slough, which is always from Sacramento River toward the San Joaquin River.*

The improvement of this portion of Sacramento River will add to its efficiency as a drainway, and the result of such improvement will be a gradual lowering of the flood heights.

At the outset, however, provision should be made for a delivery of the Yolo Basin water into the lower river, at the foot of Grand Island, at the elevation of the high water of February, 1878 (being 13 feet above low tide at low water in Suisun Bay).

All improvements and protection works should be adapted to this elevation of high water at this point, and there can then be no question as to the sufficiency of waterway below it.

The cutting through of the Montezuma Hills has long been advocated, and has been so persistently urged upon the interested people that it has seemed advisable to make a further careful survey of the region that would be crossed by this cut, and to submit the results of this examination with this report,† in order that the premises for a discussion of the expediency of making such a cut may become generally available.

To the information contained on the map embodying the results of the surveys we may add that we have made a personal reconnoissance of the route for a canal, and also of Montezuma Slough, which would be the natural point of outfall for the cut. This slough, which at its Collinsville end is a narrow, tortuous, and rather small channel, only 200 to 300 feet in width, is nowhere less than 600 feet wide below Denverton Slough, which is near the natural point of junction of the slough and the Montezuma Hills cut, and will average about 800 feet in width throughout its course thence westward and southward to the bay. The depth along the thread of the stream throughout this portion of the slough ranges from 20 to 30 feet at low tide, and it is remarkably free from bar deposits. Its average depth from bank to bank is about 16 to 24 feet at low tide.

*This estimate is based on channel dimensions and slopes as determined by the surveys of the State Engineer Department. A far greater volume of water will be carried by the lower river at a reasonable water-surface elevation, when the proposed channel regulations have become effective.

† See map entitled "Yolo Basin, lower portion, from Maine Prairie to Suisun Bay."

The by-pass through Yolo Basin will remain a necessity, whether the cut be made or not, and unless the entire basin is to be abandoned, as in the past, to furnish the necessary by-pass area, its position and dimensions must be about as hereinafter set forth.

The function of the cut through Montezuma Hills would, if constructed, be to dispose of either the water of the by-pass, or of that of the entire Yolo Basin, serving in a like capacity as the by-pass. In either event its capacity should be equal to that prescribed for the Yolo Basin by-pass, or over 100,000 cubic feet per second. The fall available through the hills from a point on Lindsey Slough, at the eastern edge of high land to mean tide in Suisun Bay at the mouth of Montezuma Slough, provided that flood height at the head of the cut does not exceed flood height as proposed for the foot of Grand Island, is one in 10,000. The channel required under these conditions should be 1,200 feet wide and a little over 20 feet in depth.

To secure channel area of this size through the hills to Denverton, excavation to the extent of about 56,650,000 cubic yards would be necessary, and at a very low estimate this cut would cost over \$14,000,000, without any allowance for excavation and control of water from Denverton to the bay.

On the other hand, the most direct course for the waters of the Yolo Basin to Suisun Bay is by way of Cache Slough and Sacramento River. The flow in this part of the Sacramento River has in the past been fully as great as the proposed system of works will make it during any ordinary flood stage.* The delivery of the Yolo Basin by-pass waters into the Sacramento River at the foot of Grand Island is not, therefore, to be considered experimental. It will not cause a rise at that point above a controllable limit, and, owing to the great capacity of the river from this point to the bay, it, together with the improved Steamboat Slough, will prove very efficient aids in bringing flood waters to a rapid outfall instead of permitting them, as in the past, to accumulate as an obstruction in the great depressions of the valley.

It is hardly necessary to add anything further to the above in reference to the Montezuma Hills cut, unless it be to emphasize the fact that a small cut with a capacity of only 20,000 to 30,000 cubic feet per second would not appreciably affect the stage of water during a flood either in the Yolo Basin or at the foot of Grand Island in Sacramento River. Yet even such a cut would cost nearly as much as the project of treatment hereinafter outlined for the entire Sacramento Valley.

Col. Isaac W. Smith, in discussing the Montezuma Hills cut, in a report as Chief Engineer to the Commissioners of the Sacramento River Drainage District, in 1879, says:†

“During the flood of 1879, the maximum discharge from Putah and Cache Creeks into the basin was about 100,000 cubic feet per second, and from the river, through crevasses, over 30,000 cubic feet. The discharge from Putah and Cache Creeks diminished very rapidly, but the river stood at a high stage for nearly a month.

*At a low estimate about 200,000 cubic feet per second were passing down Yolo Basin in 1879 at the height of the flood, and still more in 1878 and in 1881. These amounts were principally due to the enormous discharges from Sutter and American Basins, across the Sacramento River into Yolo Basin, when long stretches of levees were overtopped or cut away by the water, and they do not represent the Yolo Basin flow as it will be when brought under control.

† See Report of Commissioners of the Sacramento River Drainage District, 1879, p. 20.

“During the flood of 1878, the maximum discharge from Cache and Putah Creeks was not so great, but the crevasse discharge from the river and the discharge through the tule basin was much greater.

“The basin once filled, * * * the reservoir capacity of the basin ceases to reduce the discharge from the lower end, which must then be equal to the whole discharge through the basin.”

Continuing, Colonel Smith says:

“The measured maximum discharge during the flood of 1879 was over 130,000 cubic feet per second, of which 100,000 was from Putah and Cache Creeks.

“During the flood of 1878, it is probable that the maximum discharge was over 150,000 cubic feet per second, more than double the channel discharge of the river at Freeport.

“It may be suggested that a moderate canal discharge would at least drain the waters of the basin so that crops might be put in within ninety or one hundred days after the time of high water.

“Supposing, for instance, the basin filled to the flood height of 1878, a canal discharge of 5,600 feet per second would drain off the waters in about one hundred days.

“Such discharge would not, however, prevent, even during ordinary floods, the filling of the basin, the destruction of the river levees, and the inflow of the river waters, in which case the subsidence of the waters within the basin would depend on the subsidence of the waters in the river.”

The cost of a cut with a capacity of only 5,000 cubic feet per second is estimated by Colonel Smith at \$1,157,500; and he thinks that it would cost about \$6,000,000 to secure a channel through the hills having a capacity of 23,000 cubic feet per second.

Mr. Wm. Ham. Hall, as State Engineer, in 1880, in discussing Yolo Basin and the cut through Montezuma Hills, says:

“By keeping the waters of the river out from the lower end of the basin, and by diversion, as heretofore suggested, of the creek waters through a high-grade canal, it would seem that the only use of the deep cut would be to afford rapid drainage for flood waters which might be diverted from or escape from the Sacramento River into the upper portion of the basin. Admitting, for the moment, the necessity for diverting water from the river above, either into this basin or into a canal therein, the efficiency of the river channel itself from the mouth of Cache Slough to the bay may well be questioned; and herein lies the most important fact with reference to the whole matter.

“It may be supposed that this cut would end at a point of free out-fall into the bay. Such is not the case. At best it would only be carried to Montezuma Slough at about a middle point on its course. Now this slough extends from the mouth of the river, at Collinsville, in a great arc around the north of Suisun Bay, a distance of 15 miles, and joins the open water again near the lower end of the bay. The land thus inclosed is known as Grizzly Island, with some small islands at the southern end.

“In order to put any such volume of flood water through Montezuma Slough as would afford a material relief to the vast basin above the hills, it would be necessary to raise the waters at the junction of the canal cut, to afford a fall through the slough channel, sufficient to carry away the waters into the bay. When this is done, we of course diminish the

efficiency of the canal to draw down the waters of the basin. The whole water-plane would be held at a higher level throughout the basin, the cut, and the slough, than it would be if the lower end of the cut were at a point of free outfall.

"The result might well be an inundation of Grizzly Island and other land already embanked and safe from overflow under present circumstances.

"The deep cut through the hills would not act as a relief to the river if the communication were left open between it, the river, and the basin at the mouth of Cache Slough; the waters would not find a point of free outflow by going through the cut; on the contrary, the distance to such a point of free outfall would be longer than by way of the main river channel. Montezuma Slough would not carry any such great volume of water as would be put into it from the deep cut without a considerable elevation of its water-plane at the point of junction of the cut with it.

"Hence it appears that there is much of fallacy in the idea that such a cut would relieve any considerable portion of the lands of the basin from overflow, or lessen the danger of inundation to the islands below Grand Island."

Reference to the Montezuma Hills canal is also made by the Examining Commission on Rivers and Harbors in 1890, which admits the feasibility of draining Yolo Basin by means of a deep cut through Montezuma Hills, but says: "The river already affords an equally direct line of delivery to the bay, and, in view of the great cost of constructing a deep cut through the hills, the discharge into the river should be preferred."

FLOOD FLOW OF SACRAMENTO RIVER.

Special studies have been made to determine what would have been the discharge of the river at various points of its course had all the water been confined between banks during some of the typical floods. Based on the graphical method indicated in an appendix to the paper on Gaugings of California Rivers, prepared by C. E. Grunsky, and herewith submitted as a part of this report, the high stages of Sacramento River in March, 1879, have been analyzed, and the attempt has been made to approximate, by this method, the maximum flood-flow which would have resulted at various points of the river if the water had been confined to the river channel.

The method of procedure may briefly be described as follows: By deducting from the total volume of water received by any division of a river in any stated time-period, the amount of water stored in that section (that is, the excess of water in that river division at the beginning of the time-period), the remainder will represent the total increase of flow out of that river division into the next lower division. If, therefore, the inflow be represented by a curve and storage be deducted, the resulting secondary curve will represent the total flow out of the river division.

The approximate knowledge of channel storage, and of the flow of the main sources of flood waters, may thus enable a reasonable approximation of the volume of flow at successive points along a river's course, which would result if all water were confined to prescribed limits.

To apply this method of tracing flood-waves through the long course of Sacramento River, it was necessary to assume at the outset a definite position of river levees, on which the estimates of channel storage were then based.

All this was done, and water elevations were approximated for the selected time-periods, and where information was lacking the discharge of tributaries was approximated, chiefly by making discharge curves similar in form and by comparing the run-off per square mile of drainage area.

Discharge curves of tributaries were then combined with each other, a reasonable time allowance for the movement of the flood-wave in each tributary was made, and flood-wave forms were modified by making a proper allowance for channel storage.

It is not necessary to present the basis of this study in detail, particularly as very much of the information relating to tributaries was necessarily only a somewhat unsatisfactory approximation.

The results of the study may be briefly summarized as follows:

The maximum discharge of Feather River would have occurred on March 6th, and would have been 57,400 cubic feet per second.

The maximum flow of American River would have occurred about the same time, and would have been 37,000 cubic feet per second.

The maximum flow of Sacramento River would have been:

At Red Bluff.....	133,000 cu. ft. per sec.
At Colusa.....	89,000 cu. ft. per sec.
At (above) Feather River.....	83,000 cu. ft. per sec.
At (above) American River.....	136,000 cu. ft. per sec.
At Sacramento.....	162,000 cu. ft. per sec.

A similar study of the condition which prevailed in January, 1894, when the river at Red Bluff, on January 15th, rose 4 feet higher than in March, 1879, leads to the following result:

The maximum flow would have been:

At Red Bluff.....	152,000 cu. ft. per sec.
At Colusa.....	92,000 cu. ft. per sec.
At (above) Feather River.....	87,000 cu. ft. per sec.
At (above) American River.....	136,000 cu. ft. per sec.
At Sacramento.....	156,000 cu. ft. per sec.

But the high water of January, 1894, did in fact cause a maximum discharge at Sacramento of only about 54,000 cubic feet per second. The river rose only to 21.5 feet on the Sacramento river-rod. Had all water been confined to the channel, none escaping to any of the basins, the water at Sacramento would have been far higher than any of the great floods of the past.

That the water surface in 1894 at Sacramento was lower than that of March, 1879, is explained by the fact that in the one case the several flood basins were well filled with water, in the other they were practically empty at the commencement of the rise, and were therefore particularly efficient in retarding the passage of the flood-wave down the valley. (The highest stage at Sacramento was not reached until January 21st.)

No allowance has been made in the above for channel storage outside of that of the present waterway and the present levees, although it is well known that it would be impossible to carry even an ordinary flood

volume, such as that of March, 1879, between the present lines of river levees.

Modified for such storage as would under ordinary circumstances be afforded by relief works such as are hereinafter suggested, the flow of Sacramento River, including all by-pass discharge, for a storm similar to that of March, 1879, would be :

At Red Bluff, about.....	133,000 cu. ft. per sec.
At Colusa, about.....	79,000 cu. ft. per sec.
At (above) Feather River, about.....	70,000 cu. ft. per sec.
At Sacramento, about.....	140,000 cu. ft. per sec.

For comparison with the graphical method of flood-flow determination as above outlined, another special study of the flood of March, 1879, has been made. The actual conditions of flow and the stage of water in the tributaries was measured and otherwise approximated by the late State Engineer Department, and a special examination of the crevasses leading from the river into the flood basins was also made. The data then collected have been supplemented by the results of the work of the last season, and the flood covering the time-period from March 4 to March 20, 1879, has been traced through Sacramento Valley as follows:

The several flood basins, notably the Sutter Basin and the American Basin, were gradually filled to the elevation of the water surface of Sacramento River during the continuance of the rain-storm; being recipients of surplus waters, they retarded the rise of the river, which did not attain its highest stage at Sacramento until March 13th. The heaviest fall of rain had occurred on the 4th and 5th.

At Sacramento the river remained at a high stage for several days, then gradually fell until March 20th, when additional rain and melting snow again caused it to rise.

At Red Bluff the high stage was not protracted, neither was it protracted in case of the tributary rivers and creeks.

Based on character of drainage areas, their extent and information collected at the time by the State Engineer Department, curves of discharge were platted, types of curves were determined by the flow of those streams for which rating tables have been prepared.

All estimates of volume of water refer to the period March 4th to March 20th (inclusive), 1879.

From March 4 to March 20, 1879, the total quantity of water passing through Iron Cañon in Sacramento River was.....	54,467,000,000 cu. ft.
Sacramento River received from tributaries above Colusa.....	16,240,000,000 cu. ft.
Channel storage Iron Cañon to Colusa, elevation of March 4th, to elevation of March 20th.....	1,450,000,000 cu. ft.
Discharge at Colusa.....	67,250,000,000 cu. ft.
Consequently total amount of water lost through breaks and crevasses above Colusa.....	2,007,000,000 cu. ft.

Most of this water flowed across the river bank south of Chico Creek, on the east side of the river and reached the Butte Basin; thence it found its way into Sutter Basin.

Flow through breaks in the right bank of the Sacramento River, between Colusa and Knight's Landing.....	120,000,000 cu. ft.
Flow through breaks in the left bank of the Sacramento River, between Colusa and Knight's Landing.....	39,030,000,000 cu. ft.
Channel storage, Colusa to Knight's Landing, elevation of March 4th to elevation of March 20th.....	290,000,000 cu. ft.
Flow of Sacramento River at Knight's Landing, from March 4th to March 20th.....	27,810,000,000 cu. ft.

The aggregate outflow from the river through breaks in the levees between Colusa and Knight's Landing is based on the difference between volume of flow past Colusa and that past Knight's Landing. It checked well with the aggregate of the estimated outflows through each crevasse.

Discharge of Feather River into the Sacramento River, March 4th to March 20th.....	44,531,744,000 cu. ft.
Flow through breaks in the right bank levees between Knight's Landing and Gray and Shaw's.....	16,400,000,000 cu. ft.
Flow of Sacramento River at Gray and Shaw's.....	79,400,000,000 cu. ft.
Channel storage Knight's Landing to Gray and Shaw's, elevation of March 4th to elevation of March 20th.....	180,000,000 cu. ft.
Flow from Sutter Basin into Sacramento River, March 4th to March 20th, calculated from the above.....	23,638,256,000 cu. ft.
The water in the Sutter Basin was about 5.75 feet higher on March 20th than it was on March 4th. Its volume between these dates had been increased.....	29,900,000,000 cu. ft.
Total flow of water into Sutter Basin from all sources.....	<u>29,900,000,000</u> <u>23,638,256,000</u> 53,538,256,000 cu. ft.

The total flow of water from Butte into Sutter Basin was estimated as follows:

Flow of Butte, Table Mountain, and other creeks, through Butte Basin to Sutter Basin.....	1,190,000,000 cu. ft.
Flow into Butte Basin, thence into Sutter Basin, through levee breaks, etc.....	<u>2,007,000,000 cu. ft.</u>
Total.....	3,197,000,000 cu. ft.
The flow of Sacramento River past Gray and Shaw's, as above noted, for the period March 4th to March 20th, was.....	79,400,000,000 cu. ft.
Discharge of American River into the Sacramento River, March 4th to March 20th, was.....	19,133,280,000 cu. ft.
Flow through the right bank of levee breaks and crevasses below Gray and Shaw's.....	15,500,000,000 cu. ft.
Channel storage between Gray and Shaw's and Freeport, elevation of March 4th to that of March 20th.....	400,000,000 cu. ft.
Flow of Sacramento River at Freeport (based on curve established by 10 gaugings made in February and March) during the period March 4th to 20th.....	81,829,680,000 cu. ft.
From these figures it appears that American Basin received water from Sacramento River (being the excess of the flow from river to basin over that from basin to river) to the extent of.....	803,600,000 cu. ft.
Flow from Bear and Feather Rivers through levee breaks into American Basin, about.....	6,000,000,000 cu. ft.
Flow of creeks south of Bear River into American Basin.....	1,556,928,000 cu. ft.
Storage of water in American Basin (based on figures as above noted) March 4th to 20th.....	8,360,528,000 cu. ft.
Storage of water in American Basin, estimated from water surface elevations (March 4th, 20.5 feet; March 20th, 26.5 feet).....	8,369,316,000 cu. ft.

The discharge of Feather River into the Sacramento River during the high stage of March 4 to 20, 1879, is based on the following figures:

Flow of Feather River at Burt's Ferry.....	31,850,496,000 cu. ft.
Discharge of N. and S. Honcut Creeks.....	946,080,000 cu. ft.
Discharge of Yuba River.....	15,190,848,000 cu. ft.
Discharge of Bear River.....	<u>3,244,320,000 cu. ft.</u>

Deduct:

Channel storage of Feather River below Burt's Ferry, elevation of March 4th to elevation of March 20th.....	700,000,000 cu. ft.
Flow through breaks and crevasses from left banks of Bear and Feather Rivers into American Basin, about.....	6,000,000,000 cu. ft.
Discharge of Feather River into the Sacramento River, based on above figures.....	<u>44,531,744,000 cu. ft.</u>

During the high stage of March 4 to 20, 1879, Yolo Basin was the recipient of the flow of Cache and Putah Creeks and other Coast Range drainage, and it received in addition:

The flow through levee breaks and crevasses in the right bank of the Sacramento River below Knight's Landing, aggregating (on the basis of figures above noted) 31,900,000,000 cu. ft.

Expressed in rates of flow per unit of time it may briefly be stated:

The outflow of water from the river across banks above Colusa, March 4th to 20th, averaged	1,470 cu. ft. per sec.
The outflow from the river across banks through breaks and crevasses between Colusa and Knight's Landing, averaged	26,640 cu. ft. per sec.
The outflow from the river into Yolo Basin through breaks and crevasses between Knight's Landing and Gray and Shaw's, averaged	11,170 cu. ft. per sec.
The average rate of flow across banks from Feather and Bear Rivers into American Basin was	4,080 cu. ft. per sec.

Had all water been confined to the river channel above Gray and Shaw's, then the aggregate flow at that point would have been increased by the total output into the several basins through crevasses and breaks above that point and would have been decreased by the total return flow from Sutter Basin.

Under such conditions the flow of Sacramento River at Gray and Shaw's would have been increased on an average for the whole period, about.....	25,000 cu. ft. per sec.
And the flow of Sacramento River at Sacramento would have been increased on an average for the whole period, about.....	36,000 cu. ft. per sec.

These figures of averages do not represent the full increase of flow that would have resulted if all water had been confined to the river channel, because in that case the passage of the flood would have been more rapid; or in other words, the escape of water from the river did not occur at a uniform rate, and at some period of the flood the rate of outflow into the flood basins far exceeded the above noted averages. Instead of 36,000 cubic feet per second, as the increase of discharge at Sacramento, due to a confining of the flood to the river channel, it will be reasonable to presume that this average rate of increase is about two thirds of the maximum. Consequently, to determine maximum flow at Sacramento, due to a flood volume corresponding to that of March, 1879, add 54,000 cubic feet per second to the actual discharge on March 13th, on which day the river was at its highest.

By similar reasoning, though not adhering to the above two-thirds ratio for the other sections of the Sacramento River, the following may be noted as maximum discharges which would have resulted if all water had been confined to the river channel:

At Colusa	70,000 cu. ft. per sec.
At Knight's Landing	64,000 cu. ft. per sec.
At Gray and Shaw's	100,000 cu. ft. per sec.
At Sacramento.....	125,000 cu. ft. per sec.

These figures are to be compared with the river capacity at these several points for water surface at about 4 feet above natural banks.

Capacity of Sacramento River at Colusa	63,000 cu. ft. per sec.
Capacity of Sacramento River at Knight's Landing	24,000 cu. ft. per sec.
Capacity of Sacramento River at Gray and Shaw's.....	62,000 cu. ft. per sec.
Capacity of Sacramento River at Sacramento.....	70,000 cu. ft. per sec.

It must also be remembered that the flood in Sacramento Valley, due to the rains of March, 1879, was an ordinary flood, and that a flow of 125,000 cubic feet per second at Sacramento represents a run-off of only about one quarter inch per twenty-four hours over the entire tributary drainage area.

The intermission of two weeks between the rain-storm of February and that of March, 1879, afforded time for a large portion of the water of the first storm to reach its outfall in Suisun Bay before the effect of the freshets due to the second one became manifest.

From March 6th to March 10th, however, the river at Sacramento rose nearly 8 feet, being then at an elevation of about 4 feet above bank heights, and in direct communication over banks and through crevasses in the levees with the water of the American and Yolo basins. The rise of water surface at Sacramento would have been more rapid if all waters had been confined to the river channel, and the maximum flow would probably have occurred on March 7th or 8th.

Had all the water been confined to the channel at Sacramento, it is highly probable that the rod-record at Sacramento on March 8, 1879, would have been 36 feet (39.85 feet above L. W. Suisun Bay). It was, in fact, less than 24 feet at the high stage on March 13th.

The conclusion having thus been reached that the flood of March, 1879, would have required three times the available channel capacity at Knight's Landing, and nearly twice the available channel capacity at and below Sacramento, it is of particular interest to examine the rainfall to which this freshet was due and to compare it with the rainfall of the seasons 1877-78 and 1861-62, both of which are well remembered in the Sacramento Valley as flood years.

After moderate rains in January, 1879, a general rain set in on February 7th. The storm continued six days, during which 3.15 inches fell at Sacramento. After an intermission of a day, rain again fell during a three-day rainy period to the extent of .73 of an inch. The next two weeks were dry. It rained a little on March 2d, and a second general storm commenced on March 4th. On the 5th, the precipitation reached 1.97 inches at Sacramento, and during this storm, which continued to March 9th, the precipitation at Sacramento was 3.85 inches.

In the season of 1877-78 the light rains of the early part of January were followed on the 14th by a storm lasting five days, with a total precipitation at Sacramento of 3.13 inches. Rainy weather thereafter was continuous, with now and then an intermission of one or two days, and two three-day periods of no rain (from February 1st to 3d, and February 8th to 10th), until March 6th. The total precipitation at Sacramento from January 14th to March 6th was 17.73 inches, indicating a very much greater run-off from the watershed of the Sacramento River in that season than during any period of similar length in 1878-79.

In 1861-62 the precipitation of 8.64 inches at Sacramento in December was followed by 15.04 inches in January, indicating rates of rainfall and protracted storms far in excess even of those of 1877-78.*

It is necessary to call attention to these facts, although neither the volume of the run-off from the watershed of Sacramento River, nor even the rate of run-off can be determined solely by an interpretation of rainfall and of water-surface elevations.

* See Plates 3 and 4.

The flood of January, 1862, registered only 24 feet on the gauge-rod at Sacramento; that of 1878 only 25½ feet; and the high water of March, 1879, rose to 23½ feet; that of December, 1892, due to a comparatively light rainfall, rose to 28 feet on the rod.*

In 1862 the surplus waters escaped freely to the flood basins across natural banks. In subsequent seasons—notably 1877-78, and again in 1889 and in 1892—the river rose until it reached the tops of the levees, and ceased to rise when a break in the levee afforded the necessary easement. In 1878-79 the river would have also risen to the height of levee tops had not a large number of crevasses afforded partial relief.

As there has been no opportunity afforded us to determine by measurement the volume of water to be carried to an outfall through Sacramento Valley during the extreme flood stage, the other methods of approximation, as above indicated, had to be resorted to.

A further discussion of the subject need not be entered into at this time. It will suffice to call attention to a few additional points only. The high water of March, 1879, the volume of which, as already noted, could be approximated, has served as a standard of comparison. Rainfall and river-rod records for other high stages have been compared with those for that period, and allowance being made for water storage in the valley channels, conclusions were reached as to the probable flow of water in the different sections of the river as supplemented by the proposed auxiliary channels.

From premises which must be admitted to be not fully satisfactory, conclusions have been drawn of vital bearing upon the details of the project, the definite lines for which should not be too hastily established.

DRAINAGE PROJECT FOR SACRAMENTO VALLEY.

SYSTEM OF TREATMENT.

Being clearly apparent that there are portions of the Sacramento River, as, for instance, from Butte Slough near Colusa to the mouth of Feather River, which with levees or embankments of reasonable height cannot be made to carry flood volumes, it is evident that some portions of the flood waters will, under the present system of river treatment, inevitably escape from the channel. They will do so at the weakest points of the river embankments, through crevasses, at points which are often determined by accident, unless judicious provision be made for the escape of such surplus waters at selected points.

It appears, therefore, that the rational treatment of the river will, in a measure at least, result in reestablishing conditions similar to those which existed before levees were built on the high marginal strips of bank land. Properly located, well-constructed extended escapeways should permit surplus waters to flow out of the river channel, but they should not begin to act as reliefs until the river is doing full duty as a drainway.

In the natural condition of the river numerous high-water sloughs and depressions in the river banks served the purpose of such escapeways. The danger line, then, was the natural bank height. The outflowing water accumulated in the flood basins; it would do likewise

* See Plates 7, 8, and 9.

should the water flowing through escapeways at selected points, as above suggested, be permitted to take a natural course. But it is not necessary to abandon the large and fertile areas represented by the flood basins to the surplus waters. This water should be controlled in its flow through the valley to an outfall.

This idea has been made the fundamental principle of the project herewith submitted. The project is submitted, subject to modification in matters of detail, particularly in so far as volumetric capacity is concerned, which it would be well not to fix rigidly at this time, as opportunity may yet be afforded to record volumes of water actually entering and passing down the valley during a great flood.

The project involves, briefly stated :

First—The enlargement and utilization of the river channels to their maximum capacity as drainways.

Second—The outflow of surplus waters from the river channels at selected points.

Third—A control of the surplus waters between embankments, forming by-pass channels, and a rapid delivery of the same into Suisun Bay.

The works to accomplish drainage of the valley on these lines have been determined by long familiarity with and a close study of topographical features of the Sacramento Valley and of the entire watershed of the Sacramento River and its tributaries, together with a careful analysis of the hydrographic and hydrometric work done under our personal direction and that done by the late State Engineer Department.

This proposed by-pass system of river treatment is not now presented as a new idea. It is a return to first principles as pointed out by nature.

Attention was called to the necessity of introducing this system of controlling the flood waters of the Sacramento River; to the importance of forcing the river to flow at its full channel capacity before permitting any water to escape from it; to the desirability of establishing artificial escapeways, and of controlling the flow of these surplus waters to their outfall, at a levee meeting in Princeton, in the fall of 1880,* by C. E. Grunsky, at that time in charge of Sacramento River surveys for the State Engineer Department.

This plan of treatment was also briefly referred to in the State Engineer's Report of 1880. It has been successfully introduced in the case of at least one European river, the Elbe, at Magdeburg, where a by-pass, some 30 miles in length and of great width, passes the surplus flood waters of that river around the constricted river section at Magdeburg, where it would otherwise cause disastrous flooding of densely populated districts.

The by-pass system of river treatment, at variance with that ordinarily referred to as the relief outlet system, effects a concentration of water in the natural channels of the river to their utmost capacity. It differs but slightly from the treatment in other countries involving the use of master-dykes, sometimes miles apart, upon each side of a river. In the case of Sacramento River, owing to the low elevation of the ground half a mile to a mile or more from the river, the location of a waterway for surplus waters, on top of and including the high bank lands, between levees several miles apart, would be out of the question, and the by-pass may be regarded as the substitute for the flood-water area, else-

*At that meeting there were present Hon. John Boggs, the late Dr. H. J. Glenn, W. S. Green, Geo. F. Packer, and many others.

where established by the master-dyke system immediately adjacent to and including the river channel, but always used under physical conditions that are favorable to such location.

It appears from the studies made of the high stages of the river in 1879 and 1894, as hereinabove presented, that even in the case of ordinary floods, due to storms represented by a rainfall of about 4 inches at Red Bluff and about 3 to 4 inches at Sacramento, the by-pass capacities that must be provided in order to prevent a rise of Sacramento River above a safe elevation between its levees are as follows:

Above Colusa, about	16,000 cu. ft. per sec.
Colusa to mouth of Feather River, about.....	46,000 cu. ft. per sec.
Mouth of Feather River to American River, about.....	42,000 cu. ft. per sec.
Below mouth of American River, about	70,000 cu. ft. per sec.

But a mere inspection of the rainfall charts herewith submitted shows that storms of greater rainfall frequently occur, and that it will therefore be necessary to provide greater by-pass capacities than here indicated, in order to be reasonably sure that ordinary floods will not cause disaster.

The works hereinafter described as a project which is to be of general benefit to Sacramento Valley lands, will supplement the present river capacities to the following extent:

Above Colusa	60,000 cu. ft. per sec.
Colusa to mouth of Feather River.....	80,000 cu. ft. per sec.
Mouth of Feather River to Cache Slough.....	108,000 to 130,000 cu. ft. per sec.

And it is not probable that these works will be called on to serve to their full capacity more than once or twice in a century.

To illustrate why the embankments inclosing the by-pass areas are to be at such great distances apart, as elsewhere referred to, a brief reference may here be made to the proposed by-pass through the Colusa Basin. This is to be 800 feet wide. Its gradient will, almost throughout its entire length, be 6 inches to the mile, yet the capacity of the channel for a depth of about 8 feet of water (levees are to be 11 feet high) will be only 10,000 cubic feet per second, while as elsewhere shown the total by-pass capacity available above Colusa should be about 60,000 cubic feet per second. The Colusa Basin by-pass is the one of least capacity, and as a relief channel for flood waters is only of secondary importance. Its prime purpose will be to intercept Coast Range drainage, and to prevent its accumulation in the west-side valley trough. In keeping with this requirement, and to avoid high embankments in the deepest portions of the Colusa Basin, this by-pass has been projected to follow a grade line at the western edge of the basin proper. It should be open toward the west to each of the several Coast Range streams.

The Colusa Basin by-pass is a comparatively small channel. Its return to Sacramento River at Knight's Landing will not, therefore, be seriously objectionable, provided the by-pass from the river at that point in a direct course to the mouth of Feather River be not omitted from the project. But, as an alternative outfall proposition, it is suggested that this Colusa Basin by-pass be cut through the Knight's Landing ridge to a junction with the Yolo Basin by-pass, and that it be thus made distinctively a west-side structure.

The several by-passes will be principally in the nature of parallel levees or embankments, protected by a rip-rap of broken stone or by

brush facing where most exposed to wave action, and between these embankments flood or surplus waters are to be confined.

Locally, provision must be made for the collection and delivery of rain and seepage waters accumulating on the adjacent lands, into the by-pass areas, by means of drain ditching and pumping. It will also be necessary, in case of each of the by-passes, to admit the water of creeks now discharging into the flood basins. Some reference to the work necessary to accomplish this is made in the discussion of the main drainage problem.

It being proposed to construct the by-passes (except the Colusa Basin by-pass) on direct lines, through comparatively low portions of the several depressions, some explanation may be desirable to justify this location.

With the light gradients available (only 6 inches per mile in portions of Butte and Sutter basins, and also as low as 5 inches per mile in the Yolo Basin), depth of water is necessary to obtain velocity, and to secure depth by excavation is out of the question, as will appear at once when it is considered that the sectional area required is about 19,000 square feet in the lower end of Butte Basin, and still greater in Sutter and Yolo basins, and that if depth of water be reduced by locating the by-pass on higher ground, its length will be increased, its gradient will be reduced, and the distance between embankments must be more than proportionately increased.

THE REQUIRED WORKS.

Conforming to the principles herein set forth, as those which must govern in any comprehensive attempt to improve the drainage of Sacramento Valley, and thereby to protect its lands against inundation, a project has been devised as follows:

(1) The regimen of Sacramento River below the lower end of Grand Island is to be improved by reducing its width on the Newtown Shoal, and by widening the river at Horseshoe Bend, and by generally correcting its alignment.

(2) Steamboat Slough is to be made the main drainage channel of the river. This will require the enlargement of the upper 4 miles of the slough, and the making of a cut at the point where Steamboat Slough separates from Old River.

(3) A by-pass is to be constructed through Yolo Basin from near the mouth of Feather River through the lowest portion of the upper end of the basin to a point about opposite Sacramento, thence in a favorable location west of the deepest portion of the basin to an entrance into Sacramento River at the lower end of Grand Island. This by-pass is to have a capacity of about 108,000 cubic feet per second to where it is to receive the waters of Putah Creek, thence 130,000 cubic feet per second to its outfall.

It is to be constructed substantially in the form of two parallel embankments, 15 feet high, 4,000 feet apart to Putah Creek, thence about 4,500 feet apart. The tops of these are to be raised to 3 feet above the proposed grade line of the water, which is to be a line rising 5 inches per mile, from the high-water level at the foot of Grand Island (being 13 feet) to a point near the line of the California Pacific Railroad, and thence rising 7 inches per mile to a point within 6 miles of the mouth of Feather River, and thence to the proposed high-water level (36 feet)

at the mouth of Feather River. It is to receive surplus water at and near its upper end over two overfall weirs, or escapeways, aggregating 5,500 feet in length, the tops of which are to be at elevations 3 and 4 feet, respectively, below the proposed surface of the high water. This by-pass is to receive additional surplus water from the Sacramento River, discharged through a third escapeway, 1,000 feet long, located about 7 miles below Sacramento, and connected with the main by-pass by means of two embankments, 1,200 feet apart. The top of this secondary escapeway is to be placed at an elevation of 25.0 feet, being such that it will commence to discharge water out of the river when the gauge-rod at Sacramento registers 24 feet.

The Colusa Basin by-pass is also to be connected with and is to discharge into Yolo Basin by-pass near its upper end. Embankments connected with the west-side embankment of Yolo Basin by-pass are to confine the waters of Cache and Putah Creeks to selected flood-water areas, in which they are to be allowed to spread and deposit their silt before reaching the main by-pass channel.

(4) Through Sutter Basin there is to be constructed a by-pass, with a capacity of about 70,000 cubic feet per second. This will receive the water in excess of the river channel capacity at the head of Butte Slough, over a weir forming an escapeway, about 3,000 feet long, the crest of which is to be at an elevation of about 60 feet. This by-pass, at a point about 2 to 3 miles from Sacramento River, will receive from the north the water carried by the Butte Basin by-pass, and about midway of its course should receive surplus river water from a secondary escapeway on the east bank of Sacramento River, at or near the Tisdale break. This secondary escapeway should also be constructed in the form of a weir about 700 feet long, and should have its top about 3 feet above the natural bank height. Provision must be made to intercept and deliver into the Sutter Basin by-pass all drainage water passing southward between Feather River and the Sutter Buttes. This is to be done by extending intercepting levees from a selected point of the by-pass for some distance toward the northeast.

The Sutter Basin by-pass embankments are to be 2,500 feet apart. Their tops are to rise 3 feet above the proposed water surface, which is to be 36 feet at the mouth of Feather River, thence rising 6 inches per mile for 25 miles to a point near the south line of T. 15 N., R. 1 E.; thence rising at about 1 foot per mile to an elevation of 52 feet at the Marysville road crossing, and thence rising to the proposed high water surface at the head of Butte Slough (being 64 feet).

(5) From Knight's Landing a short by-pass is to be constructed in a direct line to the mouth of Feather River. This is to form a junction with the main Sutter Basin by-pass at that point. The levees or embankments forming this by-pass are to be 1,000 feet apart and their tops are to be at an elevation 3 feet above proposed high water.

(6) Along the west edge of Colusa Basin, following a grade line falling 6 inches to the mile, there is to be constructed a west-side by-pass which is to serve primarily as an interceptor of Coast Range drainage. This Colusa Basin by-pass is to be connected above and below the several Coast Range creeks with levees flanking these streams. The Colusa Basin by-pass will have its head somewhere near Bound Slough, on the west bank of Sacramento River about 4 miles below Jacinto. At Knight's Landing an overflow or escapeway is to be

arranged in its east bank to permit a discharge of some of its waters into Sacramento River. Its ordinary flow is to be carried through the Knight's Landing ridge in a canal 600 feet wide, on a grade of 1 foot to the mile, into the head of Yolo Basin and thence into the Yolo Basin by-pass. The highest point of the ridge is to be crossed with the bottom of the canal at an elevation of 32.0 feet.

The Colusa Basin by-pass is to have parallel embankments averaging 9 feet in height to a point about opposite Colusa, thence 11 feet high. Surplus river water is to enter it at its head over a weir forming an escapeway, the top of which is to be at an elevation of about 1 foot above the general surface of the ground. This escapeway is to be 750 feet long.

(7) Through Butte Basin it will be necessary to pass a large volume of water which the river is to be permitted to discharge over a weir to be constructed about 2 miles above Butte City. The escapeway there to be provided, is to be so arranged that the discharge through it will commence when the river is bank-full, and will increase to the maximum capacity of the Butte Basin by-pass when the river rises to 4 feet above natural bank height. The embankments forming the Butte Basin by-pass are to be 2,400 feet apart. They are to rise at least 3 feet above the proposed water surface in the by-pass, which water surface, at a maximum stage, is to be at an elevation of about 62.0 feet at the junction with the Sutter Basin by-pass, and 69.5 feet at a point 10 miles farther north. Thence to the head of the by-pass its embankments are to rise 9 feet above the general surface of the ground.

Provision is to be made for receiving the water of Butte Creek and Table Mountain Creek into the by-pass, and also of intercepting all water that may in time of unusual floods collect upon the plains to the north of the Sutter Buttes; all of which water is to be delivered into the lower end of the Butte Basin by-pass.

(8) River alignment above Feather River is to be systematically improved, particularly to the end that permanency of river position may be attained and the danger of levee destruction, due to undermining of the river banks, may be reduced to a minimum.

(9) All river levees are to be brought to a uniform standard, which may briefly be indicated as follows: The danger line for Sacramento River shall be considered to be at an elevation one foot above the natural general surface of the high bank lands. All levees above Steamboat Slough should rise at least 5 feet above this danger line, and at that height should have a crest width of at least 8 feet. All water slopes should be at least as flat as one on three, and all land-side slopes should be at least as flat as one on two.

Below the head of Steamboat Slough the levees should all rise at least 7 feet above the danger lines.

It is not necessary at this time to describe the details of the project as above outlined, except in so far as seems necessary to explain the estimate of the cost of the work. All embankments are to be of the following dimensions:

Crest width	{ 8 feet, for height less than 12 feet. 12 feet, for height 12 feet to 16 feet. 12 feet, for height greater than 16 feet.	
Land-side slope		1 on 2.
Water-side slope		1 on 3.

All water slopes likely to be exposed long to wave action are to be protected with rip-rap of rock or brush facing. Embankments are all to be constructed of material taken from the proposed by-pass areas.

All escapeways are to be constructed as low, flat-topped weirs, faced with concrete; they are to be made permanent structures.

The proposition seems self-evident that the cost of only those portions of the above project which are, without question, of general benefit, should be apportioned to the lands of the valley subject to inundation, even though the aggregate cost be apportioned strictly according to the amount of benefit derived by each individual tract of land, or property owner. It being a fundamental principle of the proposed system of Sacramento Valley drainage, to utilize river levees as now existing, closely following the high bank lands, as a part of the finished project, and such levees having been to a very large extent already provided by the land owners directly interested in the several localities, there would be no justice in including the cost of levees on river frontage, where these do not now exist, nor where they fall below the required standard, in the aggregate cost of the project.

The matter of protecting river frontage, and of there maintaining levees equal to the standard, should be left to the land directly affected by these works.

No allowance has therefore been made in the estimate of cost for constructing or reinforcing the levees necessary to prevent a flow of water out of the river channel at other than the points selected for escapeways, nor does the estimate cover the cost of establishing works for the control of seepage and rain water that must necessarily accumulate in the lowest portions of the basins generally adjacent to the by-pass embankments. All such works, being of local benefit only, should in each case be provided by the local districts directly affected thereby.

The work of improving the channel of Sacramento River below the foot of Grand Island should extend over several years. It will consist in reducing the channel width in the Newtown Reach to about 1,200 feet and in widening the river and correcting its alignment at Horseshoe Bend, above Emmaton. This work should be prosecuted systematically through a period of about five years, and about \$50,000 per year should be expended on it.

The channel correction of Steamboat Slough involves the making of a cut about 1,000 feet long, 500 feet wide, and the widening of the slough for a distance of $4\frac{1}{2}$ miles from its head to the lower end of Sutter Island. Throughout this distance it should be made 500 feet wide. This work involves the moving of about 5,000,000 cubic yards of earth. It also involves the acquisition of a right of way, as it would be necessary to acquire an improved strip of land adjacent to the slough and now in the hands of private owners.

The effect of this improvement is thus referred to in the report of the Examining Commission on Rivers and Harbors (1890):

"The effect of this channel correction would be to increase the capacity of Sacramento River, at all points below Feather River, about 25 per cent. It would cause at least 3 feet of the silt now in this part of Sacramento River to be swept out. It would therefore, by adding to the capacity of the river, cause less water to pass down the Yolo Basin; consequently, there would be less massing of water at the lower end of Grand Island, and there, too, flood heights would be reduced. It would

improve the outfall of Feather River by lowering the water in Sacramento River at that point, and would thus be a benefit to the navigability of that river, and of great benefit to it as a drainway."

The estimate of cost of the Yolo Basin by-pass includes the cost of levees necessary to confine the waters of Cache and Putah Creeks in their passage across the western part of the basin to the by-pass, but does not include the levees required along the upper part of Cache Slough, Lindsey Slough, and other waterways, which will have to be kept open toward the by-pass channel. These levees should be considered works of local benefit, even though without them the flood waters of the by-pass would not be prevented from ascending Cache Slough and tributaries and inundating large portions of the Yolo Basin. They belong to the same class of works as levees on the river frontage of the various subdivisions into which the overflowed lands are divided either by the proposed works or other natural or artificial lines of demarkation.

It is hardly necessary to say that the drainage of Yolo, as well as the other basins, would not be complete without the establishment of a series of pumping stations at selected points on both sides of the by-passes, but as the capacity and location of these is a matter of detail to be finally determined by each local district directly interested, it would be superfluous to discuss their location, required capacity, or cost at this time.

It is proposed that the escapeways at the river shall, as already suggested, be constructed in the form of weirs with flat tops, well protected with concrete work.

There are to be three of these escapeways into Yolo Basin by-pass, below Feather River. The first is to be located near the mouth of Feather River. Its upper end is to be about half a mile below Feather River and it is to extend thence along the Sacramento River bank 3,000 feet. The elevation of its crest is to be about 33 feet, being 3 feet lower than the proposed extreme height of water in the river at that point.

The second escapeway is to be about 3 to 4 miles below the mouth of Feather River, and is to have its crest at an elevation of 30 feet. It is to be 2,500 feet long, and the depth of water on its crest at extreme flood stages is not to exceed 4 feet. The water escaping from this second Yolo Basin escapeway will unite with that from the first, and with the Colusa Basin by-pass water which will be delivered into it below the junction of the waters of the two former.

The third escapeway will be 1,000 feet long. Its location is to be about 7 miles below Sacramento. The height of its crest will be at an elevation of about 25 feet.

The Colusa Basin by-pass, which is to have its head at or near Bound Slough, as elsewhere described, at an elevation about 1 foot above the natural general surface of the ground in that vicinity, is to have a course southwesterly from that point into the west-side trough, thence following this trough to near a point nearly opposite Colusa. It will continue thence on a grade line of 6 inches to the mile along the west side of the trough, so as to reach Knight's Landing ridge with a bottom elevation of 32 feet.

The escapeway at the head of the by-pass is to be 750 feet long. The by-pass embankments are to be 9 to 11 feet high, and it is proposed to establish the maximum depth of water in the by-pass at 6 to 8 feet, leaving a 3-foot margin for safety.

Willow Creek waters and the waters of the many smaller Coast Range streams are to be admitted into this by-pass and allowed to flow down it.

To entirely prevent deposits in the by-pass areas by the waters of these streams will not be possible, but to a large extent the light silt carried by most of these will be swept out by the occasional flood-flow in the by-pass, particularly if the by-pass area is, as it should be, kept under annual cultivation, and free from the growth of trees and brush. The estimate of cost includes an item for the control of the creek waters at the points where watercourses are crossed by the by-pass.

The embankments of the by-pass after the same has been carried across the Knight's Landing ridge, where slight cutting will be necessary, are to be carried in direct lines to a junction with the embankments for the control of Cache Creek waters, and thence to a junction with the Yolo Basin by-pass at a point about 6 miles below the mouth of Feather River. In estimating the cost of the Colusa Basin by-pass, no allowance has been made for the construction, enlargement, or maintenance of the river levees, nor for works necessary to dispose of seepage and rain water.

The relief outlet or escapeway to be provided from the Colusa Basin by-pass to Sacramento River at Knight's Landing should be arranged near the point where it becomes necessary to cut into the Knight's Landing ridge. It should be an overfall weir in the east by-pass embankment, with its crest at 5 feet above the bottom of the by-pass, having a length of 500 feet, and should deliver its waters between two embankments leading directly to the Sacramento River at Knight's Landing, where suitable works should be provided to prevent injury to the river bank by the water redelivered into the river.

The by-pass works in the Sutter Basin, to be effective, must include embankments for the interception of the water occasionally flowing at the eastern base of the Sutter Buttes. The cost of these embankments has been included in the estimate of cost of works. Otherwise, this by-pass will not differ in character materially from that planned for the Yolo Basin. It will receive water at two points direct from Sacramento River, and at one point indirectly through the Butte Basin by-pass.

The location of the Sutter Basin by-pass is to be such that without excavation, except near the bank of the Sacramento River, it will afford a depth of at least 12 feet of water at the extreme flood stage. Should it be constructed across the deepest point of the basin, the embankments there would be over 25 feet high. It would then be possible to contract width somewhat, though hardly to a sufficient degree to justify the unusually high embankments. The better location for the by-pass will be somewhat to the east of the deepest portion of the basin in a course toward a point on the Feather River about 8 miles above its mouth. It is proposed to there terminate its eastern embankment by making a suitable connection with the protection works above Nelson Slough.

The western by-pass embankment is to be continued parallel to Feather River at a distance from it sufficient to afford the full waterway required, being about three quarters of a mile from the river. This location will practically make Feather River the eastern limit of the by-pass area, and if this location be adopted, then the Feather River levee, from a point about one mile above Nicolaus, should be considered and treated as the eastern by-pass embankment.

This arrangement will be equivalent to making the lower 8 miles of

the by-pass serviceable for Feather River surplus waters, as well as for those of the Sacramento. It will have the effect of reducing the flood heights of Feather River practically to those of the adjoining by-pass area, whenever the water of Feather River rises above its banks.

The embankments forming the Sutter Basin by-pass are to be about 2,500 feet apart, and will generally be 15 to 18 feet high. They are to afford an effective depth of at least 12 feet of water, with 3 feet of margin for safety.

The principal escapeway which is to deliver river water into the Sutter Basin by-pass is to be at its head. This is to be located at Butte Slough, extending along the river bank southward from the slough for a distance of about 3,000 feet. The crest of the weir over which the surplus river water is there to flow is to be at an elevation of about 60 feet; this elevation to be such that the extreme depth of water over the weir will not exceed 4 feet. The slough itself is to be permanently closed, in order that there may be no escape of water from the river at less than bank heights, as such escape of water would be detrimental to the regimen of the river below, and to the control of floods, and not advantageous.

At or near the Tisdale break (2 to 7 miles below Grimes) a second escapeway should be provided. This should also be in the form of a weir having a length of about 700 feet, and a crest, as in the case of Butte Slough escapeway, 4 feet below the proposed high water in the river. The water flowing out of the river at this second escapeway should be conducted to a junction with the main by-pass channel, between two embankments about 800 feet apart, with tops planned to be at 3 feet above the proposed high-water plane.

At Portuguese Bend, about 2 miles below Knight's Landing, a portion of the river bank should be left unprotected by any artificial structure, such as a levee, for a distance of about 1,000 feet, in order that the river water, when above bank height, may have a free flow, in a direct line across banks, toward the mouth of Feather River. The surplus water there escaping should be confined between embankments 1,000 feet apart, and should be carried to a junction with the main Sutter Basin by-pass.

The estimate of cost for the Sutter Basin by-pass works includes an item for the cutting away of bank lands 1,000 feet wide, 4 feet deep at the outfall point of the by-pass into the river. Such cutting is desirable in order to decrease the obstruction which the high river bank offers to the outfall of water from the by-pass into the river.

Through the Butte Basin the proposed by-pass is to be formed by two embankments about 2,400 feet apart and generally 9 to 11 feet high, having a southerly course to a junction with Butte Creek, and thence inclosing this creek within the by-pass area to its point of delivery into the Butte Slough depression, which is to be in open communication with the Sutter Basin by-pass.

The east-side by-pass embankment is to be left open for the entrance of the Butte Creek water, and should be connected upon either side of the creek with embankments or levees that will be necessary to confine the creek waters.

The inflow of water into this Butte Basin by-pass is to be controlled by maintaining an artificial sill or weir at the general height of bank lands, so that the by-pass will commence to receive water as soon as the river rises above a bank-full stage. In order that the escapeway at

the head of the Butte Basin by-pass may have ample capacity at a stage of the river not exceeding 4 feet above bank heights, it will be necessary to make the escapeway very long. The length of the weir necessary to protect the bank land from erosion will be about 4,000 feet.*

The eastern embankment forming the Butte Basin by-pass is to be extended along the eastern margin of the natural overflow above the by-pass head for a distance of about 10 miles in a northeasterly direction to a connection with high land, thus intercepting the flow into Butte Basin which would otherwise pass to the eastward of the proposed by-pass.

The project of river treatment now submitted has at this time been barely sufficiently elaborated for presentation. The general idea was early conceived, but required long consideration, on the basis of all hydrographic data obtainable, before it was ready for presentation as a project of river treatment. It was not possible to have surveys made following the lines of the proposed works, but as will be seen by examination of maps prepared under our supervision and herewith submitted, data are ample for a full discussion of the project in its adaptation to the physical features and conditions of the Sacramento Valley.

High embankments will be necessary in both Sutter and Yolo basins. The maximum height of levee will be about 18 feet. It will be difficult to drain the sites for the embankments throughout a portion of the low southern end of Yolo Basin. Levee building with dredgers will be inconvenient, owing to the great breadth of base required for high embankments, and the desirability of avoiding the making of a trench at or near the base of the embankments. These matters have been taken into consideration in estimating the cost of earthwork.

The project for the control of the flood waters of Sacramento River should be supplemented at once by a judicious treatment of Feather, Yuba, and Bear Rivers. Of these the former will, we believe, have ample capacity to carry its waters in times of ordinary flood when, by reason of the channel improvements in the lower Sacramento River, and particularly in Steamboat Slough, the condition of the Sacramento River below Feather River shall have been so changed that the position of the river bed will again approximate that which it had maintained for centuries before mining commenced. The direct result of a lowering of the river bed at the mouth of Feather River would be a corresponding depression of the Feather River bed, and of its water surface, as well in flood as at its low stage. But such a result cannot follow immediately, the effect can only gradually become manifest. Meanwhile the treatment of Feather River must tend toward a maintenance of well-constructed high levees. Yuba and Bear Rivers should be confined to direct channels. By comparatively inexpensive works, ample deep channels can be created for them, cut to a large extent, particularly in the case of the Yuba, by their own waters.

But, as has frequently been said, an amelioration of the condition of these rivers, of Feather River, of American River, and of the Sacramento River below Feather River, is always conditioned on a restriction of the flow of gravel, sand, and silt into them.

*A further study in detail of the comparative effect of drainage and protection works in the vicinity of Angel Slough may suggest some modification of the general arrangement of the Butte Basin by-pass. It may also be found desirable to apportion the volumes permitted to escape from Sacramento River to several points, one of which might be below Butte City.

Concerning the control of American River waters, and of the waters of Coon Creek, Auburn Ravine, and other small creeks flowing into the American Basin, it is not necessary to add to previous reports of State officials and commissions.

The water of American River can be confined between embankments, a reasonable distance apart. The control of the waters of the small creeks is a local problem which may well be left to the interested local districts to handle.

The project to make the American Basin a storage reservoir for mining debris, by delivering into it portions of the flow of Yuba, Bear, and possibly American Rivers, has repeatedly been suggested ever since 1881. We have not sufficiently investigated this matter to advocate any definite project, and moreover it does not fall within the scope of our duties to do so. There is certainly sufficient merit in the scheme to justify careful investigation, particularly as there appear to be no great engineering difficulties in the way of a complete diversion of at least one of these rivers from its present course directly into the basin.

ESTIMATES OF COST.

The works herein described as necessary for a control of the flood waters of the Sacramento Valley, so far as they should be considered of more than local benefit, are, on the basis of data now available, estimated to cost as follows:

Yolo Basin By-Pass, 42 miles long (including control of Cache Creek, Putah Creek, and Willow Slough).

Earthwork, at 12½ cents, 12,756,500 cu. yds.	\$1,594,560
Earthwork, at 10 cents, 3,313,700 cu. yds.	331,370
Earthwork, at 8 cents, 740,000 cu. yds.	59,200
Escapeways	266,000
Rip-rap, 6,000,000 sq. ft.	300,000
Bridges and other structures	200,000
Land purchase, right of way, legal expenses, etc.	380,000
Engineering, incidentals, etc.	310,870
Total	\$3,442,000

Colusa Basin By-Pass, 66 miles long (including control of creeks).

Earthwork (by-pass embankments), at 10 cents, 9,242,000 cu. yds.	\$924,200
Earthwork (creek correction), at 10 cents, 1,782,000 cu. yds.	178,200
Earthwork (cut), at 10 cents, 267,000 cu. yds.	26,700
Escapeways	78,000
Bridges, etc.	100,000
Land purchase, right of way, legal expenses, etc.	320,000
Engineering, incidentals, etc.	162,900
Total	\$1,790,000

Sutter Basin By-Pass, 35 miles long (including embankments for interception of water east of Buttes and cut through river bank).

Earthwork, at 12½ cents, 8,830,000 cu. yds.	\$1,103,750
Earthwork, at 10 cents, 2,867,000 cu. yds.	286,700
Escapeways	150,000
Dam, etc., Butte Slough	3,000
Rip-rap, 4,000,000 sq. ft.	200,000
Bridges, railroad changes, etc.	200,000
Land purchase, right of way, legal expenses, etc.	390,000
Engineering, incidentals, etc.	233,550
Total	\$2,567,000

Butte Basin By-Pass, 20 miles long.

Earthwork, at 10 cents, 3,504,000 cu. yds.	\$350,400
Escapeways	41,000
Bridges and other structures	50,000
Land purchase, right of way, legal expenses, etc.	320,000
Engineering, incidentals, etc.	76,600
Total	\$838,000

Lower Sacramento River (below Grand Island).

Channel corrections	\$250,000
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Steamboat Slough.

Channel enlargement at head	\$400,000
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Summary of Estimates.

Yolo Basin By-Pass	\$3,442,000
Colusa Basin By-Pass	1,790,000
Sutter Basin By-Pass	2,567,000
Butte Basin By-Pass	838,000
Channel corrections, Lower Sacramento River	250,000
Channel corrections head, of Steamboat Slough	400,000
Grand total	\$9,287,000

In devising means for the carrying out of these works provision should be made to have their cost fall upon the entire area benefited thereby; not upon swamp and overflowed land alone, but upon all land subject to or in danger of periodical inundation in the Sacramento Valley, and upon all districts, even though already better protected than adjacent territory, where the contemplated works will reduce the danger of overflow in times when the river is at flood stages.

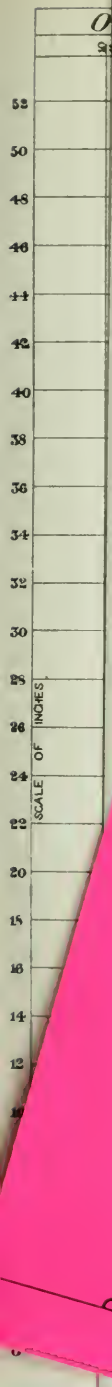
The costs of the works should not only fall upon all the property benefited, but it should be assessed to such property in proportion to the benefit conferred. But above all things unity of action is essential and a supervision of the work by competent State authority is requisite to make the project a success.

Within the area to be thus benefited there are 1,090,500 acres which are flooded or in danger of being flooded during years of excessive rainfall; one half of this area is inundated during years of more than an average rainfall; and one third is inundated in years of average rainfall.

Within this flood plane there is property of more than \$100,000,000 in valuation. Under the project now submitted the by-pass areas subjected to annual inundation will be reduced to about 46,400 acres, or less than one twenty-third the area now threatened.

The greater portion of this 46,400 acres may be used for pasturage, or for late annual crops. The cost of the acquisition of this area may therefore ultimately be returned.

It is to be expected that when the channel corrections which have been incorporated as a part of the project of flood-water treatment are to be carried out, material aid will be rendered by the United States Government, as these works will be direct aids to navigation as well as to drainage.



FOLD OUT

OUT

MEMORANDA.

SPECIAL MAP REFERENCE.

Commissioner of Public Works:

- Sacramento Valley, with elevations and contours, 2 miles to 1 inch, published 2 miles to 1 inch.
 Sacramento and Lower San Joaquin Valley Swamp Land Districts, 2 miles to 1 inch, published 3 miles to 1 inch.
 Yolo Basin, lower portion, Montezuma Hills, and Suisun Bay; contours and elevations, 3,000 feet to 1 inch, published 1 mile to 1 inch.
 Yolo Basin, upper portion, 3,000 feet to 1 inch, published 1 mile to 1 inch.
 American Basin, 3,000 feet to 1 inch, published 1 mile to 1 inch.
 Sutter Basin, 3,000 feet to 1 inch, published 1 mile to 1 inch.
 Colusa Basin, 3,000 feet to 1 inch, published 1 mile to 1 inch.
 Bear River; elevations, 1,000 feet to 1 inch, not published.
 Stockton-Bellota; contours and elevations, 3,000 feet to 1 inch, published 1 mile to 1 inch.
 Rainfall diagrams:
 Red Bluff, 2 sheets, published herewith.
 Sacramento, 2 sheets, published herewith.
 River-rod records:
 Red Bluff, 2 sheets, published herewith.
 Sacramento, 3 sheets, published herewith.

Examining Commission on Rivers and Harbors:

- Sacramento Valley; with elevations and contours, 1 mile to 1 inch, published 2 miles to 1 inch; publication exhausted.

State Engineer Department:

- Great Central Valley Map; 6 miles to 1 inch, published 6 miles to 1 inch.
 Sacramento River Map; 3,000 feet to 1 inch, not published.
 San Joaquin River Map; 3,000 feet to 1 inch, not published.
 Lower Rivers; 3,000 feet to 1 inch, not published.
 San Joaquin Valley; 2 miles to 1 inch, published 4 sheets, 3 miles to 1 inch.
 Feather River; 3,000 feet to 1 inch, not published.
 Yuba River; 1,000 feet to 1 inch, not published.
 Bear River; 1,000 feet to 1 inch, not published.
 Sacramento River, Butte City to mouth of Feather River; 1,000 feet to 1 inch, not published.
 Sacramento River, mouth of Feather River to Collinsville; soundings by U. S. Engineers, 300 feet to 1 inch, not published.
 Sacramento River; profiles and special surveys, not published.

ELEVATIONS AT SELECTED POINTS.

Reference Plane:

Mean low tide, low water in Suisun Bay 0.00 feet.

Sacramento River:

Rio Vista, low tide, low water	1.01 feet.
Rio Vista, high tide, low water	6.92 feet.
Rio Vista, H. W. February, 1878	12.2 feet.
Rio Vista, H. W. March, 1879 (low tide)	8.57 feet.
Rio Vista, H. W. March, 1879 (high tide)	9.77 feet.
Foot of Grand Island, L. T. L. W. 1878	1.13 feet.
Foot of Grand Island, H. W. February, 1878 (high tide)	13.0 feet.
Foot of Grand Island, H. W. March, 1879 (high tide)	10.28 feet.
Head of Steamboat Slough, L. T. L. W. 1878	4.66 feet.
Head of Steamboat Slough, H. T. L. W. 1878	7.89 feet.
Head of Steamboat Slough, H. W. February, 1878	17.8 feet.
Head of Steamboat Slough, March, 1879	16.15 feet.
Sacramento, zero of river-rod, foot of K Street	3.85 feet.
Sacramento, L. W. 1849 (about)	3.85 feet.
Sacramento, L. W. 1878	9.35 feet.
Sacramento, L. W. 1894	11.35 feet.
Sacramento, H. W. 1862	27.85 feet.
Sacramento, H. W. February, 1878	29.80 feet.
Sacramento, H. W. March, 1879	27.27 feet.
Sacramento, H. W. February, 1881	30.00 feet.
Sacramento, H. W. December, 1889	30.90 feet.
Sacramento, H. W. May, 1892	31.00 feet.
Sacramento, H. W. December, 1892	31.90 feet.
Mouth of Feather River, L. W. 1878	16.03 feet.
Mouth of Feather River, H. W. February, 1878	35.20 feet.
Mouth of Feather River, H. W. March, 1879	33.81 feet.

Knight's Landing, L. W. 1878.....	19.97 feet.
Knight's Landing, H. W. February, 1878.....	39.40 feet.
Knight's Landing, H. W. March, 1879.....	36.12 feet.
Colusa, L. W. 1878.....	43.10 feet.
Colusa, H. W. March, 1879.....	66.80 feet.
Butte City,* L. W. 1879.....	72.70 feet.
Butte City, H. W. 1879.....	92.70 feet.
Jacinto,* L. W. 1879.....	92.40 feet.
Jacinto, H. W. 1862.....	114.30 feet.
Jacinto, H. W. 1878.....	112.80 feet.
Jacinto, H. W. 1879.....	111.70 feet.
Chico Ferry, H. W. 1862.....	140.50 feet.
Chico Ferry, H. W. 1879.....	139.30 feet.
Chico Ferry, H. W. 1879.....	138.10 feet.
Colby's Ferry,* L. W. 1879.....	133.20 feet.
Colby's Ferry,* H. W. 1879.....	155.20 feet.
Tehama,* L. W. 1879.....	200.90 feet.
Tehama,* H. W. 1879.....	217.00 feet.
Red Bluff, zero of rod in use till November, 1893.....	244.9 feet.
Red Bluff, zero of rod in use after November, 1893.....	243.9 feet.
Red Bluff, L. W. 1876.....	244.9 feet.
Red Bluff, L. W. 1878.....	244.8 feet.
Red Bluff, L. W. 1879.....	*244.5 feet.
Red Bluff, H. W. 1879.....	*263.8 feet.
Red Bluff, H. W. February 4, 1881.....	272.4 feet.
<i>Feather River:</i>	
At mouth of Feather River, L. W. 1878.....	16.03 feet.
At mouth of Feather River, H. W. 1878.....	35.2 feet.
At mouth of Feather River, H. W. 1879.....	33.81 feet.
At Nicolaus, L. W. 1878.....	26.48 feet.
At Nicolaus, H. W. 1879.....	41.8 feet.
At mouth of Yuba River, L. W. 1878.....	49.79 feet.
At mouth of Yuba River, H. W. 1879.....	67.16 feet.
<i>San Joaquin River:</i>	
At Stockton, L. W. 1878 in Stockton Channel.....	3.20 feet.
At Stockton, H. W. 1878 in Stockton Channel.....	11.3 feet.
At head of Old River, L. W. 1878.....	5.64 feet.
At head of Old River, H. W. 1878.....	20.2 feet.
<i>Miscellaneous:</i>	
At Maine Prairie (Yolo Basin, S.W. extremity), L. T. L. W. about.....	2.0 feet.
At Maine Prairie, H. T. L. W.....	6.55 feet.
At Maine Prairie, H. W. 1861-1862.....	18.56 feet.
At Maine Prairie, H. W. 1877-1878.....	16.64 feet.
At Maine Prairie, H. W. 1880-1881.....	18.56 feet.
At Maine Prairie, H. W. 1884-1885.....	12.64 feet.
At Maine Prairie, H. W. 1888-1889.....	14.64 feet.
At Maine Prairie, H. W. 1889-1890.....	15.64 feet.
At Maine Prairie, H. W. 1892-1893.....	13.64 feet.
At Maine Prairie, general surface of ground.....	9.6 feet.
Yolo Basin, lowest ground about.....	3.0 feet.
Sutter Basin, lowest ground about.....	17.5 feet.
Colusa Basin, lowest ground about.....	23.0 feet.

REFERENCE TO RIVER TABLES—DISTANCES AND GRADES.

For tabular information concerning distances along the rivers of the Great Central Valley, channel dimensions, water surface elevations, etc., the following references, in lieu of republication of this data, will be found useful:

Sacramento River:

Rating tables, or tables of discharge:

At Sacramento (Freeport), see Appendix, p. 105.

At Red Bluff (Iron Cañon), see Appendix, p. 106.

At Colusa, see Appendix, p. 106.

At Knight's Landing, see Appendix, p. 107.

At Gray and Shaw's, see Appendix, p. 107.

Rod records at Sacramento, see plates Nos. 7, 8, and 9.

Rod records at Red Bluff, see plates Nos. 5 and 6.

Rainfall at Sacramento, see plates Nos. 3 and 4.

Rainfall at Red Bluff, see plates Nos. 1 and 2.

Divisions of the river channel, S. E. D. 1880, Pt. II, p. 32.

Channel dimensions and grades by divisions, S. E. D. 1880, Pt. II, p. 33, 34.

L. W. 1878, Suisun Bay to Sacramento, S. E. D. 1881, Pt. II, p. 68-71.

* U. S. E. levels, reduced to S. E. D. datum.

H. W. 1879, Suisun Bay to Sacramento, S. E. D. 1881, Pt. II, p. 72, 73.
 L. W. 1878, H. W. 1879, Sacramento to Colby's, S. E. D. 1881, Pt. II, p. 74-77.
 Relative elevations L. W. banks and levees. S. E. D. 1881, Pt. II, p. 90-95.
 River divisions, distances, and grades, Ex. Com. R. and H., p. 15.
 Distances, Ex. Com. R. and H., p. 40, 41.
 L. W. 1878, below Sacramento, Ex. Com. R. and H., p. 42, 43.
 H. W. 1879, below Sacramento, Ex. Com. R. and H., p. 44, 45.
 L. W. 1878, H. W. 1879, above Sacramento, Ex. Com. R. and H., p. 46, 47.
 Channel widths and grades, Ex. Com. R. and H., p. 48-50.

Feather River:

Divisions of channel, S. E. D. 1880, Pt. II, p. 32 and 35.
 L. W. 1878, H. W. 1879, to Oroville, S. E. D. 1881, Pt. II, p. 78-81.
 L. W. 1878, H. W. 1879, Ex. Com. R. and H., p. 54-55.

Yuba River:

L. W. 1878, H. W. 1879, distances and grades, S. E. D. 1881, Pt. II, p. 82-87.
 L. W. 1878, H. W. 1879, Ex. Com. R. and H., p. 59.

American River:

Distances, L. W., H. W., and grades, Ex. Com. R. and H., p. 61.

San Joaquin River:

Channel divisions, S. E. D. 1880, Pt. II, p. 80-83.
 L. W. and H. W. 1878, S. E. D. 1881, Pt. II, p. 88, 89.
 Widths and grades, Ex. Com. R. and H., p. 94.
 Old River, Ex. Com. R. and H., p. 96.
 L. W. and H. W. 1878, Ex. Com. R. and H., p. 98-100.

Mokelumne River:

Distances, L. W., H. W., and grades, Ex. Com. R. and H., p. 83.

Calaveras River:

Distances, L. W., H. W., and grades, Ex. Com. R. and H., p. 81.

Stanislaus River:

Distances, L. W., H. W., and grades, Ex. Com. R. and H., p. 80.

Tuolumne River:

Distances, L. W., H. W., and grades, Ex. Com. R. and H., p. 79.

Merced River:

Distances, L. W., H. W., and grades, Ex. Com. R. and H., p. 78.

Kings River:

Distances, L. W., H. W., and grades, Ex. Com. R. and H., p. 76, 77.

Kaweah River:

Distances, L. W., H. W., and grades, Ex. Com. R. and H., p. 73, 74.

Tule River:

Distances, L. W., H. W., and grades, Ex. Com. R. and H., p. 71, 72.

APPENDIX

ERRATA.

On Plates Nos. 1 and 4, read "October to June, 1877 to 1887," instead of "October, 1877, to June, 1887."

On Plates Nos. 2 and 3, read "October to June, 1887 to 1894," instead of "October, 1887, to June, 1894."

THE GAUGING OF CALIFORNIA RIVERS.

By C. E. GRUNSKY.

[For a description of the rivers herein referred to, see Report of Examining Commission on Rivers and Harbors, 1890, pp. 10 to 106.]

Throughout the years 1878 to 1880, the State Engineer Department of California had, by reason of a liberal appropriation, excellent facilities for a comprehensive study of the water-problems as presented by the rivers of California. The results of the river work done by the department, much of which was of purely experimental nature, have been very incompletely published, and although the scope of this paper will not permit of an exhaustive statistical exhibit of the department's hydrometric work, even a brief review of portions of the same, aside from its direct bearing on local river problems, cannot fail to be of interest, and may lead to profitable discussion among hydraulicians.

In this paper all subjects are discussed from a personal standpoint, based on experience, most of which was acquired by the writer as assistant in the State Engineer Department, during the years 1878 to 1887, throughout which time Mr. Wm. Ham. Hall was State Engineer. For the conduct of the department's work and its ultimate results, Mr. Hall alone is responsible.

The historical outline of the work of the department is unimportant in connection with this paper, and no attempt has been made to make it complete.

The law creating the office of State Engineer was approved by the Governor of California, on March 29, 1878.

According to the terms of that law (which granted the State Engineer every desirable latitude of action and permitted him to conduct his investigations unhampered by non-professional control, and which placed \$100,000 at his disposal for the prosecution of the work) he was instructed:

First—To ascertain the present water-carrying capacity of the Sacramento and San Joaquin Rivers, in the different sections which are liable to overflow.

Second—To ascertain whether the carrying capacity can be increased, and if so, by what means, and at what cost.

Third—To ascertain the maximum quantity of water which may reasonably be expected to present itself on any day, at the head of any of the sections of the rivers as above mentioned.

Fourth—To ascertain whether it is possible to make the rivers carry the maximum quantity thus ascertained, and if not, to suggest such other measures as may be judicious for the relief of the rivers and the protection of adjoining lands, and to give detailed estimates of cost of the suggested works.

Fifth—To ascertain whether there has been any change in the height of beds of navigable rivers of the State, and if so, to determine as nearly as may be, the extent of this change, and the cause or causes to which it is due, and whether change is now taking place in the height of the beds of the rivers, and if so, what legislation, if any, will be effectual in preventing the rise of the beds, or in diminishing the rate of that rise.

Sixth—To ascertain the effect of any change in the bottom of the rivers, on the carrying capacity, and on the height of floods in the rivers.

The State Engineer was also instructed:

Seventh—To ascertain the position and acreage of all lands in the valleys of the State, which are now, or may be in the future, in need of irrigation; to divide these lands into their natural districts; to ascertain the water source or sources from which each district may be most conveniently irrigated; to ascertain the quantity of water which these sources can supply in different years for irrigation; the length of time in each year during which these sources will supply sufficient water for irrigation; make studies for the best means of irrigating each district, and to give his opinions and advice to such parties as may be engaged in the irrigation of a district, or who may be about to undertake the irrigation of a district; and for this advice no compensation shall be received from the parties to whom this advice is given.

The State Engineer was further empowered, under the approval of the Governor, to make such other investigations as should appear necessary for the complete solution of the irrigation, drainage, and mining debris problems separately referred to in the law.

The specific instructions contained in the law could be carried out only on the basis of comprehensive hydrographic and hydrometric work on the various streams of the State, and more particularly on the Sacramento and San Joaquin Rivers.

The need of thorough hydrometric work was appreciated by the State Engineer, and also the importance of utilizing to the utmost the available time, as it was desirable to make as complete a report as possible to the Governor before the convening of the Legislature, in January, 1880.

Surveying parties were at once organized for the purpose of determining the alignment of the principal streams. The State Engineer personally directed the preparations for hydrometric work, for which a special party was organized, with Mr. A. Boschke assistant in charge. The disciplining of this party extended over considerable time, which was devoted principally to the work of rating current-meters.

This hydrometric party made special topographic, hydrographic, and hydrometric surveys of Sacramento River at Colusa, at Butte Slough, at Knight's Landing, above and below the mouth of the Feather River, at Gray and Shaw's, above the mouth of the American River, at Sacramento, and at Freeport. Gauging stations were also established on American and Feather Rivers, and the necessary surveys were made to facilitate the work of gauging these streams at their varying stages.

The elevations of river-rods at these several points, and at others, were determined, careful measurements of the river's cross-sections were made, and the velocity of the water was measured with floats and current-meters.

This work was continued without interruption throughout the fall, winter, and spring of 1878-79, and the hydrometric party was then sent

to make gaugings of the San Joaquin River. The writer was with the hydrometric party during the time devoted to re-rating current-meters at Knight's Landing, and in the early part of the spring of 1879. During this time, and subsequently, he was the assistant in charge of office computations and office records of hydrometric work.

Unfortunately the careful measurements of the volume of the river's flow between banks at the selected points were not supplemented by equally careful measurements of the discharge of tributary streams, and of the rise and fall of waters in the great flood basins which lie adjacent to the Sacramento River, and which are the natural recipients of the surplus waters of the river, and exert a great influence toward equalizing the flow of the streams in its lower reaches. The data collected had to be supplemented with a vast amount of conjecture, and for this reason, among others, but little progress was made by the State Engineer Department toward a solution of the flood-water problem.

The work done with great care by the hydrometric party has, however, furnished a mass of detail information concerning the flow of water in rivers such as the Sacramento, which deserves to be made available for general use, as it rarely happens that equal facilities for undertaking hydrometric work are extended to American engineers, even when in charge of State or Government work.

The hydrometric and hydrographic work which was done on Sacramento River by the river party was supplemented by an examination of the rivers and creeks tributary to the Sacramento River, generally at points near the outfall of these streams into the Sacramento Valley, and by a gauging survey at the lower end of Iron Cañon, where the Sacramento River itself breaks through the hills at the extreme northern point of the valley. This work was carried forward by a land party in charge of Mr. Marsden Manson, who subsequently examined and reported upon the hydraulic mining operations and the effects of discharging mining detritus into the natural watercourses.

For the purpose of studying the effect of tidal action upon the elevation and flow of the waters of the Sacramento and San Joaquin Rivers, self-registering tide-gauges were established at a number of points on the lower sections of these rivers, and finally special observers were stationed at additional points during two weeks of November, 1878, with instructions to report complete records of the fluctuations of the water surface during the selected period. The results of these special tidal observations will not be discussed in this paper. Neither will a complete discussion of gauging methods, as ordinarily practiced, be entered upon, but this paper will be restricted to a presentation of some of the results and features of the work indicated in the title, without endeavoring at this time to attempt a thoroughly scientific presentation of the various subjects touched upon.

THE HYDROMETRIC PARTY.

The assistant in charge of this party had a small steam launch of about 3 feet draught placed at his disposal. It was manned by a pilot and engineer. The party was provided with comfortable quarters in the form of a well-constructed house, 22 by 14 feet, supported by a flat-bottomed scow having a draught of about 1 foot. Bunks were provided for nine persons. One end of the house was set apart for the use of the

cook, affording ample room for wood-box, stove, and locker. The attic was used as a general storeroom for oars, ropes, and the various appliances required from time to time for the various classes of river work. Under the bunks at each side were lockers for personal effects. Additional floor room was afforded by the guards and fore and aft decks of the scow. The former extended $2\frac{1}{2}$ feet beyond the sides of the house, the latter about 5 feet beyond the side walls. The house was constructed of redwood, and in its bright coat of white paint presented a neat and comfortable appearance. Two to four row-boats, the flat, square bow pattern being preferred, were indispensable as a part of the outfit. The party itself usually consisted of ten persons, not including the crew of the launch, and was frequently increased by the State Engineer himself, his chief assistant, the late Mr. Edward Yorke, or some other assistant from the office at Sacramento. Besides the engineer in charge of the work there were usually two instrument men, three rod-men and chainmen, three boatmen, and the cook, all quartered in the floating quarter-house, or ark, as it was generally called.

The State Engineer, at the very outset, seems to have determined to conduct all hydrometric work with the utmost care, and according to the latest and most improved methods, and no time had been lost in ordering for the use of the hydrometric party the various appliances necessary for careful current velocity measurements.

Surface and double floats, as used by Humphreys and Abbot in their Mississippi River work, and the simplest available pattern of the Henry current-meter, then in use by the Engineer Corps of the U. S. Army, were selected as most likely to meet the requirements on the Sacramento and San Joaquin Rivers.

FLOATS.

A large number of floats were provided. They were intended to aid in measuring the velocity of the surface as well as sub-surface currents, and were therefore used in two forms.

The single surface floats consisted of flat, hollow tin disks, 5 to 7 inches in diameter, resembling two very flat cones united at their bases. These were so shaped that they floated with their rims at the water surface. A cork was fitted into their tops, and this was surmounted by a short wire bearing a flag. This arrangement is shown in Fig. 1 on the accompanying Plate I.

The double float (Fig. 2) consisted of an upper or surface float, as just described, from which a hollow cylinder of wood, or a hollow air-tight cylindrical ring of tin, just having weight enough to sink without completely immersing the surface float, was suspended by means of a thin cord or string. The dimensions of the lower float exposed to the water, were generally 5 by 8, to 7 by 10 inches. By changing the length of the cord, the sub-surface velocities at varying depths were to be determined.

Small empty paint kegs with both heads knocked out, and weighted with rings of lead, were found very convenient for use as lower floats.

CURRENT-METERS.

Six current-meters were in use by the department. Two of these were the property of the Engineer Corps of the U. S. Army, and the four others were closely patterned after these two. One extra wheel of large size was provided for one of the meters to be used in sluggish currents.

Each of these meters consisted of a wheel with helicoidal blades, the pitch at 2 inches from the spindle or shaft being about 26° . They were not provided with guard rings, and the several blades were therefore more liable to injury than in the case of wheels of more recent construction. The outer diameter of the wheels was about 4 inches, the width of the several blades a little more than 1 inch.

The larger wheel above referred to was about 6 inches in diameter, and each blade was 2 inches wide. The blades of each wheel were secured to the end of a steel spindle, which in the case of the ordinary sized wheels was a little over 4 inches in length. The pivoted end of the spindle rested in an agate bearing. (See Fig. 12, Plate I.) The spindle from the wheel, at G, to its agate bearing, at A, was inclosed in a small metallic case about 3 inches long, 1 inch deep, and $\frac{3}{4}$ inch wide. This case was provided with a loosely fitting bearing, C C, for the spindle at its forward end, and its sides tapered toward that point in order that it might disturb the flow of water as little as possible. The top of the case, F, was movable and insulated by means of a strip of rubber. Within the case a small, very light spring, D D, bore gently upon a drum, B, on the spindle, and was brought in contact with a copper wire let into the top of the spindle case. In the drum on the spindle a piece of agate was so placed that it would serve to break an electric current passing from spindle to spring to copper wire, once for each revolution of the wheel. The shape of the agate conformed strictly to the surface of the drum, in order that the slight friction between spring and drum might remain uniform throughout each revolution. A second wire was secured to the side of the metallic case, and an electric battery was connected with the two wires. On the line of one of these wires an electric sounder was set, to indicate the revolutions of the wheel of the meter, which were counted and recorded by an observer. As this system did not permit of the recording of parts of revolutions, it was proposed to eliminate the effect of this source of error, as far as practicable, by repeating observations, and by making observations of long duration.

CURRENT-METER GAUGINGS.

Preparations for the hydrometric work were commenced in the summer of 1878, and the first gaugings with current-meters were made in August of that year. The work was commenced at a comparatively low stage of Sacramento River in sluggish currents, and reasonable success attended the use of the appliances which had been provided for lowering the meters beneath the water surfaces to depths at which it was proposed to take observations; but when winter came on the river commenced to rise, and velocities increased, and it was soon found that the current-meters could not be lowered on vertical rods, in depths even of less than 10 feet; neither could the meter be lowered along a fine wire, secured to an anchor in the river bed and made fast above to a specially prepared frame or bridge on the bow of the steam launch. In depths of 20 feet with velocities over 3 feet per second, a special contrivance was necessary to pull the heavily weighted current-meter up or down along such wire. It is unnecessary to review the vexatious delays which resulted from experimenting with many contrivances invented for the purpose of readily controlling the position of the current-meter. The plan which was successfully tried in the Parana, Paraguay, and La

Plata Rivers, by J. J. Revy, was finally adopted and proved a complete success.*

Revy used a horizontal bar, lowered from a firmly anchored boat or catamaran, and secured the same in a position vertically below any desired point by means of an up-stream wire, leading to an anchored boat. As used in California rivers, the catamaran consisted of two light flat-bottomed row-boats, placed parallel to each other with about 2 feet of clear space between them, and with a light platform extending over their tops and securely connecting them. The platform afforded space for a light windlass, by means of which a current-meter frame was lowered. The necessary electric batteries, sounders, etc., were conveniently disposed of in the two boats. The insulated wires were secured by means of clamps to one of the wires supporting the current-meter frame.

The frame, which thus came into successful use for current-meter gaugings at the high stages of the rivers, with depths of 20 to 30 feet and velocities of 7 and more feet per second, was constructed of one-inch gas-pipe. It was a simple rectangle, about 15 inches high by 3 feet long, with one of its short, vertical end pieces so arranged that it could be readily removed. The movable end piece of the frame was passed through a vertical circular hole between the wheel and the vane of the meter, which thus could move freely to the right and left, but had no vertical play. The position of the meter in the direction of the current was secured by a vertical vane having a surface area of about 4 by 8 inches. This was not a proper arrangement, as elsewhere pointed out, because the purpose of each observation should be to determine the velocity at right angles to the cross-section, and not in the direction of the current, except when this is normal to the plane of the section.†

In using this contrivance a large row-boat was securely anchored, generally by means of two anchors, at a point about 100 feet directly up-stream from the position of the vertical, in which observations were to be taken. By means of a line the catamaran was dropped from the anchored row-boat into the desired position and was held steadily in place by the helmsman. A thin wire cable connecting the current-meter frame with the anchored boat, served to hold the frame in a position vertically beneath the catamaran. The iron frame was made sufficiently heavy to keep the supporting wire cables (which were very light) practically straight. On the supporting cables a scale was marked off, to enable a ready control of the horizontal position of the frame and to measure the depths of the water by lowering the frame to the bottom. (See Fig. 3, Plate I.) With the use of this contrivance the results of the observations for all sub-surface velocities became as reliable as those at or near the surface. This arrangement of boats and anchors enables a very satisfactory exposure of the current-meter to the flowing water, and afforded quick access to the meter if any irregularity became apparent.

The current-meters in ordinary use at the present time are generally provided with vertical and horizontal vanes, to hold the axis of the meter wheel in the line of the current. This arrangement is not desirable for instruments intended for use in gauging, as flowing water is never entirely free from eddies, whirls, and in some cases counter-currents. The object of each observation should be to determine the

* Hydraulics of Great Rivers, J. J. Revy, 1874.

† See Der Bodensee, etc. (Lake Constance, etc.), by Max Honsell; Stuttgart, 1879, p. 55.

velocity of the current at some point of the waterway, in a direction at right angles to the plane of the section, and not in the direction of the current, which very often, at least for short time-periods, cuts the section obliquely. Strictly correct results can therefore be obtained in a stream subject to ordinary fluctuations only when the current-meter axis is rigidly held in a position at right angles to the plane of the section—that is, parallel with the course of the stream, which the section, if properly staked out, should cut at right angles.

Results of observations made with an instrument which swings into the direction of the current freely must always be too large, if the character of the stream is such that there is any error at all from this cause. No effort was made to determine the amount of this error.

The electric currents used in connection with the meters were kept very weak, because the breaking of the circuit could not be relied upon in the case of strong currents. This defect was probably due to the too small extent of the agate surface in the drum.

Owing to the slight electric force available no attempt was made to secure an automatic record of the revolutions of the current-meter wheels, and a system of recording them by means of vertical pencil strokes, in sets of three, with each tenth stroke longer than the others, was introduced by the State Engineer and adhered to throughout his work.

A simple counting of the clicks made by the sounder was not permitted, as it involved a more sustained mental effort on the part of the observer, and errors were more likely. The commencement and termination of each period of observation was announced by the call of "time" by the engineer directing the work.

The rivers to be gauged by the State Engineer Department by observations with current-meters are navigable streams generally 300 to 700 feet in width. It was not always convenient nor at times even possible to stretch a rope or wire cable across the water surface from bank to bank. Had it been possible to maintain a rope stretched across the stream during the operations of each gauging, the general method of handling the boats would have been somewhat modified.

In each position occupied from bank to bank in any cross-section selected for gauging, the velocity was measured as near the surface as possible (one half foot below surface), and at tenths of the entire depth of the stream at that point; the final observations being at one half foot from the river bed. In many gaugings two current-meters were used simultaneously in the same vertical, one being kept at the surface, while the other was observed at all points, from surface to bottom. Each position occupied for velocity measurement was called a "vertical." Velocities in five to twelve verticals, the extreme ones being as near in-shore as convenient, were generally measured in each gauging section.

In some cases, during the low-water stages of Sacramento River, an additional meter was stationed near the center of the river and observed simultaneously with the observations of each vertical.

It was hoped that some relation between fluctuations in velocity near the center and the sides of the river might be established, but this comparison led to no practical conclusions.

During the low stages of the rivers when they were free from drift, it was found that observations of three to five minutes' duration were the most satisfactory. In the case of those for shorter periods the effect of

error of counting whole revolutions only, was too pronounced, and in case of those of longer duration the occurrence of occasional irregularities in the speed of the meter and consequent rejection of the observation caused too great a loss of time.

Later in the season, when the rivers were high, and fine blades of grass, leaves, and other light drift were likely to interfere with the regular movement of the current-meter wheel at any depth, it was found expedient to continue each observation one minute only, with frequent repetitions and frequent inspection of the current-meter.

The position of each vertical in which velocity measurements were made, was determined in various ways, sometimes by direct measurement out from a base line on shore; sometimes by angle measurements from two points of the base line, and sometimes by the measurement with sextant of the angles to three flags, conveniently located on shore, and whose position with reference to the base line was known.

In the record of observations for each gauging, the following data were preserved:

Date.
 Time of commencement of each observation.
 Duration of observation.
 Position of vertical (distance out from base line).
 Depth of water.
 Depth of current-meter below surface.
 Number of revolutions. First, second, third, etc., observations.
 Average number of revolutions per minute.
 Velocity.
 Mean velocity in vertical.
 Number of revolutions by surface meter.
 Average number of revolutions by surface meter per minute.
 Average surface velocity.
 River-rod record (at time of commencing the observations in each vertical).

The office record of each river-gauging was accompanied by a sketch of the gauging section and additional data or memoranda bearing upon the work, such as stage of the river; name and position of reference rod; the cross-sectional area of the gauging section; width on water surface; distance out from base to edge of water; wet-perimeter; hydraulic radius; discharge; mean cross-sectional velocity; the slope of the water surface, and kindred matter.

The sketch of the cross-section was intended for reference only and indicated the position of the several verticals and the depths at which velocity was measured, and in some cases the areas of the divisions into which, according to the method of computing the discharge, the section was divided by vertical lines midway between the verticals.

GAUGING WITH DOUBLE FLOATS.

A brief experience with the double floats in Sacramento River made it apparent that they could be relied upon to float for a distance of 200 feet very nearly in right lines, and that the paths of a number of them started successively from the same point were nearly identical. It was therefore determined to ascertain, by experiment, the positions of the starting point required to cause the floats that were to be observed in any vertical plane, to be as near as possible at the desired distance from shore when midway on their course, and thereupon all velocities determined by floats from the same starting point were noted as velocities at a uniform distance out from shore. Velocities thus determined were

recorded as the velocities in the gauging section, which was the cross-section of the river at the lower end of the course over which floats were observed.

In practical operation the recorder was stationed in a boat anchored near the course of each set of floats about midway on that course, and preserved a record of the time occupied by each float in passing over the prescribed course. All floats deviating too greatly from the desired position were rejected. Time was observed on an ordinary watch, a record being made of the exact time when each float passed the upper and lower line. All floats were started 100 to 200 feet above the upper range line.

In each vertical there were ordinarily two sets of floats observed. Each set consisted of one surface float, and a double float for each tenth of the entire depth. At mid-depth the observations were generally repeated, and the results averaged.

No difficulty was experienced in securing complete observation records with the double floats in this way, at the low-water stage of Sacramento River, when the discharge ranged from 4,000 to 5,000 cubic feet per second, with mean velocities of less than 2 feet per second, and a maximum velocity of about 3 feet per second.

Before long it was found, however, that at greater velocities and depths the submerged float would not move at the contemplated depth below the surface of the water. The resistance of the surface float when sub-surface velocities were greater than those at the surface, and its accelerating influence when they were smaller, was found to interfere with and to disturb the relative position of the two floats. Instead of moving one vertically above the other, except when current velocities were the same for both, one of the floats moved in advance of the other. Whenever this occurred the lower float was raised above its intended position by the oblique position of the connecting cord, and the velocity was erroneously recorded as velocity at the depth represented by the cord length, instead of at the unknown depth at which the lower float did actually move.

This source of error seriously impaired the reliability of all observations made with the double floats, and comparisons were made to determine, if possible, the effect of the lower float displacements. The results of this comparison will be more fully noticed at another place in this paper.

As the lower float was but a mere trifle heavier than the weight of the water which it displaced, a very slight tension on the connecting cord sufficed to raise it. When correctly measured the velocities near the bottom of the river, except in very sluggish currents, were invariably found to be much less than those at the surface.

Consequently, when the lower float was adjusted to move near the bottom of the river, the slight strain caused by a tendency of the surface float to float faster than the lower float pulled the latter up out of its intended place. It was, in all such cases, even when the stream was free from all eddies and whirls, pulled upward to a point at which velocity was greater than at the intended depth of float, yet less than surface velocity. As is well known, the maximum velocity is generally at some depth below the water surface, consequently the cord connecting the two floats was held against a current, from surface to very near the lower float, greater than the velocity at which the cord itself moved,

and the cord was therefore subjected to pressure in the direction of the current.

This pressure of necessity compelled a deflection of the cord from the straight line connecting the two floats, and this deflection was a second cause for an upward displacement of all lower floats when set for nearly full depth.

When the lower float was set for depths but slightly below the surface of the water, say at one to four tenths of the full depths, at which velocities were generally greater than the surface velocity, then, as already explained, there was a slight force tending to accelerate the speed of the surface float, and the water or current in which it moved exerted an equal retarding effect. The retarding force exerted on the surface float and the cord near the surface float were offset by the pressure of the current against the lower float. These forces again not only compelled the cord to assume an oblique position, but also deflected the cord from a straight line.

It will appear from this that even when the lower float was set at the depth at which sub-surface velocity was exactly the same as surface velocity, it could not be relied on to move at that depth, because the greater intermediate velocities (when such existed) may have caused a deflection of the cord and a consequent raising of the lower float above its intended position, and above the point for which its velocity was recorded.

When at the high stages of Sacramento River, at Freeport, recourse was had to floats before the method of gauging with current-meters, as already described, had been perfected, and for the purpose of obtaining results for comparison, another source of error due to the use of the double float became manifest. The river bottom at the point where the observations, now referred to, were made, was sand. The river is there surcharged with sand brought in by its tributaries in quantities greater than the water can assort, according to velocity and volume of flow. At the high stages of the river the changes in the contours of the river bottom are rapid and sometimes sudden. (See Plates Nos. III and IV.) The uniform flow of the river is thereby seriously interfered with. Boils are of frequent occurrence. The river is full of whirls.

Under these circumstances it frequently happened that a downward current would exert sufficient pressure on the lower float to pull the surface float under water, and it is equally certain, though the fact was not susceptible of definite proof by observation, that upward currents may have in many instances brought the lower float almost to the water surface, even at times when it was intended to move near the bottom. A variable tension of the cord connecting upper and lower floats was often evidenced by a peculiar bobbing and rocking motion of the surface float.

It follows from the experience had with the double float in Sacramento River, that it is not to be recommended for use in gauging a river of similar character, particularly not at high stages, yet it may, as in the case of the Humphreys and Abbot work on the Mississippi River, yield very satisfactory results when velocities, as indicated by the grand mean curve (accepting this as correct), vary but slightly from surface to bottom, and when the stream is reasonably free from vertical currents.

It would be folly to accept the results of any double-float work as correct without question, and but little reliance should be placed on formulæ

deduced therefrom, until they have been verified by other methods of gauging.

Concerning the reliability of velocity measurements with double floats on the Mississippi River, Mr. J. H. Davis, Assistant Engineer, under date of July 16, 1883, writes (Annual Rep. Miss. River Com., Rep. of Chief of Engineers, U. S. A., 1883, p. 2616): "There is also some doubt as to the accuracy with which a velocity at any particular depth can be measured by the double float method. During the observations made at Fulton, Tenn., by Assistant W. H. Powless, it was my duty for several months to give personal attention to the manipulation of the floats. It gave an excellent opportunity for observing their movements in water. I was led to believe that at times the surface and sub-surface parts were acted on by almost opposite forces. At times the surface float would be suddenly drawn to right or left, in which case it would be considerably inclined and partially immersed. Sometimes it would incline backward or forward. In each of these cases the surface float had a powerful influence in retarding or accelerating the sub-float, the velocity of the former not representing the correct velocity of the water in the vicinity of the latter. The above indications were frequently noticeable in high water. Sometimes also in high water the sub-float was apparently held up, the assumed elevation not being reached. This was shown by the fact that several feet of wire were sometimes taken in before there was any appreciable weight of the sub-float. By examination of the vertical velocity observations at Fulton, Tenn., it will be found that in sets in which two or more floats were run at the same depth the velocities differ from 1 to 15 per cent."

"In these observations the boat was anchored, and the floats all started from the same point, their paths varying but slightly across the ranges. The Fulton observations have been selected, inasmuch as they are probably the best that have been made with double floats on the Mississippi River."

That endeavors were made to eliminate some of the sources of error from the observations with double floats on the Mississippi River is evidenced by the following extracts from the report of Mr. H. B. Herr, Assistant to Maj. W. H. H. Benyaurd, Corps of Engineers, dated October 20, 1879 (Report of Chief of Engineers, U. S. A., 1887, Part IV, p. 2702): "Although the weight of authority appears to favor a sub-float of about the same density as water, several reasons appeared to require a deviation from this principle in their construction. The great importance of a possibility of locating the position of sub-float from that of its surface float, not only in a horizontal plane, but as to depth as well, demands a tension on the cord to resist its tendency to variation from a vertical line due to different velocities, or the effect of wind on surface float. It also necessitates weight in sub-float (in water) to counteract the effect of upward currents. Without these conditions a loss of control over surface float results. While it is not presumed that a tension of three pounds will give the best results, in the absence of proof to the contrary it was adopted; and is probably too small rather than too great."

"The volume of the new surface float is 135 cubic inches, and its weight with flag, 0.85 pound. Deducting this weight from 4.87 pounds (the weight of pure water the above volume would displace if submerged), we have about 4 pounds for its buoyancy in river water.

“The displacement by sub-float when submerged was about 73.5 cubic inches, corresponding to a buoyancy of 2.65 pounds. Its weight in air was 5.7 pounds; hence weight in water, or the pull it exerted on the cord, was about 3 pounds.”

“The cord finally adopted for connecting surface and sub-float was a braided silk, size C. Its diameter was 0.05 inch, and breaking strain 36 pounds. Oiled silk and linen were also tried, but none appeared so durable for the same thickness as the one adopted.”

These quotations from reports in 1883 and 1887 will bear testimony to the fact that the engineers on the Mississippi River were gradually arriving at the same conclusion that had been reached by the State Engineer Department of California, that results of velocity measurements for determining the form of vertical velocity curve, when made with the double floats, were not reliable, and that gaugings with the double float were at best only to be considered approximations. The following mathematical demonstration of the error which must result when float velocities are recorded at depths indicated by the length of the cord connecting the surface float with the lower float, will not be out of place.

In the case of a properly constructed apparatus, the influence of current pressure against the cord connecting the two floats may be neglected. The cord should always be very thin. Very fine wire, or braided silk twine on a reel within the lower float, is best for the purpose. If a heavy cord is used the error as below determined will be too small.

Let e = length of cord.

a = actual depth at which lower float moves.

l = horizontal distance between lower and upper floats.

w = weight of sub-float in water (or the weight of the water displaced by the surface float less weight of surface float).

q = area of section exposed by surface float to the current.

Q = area of section exposed by lower float to the current.

c_1 = Coefficient for water pressure on surface float.

c_2 = Coefficient for water pressure on lower float.

V = velocity of current at water surface.

V_e = velocity as determined with the floats and erroneously recorded for the depth e , with cord length = e .

V_a = velocity as determined with the floats and erroneously recorded for the depth a , with cord length = a .

V'_a = velocity of the current at the depth a .

Assuming a properly constructed apparatus, the curvature of the cord will be slight and

$$e^2 = a^2 + l^2 \quad (1)$$

Forces will be acting upon the floats, as indicated in Fig. 4, Plate I.

As the whole apparatus moves with the velocity V_e , the effective current propelling the surface float is $V_s - V_e$, and the effective current retarding the lower float is $V - V'_a$.

$$F_1 = c_1 q (V - V_e)^2$$

$$F_2 = c_2 Q (V_e - V'_a)^2$$

but

$$F_1 = F_2$$

$$c_1 q (V_s - V_e)^2 = c_2 Q (V_e - V'_a)^2 \quad (2)$$

The equation of moments for the float system is:

$$W l = a c_1 q (V_s - V_e)^2 \quad (3)$$

From equations (1) and (3)

$$\sqrt{e^2 - a^2} = \frac{a c_1 q (V_s - V_e)^2}{W}$$

$$e - a = \frac{a^2 c_1^2 q^2 (V_s - V_e)^4}{(e + a) W^2}$$

The value of the denominator will be but slightly changed if $2a$ be written for $e + a$. Approximately then

$$e - a = \frac{a^2 c_1^2 q^2 (V_s - V_e)^4}{2a W^2}$$

$$e = a + \frac{a^2 c_1^2 q^2 (V_s - V_e)^4}{2W^2} \quad (4)$$

In this form the equation is convenient for determining the value of e (length of cord), when the vertical velocity curve, as established by float observations, is available, and it is desired to know for what depth the velocity of the floats was recorded when the lower float moved at the depth a .

The value of e can best be found by a series of approximations; first substituting V_a for V and with the first approximate value of e determining an approximate value of V , and so on.

From equation (4)

$$a = \frac{2W^2 e}{2W^2 + c_1^2 q^2 (V_s - V_e)^4} \quad (5)$$

The two values of a and e will be equal when $V_s = V_e$, that is, when the lower float moves in a current having the same velocity as the current of the water surface.

The error in the velocity recorded at any depth a is:

$$E_a = V_a - V'_a$$

From equation (2)

$$V'_a = V_e - \sqrt{\frac{c_1 q}{c_2 Q}} (V_s - V_e)$$

$$E_a = V_a - V_e + \sqrt{\frac{c_1 q}{c_2 Q}} (V_s - V_e) \quad (6)$$

In this form this equation is convenient for general use in combination with (4), which, by establishing the value of e , also determines the value of V_e .

Ordinarily c_1 may be considered to have the same value as c_2 , making

$$E_a = V_a - V_e + (V_s - V_e) \sqrt{\frac{q}{Q}} \quad (7)$$

Combining with (3) and writing c for c_1 , this equation may be transformed into:

$$E_s = V_a - V_s + \sqrt{\frac{W\sqrt{e^2 - a^2}}{a c}} \left(\frac{1}{\sqrt{Q}} + \frac{1}{\sqrt{q}} \right) \quad (8)$$

Equations (7) and (8) are convenient for use after approximation values of e have been determined by the use of equation (4).

The error E_s which disappears only for $V_s = V_e = V_a$, in which case $e = a$, can be determined for any form of curve resulting from float observations.

The coefficient c will vary according to form of floats and the adopted units of weight and linear measure.

For weight expressed in pounds and all dimensions in feet (q and Q being expressed in square feet) the value of c for the apparatus generally used will range from 0.50 to 0.75, the latter value being the proper one for the apparatus as used by the State Engineer Department.

Example.

From a combination of vertical velocity curves established on February 25th and 26th, and March 1, 1879, at Freeport, with double floats, and reduced, for comparison with a current-meter curve, the following values were taken:

$$\begin{aligned} V_s &= 4.65 \text{ feet per second.} \\ V_{20} &= 3.65 \text{ feet per second.} \\ a &= 20.00 \text{ feet.} \end{aligned}$$

The surface float displaced about $8\frac{1}{2}$ cubic inches of water, and its own weight was equivalent to a displacement of about $7\frac{1}{2}$ cubic inches; therefore

$$W = 0.04 \text{ lb.}$$

Closely approximate $q = 0.017$ square foot; $Q = 0.555$ square foot.

$$c = 0.75.$$

First approximation from equation (4):

$$e = 21.0 \text{ feet, and } V_e = 3.58 \text{ feet per second.}$$

Second approximation:

$$e = 21.30 \text{ feet, and } V_e = 3.57.$$

Third approximation:

$$e = 21.35 \text{ feet, and } V_e = 3.57.$$

From equation (7) or (8):

$$E_{20} = 0.27 \text{ foot per second.}$$

This is the error due solely to difference in velocity between the surface and at the depth of the lower float. The error due to vertical displacement of the lower float by upward or downward currents, or to lateral displacement, is purely accidental; it cannot be expressed by any formula, and as in the case of Sacramento River at Freeport, its average effect is often many times as great as the error above theoretically demonstrated.

From a comparison with curves established by the measurements of velocity with current-meters, there is good reason to believe that in the above example the correct velocity at the depth 20 feet was only 2.73 feet per second.

Example.

The grand mean curve established by Humphreys and Abbot, for Mississippi River, by a combination of a great many float observations, was as follows:

Surface velocity	3.1950 feet per second.
At 0.1 depth, velocity	3.2299 feet per second.
At 0.2 depth, velocity	3.2532 feet per second.
At 0.3 depth, velocity	3.2611 feet per second.
At 0.4 depth, velocity	3.2516 feet per second.
At 0.5 depth, velocity	3.2232 feet per second.
At 0.6 depth, velocity	3.1807 feet per second.
At 0.7 depth, velocity	3.1266 feet per second.
At 0.8 depth, velocity	3.0594 feet per second.
At 0.9 depth, velocity	2.9759 feet per second.
Bottom velocity	(2.8685) feet per second.

Assuming the above curve to be the observed curve for a depth of say 40 feet, and for purposes of illustration, assuming further that it has been established by an apparatus having the values of q , Q , W , and c , noted in the preceding example, then:

$$V_s = 3.1950 \text{ feet per second.}$$

$$V_{36} = 2.9759 \text{ feet per second.}$$

$$a = 36 \text{ feet.}$$

and from equation (4):

$$e = 36.004.$$

$$V_e = 2.9755 \text{ feet per second.}$$

$$E_a = 0.0004 + 0.2195 \sqrt{\frac{0.017}{0.555}} = 0.0389 \text{ feet per second.}$$

For all points of the curve at less depth than 36 feet the error is still less; for values of V_a greater than V_s it is negative.

But the apparatus used by Humphreys and Abbot was not as favorable as that which has been made the basis of the foregoing illustrations.

According to the statement of C. G. Forshey, published in the Humphreys and Abbot report on Mississippi River (1861), the sub-surface floats had nearly the specific gravity of water. He says: "It was necessary when our floats were dry to submerge them for a time to give them weight for sinking."

The sub-surface float, as used by Humphreys and Abbot in their work

of 1858, consisted of light pine boards $5\frac{1}{2}$ by $5\frac{1}{2}$ by $\frac{1}{2}$ inches, or when of tin they were of an ellipsoidal form $5\frac{1}{2}$ by $1\frac{1}{2}$ inches.

For sub-surface observations the lower floats consisted of kegs about 15 inches high by 12 inches in diameter, with cord rather less than two tenths inch in diameter.

Concerning this connecting cord, which was of hemp, C. G. Forshey says that it had a diameter of 0.1004 inch, and a specific gravity of 0.71, and that 90 feet of cord weighed nearly one half pound.

If the statements concerning specific gravity are correct, then the cord, when 36 feet long, exerted a supporting or floating power equivalent to the weight of one cubic inch of water, or a little more than one half ounce, which may have been sufficient to support the lower float, leaving the cord just below the surface float without tension.

Under such conditions the surface float was propelled or retarded by the force exerted by $V_s - V_o$, until the lower float was drawn or pushed very nearly up to the point where velocity is the same as at the surface; and though the connecting cord may have been considerably inclined, it did not necessarily affect the horizontal position of the surface float, because tension just below the surface float was too insignificant.

With a cord as used by Humphreys and Abbot, the correction due to a deflection of the cord from a straight line should not be overlooked, because with forces possibly less than one ounce at either end of the cord, a very slight force may accomplish considerable bending, and, as already stated, a consequent displacement of the lower float.

For a velocity of 6 feet per second at the surface, a maximum velocity of 7 feet at 10 feet below the surface, and a velocity of 6 feet at 20 feet below the surface, a cord 0.1 inch in diameter, of the specific gravity 1.0, with the weight of the lower float in water equal to 0.04 lb., would show a maximum deflection from the vertical positions of about 5 feet. The cord would have to be a little over 22 feet long in order to cause the lower float to move at the depth of 20 feet, provided there were no other cause of displacement.

COMPARISON OF FLOATS AND CURRENT-METERS.

There was no complete direct comparison of float and current-meter observations made on Sacramento River at high stages of the river, though it was well known that the gaugings with the double float needed correction.

To determine the amount of error, a special study of the types of curves resulting from float observations at Freeport, with the types of curves resulting from current-meter records, was made.

For this purpose the following groups of verticals were combined and compared:

First Group.

Current-Meter Velocity Curves—

- Gauging of March 17th, Vertical No. 2.
- Gauging of March 18th, Vertical No. 2.
- Gauging of March 18th, Vertical No. 3.
- Gauging of March 19th, Vertical No. 2.
- Gauging of March 19th, Vertical No. 3.
- Gauging of March 19th, Vertical No. 4.

to be compared with:

Double Float Velocity Curves—

- Gauging of February 25th, Vertical No. 3.
- Gauging of February 25th, Vertical No. 4.
- Gauging of February 26th, Vertical No. 4.
- Gauging of March 1st, Vertical No. 3.

Second Group.

Current-Meter Velocity Curves—

- Gauging of March 17th, Vertical No. 3.
- Gauging of March 18th, Vertical No. 4.
- Gauging of March 18th, Vertical No. 5.
- Gauging of March 19th, Vertical No. 5.
- Gauging of March 19th, Vertical No. 6.
- Gauging of March 19th, Vertical No. 7.

to be compared with:

Double Float Velocity Curves—

- Gauging of February 25th, Vertical No. 5.
- Gauging of February 26th, Vertical No. 5.
- Gauging of February 26th, Vertical No. 6.
- Gauging of March 1st, Vertical No. 4.
- Gauging of March 1st, Vertical No. 5.

Third Group.

Current-Meter Velocity Curves—

- Gauging of March 17th, Vertical No. 4.
- Gauging of March 18th, Vertical No. 6.
- Gauging of March 18th, Vertical No. 7.
- Gauging of March 19th, Vertical No. 8.

to be compared with:

Double Float Velocity Curves—

- Gauging of February 25th, Vertical No. 6.
- Gauging of February 25th, Vertical No. 7.
- Gauging of February 26th, Vertical No. 7.
- Gauging of March 1st, Vertical No. 6.
- Gauging of March 1st, Vertical No. 7.

Fourth Group.

Current-Meter Velocity Curves—

- Gauging of March 17th, Vertical No. 5.
- Gauging of March 18th, Vertical No. 8.
- Gauging of March 19th, Vertical No. 9.
- Gauging of March 19th, Vertical No. 10.

to be compared with:

Double Float Velocity Curves—

- Gauging of February 25th, Vertical No. 8.
- Gauging of February 26th, Vertical No. 8.
- Gauging of March 13th, Vertical No. 7.
- Gauging of March 13th, Vertical No. 8.

The curves in each of the above groups were combined by averaging the velocities at tenths of the depth, and applying the average at the corresponding tenth of the average depth. This was done separately for the current-meter and the double float curves in each group.

The double float curve was then reduced to depth and maximum velocity indicated by the mean meter curve in each group, with the results

indicated in Figs. 16, 17, 18, and 19, Plate V. Inspection of these diagrams shows a reasonable similarity of form near the water surface, except in the case of group No. 4, but considerable divergence near the river bottom. The curves established by floats always indicate too great velocities. The average reduction indicated by this comparison was found to be 5 per cent. All results based on double float observations at Freeport were therefore reduced 5 per cent.

By far the greatest portion of this error was due to vertical displacement of the lower float by whirls and upper currents, as heretofore explained.

Note.—This method of comparison is questionable, and seems justifiable as an approximation only, when better methods are not available, and care should be taken to combine those points of the several curves which are most likely to be correct. The point at which velocities are most likely to be equally reliable in both classes of curves is generally at the water surface.

THE IRON CAÑON GAUGING, WITH SURFACE FLOATS.

The one gauging of Sacramento River made by the State Engineer Department, on June 18, 1879, at the lower end of the cañon or rocky gorge about 4 miles above Red Bluff, was a surface float gauging.

The river, at the site selected for the gauging, has a very direct course for several miles above and below the gauging station. The width between banks is about 500 feet, and the average depth of the water at the time of the gauging, June 18, 1879, was about 9 feet, with very slight variations of depth from bank to bank. The river flows in a bed of coarse gravel and cobbles, with here and there a small boulder. The banks are steep and firm. Two ropes were stretched from bank to bank across the river at right angles to its course, and were marked with pieces of bright red cloth at points 50 feet apart. The two ropes crossed the river at the upper and lower ends of the course over which floats were to be run, and the marked points enabled a close approximation to the correct position of each float that was observed.

A number of surface floats were started at selected points, about 50 feet apart, and each group of observations was combined to establish the surface velocity at the average distance of all floats in each group out from shore.

From the results thus obtained for eight points a curve of the surface velocities from bank to bank was platted, and the mean surface velocity was determined graphically. The mean surface velocity and an approximate ratio established for other portions of the Sacramento River led to the mean velocities which were applied as pertaining to the gauging section (being at the lower end of the course traversed by the floats).

The results of this gauging, made at a time when the river was carrying about twice the low-water volume of flow and less than one-twentieth of the extreme flood volume discharge through Iron Cañon, supplemented with a fragment of the rod-record at Red Bluff, 4 miles below the gauging station, are all the hydrometric data that were made available by the department for an estimate of the volume of water that flows into the Sacramento Valley from the north.

This gauging, however, afforded the first, and until recently, the only

reliable hydrometric data that are available for estimates of the flow of the Sacramento River into Sacramento Valley, and for this reason it was particularly valuable, notwithstanding the fact that the gauging itself and the method of discharge computation can be considered as approximations only. The velocity observations made during the season 1893-94, under direction of the Commissioner of Public Works, established a number of surface velocity curves, from which discharge could be approximated, and based upon these, the rating table for Sacramento River at Red Bluff has been computed. (See page 106.)

There is no place on Sacramento River at any point within the limits of the main valley, where the river affords equal advantages for determining its volume of flow; where its bed is so uniform and permanent, and where an equally close approximation of volume from the height of the water surface, that is, from a river-rod record, can be made. At the Iron Cañon gauging station, the river is almost straight for 4 miles, uniform in cross-section, and confined between high, steep banks.

It seems almost incredible that it has not been made the duty of the U. S. Army Engineer Corps in charge of the Sacramento River improvement works, to establish a permanent gauging station at this point, yet such is the fact, and the lack of reliable data for the flow of the river into lower Sacramento Valley will long be felt by all engineers called upon to discuss or deal with the river problems.

SOUNDING WORK.

At each of the several gauging stations on Sacramento River, a special survey was made of the river for a length of about 2 miles, preliminary to the measurement of current velocities.

This survey included the examination of cross-sections of the stream at each 400 feet throughout the selected stretch of river, besides repeated soundings in the gauging section itself, and generally 100 feet above and below the same.

In each case a base line was surveyed along one bank of the river, and frequently a secondary base was staked out on the opposite bank. From these lines the positions of the cross-sections to be examined were marked with flags. Two temporary river-rods were established respectively about one half mile above and below the gauging section, and a third river-rod was set on the line of the gauging section. These rods were connected by leveling, and were intended to serve to establish the slope of the water surface at the time of each gauging and to fix with precision changes in slope during the time velocity observations were being made. In all cases the elevations of these temporary river-rods were carefully ascertained with reference to a general datum plane, with which all permanent rods on the river had been previously connected.

As soon as the several cross-sections had been properly marked with flags the work of sounding commenced. Wherever practical a line (fine wire cable or rope) was stretched across the river and each sounding was located by measurements along this line. When this method was not practicable, boat positions for every third or fourth sounding were located by angle measurement from on shore or from the boat; in the latter case with a sextant.

For sounding during low stages of the river a long rod with flat disk

at the end was used, and all depths were noted to the nearest tenth of a foot. At the higher stages, the rod could not be manipulated, and an ordinary sounding-lead was substituted. The leads to be used were made six, eight, and ten pounds in weight, and it was soon found that the ten-pound lead was the only one that would give satisfactory results in currents of more than 4 feet per second and depths exceeding 20 feet.

Various qualities of light rope were tried with the leads, and none were found that would not contract or stretch with continued use or when wet, and frequent tests were necessary. A light chain was also tried, but was inconvenient to manipulate, and was liable to kink and invalidate results. All lead lines used had small leather marks at each foot and distinctive marks at each five and ten feet. The results of work with lengthened or contracted lines when accuracy was required were properly corrected.

The sounding work thus carried from end to end of a selected reach of the river was checked by frequent resoundings in the gauging section and two parallel sections within 100 feet of it.

It was always endeavored to complete a river gauging in one day, and each gauging involved a careful resounding in the gauging section. The depth of water was noted in each vertical at the commencement of velocity observations in that vertical, and in the case of current-meter observations again at the close of the work in that vertical.

SPECIAL SOUNDING WORK AT FREEPORT.

When the gauging work was commenced at Freeport, about 12 miles below Sacramento City, special instructions were issued by the State Engineer to make a complete topographical survey of the river bottom for a distance of 400 feet above the gauging section. In carrying out these instructions it was found most convenient to anchor a boat at the upper end of the stretch of river to be examined, and to lower a boat from the same, in which the leadsman and a recorder were stationed. The position of the lower boat was carefully fixed by the measurement of angles from selected points on shore.

The soundings thus made on February 25, 1879, were made the basis of a contour plat of the river bottom. These contours were intended to enable a ready determination of depth of water without sounding at any point where it was proposed to lower the current-meter. But on the following day it was found that depths of water indicated by the plat did not conform to those revealed by the lead. Consequently an immediate re-survey of the same portion of the river was at once undertaken, and revealed a change in the configuration of the river bottom that was quite surprising, and led to further examinations during the continuance of the high stage of the river.

The results of the sounding operations of February 25, February 26, and March 1, 1879, are shown on the accompanying plates, Nos. II and III. The contour lines are those established by the observations of February 25th. The underscored figures are depths of February 26th, and the other figures represent depths on March 1st. All soundings are reduced to the same water-surface plane.

Differences in elevations of the river bed of 3 to 5 feet are not uncommon, and there is a very decided variation of cross-sectional area apparent. This is more clearly apparent by an examination of the

cross-section plats selected for the purpose of illustration and presented in Figs. 6, 7, 8, and 9.

From an examination of these diagrams it is clearly evident that erosion was rapid in this portion of the river during the high-water stage of February and March, 1879. But this erosion was not permanent. During the succeeding low stage of the river the material washed out of place was rapidly replaced by other sands which were being supplied in excessive quantity by the tributary streams, the American and Feather Rivers.

To prepare a scale of discharge representing the volume of the river's flow at various elevations of the water surface, for a locality such as that selected for the gauging work at Freeport, was, in view of the shifting position of the river bottom, an uncertain undertaking. No matter how carefully each separate gauging was made, its results could not be applied with precision in any scale, neither could any reasonably correct relation between water-surface elevation and velocity be established.

As the detail of the changes recorded in the elevation of the Sacramento River bottom are of local interest only, they will not be fully presented in this paper.

It remains to be said, in connection with these comments on the sounding work, that the contrivance finally adopted by the department for lowering current-meters to the required depth was very convenient for measuring the depth of the water. It was used for this purpose in the gauging sections. The depth of water in each vertical was determined by lowering the current-meter frame to the river bottom at the beginning and at the close of the observations.

THE GAUGING OF SMALL STREAMS AND CANALS.

During the same period in which the hydrometric party was engaged with surveys and measurements on Sacramento and San Joaquin Rivers, a surveying party in charge of the late Major A. G. Warfield, Jr., was detailed to examine the rivers and canals of the San Joaquin Valley, and among other things to report upon the volume of their flow.

As a basis for this report, a large number of surface float gaugings were made, and it was endeavored to establish scales of discharge. This work did not afford very satisfactory results.

In most cases it was difficult to find gauging stations that offered all the advantages desired, and even under the most favorable circumstances only fragmentary records of the fluctuations of water surfaces could be secured.

The work done by the irrigation party was therefore regarded as affording only approximate results, and extreme care and most approved methods of gauging were not insisted upon.

The mean velocity was generally calculated from the maximum velocity based on many float observations, or from the mean surface velocity, a reduction being made in either case on the basis of ratios recommended by Darcy and Basin and other hydraulicians.

Subsequent to January, 1880, better facilities were afforded for securing records of the stages of the rivers of San Joaquin Valley, and the most important of them were repeatedly gauged.

The method of gauging and discharge computation in these cases was generally as follows:

Surface floats were timed over courses ranging from 25 to 100 feet in length, according to velocity and size of the stream. Five to ten floats were started as close inshore as, by experiment, it was found that they would hold a course not deviating too greatly from a line parallel to the shore line. Other groups of from five to ten floats were then observed in five to ten other points, until the velocity for the whole surface, from bank to bank, could be determined from the record of the observations.

The distance of each float out from the bank was noted for the upper and for the lower end of the course over which they were run, and the average distance out for each group of floats fixed the point at which average velocity of the group of floats was to be applied.

Marked ropes were always stretched to enable the observer to approximate closely the float position. All floats were started well above the upper end of the course. They were generally made of newly cut wood having almost the specific gravity of water.

The velocities established by observation were platted as ordinates from a line representing water surface as a base, and the curve of surface velocity was constructed.

By applying a 10 per cent reduction to surface velocities, as represented by the surface velocity curve, a second curve representing mean velocities was obtained, and discharge was determined graphically, as will be hereafter explained.

This method of gauging, as already stated, afforded results reasonably correct. It would have been better, however, had the percentage of surface velocity reduction for each gauging been specially determined for each gauging by experiment, as, for instance, with a partly submerged floating staff.

The depths of water and cross-section area which were made the basis of discharge computation when this method of gauging was employed, were averaged from the two sections at the upper and lower ends, respectively, of the course over which the floats were run.

DISCHARGE COMPUTATION.

The method of discharge computation, adopted under special instructions from the State Engineer, for all gaugings of lower San Joaquin and Sacramento Rivers, was as follows:

It was required that the mean velocities from surface of the water to river bottom be calculated from the record of observed velocities for each vertical. Thereupon the mean velocity thus determined was to be applied as mean velocity to the entire portion of the cross-section lying between the median lines, generally about 50 feet apart, separating each vertical from those next to it, or in the case of an outside vertical, between such median line on one side and the river bank on the other. The aggregate of the products thus resulting was thereupon recorded as the discharge determined by the gauging.

When attention was drawn to the fact that a graphical method of discharge computation would lead to better results, and would eliminate sources of error that oftentimes made the results unreliable by reason of erroneous calculation methods, instructions were received to apply an approximate percentage correction to the results obtained by the original

method. The mean velocity in each vertical was calculated from the velocities measured and recorded as already stated, at tenths of the entire depth, at one half foot below the surface, and at one foot from the bottom. The area represented by the polygon embraced within imaginary horizontal lines at the water surface and at the river bottom, and the lines connecting the points at the ends of ordinates, representing the measured velocities, was divided by the total depth, and the quotient, generally but slightly differing from the arithmetical mean of the measured velocities, was recorded as the mean velocity for the several verticals. The area for the portion of the cross-section to which each such velocity was to be applied was generally obtained graphically from a diagram on a large scale of the cross-section, and was based on depths noted for each vertical.

In the case of gauging with the double floats it was found necessary (as a result of the comparison of float gaugings with current-meter gaugings) to reduce the mean velocity established for any vertical at a high stage of Sacramento River about 5 per cent, to approximate the result which would have been had if the velocities had been measured with a current-meter. As this reduction of velocity for each vertical was very nearly equivalent to a reduction of the total discharge computed in the ordinary way, the computation sheets for gaugings with the double float were made up in about the same form as those for the gaugings with current-meters, and the amount of discharge was reduced by the accepted percentage of reduction (5 per cent).

The method of computation which was suggested by the writer in May, 1879, but which was not adopted by the State Engineer Department, is a graphical method of computation. An example of a current-meter gauging and a graphical computation of discharge is presented in Fig. 10, Plate I, which, together with the curves on Plate IX, shows the results of a gauging of Sacramento River, at Knight's Landing, made on February 18 and 19, 1879, by Mr. Boschke, Assistant State Engineer.

From the observations in each vertical, a curve of velocity from surface to bottom is platted; the mean velocity in each vertical is determined from the diagram by dividing the surface area included between the line representing the vertical, the horizontal lines representing water surface and river bottom and the velocity curve, by the depth of water. Areas are determined with a planimeter.

When the mean velocity in each vertical has been determined, this is platted as ordinate at the point corresponding to the position of the vertical from a line representing the water surface, and a horizontal curve of mean velocity is constructed. The cross-section is platted underneath the curve of mean velocity. The discharge through any narrow vertical strip of the cross-section is represented by the area of such strip multiplied by the mean velocity indicated at the corresponding point by the curve of mean velocity. In other words, the discharge through a vertical strip of the cross-section having a width dx in a depth of water s at a point where the velocity indicated by the mean velocity curve is v , is represented by the product,

$$s v dx.$$

The total discharge from bank to bank is therefore

$$\sum s v dx,$$

which is the area lying between a straight line representing the water surface and a curve representing the product of depth times velocity. This curve may be designated the curve of discharge. Its area is conveniently ascertained with a planimeter.

The mean cross-sectional velocity is finally found by dividing total discharge by the area of the cross-section. The mean cross-sectional velocity cannot be directly determined from the mean velocity curve, except in cases of canals with vertical sides and uniform depth from bank to bank.

When observation has established the velocities, v , v_1 , v_2 , etc., at the depths d , d_1 , d_2 , etc. (Fig. 11, Plate I), the vertical velocity curve is platted by scaling depth on a vertical line and plating the several velocities as ordinates, and then drawing a gradually curved line in such a position that

$$\Sigma s = 0.$$

The mean velocity is the area of the surface A B D C divided by the total depth of the water A B.

The mean velocity can be calculated without resorting to the graphical method, when a sufficient number of points have been established between the water surface and the river bottom.

The polygon lines are supposed to be extended to the surface and to the bottom, as shown in the figure, and the area of the polygon A E F G H I B divided by A B approximates mean velocity in the vertical.

DISCHARGE TABLES—SACRAMENTO AND SAN JOAQUIN RIVERS.

In view of the fact that perfect knowledge of the changes which were occurring in the configuration of the river bottom during the high-water gaugings at points below the mouth of Feather River could not be obtained, the results of the many gaugings made in this part of the Sacramento River can have but little value for theoretical discussion, except in so far as they afford many perfectly reliable measurements of velocity from surface to bottom.

The results of the gaugings made at the various gauging stations on these rivers were, however, utilized in the preparation of discharge or rating tables, being tables for approximating the discharge on the basis of the water-surface elevation; that is, on the basis of river-rod records. These tables were ordinarily prepared in the following manner:

The mean cross-sectional velocity established by each gauging was (after necessary reduction, hereafter to be explained) platted on a convenient scale as ordinate from a vertical line representing the river-rod, at the average height of the water surface on the rod during the gauging. The velocities thus platted established a velocity curve from which the mean velocity for any stage of the river could be approximated.

In the case of the Freeport gauging station, the results of which were applied to rod-readings at Sacramento City, the frequent and not inconsiderable changes of depth for the same elevations of water surface add a peculiar element of uncertainty to the results taken from any discharge table, no matter how carefully constructed. A few notes condensed from the department records will be of interest.

The Sacramento City (Freeport) discharge table is based on the following data:

Low-water discharge of Sacramento River at Freeport in 1878, 6,425 cubic feet per second;

Low-water area from soundings by U. S. Engineers in October, 1878, 4,590 square feet;

Low-water mean velocity at Freeport, $\frac{6425}{4590} = 1.400$ feet per second;

Low-water elevation, 6.25 feet;

and the following gaugings at high stages:

Date, 1879.	Elevation of Water Surface.	Character of Gauging.	Area, sq. ft.	Velocity, ft. per sec.*
February 25.....	16.30	Floats.....	10,733	4.318
February 26.....	16.00	Floats.....	10,535	4.167
March 1.....	15.70	Floats.....	10,151	4.272
March 10 and 11	20.15	Current-meter ..	12,535	4.640
March 13.....	20.64	Floats.....	15,006	4.888
March 14.....	20.57	Current-meters ..	13,494	4.556
March 17.....	20.37	Current-meters ..	14,079	4.114
March 18.....	20.10	Current-meters ..	13,826	4.183
March 19.....	19.96	Current-meters ..	13,756	4.078
March 28.....	19.46	Current-meters ..	12,564	3.893
May 26.....	16.12	Current-meters ..	11,594	2.960

* These velocities are from the department records. See p. 104 for velocities as recomputed by the writer.

The mean velocities above noted for gaugings with floats must be decreased 5 per cent. This reduction is necessary on account of the unavoidable errors resulting from the movement of the lower floats at less depth than recorded, and the amount of the reduction is based upon a comparison, as already explained, of the results of gaugings made with current-meters with those of gaugings made with floats. This reduction applied to the above records makes the velocities noted for—

February 25	4.102 feet per second.
February 26	3.959 feet per second.
March 1	4.058 feet per second.
March 13	4.644 feet per second.

As it was desired to construct the scale of discharge in such a way that it would, for each river-rod reading, indicate the volume of flow which was most probable, that is, the volume of flow for the river when neither rising nor falling—when in a normal condition—it became necessary in the case of the Freeport gauging station, as in the case of all the other gauging stations, to determine the slope of the water surface at the time of gauging with the greatest possible care.

During the time of low water at Freeport in 1878 the tidal fluctuation of the water surface was 1.8 feet. Were the Sacramento River entirely free from the influence of return currents, that is, if there were no back flow of water, there would be a smaller total discharge of water through the mouth of the river than at present. Consequently the elevations of low water without tide, discharged into a low-tide recipient, would be less than those which have been determined by survey, and the reduction of water surface elevation would increase the low-water slope in the upper regions of the tidal portion of the river.

Accepting the low-tide low-water slope of the water surface as the normal slope at Freeport, it may therefore be assumed that it is rather too flat than too steep. It was deemed a sufficiently close approximation to the normal low-water slope, and was therefore made use of in establishing the scale of discharge.

Fall, Low Water Low Tide.

In 15,250 feet above gauging section	0.90 feet	
In 19,000 feet below gauging section	0.60 feet	
Slope above gauging section	$\frac{0.90}{15,250}$	= 0.0000591
Slope below gauging section	$\frac{0.60}{19,000}$	= 0.0000316
Average low-water slope (accepted for gauging section), $s=0.0000454$.		

Long stretches of the river had to be made the basis of the low-water slope determination, because Freeport was not selected as a gauging station until after the low-water period of 1878 had passed.

During the time in which the high-water gaugings were made, frequent readings were taken on three rods, one at the gauging section, one 7,050 feet above the same, and one 8,850 below the same.

The record of these rods was most complete on February 27th to March 1st, and on March 3d, 6th, 7th, and 10th, 1879. A diagram, with time scaled off on a base line, and the several water elevations platted as ordinates, was prepared, and from it the average or mean slope of water surface for each day, from 6 A. M. to 6 P. M., was determined graphically for the time-period February 25th to March 10th, and the arithmetical means of these results were found to be:

February 27th to March 10th, slope for 7,050 feet above gauging section, $s = 0.0000809$.

February 27th to March 10th, slope for 8,850 feet below gauging section, $s = 0.0000631$.

The slope at the gauging section was taken at the average of those values, that is, at 0.0000720, for the same time-period. This slope for the period named applies to 16.99 feet as the average elevation of the water surface.

During this same period records of the water surface elevations were made at Milla's, a point about 3 miles above Freeport gauging section, and at Sacramento, 13 miles above the same place, with the following results:

Elevation of Water Surface.

Date, 1879.	Sacramento.	Milla's.	Freeport G. S.
February 25	21.98	17.35	16.30
February 26	21.71	17.15	16.00
February 27	21.35	16.97	15.85
February 28	21.20	17.45	16.25
March 1	20.98	16.75	15.67
March 3	20.12	16.12	15.10
March 6	23.75	19.18	18.15
March 7	24.19	19.05	17.92
March 10	26.75	21.19	20.02
March 11	27.05	21.51	20.43
March 12	27.18	21.75	20.63
March 13	27.27	21.76	20.61
March 14	27.27	21.74	20.56
March 15	27.27	21.75	20.56
March 17	26.93	21.36	20.35
March 18	26.72	21.23	20.10
March 19	26.43	21.03	19.96
March 28	26.03	20.63	19.46
May 26	21.07	-----	16.12
Low water 1878	9.35	7.03	6.25

For reasons not fully set forth in the records, and which the writer does not recall at the present time, it was determined not to accept the fall of the water surface indicated by the three rods near the Freeport gauging section as the fall from which to determine the slope of the water surface at the time of each gauging, but to determine this fall by a comparison of the actual fall on the several dates, for longer stretches of the river. The principal reason for doing this was probably the fact that sudden changes in topography of the river bottom were constantly occurring and might exert local influence on elevations of water surface that were best eliminated by making longer stretches of the river the basis for a determination of its condition.

The method of slope determination was therefore as follows: The average fall of the water surface from Milla's to the Freeport gauging section for the time February 25th to March 10th was found and recorded as the fall between these two points, corresponding to a slope at the gauging station as above determined of 0.0000720.

By an inspection of the foregoing tables of rod-records it will be seen that the river was at a normal stage, neither rising nor falling, from March 12th to March 15th, consequently the normal fall of the water surface for that stage of the river from Milla's to Freeport may be computed by averaging the fall indicated for that period in the table.

For elevation of water surface, 20.59 feet; normal fall Milla's and Freeport, 1.16 feet.

At the low-water stage of 1878 the fall from Milla's to the Freeport gauging section was found to be 0.78 feet for a water surface elevation of 6.25 feet at Freeport.

Normal slope for all other water surface elevations was determined by interpolation, it being assumed that the change from the lighter low-water slope to the greater high-water slope is a gradual and uniform increase.

The normal fall of the water surface at the time of each gauging from Milla's to Freeport was then compared with the fall determined from the above table, and established a ratio for approximating the actual slope at time of gauging from the normal slope, which had already been determined as above set forth.

When the water surface at Freeport averaged 16.99 feet in elevation for the time February 25th to March 10th, the fall from Milla's to the gauging section averaged 1.11 feet. The normal fall at the same stage would have been 1.07, consequently the normal slope for that stage at the gauging section should be noted at

$$\frac{1.07}{1.11} \times 0.0000720 = 0.0000694.$$

The normal slope for low water and this normal slope for a high stage of the river were made the basis of slope interpolations, it being

assumed for calculation purposes that slope increased at a uniform rate from low to flood stages. The following data were thus approximated:

Date, 1879.	Elevation of Water, Freeport Gauging Section.	Normal Fall, Milla's to Freeport—Feet.	Actual Fall, Milla's to Freeport while Gauging—Feet.	Normal Slope at Freeport.	Slope at Time of Gauging.*
February 25 -----	16.30	1.05	1.05	0.0000678	0.0000678
February 26 -----	16.00	1.04	1.15	0.0000671	0.0000743
March 1 -----	15.70	1.03	-----	0.0000665	0.0000665
March 10 and 11..	20.15	1.15	1.12	0.0000764	0.0000744
March 13 -----	20.64	1.16	1.15	0.0000775	0.0000775
March 14 -----	20.57	1.16	1.18	0.0000773	0.0000786
March 17 -----	20.37	1.15	1.01	0.0000769	0.0000675
March 18 -----	20.10	1.15	1.13	0.0000763	0.0000750
March 19 -----	19.96	1.14	1.07	0.0000760	0.0000713
March 28 -----	19.46	1.13	1.17	0.0000749	0.0000778
May 26 -----	16.12	-----	-----	0.0000673	0.0000580

* The slope on May 26th was determined by correcting normal slope according to ratio between fall on that day from Sacramento to Freeport, and the normal fall between the same two points.

To construct a velocity scale for the river at Freeport it became necessary to know what the velocity would have been at the several stages at which the river was gauged if its condition had been normal. This was determined by the use of Kutter's formula. Cross-sectional dimensions and normal slope, and cross-sectional dimensions and actual slope were in turn applied in the formula and the two results were compared. Each observed mean velocity was then reduced to velocity for normal slope by applying the proportional correction indicated by the results of calculation with the formula.

The condition of the river on February 25th, on March 1st, and on March 13th was so near the normal that the velocities determined for these days were accepted without correction for slope.

The velocity on February 26th was decreased from 3.959 feet per second to 3.813 feet per second.

The velocity on March 10th was increased from 4.640 feet per second to 4.682 feet per second.

The velocity on March 14th was reduced from 4.556 feet per second to 4.515 feet per second.

The velocity on March 17th was increased from 4.114 feet per second to 4.332 feet per second.

The velocity on March 18th was increased from 4.185 feet per second to 4.195 feet per second.

The velocity on March 19th was increased from 4.078 feet per second to 4.196 feet per second.

The velocity on March 28th was reduced from 3.893 feet per second to 3.839 feet per second.

The velocity on May 26th was increased from 2.960 feet per second to 3.146 feet per second.

When these several velocities as thus corrected for slope were platted as ordinates from a vertical line on which elevation of water surface was scaled off, they failed to establish a regular curve, and the conclusion was reached that other causes (principally varying elevation of river bottom) besides those for which corrections had already been applied,

interfered with the expected regular increase and decrease of mean velocity.

Under special instructions from the State Engineer it was therefore attempted to complete a scale of discharge for the extreme positions of the river bottom that had been observed, and this was finally done by constructing a scale of velocity for varying cross-section areas, instead of for varying water elevations, and applying the results in separate tables prepared for lowest and highest positions of the river bed.

It is needless to follow this further. The result is presented in the following discharge table for Sacramento and Freeport water elevations:

SACRAMENTO RIVER AT FREEPORT—TABLE OF DISCHARGE.

Corresponding Rod- Reading at Sacra- mento.....	Elevation of Water- Surface at Free- port G. S.	Width on Water- Surface.....	Normal Slope—Fall in Fifty.....	Area of Waterway— Square Feet.....	Velocity—Feet per Second.....	Discharge—Cub. Feet per Second.....
*5.50	6.25	575	.0000454	4,590	1.40	6,425
6.75	7.25	577	.0000476	5,166	1.60	8,265
8.10	8.25	579	.0000493	5,744	1.79	10,280
9.34	9.25	581	.0000521	6,324	1.98	12,520
10.59	10.25	583	.0000543	6,906	2.17	14,990
11.84	11.25	585	.0000566	7,490	2.36	17,640
13.09	12.25	587	.0000588	8,076	2.54	20,510
14.33	13.25	589	.0000610	8,664	2.73	23,650
15.58	14.25	591	.0000632	9,254	2.91	26,930
16.83	15.25	593	.0000655	9,846	3.10	30,520
18.08	16.25	595	.0000677	10,440 to 12,375	3.28 to 3.85	34,240 to 47,640
19.32	17.25	597	.0000699	11,036 to 12,971	3.46 to 4.03	38,180 to 52,270
20.57	18.25	599	.0000722	11,634 to 13,569	3.64 to 4.21	42,350 to 57,130
21.82	19.25	601	.0000744	12,234 to 14,169	3.83 to 4.40	46,860 to 62,340
23.07	20.25	603	.0000766	12,836 to 14,771	4.00 to 4.57	51,340 to 67,500
24.31	21.25	605	.0000789	13,440 to 15,375	4.17 to 4.74	56,040 to 72,880
25.56	22.25	607	.0000811	14,046 to 15,981	4.33 to 4.90	60,820 to 78,310
26.81	23.25	609	.0000833	14,654 to 16,589	4.50 to 5.07	65,940 to 84,110
28.06	24.25	611	.0000855	15,264 to 17,199	4.67 to 5.24	71,280 to 90,120
29.31	25.25	613	.0000878	15,876 to 17,811	4.83 to 5.40	76,680 to 96,180
30.56	26.25	615	.0000900	16,490 to 18,425	5.00 to 5.57	82,450 to 102,630
31.80	27.25	617	.0000922	17,106 to 19,041	5.17 to 5.74	88,440 to 109,300

*Low water of 1878. Elevation of gauge, zero = 3.85 feet.

The methods of constructing discharge tables for the other gauging stations differed from that at Freeport only in so far as the lack of data or the availability of more data suggested modifications. The observations at each station generally afforded a series of points for the velocity curves at or very near the low-water stage, and a second series at or near the bank-full or flood stages, of the river.

Whenever practical, the results of all low-water gaugings were combined and the results of all high-water gaugings were also combined, each combination establishing a single point of the mean velocity curve for the gauging section. When this could be done Kutter's formula was used to complete the curve. By means of the formula a curve of mean velocities was calculated, and a curve of similar form was plotted through the points established by the gaugings.

The velocities indicated by the curve were then applied to the corresponding cross-sectional areas for the completion of the discharge table.

The following tables are condensed from the results of the discharge computations for other points on Sacramento River:

SACRAMENTO RIVER ABOVE RED BLUFF (IRON CAÑON)—TABLE OF DISCHARGE.

(This table is based on velocity measurements by H. B. Shakelford for the Commissioner of Public Works in 1893-94, and has here been substituted for the original rating table based on State Engineer Department work.)

*Rod-Reading at Red Bluff.	Rod-Reading at Iron Cañon.	Elevation of Water at Iron Cañon Gauging Station.	Area of Waterway Iron Cañon Gauging Station.	Discharge—Cubic Feet per Second.
1.0	1.0	258.93	3,900	5,500
2.2	2.0	259.93	4,426	8,200
3.4	3.0	260.93	4,978	11,200
4.8	4.0	261.93	5,551	14,600
6.0	5.0	262.93	6,112	18,600
7.3	6.0	263.93	6,694	23,000
8.5	7.0	264.93	7,300	27,900
9.8	8.0	265.93	7,903	33,000
11.0	9.0	266.93	8,516	38,400
12.0	10.0	267.93	9,156	44,200
13.0	11.0	268.93	9,825	50,100
14.0	12.0	269.93	10,471	56,200
15.0	13.0	270.93	11,167	62,400
16.0	14.0	271.93	11,876	68,800
16.8	15.0	272.93	12,578	75,400
17.6	16.0	273.93	13,315	82,200
18.4	17.0	274.93	14,042	89,100
19.2	18.0	275.93	14,805	96,200
20.0	19.0	276.93	15,609	103,500
20.8	20.0	277.93	16,348	111,000
21.6	21.0	278.93	17,152	119,000
22.4	22.0	279.93	17,942	127,000
23.2	23.0	280.93	18,714	135,000
24.0	24.0	281.93	19,896	143,000
25.0	25.0	282.93	21,369	152,000
26.0	26.0	283.93	22,632	161,000
27.0	27.0	284.93	23,829	170,000
28.0	28.0	285.93	24,099	180,000
29.0				190,000

* These readings are to be applied to the rod as placed November, 1893. It was at that time lowered one foot below its original position. Elevation of zero of rod in its present position is 243.90 feet, based on 311.60 as the elevation of seat of rail at Brewery Creek trestle, just north of Red Bluff, and 298.24 as the elevation of the seat of the rail at the second bent from the north end of the railroad trestle over Reed's Creek. The low-water flow at Red Bluff is about 4,000 cubic feet per second.

SACRAMENTO RIVER AT COLUSA—TABLE OF DISCHARGE.

Rod-Reading at Colusa.	Elevation of Water Surface.	Area of Waterway—Square Feet.	Discharge—Cubic Feet per Second.
1.10	43.10	2,475	4,220*
3.10	45.10	3,102 to 3,229	6,300 to 6,680
5.10	47.10	3,737 to 3,992	8,710 to 9,700
7.10	49.10	4,380 to 4,762	11,520 to 13,290
9.10	51.10	5,031 to 5,540	14,590 to 17,170
14.10	56.10	6,693 to 7,521	23,800 to 28,100
19.10	61.10	8,406 to 9,542	34,700 to 43,700
24.10	66.10	10,168 to 11,663	47,500 to 60,800
29.10	71.10	11,981 to 13,764	62,100 to 80,700

* Low-water flow of 1878.

SACRAMENTO RIVER AT KNIGHT'S LANDING (GRAFTON)—TABLE OF DISCHARGE.

Rod-Reading.	Elevation of Water Surface.	Area of Waterway—Square Feet.	Discharge—Cubic Feet per Second.
2.20	20.10	3,103	4,220*
4.20	22.10	3,546 to 3,583	5,820 to 5,950
6.20	24.10	3,998 to 4,070	7,640 to 7,940
8.20	26.10	4,460 to 4,570	9,720 to 10,230
10.20	28.10	4,925 to 5,071	11,920 to 12,680
15.20	33.10	6,128 to 6,366	18,500 to 20,200
20.20	38.10	7,382 to 7,711	26,600 to 29,200
25.20	43.10	8,685 to 9,106	36,200 to 40,200

SACRAMENTO RIVER AT GRAY AND SHAW'S†—TABLE OF DISCHARGE.

	14.65	3,512	5,820*
	16.65	4,512	9,070
	18.65	5,540	12,960
	20.65	6,596	17,500
	25.65	9,358 to 11,413	32,000 to 44,700
	30.65	12,296 to 14,351	51,000 to 66,700
	35.65	15,400 to 17,460	74,900 to 93,600

*Low-water discharge of 1878.

†About five miles below the mouth of Feather River.

COMPARISON OF RESULTS OF GAUGINGS WITH KUTTER'S FORMULA.

At the Freeport gauging station, slope of the water surface was determined with greater care than at any of the other stations on Sacramento River. The river in the reach there selected is straight, with earthen banks and a sandy bottom, already described. Soundings on March 12th, March 22d, May 24th, and May 29th extended over 1,200 feet in length of the river, affording a record of depth at all intersections of lines 25 feet apart in the direction across the river, and 50 to 60 feet apart in the direction of the stream. Besides these soundings the average cross-sectional area of the river for the same 1,200 feet was determined on each day that gaugings with current-meters were in progress. These results were made the basis of the following comparisons:

Kutter's formula is:

$$v = \left\{ \frac{\left(41.6 + \frac{1.811}{N} + \frac{0.00281}{S} \right) \sqrt{r}}{\sqrt{r} + N \left(41.6 + \frac{0.00281}{S} \right)} \right\} \sqrt{fs}$$

where v represents mean cross-sectional velocity, r represents the hydraulic mean radius, s the fall in unity of the water surface, and N a value determined by a comparison of the formula with actual measurements and found to be about 0.30 for Sacramento River, the same value recommended by Kutter for earthen channels in moderately good order.

On March 10th and 11th the gaugings established the discharge of Sacramento River at 58,080 cubic feet per second.* The average cross-sectional area of the 1,200 feet of river on that day was 14,540 square feet, consequently the mean velocity in this portion of the river was 3.994 feet per second.

*The discharge of the river at Freeport, as noted in these comparisons, will not agree with the records of the State Engineer Department. All discharges were recalculated by the graphical method for use in this paper.

For use in Kutter's formula the following values were available:

$$\begin{aligned}
 s &= 0.0000744 & \sqrt{s} &= 0.00862 \\
 \text{Wet Perimeter} &= 620 \text{ feet} \\
 r &= 23.45 \text{ feet} & \sqrt{r} &= 4.842 \\
 c &= 93.8 \text{ per Kutter's formula} \\
 \text{Consequently } v &= 93.8 \times 4.842 \times 0.00862 \\
 v &= 3.915 \text{ feet per second}
 \end{aligned}$$

On March 14th, the discharge of the Sacramento River was 62,020 cubic feet per second. The average cross-sectional area for the selected 1,200 feet of channel was 14,920 square feet, and the mean velocity therefore 4.157 feet per second.

For use in Kutter's formula the following values were available:

$$\begin{aligned}
 s &= 0.0000786 & \sqrt{s} &= 0.00887 \\
 \text{Wet Perimeter} &= 622 \text{ feet} \\
 r &= 23.99 \text{ feet} & \sqrt{r} &= 4.898 \\
 c &= 93.7 \text{ per Kutter's formula} \\
 \text{Consequently } v &= 93.7 \times 4.898 \times 0.00887 \\
 v &= 4.070 \text{ feet per second}
 \end{aligned}$$

On March 17th, the discharge of the river was 59,130 cubic feet per second. The average area of waterway of the selected stretch of channel was 14,880 square feet, and the mean velocity therefore 3.974 feet per second.

For use in the formula the following values were available:

$$\begin{aligned}
 s &= 0.0000675 & \sqrt{s} &= 0.00822 \\
 \text{Wet Perimeter} &= 622 \text{ feet} \\
 r &= 23.92 \text{ feet} & \sqrt{r} &= 4.891 \\
 c &= 95.5 \text{ per Kutter's formula} \\
 v &= 95.5 \times 4.891 \times 0.00822 \\
 v &= 3.839 \text{ feet per second}
 \end{aligned}$$

On March 18th, the discharge of the river was 57,480 cubic feet per second. The average area of waterway of the selected 1,200 feet was 14,750 square feet, therefore the mean velocity 3.897 feet per second.

For use in the formula the following values were available:

$$\begin{aligned}
 s &= 0.0000750 & \sqrt{s} &= 0.00866 \\
 \text{Wet Perimeter} &= 620 \text{ feet} \\
 r &= 21.79 \text{ feet} & \sqrt{r} &= 4.877 \\
 c &= 94.1 \text{ per Kutter's formula} \\
 v &= 94.1 \times 4.877 \times 0.00866 \\
 v &= 3.974 \text{ feet per second}
 \end{aligned}$$

On March 19th, the discharge was 54,960 cubic feet per second, the average area of waterway was 14,690 square feet, therefore the correct mean velocity 3.741 feet per second.

For use in the formula, the following values were available:

$$\begin{aligned} s &= 0.0000713 & \sqrt{s} &= 0.00844 \\ \text{Wet Perimeter} &= 620 \text{ feet} \\ r &= 23.69 \text{ feet} & \sqrt{r} &= 4.867 \\ c &= 94.7 \text{ per Kutter's formula} \\ v &= 94.7 \times 4.867 \times 0.00844 \\ v &= 3.890 \text{ feet per second} \end{aligned}$$

On March 28th, the discharge was 49,290 cubic feet per second, the average area of waterway was 14,570 square feet, therefore the mean velocity 3.383 feet per second.

For use in the formula the following values were available:

$$\begin{aligned} s &= 0.0000778 & \sqrt{s} &= 0.00882 \\ \text{Wet Perimeter} &= 619 \text{ feet} \\ r &= 23.54 \text{ feet} & \sqrt{r} &= 4.852 \\ c &= 93.5 \text{ per Kutter's formula} \\ v &= 93.5 \times 4.852 \times 0.00882 \\ v &= 4.001 \text{ feet per second} \end{aligned}$$

On May 26th, the discharge was 35,010 cubic feet per second, the average area of waterway was 12,160 square feet, therefore the mean velocity 2.879 feet per second.

For use in the formula the following values were available:

$$\begin{aligned} s &= 0.0000580 & \sqrt{s} &= 0.00761 \\ \text{Wet Perimeter} &= 610 \text{ feet} \\ r &= 19.93 & \sqrt{r} &= 4.464 \\ c &= 93.9 \text{ per Kutter's formula} \\ v &= 93.9 \times 4.464 \times 0.00761 \\ v &= 3.190 \text{ feet per second} \end{aligned}$$

By inspection of the foregoing comparisons it will be seen that the formula gives three results that are too small and four that are too large. The calculated velocity is largely in error only in two cases, being 16 per cent and 10 per cent in these respectively, and the velocity by calculation being too large. The average error in all the other cases is 3 per cent.

The above comparisons are not perfectly satisfactory, because changes in the configuration of the river bed were constantly occurring, and the average area of the selected stretch of the river is therefore only an approximation.

By calculating velocity with Kutter's formula (earthen channel in moderately good order, $N = 0.30$) for the several gauging sections with:

normal slopes as the basis of calculation, the following comparisons could be made:

<i>Colusa.</i>			<i>Knights Landing.</i>		
Elevation Above Low Water—Feet.	Velocity from Table of Discharge—Feet Per Second.	Velocity by Kutter's Formula—Feet Per Second.	Elevation Above Low Water—Feet.	Velocity from Table of Discharge—Feet Per Second.	Velocity by Kutter's Formula—Feet Per Second.
0	1.71	1.89	0	1.36	1.41
1	1.89	2.10	1	1.51	1.56
2	2.07	2.30	2	1.66	1.70
3	2.25	2.49	3	1.80	1.85
4	2.42	2.67	4	1.95	2.00
5	2.59	2.85	5	2.10	2.14
10	3.39	3.71	10	2.77	2.83
15	4.12	4.50	15	3.42	3.49
20	4.80	5.23			

<i>Gray and Shaw's.</i>			<i>Freeport.</i>		
Elevation Above Low Water—Feet.	Velocity from Table of Discharge—Feet Per Second.	Velocity by Kutter's Formula—Feet Per Second.	Elevation Above Low Water—Feet.	Velocity from Table of Discharge—Feet Per Second.	Velocity by Kutter's Formula—Feet Per Second.
0	1.66	1.16	0	1.40	1.47
1	1.83	1.28	1	1.60	1.64
2	2.01	1.42	2	1.79	1.80
3	2.18	1.54	3	1.98	1.98
4	2.34	1.67	4	2.17	2.15
5	2.50	1.79	5	2.36	2.29
10	3.27	2.37	10	3.28	3.04
15	4.01	2.97	15	4.17	3.76

With reference to these comparisons it must be remembered that it was necessary to determine the slope of the water surfaces for comparatively long stretches of river, and that this slope was applied to the dimensions of a single cross-section, instead of to the average river dimensions, and that the character of the river was not the same at the several gauging stations for which comparisons of results are above noted.

From the foregoing comparisons it may be concluded that when Kutter's formula is to be applied to Sacramento River above the mouth of Feather River, that a larger value for "N" than 0.30 should be used; that 0.30 is the proper value to use for points below the mouth of Feather River, and that the results obtained by the formula may be generally regarded as quite satisfactory.

RATING OF CURRENT-METERS.

The current-meter does not enable a direct measurement of current velocity. Each observation merely establishes the fact that the wheel of the current-meter has made a certain number of revolutions in a certain time. It is therefore necessary to ascertain the relation existing between the number of revolutions per unit of time and velocity of current.

In the forms of the current-meter, Fig. 12, Plate I, as used by the State Engineer Department, the wheel spindle E passes through the thumb-screw C to an agate bearing A in the end of the spindle case. At B on

the spindle is a small drum, on which end of the spring D bears very lightly. The helicoidal wheel G is carefully balanced.

Were there no friction at the points A, B, and C, in the case of a properly shaped wheel, then the number of revolutions (n) per unit of time would depend solely upon the pitch of the blades of the wheel and the velocity (v) of the flowing water in which the meter is immersed.

There would not, in that case, presuming all particles of water to have a direction of flow parallel to the axis of the wheel, and the pitch of the wheel to be theoretically correct, be any impact of the flowing water against the blades of the wheel.

The pitch of the wheel at any distance from the axis theoretically determined is given by—

$$\text{tang } \alpha = c'x$$

where x represents distance from the axis, and α the pitch of the blade, being the angle which it makes with the plane in which it revolves, and c' a coefficient.

There must necessarily be a small amount of friction at the three points A, B, and C, and there may be a resistance offered to the blades themselves by imperfect construction of the instrument, which may cause slight deflections of the fillets of water from the course parallel to the axis of the wheel. The resistance due to improper construction may be assumed to be small. It can be determined only by experiment, and not theoretically.

The friction at A is proportional to the pressure on the blades of the wheel in the direction of the axis.

The friction at B and C (M) being very small, may be considered uniform for all velocities.

The power exerted upon the blades of the wheel to overcome friction must be proportional to the square of the difference between theoretical velocity without friction, corresponding to the number of revolutions of the wheel per unit of time (n), and the actual velocity (v).

The pressure exerted by the current on the blades of the wheel in a horizontal direction and transmitted by means of the spindle to its bearing at A is also proportional to the square of the same difference.

The general form of an equation of forces may therefore be written:

$$K(v - An)^2 = \lambda(v - An)^2 + M$$

where K , λ , and A and M are constants.

From this equation

$$v = A'n + B' \quad (1)$$

where A' and B' are constants.

Were the form of the wheel theoretically correct and no friction, then the equation for velocity would be

$$v = An \quad (2)$$

The resisting force of the medium in which the wheel revolves may be noted proportional to the square of the difference between actual velocity

(v) and the velocity approximated by equation (1). By means of an equation of forces

$$C_1 (v - An)^2 = C_2 (v - A'n - B')^2 + C_3 (v - An)^2 + C_4 \text{ or}$$

$$v = A''n + B'' + \sqrt{C''n^2 + D''n + E''} \quad (3)$$

in which equation $C_2, C_3, C_4, A'', B'', C'', D'',$ and E'' are constants.

In these equations v represents actual velocity; An , the theoretical velocity without friction or other retardation for n revolutions per unit of time; $An + B$, the velocity approximated with allowance for friction, but no allowance for retardation from other causes.

Equation (3) may be accepted as affording closer approximations to velocity than equation (1) or (2) when the values of the several constants have been determined experimentally, but it is not a convenient equation.

Baumgarten recommends an equation in the form

$$V = An + \sqrt{B + Cn^2} \quad (4)$$

which is somewhat similar to equation (3), but is also inconvenient for practical use.

Before permitting a full investigation of this subject it was arbitrarily determined by the State Engineer to use the formula

$$V = An$$

where A was to be considered a variable quantity to be determined by experiment.

Experiments to establish a scale of coefficients for the several meters were made in July, 1878, at Stockton, and a re-rating of the current-meters was undertaken in July, 1879, in a still-water pond near Knight's Landing.

In elaborating the results of the experimental observations made at these two stations, it became evident at once that it was not an easy matter to determine the law of variation for the required coefficients, and it was finally decided to prepare a velocity table for each of the meters in use.

The computations made by the writer for one of the current-meters are here reproduced by way of illustration.

In the following table, "Experiments of July, 1878, Current-Meter No. 59," the results of each observation with the meter drawn at a uniform velocity through supposed still water over a course 200 feet in length are presented. The table contains information as follows:

The number of each observation.

The time in seconds required to pass over the course.

The number of revolutions made by the wheel in passing over the course.

The velocity or number of feet per second.

The coefficient, which is obtained by dividing the length of the course by the number of revolutions, and by which the number of revolutions per second must be multiplied to obtain the corresponding velocity.

EXPERIMENTS OF JULY, 1878. CURRENT-METER No. 59.

Length of Course = 200 feet.

Number of the Observation.	Time, in Seconds.	Number of Revolutions.	Velocity— Feet per Second.	Coeff.
1	90.00	103	2.22	1.9417
2	85.00	102	2.35	1.9608
3	79.00	104	2.53	1.9231
4	75.60	102	2.65	1.9608
5	77.00	103	2.60	1.9417
6	59.40	103	3.38	1.9417
7	57.00	102	3.51	1.9608
8	59.60	103	3.36	1.9417
9	59.40	103	3.38	1.9417
10	45.00	103	4.44	1.9417
11	44.40	103	4.50	1.9417
12	47.20	103	4.24	1.9417
13	48.60	103	4.12	1.9417
14	45.00	103	4.44	1.9417
15	36.80	103	5.43	1.9417
16	40.00	103	5.00	1.9417
17	39.00	103	5.13	1.9417
18	38.00	103	5.27	1.9417
19	36.60	103	5.46	1.9417
20	192.00	98	1.04	2.0408
21	183.00	98	1.09	2.0408
22	186.00	98	1.08	2.0408
23	188.80	97	1.06	2.0618
24	37.40	103	5.35	1.9417
25	42.80	102	4.67	1.9608
26	47.00	101	4.26	1.9802
27	48.60	103	4.12	1.9417
28	49.20	102	4.07	1.9608
29	134.80	98	1.48	2.0408
30	143.60	98	1.39	2.0408
31	148.40	99	1.35	2.0202
32	146.00	98½	1.37	2.0305
33	187.00	95	1.07	2.1053
34	169.00	96	1.12	2.0833
35	189.00	95	1.06	2.1053
36	184.00	93	1.09	2.1505
37	239.00	82	0.84	2.4390
38	288.00	68	0.69	2.9412

These experiments were grouped according to velocity, and combined as follows:

RATING OF CURRENT-METER No. 59—JULY, 1878.

Velocity—Feet per Second.	Average Velocity—Feet per Second.	Coeff.	Average Coeff.	Corrected Coeff.	Diff.	Percentage of Error.	Average Percentage of Error.
0.69	1.01	2.9412	2.2009	2.757	0.184	6.31	4.25
0.84		2.4390		2.380	0.059	2.48	
1.04		2.0408		2.186	0.145	6.63	
1.06		2.0618		2.178	0.116	5.33	
1.06		2.1053		2.178	0.073	3.35	
1.07		2.1053		2.173	0.068	3.12	
1.08		2.0408		2.169	0.128	5.90	
1.09		2.0408		2.164	0.123	5.69	
1.09		2.1505		2.164	0.013	0.60	
1.12		2.0833		2.150	0.067	3.12	
1.35	1.40	2.0202	2.0331	2.053	0.033	1.61	0.99
1.37		2.0305		2.045	0.014	0.68	
1.39		2.0408		2.037	0.004	0.14	
1.48		2.0408		2.010	0.031	1.54	
2.22	2.46	1.9417	1.9456	1.948	0.006	0.38	0.66
2.35		1.9608		1.946	0.015	0.77	
2.53		1.9231		1.946	0.023	1.18	
2.60		1.9416		1.946	0.004	0.21	
2.65		1.9608		1.946	0.015	0.77	
3.36	3.41	1.9417	1.9465	1.946	0.004	0.21	0.35
3.38		1.9417		1.946	0.004	0.21	
3.38		1.9417		1.946	0.004	0.21	
3.51		1.9608		1.946	0.015	0.77	
4.07	4.16	1.9608	1.9532	1.947	0.014	0.72	0.63
4.12		1.9417		1.947	0.005	0.26	
4.12		1.9417		1.947	0.005	0.26	
4.24		1.9417		1.947	0.005	0.26	
4.26		1.9802		1.948	0.032	1.64	
4.44	4.51	1.9417	1.9465	1.948	0.006	0.31	0.41
4.44		1.9417		1.948	0.006	0.31	
4.50		1.9417		1.948	0.006	0.31	
4.67		1.9608		1.948	0.013	0.70	
5.00	5.27	1.9608	1.9449	1.949	0.012	0.62	0.44
5.13		1.9417		1.949	0.007	0.36	
5.27		1.9417		1.950	0.008	0.41	
5.35		1.9417		1.950	0.008	0.41	
5.43		1.9417		1.950	0.008	0.41	
5.46		1.9417		1.950	0.008	0.41	

This grouping of experiments established average coefficients for average velocities, which were made the basis of a graphical determination of corrected coefficient values. The results were platted, as shown in Fig. 13, Plate IV, where coefficients determined by experiment were platted from a line on which velocity was scaled off. A curve was passed through the several points thus established, and in its construction some weight was given to the fact that the coefficient curve for all other meters that were rated showed a greater increase of coefficient values for velocities in excess of 3 feet per second than meter No. 59.

From the coefficient curve the corrected values of the coefficients were scaled and inserted in the table for comparison. From the differences between the result of each experiment and the corrected coefficient the percentage of error for each observation was determined and also noted in the table.

Comment is hardly necessary, except that the observations at velocities less than 1 foot per second, used in the determination of coefficients, are not reliable.

When office computation revealed this fact the information was elicited that the experiments were not made in absolutely still water, but in a channel subject to slight tidal influence.

The coefficient curves established by the first rating, however, served a good purpose. They demonstrated the fact that variations in value of the coefficients at low velocities were too rapid to make an accurate determination of the coefficient possible.

This must be the case, because if a meter wheel will just begin to revolve in a velocity v , then for all velocities less than v it makes no revolution, and for any smaller velocity the coefficient would be infinity. In other words, the coefficients for all the meters rated by the department gradually increase from a finite to an infinite quantity for velocities falling below 1 foot per second.

Before completing a scale of coefficients which it was proposed to note for each revolution per minute, a plat of velocities corresponding to numbers of the revolutions per minute was prepared, and indicated a very uniform increase of velocity for increasing revolutions. The curves representing velocity could readily be extended somewhat above and below the limits covered by experiment, and were made the basis of the tables of velocity for the several meters as based on the experiments of 1878.

The velocity curve for current-meter No. 59, rating of 1878, is shown in Fig. 14, Plate IV. The velocity table which it established is as follows:

CURRENT-METER No. 59 VELOCITY OR RATING TABLE—JULY, 1878.

No. of Revolutions per Minute.....	Velocity—Feet per Second.....	No. of Revolutions per Minute.....	Velocity—Feet per Second.....	No. of Revolutions per Minute.....	Velocity—Feet per Second.....	No. of Revolutions per Minute.....	Velocity—Feet per Second.....
1		56	1.836	111	3.603	166	5.412
2		57	1.867	112	3.636	167	5.444
3		58	1.898	113	3.669	168	5.476
4		59	1.929	114	3.702	169	5.508
5		60	1.960	115	3.735	170	5.540
6		61	1.992	116	3.768	171	5.572
7		62	2.024	117	3.801	172	5.604
8		63	2.056	118	3.834	173	5.636
9		64	2.088	119	3.867	174	5.668
10		65	2.120	120	3.900	175	5.700
11		66	2.152	121	3.933	176	5.732
12		67	2.184	122	3.966	177	5.764
13		68	2.216	123	3.999	178	5.796
14		69	2.248	124	4.032	179	5.828
15		70	2.280	125	4.065	180	5.860
16		71	2.312	126	4.098	181	5.892
17		72	2.344	127	4.131	182	5.924
18		73	2.376	128	4.164	183	5.956
19		74	2.408	129	4.197	184	5.988
20	0.830	75	2.440	130	4.230	185	6.020
21	0.855	76	2.472	131	4.263	186	6.052
22	0.880	77	2.504	132	4.296	187	6.084
23	0.905	78	2.536	133	4.329	188	6.116
24	0.930	79	2.568	134	4.362	189	6.148
25	0.955	80	2.600	135	4.395	190	6.180
26	0.982	81	2.632	136	3.428	191	6.213
27	1.009	82	2.664	137	4.461	192	6.246
28	1.036	83	2.696	138	4.494	193	6.279
29	1.063	84	2.728	139	4.527	194	6.312
30	1.090	85	2.760	140	4.560	195	6.345
31	1.117	86	2.792	141	4.593	196	6.378
32	1.114	87	2.824	142	4.626	197	6.411
33	1.171	88	2.856	143	4.659	198	6.444
34	1.198	89	2.888	144	4.692	199	6.477
35	1.225	90	2.920	145	4.725	200	6.510
36	1.252	91	2.952	146	4.758	201	6.543
37	1.279	92	2.984	147	4.791	202	6.576
38	1.306	93	3.016	148	4.824	203	6.609
39	1.333	94	3.048	149	4.857	204	6.642
40	1.360	95	3.080	150	4.890	205	6.675
41	1.389	96	3.112	151	4.923	206	6.708
42	1.418	97	3.144	152	4.956	207	6.741
43	1.447	98	3.176	153	4.989	208	6.774
44	1.476	99	3.218	154	5.022	209	6.807
45	1.505	100	3.240	155	5.055	210	6.840
46	1.534	101	3.273	156	5.088	211	6.873
47	1.563	102	3.306	157	5.121	212	6.906
48	1.592	103	3.339	158	5.154	213	6.939
49	1.621	104	3.372	159	5.187	214	6.972
50	1.650	105	3.405	160	5.220	215	7.005
51	1.681	106	3.438	161	5.252	216	7.038
52	1.712	107	3.471	162	5.284	217	7.071
53	1.743	108	3.504	163	5.316	218	7.104
54	1.774	109	3.537	164	5.348	219	7.137
55	1.805	110	3.570	165	5.380	220	7.170

This table of velocities, as already stated, is not considered perfectly reliable, particularly not for low velocities.

Profiting by experience had in the original rating of the current-meters, the work of re-rating the instruments immediately after the high-water stage of 1878-79 was undertaken with particular care.

A pond of water, deep, reasonably clear, and surrounded by a dense growth of high trees protecting it from wind, was selected, and special appliances were secured for controlling the speed at which the current-meters were drawn through the water.

A course of 200 feet in length was measured with a steel tape, and each end of it was marked by a wire stretched across it at about 4 feet above the water surface. The width of the pond at the selected point was about 300 feet. The depth of water over the whole length of the course was greater than 5 feet. The ends of the course were equidistant from the shore lines. The current-meters were lowered into the water to a depth of about 12 inches, by means of an outrigger which projected several feet beyond the bow of a boat in which a recorder was stationed. A light steel spring was attached to a short mast in the boat to record with precision the time at which the boat entered and at which it completed the course.

The boat was propelled by means of an endless light wire cable passing over a sheave on one shore and with several revolutions around a drum on the other. The boat was firmly secured to the wire cable and could be moved with equal facility in either direction over the course. The outrigger was readily transferable from one end of the boat to the other.

By the use of various sized drums and by variations in the rate of revolutions imparted to the drum the current-meter could be readily moved at any desired velocity through the water.

Great accuracy in determining this velocity is not, however, essential to the reliability of the results, provided length of course and number of revolutions in passing over the course are determined with extreme accuracy. This is due to the fact that velocity is very nearly proportional to the number of revolutions, and that therefore there is but little variation in the total number of revolutions made in passing through a stretch of water, no matter what the velocity of movement may be, provided the velocity be sufficient to keep the wheel of the current-meter revolving regularly.

It was noticeable that at low velocities the number of revolutions made by the current-meters varied considerably in passing over the course in opposite directions.

At a velocity of 0.50 feet per second, current-meter No. 57 showed a trifle over 74 revolutions in one direction and nearly $83\frac{1}{2}$ in the other; at 1 foot per second, the same meter showed $94\frac{2}{3}$ and $104\frac{1}{3}$ revolutions; at 2 feet per second, 101 and $107\frac{1}{3}$ revolutions, but at 7 feet per second 108 revolutions were recorded each way.

There could be no question that these differences resulted from an unaccountable movement of the water. They were indicated by several of the meters and with such regularity, when they prevailed at all, that their influence could readily be eliminated by combining a trip over the course in one direction with an immediate return trip. Each couplet or set of observations was then dealt with as though it were but a single observation over a course 400 feet in length.

In the tables the results of each of the two records of each set were averaged.

The method of constructing the velocity tables for each of the six current-meters was carried forward in the manner indicated in the following tables.

The original records as reproduced in the tables here published have value in illustrating the degree of accuracy with which velocity of flowing water can be measured with current-meters. Being introduced here solely for this purpose, no attempt was made to correct the rating tables as established and used by the State Engineer Department, even when it is apparent that a better approximation could have been made.

In considering the accuracy of the results, it must be remembered that in all the work done by the State Engineer Department, no correct record of fractional revolutions of the wheel could be preserved, as the electric sounder merely indicated each completed revolution, and the record was caught by ear. It would no doubt have been better to arrange the instruments so that the record would have permitted interpolation of partial revolutions during the important work of rating; but the result obtained by multiplying observations was very satisfactory, even though the individual observations are less accurate than they would otherwise have been.

The errors and percentages of error as noted in the tables are without doubt also affected by the movement of the water in the pond, which may not have been absolutely uniform throughout the entire time occupied in completing each observation.

RATING OF CURRENT-METER No. 56.

July, 1879.

Time, in Minutes.....	Observed Velocity— Feet per Second....	Total Number of Revolutions.....	Number of Revolu- tions per Minute, Each Observation.	Number of Revolu- tions per Minute, Each Set.....	Average Number of Revolutions per Minute.....	Velocity from Num- ber of Revolutions — Feet per Second.	Error in Each Set of Observations.....	Percentage of Error In Each Set.....
8.333	0.40	55.0	6.60		6.42	0.387	0.013	2.8
		52.0	6.24					
6.667	0.50	69.5	10.43	10.32	10.39	0.490	0.010	2.0
		68.0	10.20					
		69.5	10.43	10.47		0.495	0.005	1.0
		70.0	10.50					
		68.5	10.28	10.39		0.493	0.007	1.4
3.333	1.00	70.0	10.50					
		87.0	26.10	26.33	26.25	1.003	0.003	0.3
		88.5	26.55					
		87.0	26.10	26.18		0.998	0.002	0.2
		87.5	26.25					
		87.5	26.25	26.25		1.000	0.000	0.0
		87.5	26.25					
1.667	2.00	94.0	56.40	56.40	56.10	1.998	0.002	0.1
		94.0	56.40					
		92.0	55.20	55.80		1.977	0.023	1.2
		94.0	56.40					
		93.0	55.80	56.10		1.987	0.013	0.7
		94.0	56.40					
1.111	3.00	96.0	86.40	85.50	84.90	3.023	0.023	0.8
		94.0	84.60					
		94.0	84.60	83.70		2.996	0.004	0.1
		92.0	82.80					
		95.0	85.50	85.50		3.023	0.023	0.8
		95.0	85.50					
0.833	4.00	95.0	114.00	114.00	110.90	4.040	0.040	1.0
		95.0	114.00					
		90.0	108.00	109.80		3.893	0.107	2.7
		93.0	111.60					
		91.0	109.20	109.20		3.871	0.129	3.2
		91.0	109.20					
		89.0	106.80	109.80		3.893	0.107	2.7
		94.0	112.80					
		91.0	109.20	111.60		3.956	0.044	1.1
		95.0	114.00					
		91.0	109.20	111.00		3.935	0.065	1.6
		94.0	112.80					
0.667	5.00	93.0	139.50	140.25	140.38	4.979	0.021	0.4
		94.0	141.00					
		93.0	139.50	140.25		4.979	0.021	0.4
		94.0	141.00					
		94.0	141.00	140.63		4.992	0.008	0.2
		93.5	140.25					
0.555	6.00	91.0	163.80	167.40	168.30	5.946	0.054	0.9
		95.0	171.00					
		93.0	167.40	169.20		6.011	0.011	0.2
		95.0	171.00					
0.476	7.00	93.5	196.35	196.83	197.23	6.998	0.002	0.0
		94.0	197.40					
		94.0	197.40	197.40		7.016	0.016	0.2
		94.0	197.40					
		94.0	197.40	197.40		7.016	0.016	0.2

RATING OF CURRENT-METER No. 57.

July, 1879.

Time, in Minutes.....	Velocity Observed— Feet per Second....	Total Number of Revolutions.....	Number of Revolu- tions per Minute, Each Observation..	Number of Revolu- tions per Minute, Each Set.....	Average Number of Revolutions per Minute.....	Velocity from Num- ber of Revolutions —Feet per Second..	Error in Each Set of Observations.....	Percentage of Error in Each Set.....		
8.333	0.40	55.0	6.60	7.32	7.32	0.377	0.023	5.8		
6.667	0.50	67.0	8.04	11.83	11.83	0.487	0.013	2.6		
		73.0	11.05							
		84.0	12.60	11.78	11.78	0.488	0.012	2.4		
		74.0	11.10							
		83.0	12.45	11.78	11.78	0.488	0.012	2.4		
		74.0	11.10							
		83.0	12.45	12.00	12.00	0.494	0.006	1.2		
		76.0	11.40							
84.0	12.60	30.00	30.00	29.95	1.000	0.000	0.0			
96.0	28.80									
3.333	1.00	104.0	31.20	30.00	30.00	1.000	0.000	0.0		
		96.0	28.80							
		104.0	31.20	29.85	29.85	0.996	0.004	0.4		
		94.0	28.20							
		105.0	31.50	63.00	63.00	62.50	1.993	0.007	0.4	
		102.0	61.20							
		1.667	2.00	108.0	64.80	62.10	62.10	1.965	0.035	1.8
				100.0	60.00					
107.0	64.20			62.40	62.40	1.974	0.026	1.3		
101.0	60.60									
107.0	64.20			95.40	95.40	2.992	0.008	0.3		
106.0	95.40									
1.111	3.00			106.0	95.40	95.40	95.40	2.992	0.008	0.3
				106.0	95.40					
		106.0	95.40	95.40	95.40	2.992	0.008	0.3		
		106.0	95.40							
		108.0	129.60	129.60	129.60	4.038	0.038	1.0		
		108.0	129.60							
		0.833	4.00	108.0	129.60	129.60	129.60	4.038	0.038	1.0
				108.0	129.60					
107.0	160.50			160.50	160.50	160.69	4.985	0.015	0.4	
107.0	160.50									
0.667	5.00			107.0	160.50	160.88	160.88	4.996	0.004	0.1
				107.0	160.50					
				107.5	161.25	193.50	193.50	6.016	0.016	0.3
				108.0	194.40					
		0.555	6.00	108.0	194.40	192.60	192.60	5.961	0.039	0.7
				107.0	192.60					
				107.0	192.60	226.80	226.80	7.004	0.004	0.1
				108.0	226.80					
0.476	7.00			108.0	226.80	226.80	226.80	7.004	0.004	0.1
				108.0	226.80					
				108.0	226.80	226.80	226.80	7.004	0.004	0.1
				108.0	226.80					

RATING OF CURRENT-METER No. 57 WITH LARGE WHEEL.

July, 1879.

Time, in Minutes.....	Velocity Observed— Feet per Second.....	Total Number of Revolutions.....	Number of Revolu- tions per Minute, Each Observation	Number of Revolu- tions per Minute, Each Set.....	Average Number of Revolutions per Minute.....	Velocity from Num- ber of Revolutions —Feet per Second.....	Error in Each Set of Observations.....	Percentage of Error in Each Set.....
13.333	*0.25	*75.0	*5.63					
8.333	0.40	79.0	9.48					
6.667	0.50	74.0	11.10		12.75			
		93.0	13.95	12.53		0.501	0.001	0.2
		77.5	11.63	12.83		0.511	0.011	2.2
		93.5	14.03					
		76.5	11.48	12.01		0.487	0.013	2.6
		95.5	14.33					
3.333	1.00	86.0	25.80	27.60	27.85	0.983	0.017	1.7
		98.0	29.40					
		87.0	26.10	27.75		0.988	0.012	1.2
		98.0	29.40					
		90.0	27.00	28.25		1.004	0.004	0.4
		98.0	29.40					
1.667	2.00	95.0	57.00	58.20	58.00	1.991	0.009	0.5
		99.0	59.40					
		93.0	55.80	58.20		1.991	0.009	0.5
		101.0	60.60					
		91.0	54.60	57.60		1.971	0.029	1.5
		101.0	60.60					
1.111	3.00	100.0	90.00	88.65	88.20	3.004	0.004	0.1
		97.0	87.30					
		97.0	87.30	87.75		2.974	0.026	0.9
		98.0	88.20					
		98.0	88.20	88.20		2.989	0.011	0.4
		98.0	88.20					
0.833	4.00	99.0	118.80	118.20	117.65	4.009	0.009	0.2
		98.0	117.60					
		98.0	117.60	117.60		3.988	0.012	0.3
		98.0	117.60					
0.667	5.00	99.0	148.50	148.50	148.50	5.039	0.039	0.8
		99.0	148.50					
		99.0	148.50	148.50		5.039	0.039	0.8
		99.0	148.50					
0.555	6.00	97.0	174.60	175.50	175.95	5.957	0.043	0.7
		98.0	176.40					
		98.0	176.40	176.40		5.988	0.012	0.2
		98.0	176.40					

* Not reliable, because the course was traversed in one direction only.

RATING OF CURRENT-METER No. 58.

July, 1879.

Time, in Minutes.....	Velocity Observed— Feet per Second.....	Total Number of Revolutions.....	Number of Revolu- tions per Minute, Each Observation.....	Number of Revolu- tions per Minute, Each Set.....	Average Number of Revolutions per Minute.....	Velocity from Num- ber of Revolutions —Feet per Second..	Error in Each Set of Observations.....	Percentage of Error in Each Set.....
8.333	0.40	50.0	6.00	6.24	6.24	0.406	0.006	1.5
6.667	0.50	54.0	6.48	9.63	9.69	0.492	0.003	1.6
		64.0	9.60					
		63.0	9.45					
		67.5	10.14					
		64.5	9.68					
		64.0	9.60					
3.333	1.00	64.0	9.60	9.68	25.08	0.493	0.007	1.4
		65.0	9.75					
		84.0	25.20					
		84.5	25.35					
		83.0	24.90					
		84.0	25.20					
1.667	2.00	83.0	24.90	25.28	25.08	1.020	0.020	2.0
		83.0	24.90					
		88.0	52.80					
		87.0	52.20					
		87.0	52.20					
		88.0	52.80					
1.111	3.00	87.5	52.50	52.50	52.46	1.980	0.020	1.0
		88.0	52.80					
		87.0	52.20					
		87.5	52.50					
		88.0	52.80					
		87.0	52.20					
0.833	4.00	88.0	79.20	79.65	79.50	1.980	0.020	1.0
		89.0	80.10					
		88.0	79.20					
		88.0	79.20					
		88.5	79.65					
		88.5	79.65					
0.667	5.00	89.0	106.80	106.80	106.80	4.025	0.025	0.6
		89.0	106.80					
		89.0	106.80					
		89.0	106.80					
		89.0	106.80					
		89.0	106.80					
0.555	6.00	89.0	132.00	132.38	133.13	5.023	0.023	0.5
		88.5	132.75					
		89.0	133.50					
		89.0	133.50					
		89.0	133.50					
		89.0	133.50					
0.667	5.00	89.0	133.50	133.50	133.50	5.067	0.067	1.3
		89.0	133.50					
		89.0	133.50					
		89.0	133.50					
0.555	6.00	86.0	154.80	155.70	156.60	5.928	0.072	1.2
		87.0	156.60					
		87.0	156.60					
		88.0	158.40					

RATING OF CURRENT-METER No. 59.

July, 1879.

Time, in Minutes.....	Velocity Observed — Feet per Second.....	Total Number of Revolutions.....	Number of Revolutions per Minute, Each Observation.	Number of Revolutions per Minute, Each Set.....	Average Number of Revolutions per Minute.....	Velocity from Number of Revolutions — Feet per Second.....	Error in Each Set of Observations.....	Percentage of Error in Each Set.....																																																																																																																																																																																																				
8.33	0.40	38.00	4.56	5.82	5.82	0.390	0.010	2.5																																																																																																																																																																																																				
	0.40	59.00	7.08						6.67	0.50	78.00	11.70	11.40	11.31	0.505	0.005	1.0		0.50	74.00	11.10	3.33	0.50	73.50	11.03	11.22	28.95	0.501	0.005	1.0	0.50	76.00	11.40		1.00	96.00	28.80	28.95	28.95	0.997	0.003	0.3		1.00	97.00	29.10	1.67	1.00	97.00	29.10	28.95	59.85	0.997	0.003	0.3	1.00	96.00	28.80		2.00	100.00	60.00	60.00	59.85	2.010	0.010	0.5		2.00	100.00	60.00	1.11	2.00	99.00	59.40	59.70	89.78	2.000	0.000	0.5	2.00	100.00	60.00		3.00	100.00	90.00	90.00	89.78	3.010	0.010	0.3		3.00	100.00	90.00	0.83	3.00	100.00	89.10	89.55	120.00	2.995	0.005	0.2	3.00	100.00	90.00		4.00	100.00	120.00	120.00	120.00	4.000	0.000	0.0		4.00	100.00	120.00	0.67	4.00	100.00	120.00	120.00	149.63	4.000	0.000	0.0	5.00	99.00	148.50		5.00	100.00	150.00	150.00	149.63	4.978	0.022	0.4		5.00	100.00	150.00	0.56	5.00	100.00	150.00	150.00	180.45	5.000	0.000	0.0	6.00	100.00	180.00		6.00	100.00	180.00	180.00	180.45	5.990	0.010	0.2		6.00	100.00	180.00	0.48	6.00	100.00	181.80	180.90	210.00	6.020	0.020	0.3	6.00	101.00	181.80		7.00	100.00	210.00	210.00	210.00	6.990	0.010	0.1		7.00	100.00	210.00		7.00	100.00	210.00	210.00	210.00	6.990	0.010
6.67	0.50	78.00	11.70	11.40	11.31	0.505	0.005	1.0																																																																																																																																																																																																				
		0.50	74.00						11.10	3.33	0.50	73.50	11.03	11.22	28.95	0.501	0.005	1.0	0.50	76.00	11.40			1.00	96.00	28.80	28.95	28.95	0.997	0.003	0.3		1.00	97.00	29.10	1.67	1.00	97.00	29.10	28.95	59.85	0.997	0.003	0.3	1.00	96.00		28.80		2.00	100.00	60.00	60.00	59.85	2.010	0.010	0.5		2.00	100.00	60.00	1.11	2.00	99.00	59.40	59.70	89.78	2.000	0.000	0.5	2.00		100.00	60.00		3.00	100.00	90.00	90.00	89.78	3.010	0.010	0.3		3.00	100.00	90.00	0.83	3.00	100.00	89.10	89.55	120.00	2.995	0.005	0.2		3.00	100.00	90.00		4.00	100.00	120.00	120.00	120.00	4.000	0.000	0.0		4.00	100.00	120.00	0.67	4.00	100.00	120.00	120.00	149.63	4.000	0.000		0.0	5.00	99.00	148.50		5.00	100.00	150.00	150.00	149.63	4.978	0.022	0.4		5.00	100.00	150.00	0.56	5.00	100.00	150.00	150.00	180.45	5.000		0.000	0.0	6.00	100.00	180.00		6.00	100.00	180.00	180.00	180.45	5.990	0.010	0.2		6.00	100.00	180.00	0.48	6.00	100.00	181.80	180.90	210.00		6.020	0.020	0.3	6.00	101.00	181.80		7.00	100.00	210.00	210.00	210.00	6.990	0.010	0.1		7.00	100.00	210.00		7.00	100.00	210.00	210.00	210.00	6.990	0.010	0.1		7.00	100.00	210.00
3.33	0.50	73.50	11.03	11.22	28.95	0.501	0.005	1.0																																																																																																																																																																																																				
	0.50	76.00	11.40								1.00	96.00	28.80	28.95	28.95	0.997	0.003	0.3		1.00	97.00	29.10	1.67	1.00	97.00	29.10	28.95	59.85	0.997	0.003	0.3	1.00	96.00	28.80			2.00	100.00	60.00	60.00	59.85	2.010	0.010	0.5		2.00	100.00	60.00	1.11	2.00	99.00	59.40	59.70	89.78	2.000	0.000	0.5	2.00	100.00	60.00			3.00	100.00	90.00	90.00	89.78	3.010	0.010	0.3		3.00	100.00	90.00	0.83	3.00	100.00	89.10	89.55	120.00	2.995	0.005	0.2	3.00	100.00	90.00			4.00	100.00	120.00	120.00	120.00	4.000	0.000	0.0		4.00	100.00	120.00	0.67	4.00	100.00	120.00	120.00	149.63	4.000	0.000	0.0	5.00	99.00	148.50			5.00	100.00	150.00	150.00	149.63	4.978	0.022	0.4		5.00	100.00	150.00	0.56	5.00	100.00	150.00	150.00	180.45	5.000	0.000	0.0	6.00	100.00	180.00			6.00	100.00	180.00	180.00	180.45	5.990	0.010	0.2		6.00	100.00	180.00	0.48	6.00	100.00	181.80	180.90	210.00	6.020	0.020	0.3	6.00	101.00	181.80			7.00	100.00	210.00	210.00	210.00	6.990	0.010	0.1		7.00	100.00	210.00		7.00	100.00	210.00	210.00	210.00	6.990	0.010	0.1		7.00	100.00	210.00													
		1.00	96.00	28.80	28.95	28.95	0.997	0.003	0.3																																																																																																																																																																																																			
	1.00	97.00	29.10	1.67						1.00	97.00	29.10	28.95	59.85	0.997	0.003	0.3	1.00	96.00	28.80		2.00		100.00	60.00	60.00	59.85	2.010	0.010	0.5		2.00	100.00	60.00	1.11	2.00	99.00	59.40	59.70	89.78	2.000	0.000	0.5	2.00	100.00	60.00		3.00		100.00	90.00	90.00	89.78	3.010	0.010	0.3		3.00	100.00	90.00	0.83	3.00	100.00	89.10	89.55	120.00	2.995	0.005	0.2	3.00	100.00	90.00		4.00		100.00	120.00	120.00	120.00	4.000	0.000	0.0		4.00	100.00	120.00	0.67	4.00	100.00	120.00	120.00	149.63	4.000	0.000	0.0	5.00	99.00	148.50		5.00		100.00	150.00	150.00	149.63	4.978	0.022	0.4		5.00	100.00	150.00	0.56	5.00	100.00	150.00	150.00	180.45	5.000	0.000	0.0	6.00	100.00	180.00		6.00		100.00	180.00	180.00	180.45	5.990	0.010	0.2		6.00	100.00	180.00	0.48	6.00	100.00	181.80	180.90	210.00	6.020	0.020	0.3	6.00	101.00	181.80		7.00		100.00	210.00	210.00	210.00	6.990	0.010	0.1		7.00	100.00	210.00		7.00	100.00	210.00	210.00	210.00	6.990	0.010	0.1		7.00	100.00	210.00																											
1.67	1.00	97.00	29.10		28.95	59.85	0.997	0.003	0.3																																																																																																																																																																																																			
	1.00	96.00	28.80								2.00	100.00	60.00	60.00	59.85	2.010	0.010	0.5		2.00	100.00	60.00	1.11	2.00	99.00	59.40	59.70	89.78	2.000	0.000	0.5	2.00	100.00	60.00			3.00	100.00	90.00	90.00	89.78	3.010	0.010	0.3		3.00	100.00	90.00	0.83	3.00	100.00	89.10	89.55	120.00	2.995	0.005	0.2	3.00	100.00	90.00			4.00	100.00	120.00	120.00	120.00	4.000	0.000	0.0		4.00	100.00	120.00	0.67	4.00	100.00	120.00	120.00	149.63	4.000	0.000	0.0	5.00	99.00	148.50			5.00	100.00	150.00	150.00	149.63	4.978	0.022	0.4		5.00	100.00	150.00	0.56	5.00	100.00	150.00	150.00	180.45	5.000	0.000	0.0	6.00	100.00	180.00			6.00	100.00	180.00	180.00	180.45	5.990	0.010	0.2		6.00	100.00	180.00	0.48	6.00	100.00	181.80	180.90	210.00	6.020	0.020	0.3	6.00	101.00	181.80			7.00	100.00	210.00	210.00	210.00	6.990	0.010	0.1		7.00	100.00	210.00		7.00	100.00	210.00	210.00	210.00	6.990	0.010	0.1		7.00	100.00	210.00																																							
		2.00	100.00	60.00	60.00	59.85	2.010	0.010	0.5																																																																																																																																																																																																			
	2.00	100.00	60.00	1.11						2.00	99.00	59.40	59.70	89.78	2.000	0.000	0.5	2.00	100.00	60.00		3.00		100.00	90.00	90.00	89.78	3.010	0.010	0.3		3.00	100.00	90.00	0.83	3.00	100.00	89.10	89.55	120.00	2.995	0.005	0.2	3.00	100.00	90.00		4.00		100.00	120.00	120.00	120.00	4.000	0.000	0.0		4.00	100.00	120.00	0.67	4.00	100.00	120.00	120.00	149.63	4.000	0.000	0.0	5.00	99.00	148.50		5.00		100.00	150.00	150.00	149.63	4.978	0.022	0.4		5.00	100.00	150.00	0.56	5.00	100.00	150.00	150.00	180.45	5.000	0.000	0.0	6.00	100.00	180.00		6.00		100.00	180.00	180.00	180.45	5.990	0.010	0.2		6.00	100.00	180.00	0.48	6.00	100.00	181.80	180.90	210.00	6.020	0.020	0.3	6.00	101.00	181.80		7.00		100.00	210.00	210.00	210.00	6.990	0.010	0.1		7.00	100.00	210.00		7.00	100.00	210.00	210.00	210.00	6.990	0.010	0.1		7.00	100.00	210.00																																																					
1.11	2.00	99.00	59.40		59.70	89.78	2.000	0.000	0.5																																																																																																																																																																																																			
	2.00	100.00	60.00								3.00	100.00	90.00	90.00	89.78	3.010	0.010	0.3		3.00	100.00	90.00	0.83	3.00	100.00	89.10	89.55	120.00	2.995	0.005	0.2	3.00	100.00	90.00			4.00	100.00	120.00	120.00	120.00	4.000	0.000	0.0		4.00	100.00	120.00	0.67	4.00	100.00	120.00	120.00	149.63	4.000	0.000	0.0	5.00	99.00	148.50			5.00	100.00	150.00	150.00	149.63	4.978	0.022	0.4		5.00	100.00	150.00	0.56	5.00	100.00	150.00	150.00	180.45	5.000	0.000	0.0	6.00	100.00	180.00			6.00	100.00	180.00	180.00	180.45	5.990	0.010	0.2		6.00	100.00	180.00	0.48	6.00	100.00	181.80	180.90	210.00	6.020	0.020	0.3	6.00	101.00	181.80			7.00	100.00	210.00	210.00	210.00	6.990	0.010	0.1		7.00	100.00	210.00		7.00	100.00	210.00	210.00	210.00	6.990	0.010	0.1		7.00	100.00	210.00																																																																	
		3.00	100.00	90.00	90.00	89.78	3.010	0.010	0.3																																																																																																																																																																																																			
	3.00	100.00	90.00	0.83						3.00	100.00	89.10	89.55	120.00	2.995	0.005	0.2	3.00	100.00	90.00		4.00		100.00	120.00	120.00	120.00	4.000	0.000	0.0		4.00	100.00	120.00	0.67	4.00	100.00	120.00	120.00	149.63	4.000	0.000	0.0	5.00	99.00	148.50		5.00		100.00	150.00	150.00	149.63	4.978	0.022	0.4		5.00	100.00	150.00	0.56	5.00	100.00	150.00	150.00	180.45	5.000	0.000	0.0	6.00	100.00	180.00		6.00		100.00	180.00	180.00	180.45	5.990	0.010	0.2		6.00	100.00	180.00	0.48	6.00	100.00	181.80	180.90	210.00	6.020	0.020	0.3	6.00	101.00	181.80		7.00		100.00	210.00	210.00	210.00	6.990	0.010	0.1		7.00	100.00	210.00		7.00	100.00	210.00	210.00	210.00	6.990	0.010	0.1		7.00	100.00	210.00																																																																															
0.83	3.00	100.00	89.10		89.55	120.00	2.995	0.005	0.2																																																																																																																																																																																																			
	3.00	100.00	90.00								4.00	100.00	120.00	120.00	120.00	4.000	0.000	0.0		4.00	100.00	120.00	0.67	4.00	100.00	120.00	120.00	149.63	4.000	0.000	0.0	5.00	99.00	148.50			5.00	100.00	150.00	150.00	149.63	4.978	0.022	0.4		5.00	100.00	150.00	0.56	5.00	100.00	150.00	150.00	180.45	5.000	0.000	0.0	6.00	100.00	180.00			6.00	100.00	180.00	180.00	180.45	5.990	0.010	0.2		6.00	100.00	180.00	0.48	6.00	100.00	181.80	180.90	210.00	6.020	0.020	0.3	6.00	101.00	181.80			7.00	100.00	210.00	210.00	210.00	6.990	0.010	0.1		7.00	100.00	210.00		7.00	100.00	210.00	210.00	210.00	6.990	0.010	0.1		7.00	100.00	210.00																																																																																											
		4.00	100.00	120.00	120.00	120.00	4.000	0.000	0.0																																																																																																																																																																																																			
	4.00	100.00	120.00	0.67						4.00	100.00	120.00	120.00	149.63	4.000	0.000	0.0	5.00	99.00	148.50		5.00		100.00	150.00	150.00	149.63	4.978	0.022	0.4		5.00	100.00	150.00	0.56	5.00	100.00	150.00	150.00	180.45	5.000	0.000	0.0	6.00	100.00	180.00		6.00		100.00	180.00	180.00	180.45	5.990	0.010	0.2		6.00	100.00	180.00	0.48	6.00	100.00	181.80	180.90	210.00	6.020	0.020	0.3	6.00	101.00	181.80		7.00		100.00	210.00	210.00	210.00	6.990	0.010	0.1		7.00	100.00	210.00		7.00	100.00	210.00	210.00	210.00	6.990	0.010	0.1		7.00	100.00	210.00																																																																																																									
0.67	4.00	100.00	120.00		120.00	149.63	4.000	0.000	0.0																																																																																																																																																																																																			
	5.00	99.00	148.50								5.00	100.00	150.00	150.00	149.63	4.978	0.022	0.4		5.00	100.00	150.00	0.56	5.00	100.00	150.00	150.00	180.45	5.000	0.000	0.0	6.00	100.00	180.00			6.00	100.00	180.00	180.00	180.45	5.990	0.010	0.2		6.00	100.00	180.00	0.48	6.00	100.00	181.80	180.90	210.00	6.020	0.020	0.3	6.00	101.00	181.80			7.00	100.00	210.00	210.00	210.00	6.990	0.010	0.1		7.00	100.00	210.00		7.00	100.00	210.00	210.00	210.00	6.990	0.010	0.1		7.00	100.00	210.00																																																																																																																					
		5.00	100.00	150.00	150.00	149.63	4.978	0.022	0.4																																																																																																																																																																																																			
	5.00	100.00	150.00	0.56						5.00	100.00	150.00	150.00	180.45	5.000	0.000	0.0	6.00	100.00	180.00		6.00		100.00	180.00	180.00	180.45	5.990	0.010	0.2		6.00	100.00	180.00	0.48	6.00	100.00	181.80	180.90	210.00	6.020	0.020	0.3	6.00	101.00	181.80		7.00		100.00	210.00	210.00	210.00	6.990	0.010	0.1		7.00	100.00	210.00		7.00	100.00	210.00	210.00	210.00	6.990	0.010	0.1		7.00	100.00	210.00																																																																																																																																			
0.56	5.00	100.00	150.00		150.00	180.45	5.000	0.000	0.0																																																																																																																																																																																																			
	6.00	100.00	180.00								6.00	100.00	180.00	180.00	180.45	5.990	0.010	0.2		6.00	100.00	180.00	0.48	6.00	100.00	181.80	180.90	210.00	6.020	0.020	0.3	6.00	101.00	181.80			7.00	100.00	210.00	210.00	210.00	6.990	0.010	0.1		7.00	100.00	210.00		7.00	100.00	210.00	210.00	210.00	6.990	0.010	0.1		7.00	100.00	210.00																																																																																																																																															
		6.00	100.00	180.00	180.00	180.45	5.990	0.010	0.2																																																																																																																																																																																																			
	6.00	100.00	180.00	0.48						6.00	100.00	181.80	180.90	210.00	6.020	0.020	0.3	6.00	101.00	181.80		7.00		100.00	210.00	210.00	210.00	6.990	0.010	0.1		7.00	100.00	210.00		7.00	100.00	210.00	210.00	210.00	6.990	0.010	0.1		7.00	100.00	210.00																																																																																																																																																													
0.48	6.00	100.00	181.80		180.90	210.00	6.020	0.020	0.3																																																																																																																																																																																																			
	6.00	101.00	181.80								7.00	100.00	210.00	210.00	210.00	6.990	0.010	0.1		7.00	100.00	210.00		7.00	100.00	210.00	210.00	210.00	6.990	0.010	0.1		7.00	100.00	210.00																																																																																																																																																																									
		7.00	100.00	210.00	210.00	210.00	6.990	0.010	0.1																																																																																																																																																																																																			
	7.00	100.00	210.00							7.00	100.00	210.00	210.00	210.00	6.990	0.010	0.1		7.00	100.00	210.00																																																																																																																																																																																							
	7.00	100.00	210.00	210.00	210.00	6.990	0.010	0.1																																																																																																																																																																																																				
	7.00	100.00	210.00																																																																																																																																																																																																									

The greatest error in velocity, as the same would have been determined from the number of revolutions per minute, of meter No. 59, is 0.022 feet per second. The average error per set of observations (400 feet) is 0.0072 feet per second. The probable error is the same at low velocities as at high rates of speed. The percentage of error must consequently be greatest for low velocities. The average percentage of errors at velocities greater than 1 foot per second, for each set of observations (400 feet), is only one fourth of 1 per cent.

Results almost equally favorable were obtained with all the other current-meters.

The experiments established the number of revolutions per minute for the velocities 0.40, 0.50, 1.00, 2.00, 3.00, 4.00, 5.00, 6.00, and 7.00 feet per second, and the results were made the basis of a velocity curve for each current-meter.

Velocities were platted as ordinates from a line upon which the number of revolutions established by the experiments were scaled off, and the curves were readily completed.

Fig. 15, Plate IV, represents the velocity curve for current-meter No. 59. Such velocity curves were platted on a large scale, and from them the velocities in the table for each current-meter were scaled off.

The result for current-meter No. 59 is introduced for purposes of illustration.

CURRENT-METER No. 59 RATING TABLE—JULY, 1879.

No. of Revolutions per Minute	Velocity—Feet per Second	No. of Revolutions per Minute	Velocity—Feet per Second	No. of Revolutions per Minute	Velocity—Feet per Second	No. of Revolutions per Minute	Velocity—Feet per Second
1		56	1.878	111	3.703	166	5.528
2		57	1.911	112	3.736	167	5.561
3		58	1.944	113	3.769	168	5.594
4		59	1.977	114	3.802	169	5.627
5	0.380	60	2.010	115	3.835	170	5.660
6	0.392	61	2.043	116	3.868	171	5.693
7	0.407	62	2.076	117	3.901	172	5.726
8	0.425	63	2.109	118	3.934	173	5.759
9	0.446	64	2.142	119	3.967	174	5.792
10	0.470	65	2.175	120	4.000	175	5.825
11	0.495	66	2.205	121	4.033	176	5.858
12	0.520	67	2.241	122	4.066	177	5.891
13	0.545	68	2.274	123	4.099	178	5.924
14	0.570	69	2.307	124	4.132	179	5.957
15	0.595	70	2.340	125	4.165	180	5.990
16	0.622	71	2.373	126	4.198	181	6.023
17	0.649	72	2.406	127	4.231	182	6.056
18	0.676	73	2.439	128	4.264	183	6.089
19	0.703	74	2.472	129	4.297	184	6.122
20	0.730	75	2.505	130	4.330	185	6.155
21	0.759	76	2.538	131	4.363	186	6.188
22	0.788	77	2.571	132	4.396	187	6.221
23	0.817	78	2.604	133	4.429	188	6.254
24	0.846	79	2.637	134	4.462	189	6.287
25	0.875	80	2.670	135	4.495	190	6.320
26	0.906	81	2.704	136	4.528	191	6.353
27	0.937	82	2.738	137	4.561	192	6.386
28	0.968	83	2.772	138	4.594	193	6.419
29	0.999	84	2.806	139	4.627	194	6.452
30	1.030	85	2.840	140	4.660	195	6.485
31	1.062	86	2.874	141	4.694	196	6.518
32	1.094	87	2.908	142	4.728	197	6.551
33	1.126	88	2.942	143	4.762	198	6.584
34	1.158	89	2.976	144	4.796	199	6.617
35	1.190	90	3.010	145	4.830	200	6.650
36	1.222	91	3.043	146	4.864	201	6.684
37	1.254	92	3.076	147	4.898	202	6.718
38	1.286	93	3.109	148	4.932	203	6.752
39	1.318	94	3.142	149	4.966	204	6.786
40	1.350	95	3.175	150	5.000	205	6.820
41	1.383	96	3.208	151	5.033	206	6.854
42	1.416	97	3.241	152	5.066	207	6.888
43	1.449	98	3.274	153	5.099	208	6.922
44	1.482	99	3.307	154	5.132	209	6.956
45	1.515	100	3.340	155	5.165	210	6.990
46	1.548	101	3.373	156	5.198	211	7.024
47	1.581	102	3.406	157	5.231	212	7.058
48	1.614	103	3.439	158	5.264	213	7.092
49	1.647	104	3.472	159	5.297	214	7.126
50	1.680	105	3.505	160	5.330	215	7.160
51	1.713	106	3.538	161	5.363	216	7.194
52	1.746	107	3.571	162	5.396	217	7.228
53	1.779	108	3.604	163	5.429	218	7.262
54	1.812	109	3.637	164	5.462	219	7.296
55	1.845	110	3.670	165	5.495	220	7.330

The following table is condensed from the several tables prepared for all the meters rated in July, 1879:

CURRENT-METER RATING TABLES—JULY, 1879.

Revolutions per Minute.	No. 56—Feet per Second.	No. 57, Small Wheel—Feet per Second.	No. 57, Large Wheel—Feet per Second.	No. 58—Feet per Second.	No. 59—Feet per Second.
5	0.360	0.340	0.300	0.380	0.380
10	0.480	0.440	0.420	0.510	0.470
20	0.800	0.710	0.740	0.840	0.730
50	1.780	1.590	1.720	1.890	1.680
100	3.540	3.130	3.390	3.760	3.340
150	5.320	4.660	5.090	5.700	5.000
200	7.110	6.190	6.800	7.670	6.650

It is apparent from the small number of revolutions made by the wheels of these current-meters at velocities of less than 0.5 feet per second, that they were not of a type adapted to the measurement of sluggish currents. Wheels with less pitch should be used for that purpose.

As explained in the foregoing pages the work of rating the meters was much more carefully undertaken in July, 1879, than during the previous year.

During the high-water stages of the river which intervened between the two ratings, current-meters Nos. 58 and 59 were most frequently in use. The blades and spindles of each were, in the course of the season's work, slightly injured, and repaired at various times.

Current-meter No. 56 was used only in clear water at the low stage of the river, and is supposed to have been in exactly the same condition at both ratings.

Current-meter No. 57 was injured by drift in March, 1879. Its spindle was bent and had to be straightened.

Current-meter No. 57 with the large wheel was not used at all between the two dates.

A comparison of the results of the work of July, 1878, with that of July, 1879, is quite satisfactory for velocities greater than 1.50 feet per second, when the fact is taken into consideration that the work at the former date could only be expected to furnish approximate results.

The experimental work of 1879 demonstrates the fact that the velocity curves as platted for each of the State Engineer Department's meters are very nearly straight lines for all velocities greater than 2 feet per second.

COMPARISON OF CURRENT-METERS.

Experiments were conducted in November, 1878, to establish ratios of speed between the wheels of the several current-meters in use by the department, and to enable the construction of velocity tables for those meters which had not been rated.

In making these experiments the several instruments, four at a time, were lowered into flowing water (Sacramento River, flowing at the rate of 2.72 feet per second), and revolutions were noted for fifteen one-minute periods and for five three-minute periods for the four meters Nos. 56, 57, 58, and 59. A large number of additional observations were made between the same meters, two at a time, and meters Nos. 1 and 2

of the Engineer Corps of the U. S. Army. These results, combined and corrected, established the following table:

For velocity, about 2.72 feet per second.

Meter.	Ratio Expressed in Percentage.†						
No. 56.....	100.00	84.70	105.63	92.85	95.52	103.76	94.92
No. 57.....	118.06	100.00	124.89	109.50	112.82	122.56	112.14
No. 58.....	94.09	80.07	100.00	87.70	90.13	97.91	89.60
No. 59.....	107.70	91.05	114.02	100.00	103.03	111.91	102.31
No. 1.....	104.68	88.64	110.95	97.06	100.00	108.62	99.41
No. 2.....	96.37	81.59	102.13	89.36	92.06	100.00	91.52
No. 57*.....	105.35	89.18	111.61	97.74	100.59	109.27	100.00

* No. 57 with large wheel.

† Each meter has been successively made a standard of comparison with the others, the results being noted in successive columns of this table.

Comparing this table with the ratios at a velocity of 3 feet per second, calculated from the velocity tables of 1878, it was found that the velocity tables indicated ratios varying from 0 to 3.1 per cent from those established in November. This variation was more than was expected, and at once threw doubt upon the reliability of the experiments of July, 1878.†

During all the gaugings of 1878 and the early part of 1879, further comparisons were made between meters, generally two at a time, and the results of these comparisons were made use of in correcting velocity measurements made with the several instruments. Thus, meter No. 58 was injured on February 20, 1879. It was compared on April 1st with meter No. 1, and this comparison indicated a change since November of 1.5 per cent in the number of revolutions. It was again compared on April 4th with the same meter, and a change of 2.6 per cent was indicated. A third comparison with No. 56 was made on April 6th, and indicated a change of 1.2 per cent. All of these comparisons established a decrease of speed which was recorded at 1.8 per cent for the velocities which had been measured with it.

On July 11th and July 30th of the same year, further careful experiments in velocities of a little over 2 feet per second were made to compare the several instruments, and showed unexpected variations, particularly from the results of November, 1878.

With three instruments at a time, the observations were made on July 11th, and continued for thirty minutes. Eight sets of such observations were made. These observations were made in a current having a velocity of 2.25 feet per second.

† The writer is of the opinion that the comparisons of November, 1878, are not reliable, because the current-meters were set too close together during comparison.

The results of the observations of July 11th, as finally corrected, were as follows:

July 11, 1879.

For velocity, about 2.25 feet per second.

Meter.	Ratios Expressed in Percentage.					
No. 56 -----	100.00	90.12	105.79	94.96	100.10	105.83
No. 57 -----	110.96	100.00	117.66	105.35	111.01	118.22
No. 58 -----	94.53	84.99	100.00	89.79	94.30	100.33
No. 59 -----	105.31	94.93	111.37	100.00	105.55	111.70
No. 1 -----	99.90	90.09	106.04	94.74	100.00	106.16
No. 2 -----	94.49	84.59	99.67	89.53	94.20	100.00

On July 30th the meters were compared two and three at a time, in a current having a velocity of 2.15 feet per second. A combination and correction of results established the following table:

July 30, 1879.

For velocity, about 2.15 feet per second.

Meter.	Ratios Expressed in Percentage.						
No. 56 -----	100.00	89.72	106.93	94.83	99.07	105.91	96.09
No. 57 -----	111.46	100.00	118.87	105.82	110.71	117.99	107.99
No. 58 -----	93.52	84.05	100.00	89.92	93.08	99.32	92.23
No. 59 -----	105.45	94.50	111.22	100.00	104.59	111.34	101.02
No. 1 -----	100.94	90.33	107.44	95.61	100.00	107.68	96.33
No. 2 -----	94.42	84.75	100.68	89.81	92.87	100.00	90.75
No. 57* -----	104.07	92.85	108.42	98.99	103.81	110.26	100.00

* No. 57 with large wheel.

The relation existing between the revolutions calculated from the velocity tables as constructed in July, 1879, for velocities of 1, 2, 4, and 6 feet per second is expressed in the following table:

Relative Number of Revolutions—Percentages.

Velocity—Feet per Second.	Meter No. 56.	Meter No. 57.	Meter No. 57, with Large Wheel.	Meter No. 58.	Meter No. 59.
1.00	100.0	114.3	107.2	93.9	110.6
2.00	100.0	112.0	103.6	94.0	105.7
4.00	100.0	113.8	104.5	94.1	106.3
6.00	100.0	114.0	104.7	93.3	106.8
Averages -----	100.0	113.7	105.0	93.8	107.4
1.00	87.5	100.0	93.8	82.2	96.8
2.00	89.3	100.0	92.5	83.9	94.4
4.00	87.9	100.0	91.9	82.7	93.5
6.00	87.1	100.0	91.2	81.2	93.0
Averages -----	88.0	100.0	92.4	82.5	94.4
1.00	93.3	106.6	100.0	87.6	103.2
2.00	96.5	108.1	100.0	90.7	102.1
4.00	95.7	108.9	100.0	90.0	101.7
6.00	95.5	109.7	100.0	89.1	102.0
Averages -----	95.3	108.3	100.0	89.4	102.3

Velocity—Feet per Second.	Meter No. 56.	Meter No. 57.	Meter No. 57, with Large Wheel.	Meter No. 58.	Meter No. 59.
1.00	106.5	121.7	114.1	100.0	117.8
2.00	106.4	119.2	110.2	100.0	112.5
4.00	106.3	121.0	111.1	100.0	113.0
6.00	107.2	123.1	112.2	100.0	114.5
Averages	106.6	121.3	111.9	100.0	114.5
1.00	90.4	103.3	96.9	84.9	100.0
2.00	94.6	105.9	98.0	88.9	100.0
4.00	94.1	107.0	98.3	88.5	100.0
6.00	93.7	107.5	98.0	87.4	100.0
Averages	93.1	105.9	97.8	87.4	100.0

In the light of the experimental data contained in the preceding pages it must be concluded that the current-meter in the form in which it was used by the State Engineer Department is a very reliable instrument, when carefully handled and frequently rated; but that on account of delicate construction and liability to injury it is not as reliable for general gauging work as desirable.

(The velocities measured with current-meters in the rivers of California, by the State Engineer Department, are probably very rarely more than 1 per cent in error, though errors as great as 3 per cent in mean velocity and discharge are possible.)

This conclusion prompted a further investigation of the best forms of meters by the writer, and he was forced to the conclusion that the blades of the wheels should be made heavier, that their upper or front edges should be made sufficiently conical in outline to ward off floating leaves, twigs, etc., and that the wheel should be supported like a patent log from a point in front of and not behind the wheel; that it would therefore be desirable to construct the wheel with a hollow shaft, and give it support by means of a steel point projecting into the hollow shaft.

This idea had been clearly formulated and the first steps toward having an instrument constructed on this principle had been taken some years ago, when the writer's attention was called to the current-meter invented by E. E. Haskell, of the U. S. Coast and Geodetic Survey, covering the same points above enumerated.

The merits of this new type of current-meter seem to have been at once generally recognized. It is to be hoped that in connection with the gauging work carried on by the Mississippi and Missouri River Commissioners experiments will be conducted with sufficient care and system to serve as a basis for definitely establishing the degree of reliability of this instrument, chiefly with a view to determining the permanency of the velocity scale for individual instruments during protracted use.

As now manufactured, the "Ritchie-Haskell" current-meter, as it is called, has many advantages over the instruments as used by the State Engineer Department. Personal error is largely eliminated by means of a registering apparatus, which insures coincidence of the record of time and of wheel revolutions. The instrument is substantially constructed, so that an injury from ordinary causes is not at all likely, consequently the probability of a change of the speed of the wheel is rendered highly improbable.

EXAMPLES OF VERTICAL AND HORIZONTAL VELOCITY CURVES.

On Plates Nos. VI to XXX the writer has collected for publication in connection with this paper curves showing velocities as determined by current-meters, or by floats, in 321 verticals and a few mean velocity curves, all taken from the results of the gaugings made by the State Engineer Department.

The curves established by floats for high stages of the rivers are, as has already been explained, subject to correction.

A comparison of the two classes of curves, float and current-meter, indicates:

That current-meter observations establish velocities more nearly conforming to regular curves than those which are based on float observations.

That floats at or near the surface seem to be as reliable as current-meters in establishing velocity of current.

That near the bottom of the river the floats always indicate greater velocities than prevail there.

That the several curves established for the verticals of any complete gauging present greater uniformity of character when the gauging was made with current-meters than when made with floats.

The velocity curves indicate that it is useless to attempt to define a precise law of variation of velocity from water surface to bottom for natural channels similar to that of the Sacramento River. The form of the vertical curve can only be determined by actual velocity measurement. Its form varies with changing slope, with cross-sectional dimensions, and with the general character of the river channel. Accidental causes, such as wind, also exert a disturbing influence upon the form of the curve.

Many of the velocity records by surface meter, observed for exactly the same time-periods during which sub-surface observations were made with a second meter, are shown in the diagrams to establish a connection, if possible, between current pulsations at varying depths. Such comparison has been made in seventy-five verticals.

Inspection of these diagrams reveals all manner of types. In one extreme, velocity from surface to bottom increased simultaneously; in the other, velocity at the surface was below the average whenever it was greater than the average below the surface. Continued surface velocity measurement could not therefore be made the basis for corrections below the surface.

By inspection of the several curves presented on the plates it will be seen:

That the curves, as established during each gauging operation, present a similarity of form;

That surface velocity, and the form of the velocity curves, is influenced to a considerable extent by wind;

That wind effect is greatest when blowing up stream;

That the form of the velocity curves varies with all the general conditions that influence the flow of water.

These curves also seem to indicate a possibility, to which it is thought attention has never before been drawn, that the form of the vertical velocity curve may be influenced by the local gradient of the river bottom at and near the section for which velocity is recorded.

The velocity curves based on current-meter observations, shown on the plates, are generally the result of velocity measurements at each one tenth of the depth, at one half or one foot below the water surface, and as near the river bottom as possible. All velocities measured with current-meters prior to the high-water gauging, commencing with that on February 13th at Gray and Shaw's, were determined from at least two (sometimes three) single five-minute observations. In all gauging work subsequent to that time three single minute observations were recorded for each point of each vertical.

All velocity curves established by float observations are based on the speed of floats, set for each tenth of the entire depth, and for a point as near the river bottom as permissible, and at the water surface, with the mid-depth observations repeated.

All floats were timed over a course 200 feet long, and they were all started from an anchored boat about 200 feet above the upper end of the course. In a few instances as many as four floats were observed at the same depth, and in such cases the average results were accepted as the observed velocity at that depth.

(GAUGING OF CALIFORNIA RIVERS.)

SUPPLEMENT A.

FLOOD-WAVE MOVEMENT.

When a supply of water is received by a river from a tributary, in excess of the ordinary flow of the tributary, and the capacity of the river is sufficiently great to accommodate this addition to its volume of flow, then the river in the immediate vicinity of the tributary will rise, and the water thus elevated in a portion of the river channel will at once seek its level. The flow of the river and elevations of water surface will in successive time-periods be increased at all points below the source of supply; a flood-wave will travel down the river.

The wave represents a rise of water above a normal condition, and if discharged into a long, narrow body of still water it would seek its level. The wave when launched upon a flowing stream has the same tendency of elongation, and the front of the wave therefore moves down stream at a speed greater than that of the current in the river before the flood-wave was created.

The form of the flood-wave is determined by time and elevation of water surface at any point.

The discharge curve at any point corresponding to the time-period during which a flood-wave passes, is somewhat similar in form to the flood-wave as determined by elevation of the water surface, but the maximum discharge occurs before the crest of the wave reaches that point, except in cases when the maximum flow is long sustained.

The velocity with which a flood-wave travels down stream is dependent:

Upon the total amount of water which is supplied to produce the wave;

Upon the rate of supply;

Upon the character and dimensions of the waterway through which the wave travels;

Upon the amount and velocity of the water already in the river.

The flood-wave velocity varies therefore for each flood, for every river, and for the several portions of each river.

The velocity of movement is not the same for the different portions of a flood-wave. In other words, the form of a flood-wave changes; it is elongated as it moves from point to point. It will extend its front more rapidly than its crest moves, while its extreme upper limit (which is marked by the falling of the water surface to the elevation which it would have held had there been no flood-wave) will not be much at variance with the velocity of the river current for that particular stage.

Above the crest of the wave there must be a portion of the river channel partly filled with flood-wave water. The length of the up-stream portion of the wave is continually increasing in consequence of the more rapid advancement of the wave's crest than of its upper terminal point.

The total volume of water represented by a flood-wave remains the same at every point passed, but the time consumed in passing will be greater for points near the mouth of the river than for points farther up stream, and the maximum discharge due to the wave must for this reason decrease as the mouth of a river is approached.

If the dimensions of a river channel and its flow at some point, A, where all its waters are confined, are known, it may be required to determine what the greatest discharge at some point, B, farther down stream would be due to a flood-wave passing the point A, if no water were allowed to escape from the river channel between A and B.

The discharge per unit of time at B must vary from that at A, because the time required by a flood-wave to pass B is greater than that required by the same wave to pass A. It follows directly that the mean discharge at B for the flood-wave period is less than at A, and supposing the forms of the wave at A and B to resemble each other, as will always be the case when A and B are not too far apart, the maximum discharge at B must also be less than the maximum discharge at A.

Let q = amount of water in river channel between A and B before the front of the flood-wave has reached A.

$Q, Q', Q'',$ etc., = amount of water in the river channel between A and B at the end of the time-periods $t', t'', t''',$ etc.

$D, D', D'',$ etc., = total amount of water which has passed A at the end of the time-periods $t', t'', t''',$ etc.

$d, d', d'',$ etc., = discharge at A in the time-periods $t', t'', t''',$ etc.

$F, F', F'',$ etc., = the total amount of water which has passed B at the end of the time-periods $t', t'', t''',$ etc.

$f, f', f'',$ etc., = discharge at B in the time-periods $t', t'', t''',$ etc.

Then:

$$\begin{aligned}d' &= D' - D \\d'' &= D'' - D'' \\&\text{etc.}\end{aligned}$$

$$\begin{aligned}f' &= F' - F \\f'' &= F'' - F'' \\&\text{etc.}\end{aligned}$$

$$\begin{aligned}D' &= F' + (Q' - q) \\D'' &= F'' + (Q'' - q) \\&\text{etc.}\end{aligned}$$

The river will continue to rise at A until the crest of the wave passes A, and it then commences to fall, but ordinarily less rapidly than it rose. Consequently the value of Q increases until the crest of the wave is at some point between A and B.

If the character of the river at B is similar to that at A, the rate of rise at B may be assumed greater than the rate of falling at A; and if the flood-wave is of sufficient extent to have its upper end above A when its crest is at B, then Q will attain its greatest value when the crest of the flood-wave is near B.

Approximately, then, it may be assumed that the time at which Q is a maximum is the time at which the crest of the wave reaches B.

The greatest discharge at B occurs just before the time the crest of the wave passes B, or very nearly at the same time when Q is a maximum. (This is only then the case when A and B are not too far apart, and the flood-wave is still passing A when its crest reaches B.)

If the conditions are not as favorable as here supposed, then the time at which Q is a maximum, and the time at which the discharge at B is a maximum, must be separately approximated.

In either case the discharge at B can be approximated with a considerable degree of accuracy by the following method (see Fig. 20, on Plate V):

On a horizontal line time is scaled off. At the ends of the several time-periods t' , t'' , t''' , etc., the values of D, total discharge past A, are platted as ordinates, and establish a curve of total discharge at A.

By subtracting from each of the ordinates of the "D curve" the value ($Q_m - q$), where Q_m represents the approximate value of the maximum channel storage due to the flood-wave between A and B, a parallel curve will result, the ordinates of which are $D - Q_m + q$.

If the river before the flood-wave commenced to advance was in a normal condition, and the effect of tributaries between A and B be disregarded, then: the total flow (F) at B was the same as that (D) at A until the front of the flood-wave reached A, and if the successive values F' , F'' , etc., be platted as ordinates to establish a curve of total discharge at B, the curve thus determined will coincide with the "D curve" up to the time the discharge commenced to increase at A. The discharge curve for B can moreover be projected beyond that point for about the time required for the front of the wave to advance from A to B.

When Q is at its maximum, then $F = D - Q_m + q$. In other words, the curve of total discharge at B, the "F curve," and the curve whose ordinates are ($D - Q_m + q$), have one point in common.

When finally the upper end of the wave has passed B, the two curves of total discharge at A and at B will again be coincident.

The curve of total discharge at B thus has two points definitely fixed, its direction at these points is also known, and it must be tangent to another curve at some point between the former.

Its form can therefore be approximated. The point which the "F curve" has in common with the curve of the ($D - Q_m + q$) can moreover be approximated by approximately determining the time at which Q is a maximum. The approximation of the "F curve" is greatly assisted by approximating water elevations for points intermediate between A and B, and therefore calculating Q for as many points on the time scale as required.

Should the amount of water (Q) stored between A and B remain the

same for some time after Q attains its greatest value, then the "F curve" will for that time remain parallel to the "D curve." The greatest discharge at B will then be the same as the discharge at A at the time when Q becomes a maximum.

As soon as the amount of water stored between A and B begins to decrease, the "F curve" will begin to approach the "D curve," and the discharge at A will be less than at B.

The discharge at A for a unit of time is the tangent of the "D curve."

The discharge at B for a time unit is the tangent of the "F curve."

From the foregoing it will appear without further demonstration that the greater the reservoir space which is provided in the river channel above any point, the less will be the maximum flow of the river past that point, if the maximum supply from above does not continue beyond the time required to completely fill the reservoir space, and even then increased reservoir space above any point reduces the frequency of a maximum flow. It will always, therefore, be found advantageous when attempting to control floods by the construction of embankments along rivers, to place these far apart in the upper portions of the rivers, and to provide overflow or flood basins, if the latter can be so arranged that they will not receive water at unnecessarily low stages, and are so located that a quick redelivery of their water into the river channel is possible.

(GAUGING OF CALIFORNIA RIVERS.)

SUPPLEMENT B.

THE RELATION OF MEAN VELOCITY TO THE GRAND MEAN OF THE MEAN VELOCITIES IN ALL POSSIBLE VERTICAL PLANES.

H. Grebenau, in his publication of the results of the work of gauging the flow of the River Rhine at Basle, takes occasion to examine the ratio between the grand mean of mean velocities in all possible vertical planes and mean cross-sectional velocity.

He says:* "According to Humphreys and Abbot

$$U_m = 0.93 V \\ \text{or } V = 1.073 U_m$$

where V represents the mean cross-sectional velocity, $V = \frac{D}{A}$, discharge divided by area, and U_m represents the grand mean of mean velocities in all possible vertical planes from bank to bank.

From a carefully constructed curve of mean velocities in vertical planes for the cross-section of the Rhine, Grebenau finds the area of this velocity curve above the water surface line to be 363.305 (second-meters) and the length of the water surface line (width of the river) to be 201.27 meters; therefore, the grand mean

$$\frac{363.305}{201.27} \text{ or } U = 1.805 \text{ meters per second.}$$

* H. Grebenau: Rhinestrom Messung bei Basel, p. 31.

The gauging established $V = 1.945$ meters per second, consequently

$$\frac{U_m}{V} = \frac{1.805}{1.945} = 0.928,$$

whereas Humphreys and Abbot established

$$\frac{U_m}{V} = 0.93.$$

Commenting on this coincidence, Grebenau says: "The ratio thus found to exist between the grand mean of the mean velocities in vertical planes and the mean cross-sectional velocity for the Rhine at Basle bears additional testimony to the reliability of the theory of flowing water advanced by Messrs. Humphreys and Abbot."

Grebenau seems to have overlooked the fact* that this ratio is a function of the form of the cross-section, and that a comparison of this ratio established by different gaugings can lead to no practical result, because this ratio must necessarily be unity for all rectangular cross-sections, and must approach unity as the form of the section or the form of the mean velocity curve approaches a rectangle. The generalization by Messrs. Humphreys and Abbot, that because this ratio prevails on the Mississippi at the principal gauging stations it will apply to all rivers, is not justified.

The following table, showing some of the results of the gauging work of the State Engineer Department, includes a column of the ratio $\frac{U_m}{V}$, which is inserted for the purpose of showing the range of value of this ratio so far as it could be determined from this gauging work.

The results carried into this table are based on a recalculation of areas, mean velocities in the several verticals, discharge, and mean cross-sectional velocity. The computation of discharge was made by the graphical method.

No reduction has been applied to eliminate errors of observation due to changes in the speed of the current-meter wheels, nor to correct the velocities determined from float observations. It remains to be said that but little weight should be given to the observations with floats, for reasons already presented, and for the additional reason that the average depth of water along the lines traveled by those in each vertical was not determined. The velocities in the case of the floats were applied (as shown by the records of the observations, without correction) to the cross-section at the lower end of the float course.

It is quite apparent from this table, as also from the plates showing comparisons of current-meter and float curves, that mean velocities determined by float observations are relatively large. But little weight should be given to the results in the table when based on float observations.

*See Humphreys and Abbot, Rep. on Miss. River, p. 290 and 291.

Date.	Location.	Height of Water Surface Above Low Water—Feet	Mean Depth = d Feet.	Area—Square Feet	Discharge — Cubic Feet per Second....	Mean Cross-sectional Velocity = V Feet per Second	Um, Feet per Second..	Mean Surface Velocity = Vs, Feet per Second	Ratios.			Character of Gauging.	* W d	Remarks.	
									V Vs	Um V	Um Vs				
<i>Sacramento River.</i>															
April 6, 1879.	Butte City.	.....	22.40	7,625	31,140	4.08	3.81	1.20	0.97	0.93	0.91	Current-meter.	15	.....	Wind up stream.
Aug. 2-5, 1878.	Colusa, Sec. 18.	1.36	10.77	3,230	4,620	1.43	1.21	1.29	1.11	0.82	0.91	Current-meter.	28	.....	.....
April 4, 1879.	Colusa, Sec. 24.	18.10	21.08	3,000	30,200	3.42	3.06	3.45	0.99	0.88	0.89	Current-meter.	19	.....	Wind up stream.
Aug. 13-14, 1878.	Butte Slough (near).	2.88	10.48	3,300	4,400	1.35	1.23	1.41	0.96	0.91	0.87	Current-meter.	30	.....	.....
Aug. 15-17, 1878.	Moon's Ferry.	2.60	8.11	2,440	3,020	2.06	1.97	2.28	0.90	0.96	0.89	Current-meter.	37	.....	.....
Aug. 28-31, 1878.	Knights' L'ding, Sec. 4.	0.80	13.34	3,470	5,580	1.58	1.42	1.34	1.00	0.90	0.90	Current-meter.	19	.....	.....
Aug. 28-31, 1878.	Knights' L'ding, Sec. 4.	14.21	24.00	5,809	18,180	3.13	3.00	3.01	1.01	0.93	1.00	Current-meter.	10	.....	.....
Feb. 18-19, 1879.	Knights' L'ding, Sec. 4.	15.50	25.67	6,700	18,800	2.82	2.77	2.75	1.02	0.98	1.01	Current-meter.	11	.....	.....
April 1, 1879.	Knights' L'ding, Sec. 4.	12.30	23.02	5,940	16,520	2.78	2.67	2.75	1.01	0.96	0.97	Float	10	.....	.....
May 12, 1879.	Knights' L'ding, Sec. 4.	0.75	13.13	3,440	4,970	1.41	1.36	1.51	0.93	0.91	0.90	Current-meter.	20	.....	.....
Sept. 20-23, 1878.	Above Feather River.	0.40	19.95	5,725	5,430	0.95	0.82	0.83	1.15	0.81	0.82	Current-meter.	14	.....	.....
Sept. 25-26, 1878.	Below Feather River.	0.05	5.81	3,720	6,180	1.66	1.61	1.99	0.83	0.99	0.89	Current-meter.	110	.....	.....
Feb. 13-15, 1879.	Gray and Shaw's	13.81	18.73	11,220	43,500	3.88	3.64	3.80	1.01	0.94	0.94	Current-meter.	32	.....	Wind up stream.
Feb. 17, 1879.	Gray and Shaw's	12.94	18.21	10,860	40,550	3.74	3.43	3.62	1.03	0.92	0.95	Current-meter.	33	.....	Wind up stream.
May 16, 1879.	Gray and Shaw's	11.66	20.70	12,420	39,730	3.20	3.00	2.97	1.07	0.94	1.01	Float	29	.....	.....
Nov. 7, 1878.	Above American River.	0.20	6.41	3,630	7,410	2.05	1.98	2.37	0.97	0.97	0.83	Current-meter.	88	.....	.....
Jan. 30-Feb. 1, 1879.	Freeport	10.03	17.46	10,630	45,300	4.26	4.10	4.17	0.97	0.96	0.94	Float	34	.....	Wind down stream.
Feb. 25, 1879.	Freeport	9.45	16.81	10,220	43,340	4.04	3.96	4.07	0.92	0.96	0.89	Float	51	.....	.....
Mar. 1, 1879.	Freeport	14.53	20.92	12,720	58,080	4.56	4.42	4.65	0.98	0.97	0.95	Float	36	.....	.....
Mar. 10-11, 1879.	Freeport	14.04	20.42	12,720	58,080	4.56	4.43	4.72	0.94	0.96	0.94	Float	35	.....	.....
Mar. 15, 1879.	Freeport	14.53	23.42	14,240	70,620	4.97	4.78	5.04	0.96	0.97	0.95	Float	34	.....	.....
Mar. 17, 1879.	Freeport	14.27	23.38	13,990	62,020	4.56	4.43	4.72	0.94	0.96	0.91	Current-meter.	28	.....	Wind down stream.
Mar. 18, 1879.	Freeport	13.99	22.48	13,670	57,180	4.20	4.03	4.28	0.98	0.96	0.94	Current-meter.	27	.....	.....
Mar. 19, 1879.	Freeport	13.85	22.76	13,840	54,960	3.98	3.84	4.05	0.98	0.95	0.93	Current-meter.	27	.....	Wind up stream.
Mar. 25, 1879.	Freeport	13.35	21.13	12,850	49,290	3.84	3.61	4.03	0.95	0.94	0.90	Current-meter.	27	.....	.....
May 26, 1879.	Freeport	9.87	19.29	11,730	35,010	2.99	2.88	3.32	0.90	0.96	0.87	Current-meter.	32	.....	.....
<i>Feather River.</i>															
Sept. 10-11, 1878.	At mouth, Sec. 4.	.....	3.18	675	1,720	2.53	2.31	2.53	1.00	0.91	0.91	Current-meter.	70	.....	.....
Feb. 17-19, 1879.	Hennessey	.....	12.89	5,775	22,290	3.85	3.61	4.03	0.96	0.94	0.90	Float	35	.....	.....
May 13, 1879.	Hennessey	.....	8.38	3,814	16,120	4.23	3.77	3.69	1.14	0.89	1.02	Float	54	.....	.....
<i>San Joaquin River.</i>															
June 21, 1879.	Above Paradise Cut	.....	22.90	4,900	13,820	2.82	2.60	2.62	1.08	0.92	0.99	Current-meter.	9	.....	.....

* W = width on water surface; d = mean depth.

(GAUGING OF CALIFORNIA RIVERS.)

SUPPLEMENT C.

A RELIABLE METHOD FOR APPROXIMATE GAUGING.

It is frequently the case that hydrometric data are essential for the study of questions relating to the treatment of floods, land reclamation, and navigation, and that the hydrography of the stream and its tributaries does not permit of accurate measurements of the volume of flow, no matter what method of gauging is employed.

For gauging rivers of this class, or for making any gauging where great accuracy is not a requirement, and where results carefully approximated are equally valuable, it is desirable to employ some method of gauging which will render an approximation to the correct result possible, which will permit of frequent repetition of the gauging, and which requires no special apparatus nor a force of trained assistants.

The need of such a method and the need of constantly employing it, is nowhere felt more keenly than upon the Sacramento and San Joaquin Rivers of this State.

Notwithstanding the work done by the State Engineer Department during the years 1878 and 1879, it is hardly possible to trace a single flood through the Sacramento and San Joaquin Valleys with a reasonably close approximation of the aggregate volume of water delivered by these streams into Suisun Bay. Neither can the distribution of floods to the several flood basins or overflow districts be traced with satisfactory accuracy. The accurate measurement of discharge at many points of the Sacramento River by the State Engineer Department has had to be supplemented by conjecture and rude approximations whenever it has become necessary to discuss river problems.

It would certainly be of vastly greater importance to the United States engineers in charge of this and our other rivers, and to all engineers called upon to discuss or plan work for land reclamation and the control of flood waters, to have at their disposal records covering long periods of time and showing correctly the fluctuations of the water surface at selected points on each important river, and to have these records on its most important tributaries supplemented by frequent approximate water measurements, than to rely for all estimates of flow on a few accurate gaugings that have not even been supplemented by continuous river-rod records.

The necessity for great accuracy in gauging work, when aggregate volumes of flow covering comparatively long time-periods are required, decreases as the frequency of these gaugings increases. This is particularly true when the streams under consideration have dimensions and character subject to frequent change. In such a case it is equally as difficult and involves as much time to preserve a correct record of the changing dimensions as it would to make frequent approximate gaugings.

It seems desirable, therefore, that some simple method of approximate river gauging should be suggested which can be applied under all conditions of flow and which will afford data that, though only approximate, will nevertheless be reliable.

In the light of the experience on the Sacramento, San Joaquin, and

Feather Rivers, the following method is suggested, and can be recommended for all ordinary open earthen channels not too diminutive.

By means of surface floats of any pattern, not exposed too greatly to wind action, determine the surface velocity from bank to bank.

By sounding determine the cross-section of the stream at the upper end of the course over which the floats are run, also the cross-section at the lower end of the course and the cross-section midway between these two. From these three sections, determine an average section by giving double weight to the middle section and plat the same, showing the position of the water surface at the time of the gauging.

Plat above the water surface line, on any convenient scale, the surface velocities and construct the curve of the surface velocity. Reduce all velocities indicated by this curve, by multiplying by the ratio found in the following tables:

Width Divided by Average Depth =	5	10	15	20	30	40	50	75	100
Ratio of mean velocity in any vertical to the observed surface velocity $\frac{v}{v_s} =$ -----	1.03	.99	.96	.94	.91	.89	.87	.84	.82

And treat the resulting curve as a curve of the mean velocity in vertical longitudinal planes. At as many selected points as seems desirable, multiply depth of water by corresponding mean velocity, scaled from the curve, and plat the product as a point on a discharge curve. When sufficient points of the discharge curve have thus been found, complete it. The area inclosed by it and the horizontal line from which discharge is platted will represent the total discharge.

(It is not correct to divide the area of the curve of mean velocities by the width of the water surface, and to call this the mean velocity of the stream. This would only then be correct when the cross-section of the stream is a rectangle. This mistake is made by many hydraulicians. See Handbuch der Ingenieurwissenschaften, Part III, p. 251, for error of this character.)

This method of gauging is far better than the first rude approximation based on a determination of the mean velocity by percentage reduction of the maximum surface velocity; it is more reliable than a determination of mean velocity from the mean surface velocity, because the ratio between these values is a function of the form of the cross-section; and it may be better than carelessly-made gaugings, in which the form of the vertical velocity curve is carefully determined at a few points, while the form of the horizontal curve is neglected, and finally its results may be accepted as being fully as accurate as those obtained by the use of double floats in ordinary rivers.

It is well known that it is not strictly correct to apply the same reduction of surface velocity from bank to bank in determining corresponding mean velocities, but by using an average ratio the mean velocity curve will generally indicate velocities somewhat too great near midstream and somewhat too small near the banks.

The final results will therefore not be in error to any materially greater extent than the variation of the selected ratio between surface and mean velocities, from the correct average ratio between these velocities.

The published data relating to river gaugings are insufficient to complete the above ratio table. It should be extended in such a way that a scale of ratios for every possible average depth and value of width divided by average depth is indicated. It appears quite certain that these ratios will increase for increasing depths.

If all the data collected by hydraulicians were available, it might even be possible to prepare a series of such tables for varying average surface velocities. The values above indicated cannot therefore be vouched for, except for ordinary conditions of flow in streams of moderate size, but are here referred to for the purpose of encouraging the making of frequent gaugings, which though approximate will make the results of hydrometric work far more reliable than those based on gaugings with elaborate appliances, which by reason of their great cost are infrequently made, and afford very incomplete records.

No correction for wind effect can be suggested at this time, and it will always be well to avoid determining surface velocity when very strong winds are blowing directly up or down stream. The effect of wind at other times may be disregarded.

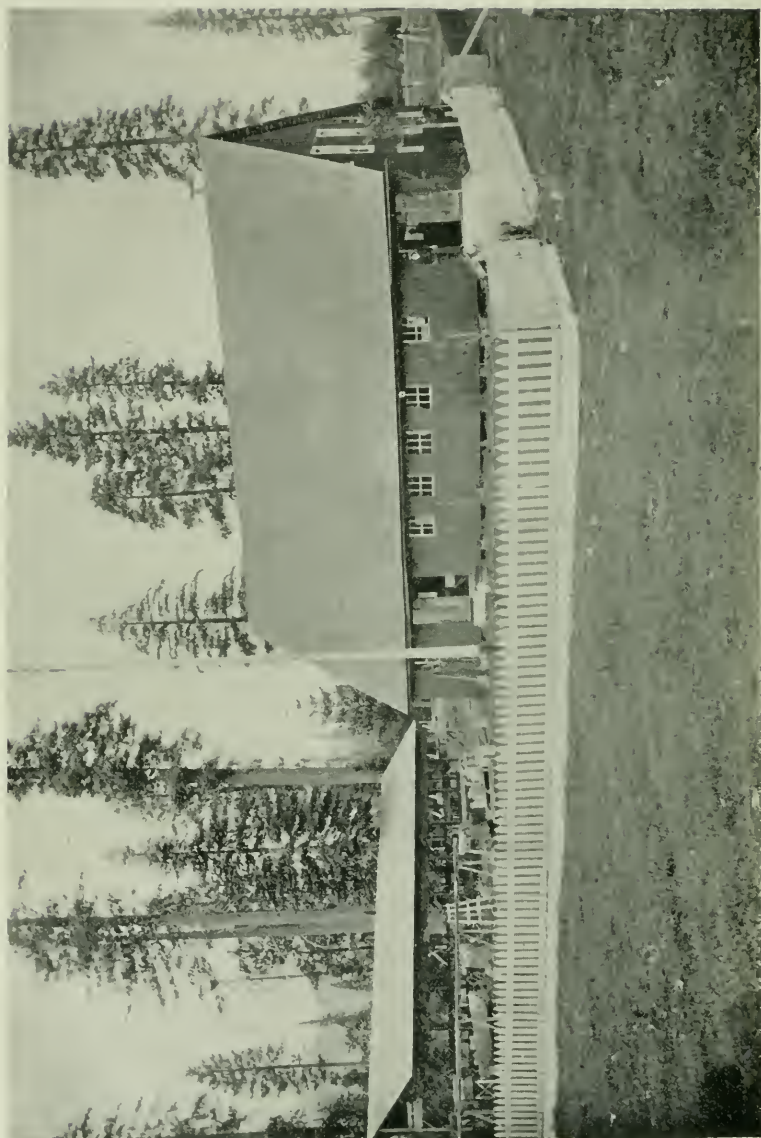
For a study of flood problems on any river system, similar to the Sacramento, whose waters at high stages inundate hundreds of square miles of valley area, whose channel is of very variable dimensions, and whose bottom in the lower reaches is composed of rapidly shifting sands, the work of approximate gauging should be carried on continuously. The results in the case of the river named would be particularly valuable because the main river is concentrated in one channel at the head of Sacramento Valley, and it has but few main tributaries, each of which affords like facilities for frequent measurement of their waters.

The great value of hydrometric data on rivers of the importance of the Sacramento and San Joaquin does not yet seem to be appreciated by the U. S. Army Engineers in charge of river improvements. Their attention has been directed solely to a maintenance of depth of water at the low stages, and the collection of data by them has not been extended beyond a study of the conditions at low-water stages; no high-water gaugings have been made, no river-rod records are being kept, yet one assistant could furnish, on the basis of frequent approximate gaugings of Sacramento River near Red Bluff, of Feather River near Oroville, and of American River near Folsom, with occasional measurements of the flow of smaller tributaries, a reliable exhibit of the volume of water entering Sacramento Valley.

It may be claimed that the U. S. Engineer Corps is not interested in volumetric records at the high stages of the rivers; that their recommendations cannot extend beyond the conservation of the navigability of the low-water channels, and that all data pertaining to the river in flood should be collected by the authorities directly interested in land protection and reclamation, by the State, and by the land owners. But it must be evident that works to improve drainage should not be detrimental to commercial interests, and vice versa. Questions of expediency in the matter of changes of alignment, cutting off bends, division and control of surplus waters, etc., which arise in connection with drainage problems, must be discussed in their bearings upon the navigability of the rivers, and, without data relating to the river in all its stages, the U. S. Engineer Corps will be but poorly equipped to combat or acquiesce in the recommendations of engineers studying drainage problems.

FOLD OUT

OUT



STATE FISH HATCHERY, SISSON, CALIFORNIA.

THIRTEENTH BIENNIAL REPORT

OF THE

STATE BOARD OF FISH COMMISSIONERS

OF THE

STATE OF CALIFORNIA,

FOR THE

YEARS 1893-1894.

COMMISSIONERS:

JOSEPH D. REDDING, President, San Francisco.

HUGH L. MACNEIL, Los Angeles.

WILLIAM C. MURDOCH, Secretary, San Francisco.



SACRAMENTO:

STATE OFFICE, : : : : A. J. JOHNSTON, SUPT. STATE PRINTING.

1894.

REPORT.

To H. H. MARKHAM, *Governor of the State of California:*

The State Board of Fish Commissioners present herewith their Thirteenth Biennial Report of operations, covering the period from September 1, 1892, to September 1, 1894. Since the last biennial report rendered by the Commission the personnel of the Board has undergone several changes. Hon. Ramon E. Wilson, appointed by you on March 17, 1891, was compelled by stress of personal business to resign his commission under date of September 22, 1892. The services of Mr. Wilson on the Board were of marked value, and his untimely death, the year following his resignation, was a source of greatest sorrow and regret to all who knew him.

In November, 1892, Hugh L. Macneil, of Los Angeles, was appointed Fish Commissioner to succeed Mr. Wilson.

Joseph Morizio, appointed under date of March 17, 1891, tendered his resignation in December of 1892. William C. Murdoch was appointed his successor on December 22, 1892. Mr. Murdoch was then elected Secretary of the Board and has served in that capacity ever since.

The office of the Commission was removed on September 22, 1892, to No. 33, Chronicle Building, where it has since remained. Since the last report the Commission has held twenty meetings upon the following dates:

1892—September 13th, September 22d, October 1st, October 6th, November 29th, December 22d,	1893—February 14th, March 28th, May 18th, July 18th, July 26th, August 14th, September 15th,	1893—September 16th, December 14th, 1894—February 6th, April 13th, June 4th, July 27th.
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With one or two exceptions each of these meetings has been attended by a full Board. The labors of the Commission have steadily augmented during the two years just past, and it is apparent that the scope and extent of the work defined by law are developing upon broader lines each year. The extent of the Commission's labor we believe has been fully as great as circumstances would allow. The record of what has been done affords ample explanation of why things less important and things impracticable were not done. With the means that we have had at our disposal we are gratified at the results which we are enabled to embody in this report; yet by no means are we convinced that the State is giving the necessary attention to this department of her industries that its importance calls for. We have deemed it wise to give our first and chief attention to the food-fishing industry, as being the most important charge placed in our care. Protection and propagation affect the quantity and the price of fish, by reason of which circumstance our work is made of deep concern to the entire commonwealth. The importance of these industries has justified our endeavors. Among the States of

the Union, California ranks sixth in fisheries, with products valued at \$3,044,731, as against Massachusetts, which takes first rank with products valued at \$7,531,194. As showing the comparative inadequacy of our appropriation for all the work of the Commission, it should be borne in mind that California has an area of 158,360 square miles and is the largest State in the Union, except Texas. Massachusetts has an area of 8,315 square miles and appropriates \$15,700 per annum. California, with a dozen times the area to protect, appropriates \$17,500. With this amount at its disposal the Commission feels that it can protect the food fish of the State. For other purposes, however, the amount is wholly inadequate, as will be seen by reference to the following pages.

It must be remembered that the Commission is allowed to use in each fiscal year but one half of the legislative appropriation. In order, therefore, to cover the ground before us, we have been compelled to husband our resources, at times suspending the men in our employ for a month or two at a time in order to keep within the appropriations and avoid the necessity of presenting deficiency bills to the next Legislature. The Commission is gratified to be able to say that there are no deficiency bills to present.

The statement is sometimes made that the Eastern States demand a larger appropriation for pisciculture, owing to the fact that the population is so much greater. The converse of this proposition is true. The laws have to be enforced independent of the population, and the fewer number of people living on a stream the greater its need for protection. Public sentiment in thickly settled communities has always been an efficient aid in the enforcement and maintenance of laws for the protection of fish and game.

The time of our deputies has been chiefly taken up with the hatching and protection of fish, to which special work the Legislature devoted its appropriations.

In the line of game and fish protection, we have, while patrolling the large market centers of the State, caused the arrest of dealers detected offering game or fish for sale out of season. Effective steps have been taken to secure the enforcement of the cold storage and other acts of the last Legislature, and, when necessary, test cases have been made in the Courts. All complaints received by the Board have been investigated by deputies, and in proper cases the offenders have been watched, arrested, and prosecuted.

There can be no question but what the Legislature should take additional action to secure the enforcement of the game laws. To this end we cheerfully commend to you and the Legislature the work of the late convention, which, in response to a call from you, met and decided among other things to recommend the appointment of a game warden for each county.

The Commissioners take pleasure in stating that during the past two years they have propagated and planted in the public streams of the State more than twice the number of fish accredited to any former Commission within the same period of time. This result has been rendered possible by the increased appropriations and the efficiency of our deputies. Dams and fish-ways in all parts of the State have been inspected and kept in order. The Truckee River and other streams have been cleared of shavings, sawdust, and other deleterious substances. Several new species of trout have been introduced, and a favorable start has

been made in the propagation of Mongolian pheasants. The records of the Commission embodied in this report will show that all moneys intrusted to the Board have been judiciously and economically expended. It has been sought to make this report show in detail the work of the Commission in all of its departments. Many valuable facts and statistics have been gathered and grouped under appropriate heads, to which your attention is directed.

COMPARATIVE APPROPRIATIONS.

California has for many years claimed the attention of the world on account of her vast area of water, her extent of land formation, and her variety of climatic conditions. We venture to say, however, that but few appreciate the fact that these conditions combine to marvelously adapt the waters of the State as a habitat for fish of all kinds. Almost every known species of fish should, in some portion of the State, find waters suited to its needs. California has within its borders nearly all the conditions which are necessary to the welfare of fish and game. There is but one State which exceeds us in area; nine that have more salt-water area (gulfs, bays, sounds, etc.), and four that have more fresh-water area (lakes, rivers, etc.); but six States have more miles of developed coast-lines (or mainland in the direction of the ocean), and but one State—Florida—has more miles in general or straight coast-line.

With these natural conditions so favorable we should seek to take the position which is properly ours and develop the fishing industry until in that respect we rank first in the commercial world. We must also, as a people, give this subject of pisciculture the attention it merits and which it has attained in most of the States, as will be seen by reference to the funds placed at the disposal of the various Fisheries Commissions. All of the older States, and many new ones, have well organized Fish Commissions, which are caring for the industry. For several years, State after State has come to appreciate the necessity for activity in this direction, with the result that Legislatures are constantly setting aside more generous appropriations.

With the exception of Virginia, all of the States which outrank California in value of fish products also outrank her in appropriations per square mile of land and water area. It will be noticed that many States whose products have less value, or, comparatively speaking, no value at all, take higher rank in that particular. Unfortunately for us, perhaps, we are so situated that we do not get the benefit of the work of other States in the matter of fish propagation, as do many of the States on the Eastern coast. This is particularly true of Connecticut, New York, and New Jersey, and of New Jersey, Delaware, and Pennsylvania, where the work of shad propagation in one State is of great benefit to the adjacent States. Therefore, in making a comparison with the North Atlantic States it would not be unfair to group those States together. Comparisons made upon this basis would be of such a nature as to make us feel ashamed of the insignificant amount we spend upon our fisheries.

In area, the States of Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, and Delaware exceed California by only 2,600 square miles, yet those States spend \$146,000 per annum in the propagation and preservation of fish and game. Besides this large amount, which they themselves expend,

they derive great benefit from the extensive operations of the U. S. Commission of Fish and Fisheries in the propagation of shad, cod, lobster, etc. Thus it will be seen that in many respects a comparison of individual Eastern Coast States with California results in a higher rank in appropriations for this State than the actual figures justify.

Rhode Island and Delaware are fortunate in being so situated that they derive a benefit from the work of other States, and have, no doubt, come to the conclusion that it is not necessary for them to make appropriations, even in proportion to their size.

Maine has 125,320 square miles less territory than California, and appropriates \$16,500 per year. Her Commissioners advise that they find their \$16,500 (to which must be added some \$2,000 derived from fines), "inadequate for efficient service and the demands of the best interests of this department of the State's business. We hope to double our appropriation at the next Legislature."

New Hampshire was authorized to erect new hatcheries and will expend about \$10,000 this year, although the State has but 9,305 square miles, or 149,055 square miles less than California.

Massachusetts, ranking first in the value of her products, realizes what the fishery industry has done for her, and what benefits are to be derived from keeping her waters well stocked and cared for. That State shows its appreciation by appropriating \$15,700 per annum.

Connecticut appropriates \$9,000 for the propagation and preservation of fish; and also gives the counties power to appoint and pay game wardens.

New York appropriates the splendid sum of \$66,050. Of this amount \$44,000 is for the maintenance of the several hatcheries, enabling the State to operate on a magnificent scale, and to keep her waters well stocked. The balance is used for the salary and disbursements of twenty fish and game protectors. Can it be said that New York does not receive large returns for the amounts expended for these purposes?

We might continue with mention of various Coast States and the recital of figures showing the prominence attached to the subject of fish culture and fish and game preservation in nearly all of them.

As has already been said, few, if any, of these States have conditions more favorable for fish culture than can be found in California.

The following tables show a comparison of appropriations and the rank of the various States:

Amount Appropriated by the Various States.

States.	Amount Appropriated.			
	Per Square Mile of Total Area.	Per Square Mile of Coast Waters and Coast-line.	Per Square Mile of Fresh Water.	Per Square Mile of Total Water Area.
California .....	.13	12.57	11.34	6.00
Pennsylvania .....	.50	-----	97.82	97.82
New York	1.34	66.45	55.04	31.54
Connecticut	1.80	50.85	75.00	30.30
Maryland	5.73	27.39	20.00	22.91
Massachusetts	1.89	17.74	104.67	15.17
New Hampshire .....	.43	205.13	13.33	12.52
New Jersey	1.54	9.76	77.42	8.66
Maine .....	.50	8.22	6.35	3.58
Delaware .....	.24	1.13	8.33	.99
Virginia .....	.07	1.13	5.50	.97

Rank of the Various States.

States.	Value of Products.	Amount Appropriated.			
		Per Square Mile of Total Area.	Per Square Mile of Coast Waters and Coast-line.	Per Square Mile of Fresh Water.	Per Square Mile of Total Water Area.
California	6	17	7	17	17
Pennsylvania	18	8	-----	2	1
New York	3	5	2	5	3
Connecticut	9	3	3	4	4
Maryland	2	1	4	8	5
Massachusetts	1	2	5	1	10
New Hampshire	26	10	1	13	12
New Jersey	5	4	8	3	15
Maine	8	8	9	20	22
Delaware	21	13	12	18	27
Virginia	4	20	11	22	28

In making a comparison with the States bordering on the Great Lakes, it will be noticed that the amount of fresh-water area does not exceed that of California in any State except Minnesota, and yet these States are looking after their interests so well that in 1892 the waters of five out of eight of them exceeded our fresh waters in productiveness. The people of these States appreciate the value of their fisheries, and are taking care of them to such an extent that in 1892 they had increased the value nearly a million dollars over 1880. Those States which show their attitude by the amount of money expended, are the ones which have made the largest increase in value of products.

Michigan, with 58,000 square miles in area—100,000 less than California—expends \$27,483 for the propagation of fish alone. She also has a salaried game warden, who appoints ten paid deputies to assist him in the protection of fish and game. Besides these deputies, each county appoints three more. In 1891, the counties paid these men over \$5,000 for their services. It may well be asked, has Michigan more cause to look after her fish and game than California?

Wisconsin is as fully alive to the necessities of the case as Michigan; that her people appreciate the need of liberality in the matter, is evidenced by a quotation from a letter in which the Commissioners of Fisheries of that State say:

“We have an annual appropriation of \$12,000; then, if we want funds for any extra work or for permanent improvements, we ask for them. During the session of 1890, we asked for \$5,000 for a new building, and there were only seven votes against it. During the last session, we asked for \$5,000 for a fish car, and the vote was unanimous. Eighteen hundred dollars per year is also voted for the Fish and Game Warden and his expenses. There is also a contingent fund of \$1,500 to pay special deputy wardens. The total expenditures for fish culture and fish and game protection will average about \$21,000 annually. The Fish Commission will ask for a special appropriation of \$10,000 this winter.”

Notwithstanding the fact that Minnesota appropriates \$15,000 annually for fish and game, her people realize that, with her vast number of lakes and streams, more funds should be placed at the disposal of the authorities. Her Commissioners write that they confidently expect to secure a material increase and hope to double their appropriation. It may again

be asked, has Minnesota advantages in her lakes and streams that are not found in California?

Although Pennsylvania's means of access to the Great Lakes are, comparatively speaking, very small, she has developed the industry there from \$43,450 in 1880 to \$211,122, in 1892; and, appreciating the value of her fisheries, has made liberal appropriations for their maintenance, as her rank in the following tables will show. A comparison of appropriations follows.

States.	Amount Appropriated per Sq. Mile Total Area.	Amount Appropriated per Sq. Mile Fresh-Water Area.
California .....	.13	11.34
Pennsylvania .....	.50	97.82
New York	1.34	55.04
Michigan .....	.54	21.04
Illinois .....	.18	15.38
Wisconsin .....	.36	12.77
Ohio .....	.09	12.26
Minnesota .....	.18	3.61
Indiana .....	.02	1.82

Table showing rank of the various States:

States.	Value of Products.	Amount Appropriated per Sq. Mile Total Area.	Amount Appropriated per Sq. Mile Fresh-Water Area.
California	6	17	17
Pennsylvania	18	8	2
New York	3	5	5
Michigan	13	7	7
Illinois	27	14	12
Wisconsin	19	11	14
Ohio	17	19	15
Minnesota	29	14	25
Indiana	28	26	27

Many Inland States, which do not compare with the Coast States for variety and abundance of fish, are also alive to the necessity of maintaining and protecting the supply, not alone from a commercial standpoint but that the sportsman and angler may seek her lakes and streams and thereby afford a source of revenue to her people. California can, with advantage, take a lesson from Colorado, Wyoming, and Vermont, although those States do not add materially to the fish food supply. They appreciate the advantages derived from well-stocked lakes and streams, Colorado appropriating \$9,400 for the propagation and distribution of fish, and \$6,000 for the protection of fish and game, or \$55 per square mile of water area, while Vermont appropriates \$7,000 for the same purpose, or \$16.28 per square mile of water area; and Wyoming \$5,200, or \$16.51 per square mile. California appropriates \$5.03 per square mile of water area, although we have lakes and streams which far surpass those of Colorado, Wyoming, and Vermont, in addition to our splendid extent of salt water. Other Inland States, such as Nebraska and Missouri, having waters suited only to the bass, perch,

carp, and catfish, provide liberally for their propagation and protection, holding that it is well worth the money expended to have their waters stocked with these varieties, which, with one exception, receive comparatively no recognition as a food fish from the people of this State.

The amount of money appropriated by these Inland States per square mile of total area, fresh-water area, and total water area as compared to California, is clearly shown by the following table:

States.	Per Square Mile Total Area.	Per Square Mile Fresh- Water Area.	Per Square Mile Total Water Area.
California .....	.13	11.34	6.00
Colorado .....	.15	55.00	55.00
Wyoming .....	.05	16.51	16.51
Vermont .....	.73	16.28	16.28
Nebraska .....	.10	11.49	11.49
Missouri .....	.06	6.62	6.62

While the amount appropriated per square mile of total area is less in three of the above States, they all, with one exception, vastly exceed us in amount appropriated per square mile of water area. To fully appreciate the situation it must be borne in mind that we take the sixth rank in value of our products, while these States do not figure in the commercial fisheries at all. California ranks seventeenth in amount appropriated per square mile of total water area, while these States take rank in that particular, as follows: Colorado, second; Wyoming, seventh; Vermont, eighth; Nebraska, fourteenth; Missouri, sixteenth.

Bearing in mind that California has advantages which few other States can claim, a comparison places us with hardly an exception behind all of the Inland States which have taken up the question of the preservation of fish and game.

By reference to the table in the Appendix, it will be seen that the Southern States give this matter but little, if any, attention, and our various inquiries have developed the fact that their waters are being fast depleted. Some of them have Commissions, but without funds they are helpless in seeking to enforce the laws.

The Western Inland States are not behind in this matter. Colorado has already been referred to; and, with Wyoming and Nevada, has Fish Commissions which are doing good work, although the Commissions of two States last named have not the funds that the Colorado Fish Commission receive. Both Idaho and Montana have fish and game wardens appointed and paid by the several counties. The following table of comparisons of the Pacific Coast States speaks for itself. In 1893 Oregon appropriated \$8,000 more for the use of the Fish Commission, but this is not available on account of the law having been repealed by mistake.

States.	Amount Appropriated.			
	Per Square Mile of Total Area.	Per Square Mile of Coast Waters and Coast-Line.	Per Square Mile of Fresh Water.	Per Square Mile Total Water Area.
California .....	.13	12.75	11.34	6.00
Washington .....	.26	5.77	19.57	4.46
Oregon .....	.05	13.43	3.17	2.56

Rank of the States.

States.	Value of Products.	Amount Appropriated.			
		Per Square Mile of Total Area.	Per Square Mile of Coast Waters and Coast-Line.	Per Square Mile of Fresh Water.	Per Square Mile Total Water Area.
California -----	6	17	7	17	17
Washington -----	12	12	10	9	19
Oregon -----	14	22	6	26	23

The States which do not make appropriations are Alabama, Arkansas, Florida, Idaho, Kentucky, Louisiana, Mississippi, Montana, North Carolina, North and South Dakota, Rhode Island, Tennessee, and Texas. Several of these States, however, have Fish Commissions.

By reference to the table in the Appendix, the foregoing figures can be found, as well as much other information concerning all of the States which have taken up these matters.

THE VALUE OF THE CALIFORNIA FISHERIES.

The value of the fishery products of California can be best understood from an inspection of the statistics prepared by the United States Commission of Fish and Fisheries and by ourselves. These figures show the first value, or the amount that the fisherman received. It is to be regretted that no complete figures are at hand until 1880, as only by comparison can the increase in the industry be shown; but if that increase was as great prior to that time as since (and aside from the salmon fishery this was undoubtedly true), it indicates an increased development of the industry, which, with proper protection, should reach an unlimited figure. The total value of our fishery products in 1892 was \$3,044,269; an increase of \$1,193,555 over the output of 1880. The total amount of capital invested in the fisheries in 1892 was \$2,543,162; an increase since 1880 of \$1,403,487. In 1880 there were 3,094 men employed in the fisheries, as against 5,469 employed in 1892.

It is not generally appreciated that California took the eighth rank in the list of States in the value of her fisheries in 1880, and that in 1892 she had moved up to sixth place. California ranks as follows in the various branches: First in the seal and sea-otter fisheries; second in the whale fisheries, and would take the first place in this branch but for the fact that while a large part of the Massachusetts whaling fleet makes its headquarters at San Francisco and cruises in the Pacific Ocean, the catch of these vessels has been credited to Massachusetts, and the California figures represent only the yield of the vessels owned in this State. California ranks second in the crustacean fisheries; sixth in the molluscan; eighth in the reptilian, and thirteenth in the general food and bay fisheries. California is interested in six of the nine fisheries of the United States, which are valued at over \$1,000,000 each annually, as follows:

Whale, \$1,662,000; rank, second.

The Pacific salmon, \$178,909; rank, fourth.

Mackerel, \$14,174; rank, fourth.

Oysters, \$698,257; rank, sixth.

Clams, \$27,108; rank, eighth.

Shad, \$14,372; rank, twelfth.

Without following the higher rank California takes, comparatively, in the other fisheries of the United States (all of which were valued at over \$50,000 each in 1892), we desire to call attention to the amount this State contributes to the total output of the most important:

Shrimp and prawn.....	\$242,161
Crabs.....	102,900
Flounders.....	85,482
Cod.....	56,864
Herrings.....	55,795
Rockfish.....	52,540
Smelt.....	53,471

An adequate idea of the extent of California fisheries can best be afforded by reference, in detail, to the various fisheries along the coast, the amount of the investment represented, and the size and value of the catch. A statement of these facts, arranged, so far as possible, according to counties, will be found in the Appendix.

Our salmon fishery is of the greatest importance to us, as it furnishes a larger supply by 800,000 pounds than any other food fish, the catch being 4,848,816 pounds in 1892.

Hon. Marshall McDonald, U. S. Commissioner of Fish and Fisheries, visited the State in the summer of 1893, and made a careful examination of our salmon streams. He is alive to the importance of this fishery, and has urged upon us the necessity for a longer close season.

In making comparisons to show the value of our salmon catch we are obliged to depend upon those taken only from the Sacramento and San Joaquin Rivers. This, however, may not be considered a disadvantage, as the plants of fry have been made in those waters alone. Hatching operations were inaugurated in 1873, and, fortunately, we have data of the catch for 1875, which is early enough to show its value under natural conditions. During that year the take was 5,098,781 pounds. The result of the hatching and planting of over 2,000,000 fry per annum in the Sacramento River was shown in 1878, when the fish had commenced to return and were of a size to be taken. That the result of this work did not sooner become apparent may be attributed to the well-known fact that about four years must elapse before the salmon reach a size which fits them for commercial use. The take of 1878 was 6,520,768 pounds. This increase continued until 1883 (the date covered by the last figures at hand until 1888). The largest take recorded was in 1880, amounting to 10,837,400 pounds. The catch was but little smaller in 1881, 1882, and 1883, being over 9,000,000 each year. From this time up to 1888 we have no record, although we may infer that the take was about the same, from the fact that 6,622,978 were taken in that year, although the reports show that the salmon were not running some years as regularly as others.

In 1884, it became necessary to close the spawning station at Baird, as the salmon were prevented from ascending the Sacramento River to that point by the blasting operations above Redding, occasioned by the building of the railroad. Consequently, the planting ceased and this station was not operated until 1888. There was nothing to repair the depletion during that time, except the work done at the State hatchery in 1886 and 1887, which work was of necessity comparatively small. The

result was that the catch decreased until the effects of the resumption of the artificial hatching again began to show in 1892, although in that year the catch was but 3,484,049 pounds. Since 1892, the increase of the take has been very marked, and the results of the planting of fry each year are again demonstrated.

The necessity of replacing the mature fish taken from the rivers by the hatching and the distributing of fry is again clearly demonstrated by reference to the operations at the canneries on the Sacramento River. In 1888, there were still returning to the river fish which had been distributed before it became necessary to close the station at Baird, but after that, and until 1892, fish were not still coming to keep the numbers good. In the fall of that year there was a decided improvement, and the canneries again began operations, after having been closed for a year, or during the fall run of 1891 and the spring run of 1892. Since 1892 the pack has steadily increased, as the result of a work in which the Commission takes much pride, while at the same time there has been a much larger demand for salmon in the markets of the State.

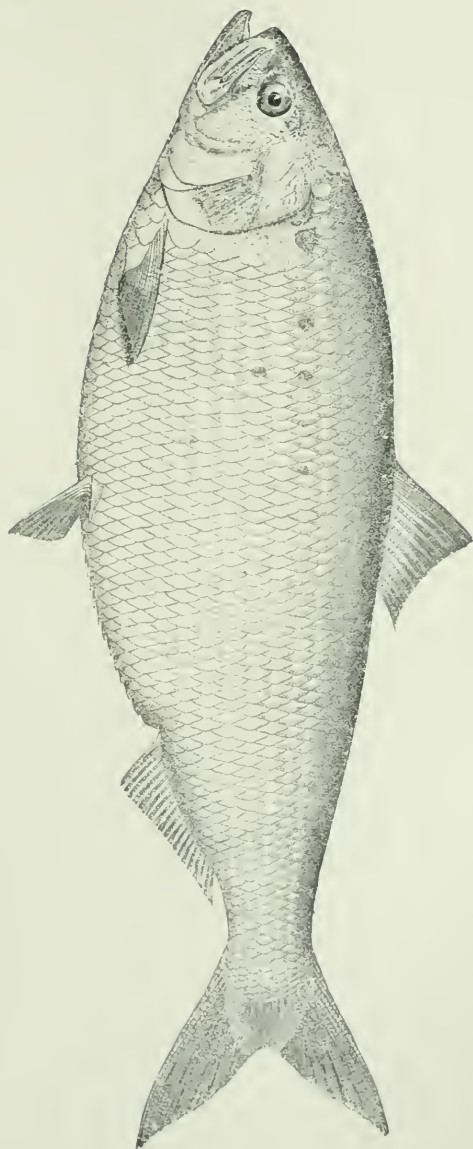
The following table shows the decrease in the pack to 1892 and the subsequent increase, which we hope to see continued:

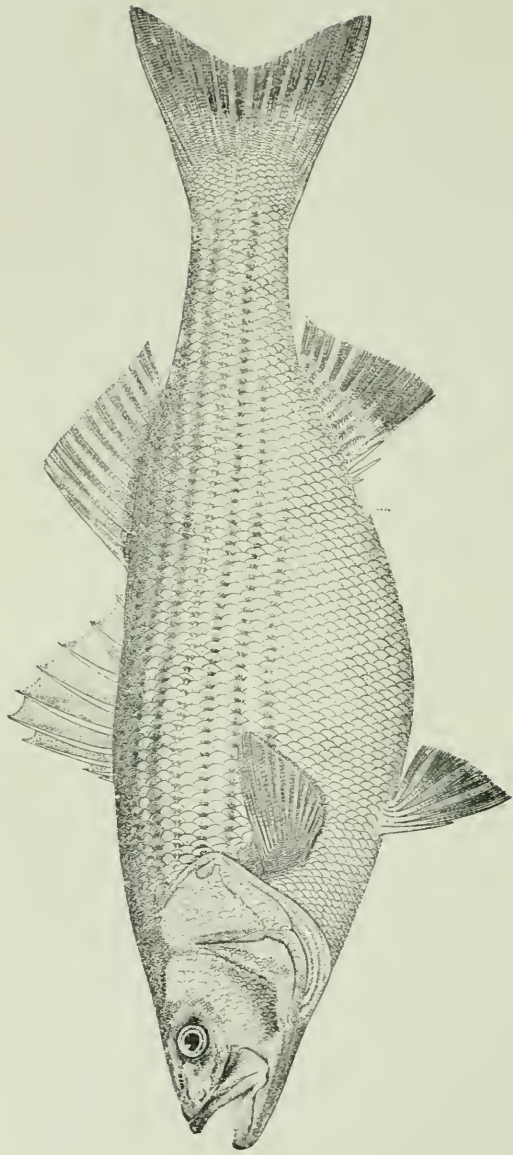
	Pounds.	Cases.
1888	4,039,200	61,200
1890	1,618,471	25,065
1891	672,121	10,353
1892	170,425	2,251
1893	1,496,927	23,336
1894	1,940,009	28,463

The foregoing figures go to show in the most significant manner the necessity of continuing the efforts of this and former Boards to build up and perpetually maintain the commercial salmon fisheries. A primary consideration is to secure an extension of the close season, but beyond that is the need for a continuous appropriation of funds sufficient to maintain a patrol of the entire salmon waters of the State, thus rendering possible a thorough enforcement of the law during the spring and the fall runs. Salmon thus protected will be able to reach the headwaters of our streams, where their spawn can be taken in sufficient numbers for the State, through its hatching operations, to replace with young fry the mature fish which are taken each year.

As has already been said, a wonderful development is shown in most of the fisheries. The output of the oyster fisheries in 1880, for the entire Pacific Coast, was estimated to be but 15,000 bushels, valued at \$10,000, while the returns for 1892 show the output of California alone to have been 178,645 bushels, which were valued at \$698,257. This wonderful increase is due to the efforts at propagation made by various companies and individuals, as will be seen by reference to the very excellent article published in this report, which was prepared by Charles H. Townsend, under the direction of the United States Commissioner of Fish and Fisheries, and published in his report for 1891. So little is the value of the oyster industry known and appreciated by our people, that we believe it to be to the advantage of the State that all information possible should be disseminated. It will be seen, from a careful perusal of Mr. Town-

SHAD — *Alosa sapidissima*.





STRIPED BASS.—*Morone saxatilis*.

send's valuable article, that "there are possibilities for oyster culture in San Francisco Bay by methods entirely distinct from those now practiced."

There has been a most wonderful development in the shad fisheries, and this has resulted from the acclimatization of fish in the State. By reference to the statement of fish planted, it will be seen that there were but 834,000 shad introduced. They have since been abundantly able to take care of themselves without further planting. There is no value given to the 600 pounds which were marketed in 1880. In 1888 there were sold 90,871 pounds, valued at \$6,513. This was increased in 1892 to 526,494 pounds, valued at \$14,372. The amount of shad handled in the San Francisco market does not begin to express the number of pounds that could be handled did our people but value these fish as their quality merits. The fish dealers have found it necessary to limit the fishermen in their catch, in order to keep from overstocking the market. The first figures furnished us regarding the price of shad in the markets of California go to show that as high as \$1.50 per pound was paid, and though the quality of the fish has greatly improved, the price in 1892 was but 3 cents a pound, the fishermen receiving but 1½ cents.

Probably the most wonderful results reached in the acclimatization of fish is shown by the plant in this State of but 450 striped bass. These fish were first introduced in 1879, when but 100 were planted. A second plant of 350 was made in 1882. They made no showing in the markets until 1888, when a few were offered and met with ready sale at \$1 per pound. In 1892, the catch had increased to 56,209 pounds, which were valued at but \$6,488. The striped bass show a marked increase in 1893, and the catch was still larger in the spring of 1894, when the retail price had dropped to 8 cents per pound. It is one of the best food fishes to be found in our markets, and bids fair, in time, to become one of the most valuable.

The little appreciated and much abused catfish is another variety that was introduced into our waters, and a species that shows marvelous development. It will be seen that there were but 144 planted in 1874. These have increased until the catch in 1892 amounted to 196,395 pounds, valued at \$5,043. These fish bring a better market price in the city of Sacramento than our shad. Dr. Jordan has pronounced them to be one of the most delicious food fishes that are taken from our waters.

The development of the carp, which, like the catfish, do not take, with our people, the rank accorded them in the Eastern markets, has been large. Of these fish 66,100 pounds were marketed in 1892, having a value of \$2,204. They probably never will figure largely in the value of our fish products, but they have proved of the greatest value as a food to striped bass.

Appended will be found a statement showing by months the number of pounds of salmon, striped bass, shad, carp, and catfish handled by the six largest dealers of the San Francisco market for 1893 and the first six months of 1894. These figures were compiled from the books of the dealers by agents of the United States Commission of Fish and Fisheries and our deputies. The table is interesting as showing the marked increase in the number of pounds of striped bass for the first six months of 1894 over 1893, the increase being no less than 28,703 pounds. It would be difficult to present a stronger argument in support of the Commission's work than that afforded by this table:

Months.	1893.					1894.				
	Salmon	Striped Bass	Shad	Carp	Carfish	Salmon	Striped Bass	Shad	Carp	Carfish
January	137,460	3,041	2,774	624	1,175	128,556	14,177	41,266	10,142	4,117
February	93,263	2,752	8,781	519	1,766	103,801	12,572	11,767	4,755	1,696
March	139,401	5,190	10,019	4,356	2,988	163,131	9,002	17,747	6,798	4,766
April	374,478	8,351	32,389	3,101	3,705	211,552	9,638	39,115	2,839	5,290
May	325,170	7,232	80,557	560	3,265	242,126	9,413	57,823	767	2,978
June	70,216	4,353	36,184	1,469	2,155	138,675	4,820	22,027	699	2,630
July	149,217	2,950	3,319	4,570	2,299					
August	575,609	2,655	2,796	1,665	710					
September		8,517	698	1,132	5,800					
October	249,753	6,720	53,652	3,782	5,547					
November	183,789	10,473	96,340	5,969	3,932					
December	155,090	17,504	77,882	5,337	3,202					
Totals*	2,453,446	79,738	405,391	33,084	36,544	987,841	59,622	189,745	26,000	21,477

*These figures represent fish taken only in California waters.

APPROPRIATIONS.

The funds placed at the disposal of the Commission for the forty-fourth fiscal year were as follows:

Derived from licenses and fines paid into the Fish Commission Fund	\$4,658 81
Appropriated for support and maintenance of State hatcheries	5,000 00
Appropriated for restoration and preservation of fish	5,000 00
Total	\$14,658 81

During the forty-fifth fiscal year the moneys used to support the work of the Commission were as follows:

Fish Commission Fund	\$4,106 38
Appropriated for support and maintenance of State hatcheries	7,500 00
Appropriated for restoration and preservation of fish	10,000 00
Total	\$21,606 38

Annexed to and forming a part of this report will be found a detailed statement of all our expenditures, showing to whom and for what purpose the money was paid. In the office of the Board are duplicates of all the bills, which show further, we think, that the moneys at our disposal have been wisely and economically expended.

The work of the Commission we believe will demonstrate to you that the increase of our appropriations by the last Legislature was wise, and has resulted in much good to the fish industry of this State. In this connection should be considered the vast area of territory to which our appropriations are made to apply. California contains 158,360 square miles, surpassing the area of New York, Ohio, Massachusetts, Vermont, Maine, Connecticut, Rhode Island, and New Jersey, which combined only embrace an area of 153,130 square miles. It is a significant fact that these States make jointly for the protection of fish and game an annual appropriation of \$129,929, as against \$17,500, the total appropriation made by California to protect fisheries which have an annual product to the value of more than \$3,000,000.

ATTORNEY FOR THE BOARD.

In the work of the Commission many important legal problems arise demanding the assistance of a competent attorney. Suits have to be prosecuted against infringers of the law all over the State. Questions in reference to interstate commerce are frequently arising, and arguments in the Supreme Court on appeal have to be made. Moreover, in these and other matters the Board is constantly in need of legal advice and counsel.

On May 18, 1893, the Board engaged as its attorney and counselor, F. P. Deering, Esq., who, since that time, has occupied this position. Mr. Deering proceeded at once to make a compilation of the fish and game laws of the State of California, including all Acts of the Legislature and local laws in operation up to the year 1893. The statutes and ordinances were published by the State Printer under authority of the Board, and have been widely distributed. Attached to and made a part of this report is the attorney's record of all proceedings taken by him on behalf of the Commission.

DEPUTIES AND SUBORDINATES.

The Commission, in carrying out the work devolved upon it by law, has had occasion to employ the services of various deputies and other subordinates. In the selection of these men the Board proved fortunate; and without exception the men in the employ of the Commission have so conducted themselves as to secure from the means at our disposal the best possible results. The members of the Commission take pleasure in placing upon their work the seal of our official commendation. To this end brief reference will be made to the character and extent of the services rendered by each deputy or other subordinate during the period of his employment.

Extracts from the reports of the various deputies, as indicating the extent and character of their work, will be found in the Appendix to this report, and reference is hereby made to them as evidencing in greater detail the work of the Commission.

Thomas Tunstead was appointed in March of 1891 as the Chief of the Patrol Department. He was retired in October of 1893. This was rendered necessary by the state of our appropriations. Mr. Tunstead was concerned in 25 arrests. Unfortunately, he met with an accident in January of 1894, which resulted in his death. He was a sportsman well and favorably known and deservedly popular, and his death was deeply regretted by all who knew him. In the service of the Commission he was always both active and competent.

John P. Babcock, who was appointed a deputy in the spring of 1891, was made the Chief Deputy of the Patrol and Hatchery Departments on October 1, 1892. To him has been intrusted a general supervision of all of the employes of the Commission. He has regularly visited the State hatcheries and spawning stations, has directed the movements of the deputies in the Hatchery and Patrol Departments under the direction of the Commissioners, and since our last report has taken an active part in the arrest and prosecution of 43 offenders. Mr. Babcock has given his undivided attention to the business of the Commission, and has become most familiar with the details of the work in

all departments. As a consequence, his various efforts in behalf of the Commission have given most satisfactory results.

J. W. Hartley acted as Assistant Secretary from October 1, 1892, until December of 1893, when he was retired.

Montgomery Godley, Jr., acted as Assistant Secretary from January, 1894, until May 1st, when he was retired.

A. G. Fletcher was appointed a Deputy in the Patrol Department in August of 1893, and assigned to duty in Southern California, with headquarters at Los Angeles. His duties under this appointment consisted in watching the markets, and examining the methods of market fishermen in the southern portion of the State. His efforts resulted in twenty-three arrests. On May 1, 1894, he was transferred to San Francisco, and appointed Assistant Secretary, and has since then been occupied with office duties, in addition to the outside work.

Some idea of the extent of the office correspondence of the Commission may be gained from a knowledge of the fact that there were 1,986 communications received, and 2,340 letters sent since the last report. All communications addressed to the Board demanding a reply were answered with the utmost dispatch.

A. W. Wilson was appointed a Deputy in the Patrol Department in February of 1893. Mr. Wilson has proved himself to be a very efficient officer. His duties have been mainly confined to the patrolling of San Francisco Bay, Sacramento and San Joaquin Rivers, and Suisun and San Pablo Bays. He has caused the arrest of 54 offenders since his appointment.

George H. Koppitz was appointed a Deputy and License Collector for the Board in March, 1891. He was retired from December, 1892, until April, 1893, in order to save the funds for the more important spring work. Mr. Koppitz continued the license collecting until March, 1894, when he was permanently retired. He assisted in making 42 arrests during the forty-fourth and forty-fifth fiscal years.

W. R. MacFarland was appointed a Deputy in the Patrol Department in April of 1894, and in addition to his other duties was made License Collector. He was active in the spring work upon the river, and during the past summer made a careful examination of the methods in use among the market fishermen from San Francisco to San Diego. His work has been satisfactory. Since his appointment he has made 11 arrests.

A. T. Smith, of Eureka, was appointed a Deputy in the Patrol Department in November, 1892, and served the Commission faithfully and well until May of 1894, when he resigned, owing to the press of other business. He made 17 arrests.

W. P. Huestis, of Eureka, was appointed in July of 1894. He is believed to be well suited to the position of patrolman, and through his efforts the Commission expect to have the laws properly enforced on Eel, Mad, and Klamath Rivers.

James A. Richardson, who, for a number of years, had been connected with the State and National Commissions, was appointed Superintendent of the Sisson Hatchery in the fall of 1891, where he put into practical operation several ideas of his own with reference to the hatching and distribution of fish. He conducted that hatchery and the Shovel Creek station until September, 1893. During the fall of 1892 he designed and superintended the erection of the fishway on the dam in Klamath River,

at Pokegama. In September, 1893, he was granted leave of absence on account of ill health. He resumed work in February of 1894 distributing fish. He was retired from the Commission on May 1, 1894.

E. W. Hunt, appointed in July, 1891, in the Hatchery Department, has been the Superintendent of the Bear Valley and Tahoe Hatcheries, and also acted as distributor. He is a competent, efficient, and faithful worker. In his work at the Tahoe station he was ably assisted by F. C. Boyce.

W. H. Allen acted as the assistant of the Bear Valley Hatchery during the spring of 1893 and 1894, when fish were being distributed. His work has been satisfactory.

W. H. Shebley, appointed in the Hatchery Department in January, 1892, acted as the Assistant Superintendent of the Sisson Hatchery and was the distributor until September, 1893, when he was appointed Superintendent of the Sisson Hatchery. He conducted the Shovel Creek spawning station in the spring of 1894. Mr. Shebley's management of the Sisson Hatchery has met with our hearty approval. He is a faithful and competent worker.

The great amount of work necessary to successfully handle the 8,000,000 salmon eggs in the Sisson Hatchery during the season of 1893-94, made it necessary to increase our force at that place. E. T. Sullivan and Frank Shebley were accordingly employed as assistants to the Superintendent. They have since continued in the employ of the Hatchery Department as distributors from the Sisson Hatchery. Their work has been satisfactory.

PATROL DEPARTMENT.

While in the matter of enforcement of laws for the protection of fish and game the Commission has not been able to do everything that might be desired, the members of the Board feel that their work has covered the most important part of their field for usefulness. As before explained, the Commission has chiefly aimed to protect the food-fish supply of the State, and to the work of their deputies in this regard they point with satisfaction.

The efficiency and value of the Commission have been most strongly evidenced by the thorough patrol maintained on the Sacramento and San Joaquin Rivers during the spring and fall runs of salmon. Testimony to the value of this patrol is furnished by a letter addressed to the Commission by Mr. Livingston Stone, who has in charge the U. S. Fish Commission station at Baird, on the McCloud River. Under date of November 30, 1893, Mr. Stone wrote to Chief Deputy Babcock as follows:

The violent storm which set in last Sunday has put an end to our fishing and egg-collecting for this season. We have, nevertheless, taken upwards of 8,000,000 salmon eggs, beating the record of this station for all previous years, except 1875 and 1878, and the record of all other salmon-breeding stations in the United States for all previous years without exception.

May I take this opportunity to express my belief that this unusual yield of salmon eggs is very largely due to the protection which has been given to the Sacramento River salmon by the State Fish Commission, and especially to the very efficient patrol of the river during the close season, which, if I am rightly informed, you have had personal charge of. You certainly merit the congratulations and the thanks of every one interested in preserving and multiplying the salmon of the Sacramento, for if the river had not been faithfully and vigorously patrolled, no large number of breeding salmon could have reached this point, and only a comparatively few eggs could have been taken. The fact that so many eggs have been taken this year, proves not only the efficiency of the patrol work, but the value of the patrol work to this station directly. Hoping that you may be able to continue the good work in the future seasons with success, I am, etc.

Thorough protection of the salmon during their stay in fresh water is as essential to their perpetuation as the maintenance of the hatchery. In fact, if a careful patrol is not maintained on the Sacramento River and in Suisun Bay during the salmon run it will be the inevitable result that after a few years sufficient fish will not reach the spawning waters to justify further operation of the Baird station. This fact is clearly demonstrated by the take of spawn at Baird in 1892 and 1893. For 1892 the take was 2,696,000, while in 1893 the amount exceeded 8,000,000; certainly a most remarkable increase. The explanation is to be found in the fact that in 1892 the Commission was able to protect only the lower portion of the Sacramento River during the August and September run. The run of fish was large, and the fact that so few eggs were taken at Baird affords evidence that the fish were caught at points on the river not patrolled, and in consequence never reached the station. The work of the patrol during these months was as efficient as it could be made under the appropriation for the forty-fourth fiscal year, but it was not such a patrol as the importance of the salmon run demands at the hands of the State.

During the fall of 1893, under the new appropriation, it became possible for the Commission to maintain a thorough daily patrol of the river during the close season, from Redding to San Pablo Bay. The run of fish was about the same as during 1892, but thanks to the patrol, more than 8,000,000 eggs were taken at Baird. For the first time in the history of operations on the river, the patrol was truly efficient, there being little or no illegal fishing during the close season. In the work performed, the deputies of the Commission were given much valuable aid by the fishermen on the river. It is a pleasing sign that many of the more intelligent fishermen have come to regard the close season as being essential to the continuance of their business.

There were not as many arrests made on the Sacramento and San Joaquin Rivers, and Suisun and San Francisco Bays, during the forty-fifth fiscal year as during the forty-fourth fiscal year. From this fact, however, it is not to be inferred that the patrol was inefficient. Quite the contrary is proved. During the forty-fourth fiscal year our efforts were intermittent. We did not have at hand sufficient means to maintain a daily patrol. As a consequence, the fishermen presumed upon their knowledge of our inability to properly patrol the river and bay and ran the risk of being arrested. During the forty-fifth fiscal year, however, we were able to maintain both a day and a night patrol during the entire salmon run. The fishermen well knew that the launch with the patrol would pass over their drift on the tide, and that to place nets in the water would be sure to cause their arrest.

The fishermen, or at least a large portion of them, have no respect for the restrictions placed upon their vocation by the law. They do not understand the aim or purpose of the State in regulating the fisheries. They regard violations of the law as only a matter of arrest. If they believe they have an equal chance of making a favorable drift and of being caught, they will take the chance by placing their nets, especially if the run of fish is large and the patrol not regular. To maintain this patrol on the rivers and bays is an expensive part of the Commission's work, and occupies the greater portion of the time of the deputies in the Patrol Department.

In the work on the Sacramento and San Joaquin Rivers and the bays

of San Francisco, San Pablo, and Suisun we have found it to the advantage of the patrol to make use of the launch "Hustler" and her captain, Henry Rowson, and have thus been able to cover the ground in a much more expeditious manner than would have been possible under other circumstances. The collection of licenses was made by the Patrol Department. The tables giving the number and the class of each license sold will be found in the Appendix.

Besides the license money, there has been paid into the State Treasury during the last two years \$1,552.89 as the State's portion of fines collected for violations of the law. The increase of the fines for violation by the last Legislature has had a most salutary influence upon the acts of professional fishermen, although it has had the effect of decreasing the amount paid into the State Treasury. Not only are the fishermen less liable to run the risk of arrest, but more than that, when tried and convicted, they go to jail rather than pay the fine. It is this latter circumstance which causes a falling off in the amount contributed to the State Treasury. The experience of the Commission seems to establish that, in order to make the professional fishermen or market hunter respect the law, it is first necessary to cause his arrest and then to impose a penalty so severe that he must grow in time to realize that he cannot possibly come out ahead in the transaction.

The work in San Francisco Bay has been thorough and the laws have been well observed. These fisheries have been under the constant surveillance of our deputies. The methods employed by fishermen both in the bay and outside of the "Heads" have been carefully examined, and the Commission believe that to these fisheries has been accorded all the protection which the law affords. Complaints are often made, by persons not familiar with the law in the matter, or the methods in vogue among fishermen, of the destruction of young fish through the use of seines. It should be borne in mind, however, that wherever seines are used in fishing there must be some loss of young and immature fish, and such will continue to be the fact unless the State should resort to legislation entirely prohibiting the use of seines and bottom nets.

A primary aim of the Commission has been to destroy the commercial value of illegal work. To that end the large market centers of the State have been carefully watched to see that market men did not handle illegally killed fish or game. With this object in view we have maintained a daily patrol of the San Francisco markets since our last report. In so doing we realized the important fact that with the market for illegally killed fish and game once destroyed, poaching will cease to be a business.

Through the aid of an ordinance passed by the Board of Supervisors of Sonoma County, the Commission has been able to materially check the destruction of fish in the Russian River. After the passage of the ordinance we were able, during the winter and spring of 1893-94, to entirely stop the illegal capture of fish by professional fishermen.

The ordinance in question prohibited the taking with a seine any fish in the waters of Russian River, or its tributaries, from November 1st of each year to April 1st of the succeeding year. The deputies of the Commission saw that this ordinance was strictly enforced, and had the pleasure of seeing an illegal and destructive business entirely stopped.

In order to accomplish this desirable result the Commission was required, during the months of January, February, and March, to main-

tain upon the river two deputies, who patrolled both day and night such portions of the stream as permitted of the use of nets. In the enforcement of the law the deputies met with opposition. For a time feeling ran very high, but the law was maintained and all fishing with nets stopped. Tributary to Russian River there are upward of 1,500 miles of trout water. The destruction of net fishing at the mouth of the river has served to more thoroughly and effectually stock these waters than would be possible through the planting of young fry for several seasons.

The efforts of the Commission to enforce the anti-sawdust law on the Truckee River occasioned perhaps as much annoyance and met with more opposition than the work in any other part of the State. The work of the Commission in this regard is best explained by reference to the report of the attorney of the Board. There was comparatively little trouble so far as the sawmills themselves were concerned, independent of the Truckee Lumber Company. The problem that gave the greatest annoyance, the main cause of complaint, came from the practice of dumping planer shavings from the box factories into the river. Unfortunately, the word "shavings" is not included in Section 635 of the Penal Code. The proprietors of the mills and factories sought, therefore, to maintain that the word "shavings" not being included in the section, the disposition of them was not regulated. Fortunately the position taken by the Commission is now generally conceded, and at the present time the factories that were giving cause for complaint have discontinued the placing of shavings in the river and are erecting conveyors or burners for the shavings and refuse of their mills.

The enforcement of the law with regard to the catching and taking of fish in Donner, Independence, and Tahoe Lakes, and the Truckee River, during the close season, has been satisfactorily accomplished. The Commission caused the arrest and prosecution of the professional fishermen who operated at Independence Lake during May, contrary to the ordinance passed by the Supervisors of Sierra and Nevada Counties, which prohibited the taking of fish in any manner from these waters before the 1st of June. Although the men arrested were not convicted, the arrest had the effect of stopping all fishing on Independence Lake until the open season. Unless fishing in these lakes is prohibited by law until after June 1st, it is only a question of a few years when the supply will be exhausted.

The fisheries of Monterey Bay have been examined and the methods of fishermen carefully observed. The laws here, as elsewhere, have been enforced. Deputies of the Commission, in the discharge of their duty, arrested at Santa Cruz and Capitola several fishermen who were caught using set-nets. In the trials that followed, the Courts and the jurors did not sustain the Commission's contention, that the nets were anchored or set. The fishermen, however, seem to recognize that the position assumed by the Commission was correct, and have not since resorted to the objectionable method of fastening their nets.

During the spring of 1894 the Commission caused deputies to be sent into Santa Cruz, Monterey, Santa Clara, San Mateo, Marin, and Sonoma Counties, to examine the larger trout streams. Their duties were conscientiously performed, although they made but three arrests.

The efforts of the patrol in Southern California were highly satisfactory to the Commission, and resulted in a general observance of the law. The methods in vogue among fishermen in this part of the State

were carefully examined and the markets regularly inspected. The arrest and conviction of several offending fish and game dealers had both a prompt and salutary effect on others.

In compliance with a request made of all the southern coast counties, and at our earnest solicitation, ordinances were passed by San Diego, Los Angeles, and Ventura, forbidding the taking and selling at all times of any lobster or craw-fish of less than one pound in weight, and making a close season from May 15th to July 15th in each year. For years so many small lobsters and so many egg-bearing females have been sent to the market that the fishing-grounds are fast becoming depleted. This regulation, making a close season for lobster, should become a State law.

The work of the Commission in Humboldt County during 1892 and 1893 was somewhat limited, although the fisheries were accorded ample protection. During the past season the Commission has placed in Humboldt County a paid deputy, who will devote his entire time to seeing that the fish and game laws are enforced.

The Commission since its last report has caused the erection, through its patrolmen, of twenty-two fishways on various streams. Deputies of the Commission have each year inspected the ladders of every important stream in the State. The most expensive ladder erected during the past two years was placed in the dam which crosses the Klamath River at Pokegama, in Siskiyou County. This ladder is 76 feet long and 18 feet wide, and permits the free passage of fish.

At all times the Commission has sought to protect the fish and game of the State so far as means allowed. As before remarked, it has been impossible to place in every section of the State paid men whose duty it should be to patrol streams and forest and field, to see that the laws were enforced. However, we have always sent a deputy to investigate well-authenticated reports of violations, and in this manner deputies have made numerous arrests. Where the evidence has not warranted an arrest, it has been the aim of deputies to arouse public sentiment. Through these efforts the Commission has secured as deputies, many outside men who serve without pay. These volunteer deputies have rendered good service in preventing violations which would otherwise have occurred without the Commission having the means to stop or punish them. At this time there are 160 men holding commissions and serving without pay. For their labor of love the Commission takes this opportunity to express its thanks. Space does not permit the publication of the entire list, but a few deserving of special mention are the following: Dr. H. W. Smith, Placerville; George Denison, Boulder Creek; William O'Neill, Truckee; Green Watson, Guerneville; C. M. Barnhardt, Santa Rosa; F. B. Persinger, Azusa; H. Cooley, Dunsmuir; George M. Gee, Redlands; A. E. Payne, Ontario; George M. Ord, Sequel; John B. Hologsworth, Ukiah; Felix Jess, Santa Barbara; J. E. Friend, San Diego; William Sherwood, Marysville; F. G. Pierce, Livermore; Frederick Dell, Los Angeles; John E. Dyer, Colfax; and J. L. Harrison, Ventura.

HATCHERIES.

The Commission operated both the Sisson and Bear Valley Hatcheries during 1892-93 and in 1893-94. Under the increased appropriation for the forty-fifth fiscal year all the State hatcheries were operated. Both the Sission and Tahoe stations were run to their full capacity, and as a con-

sequence the output of fry exceeded all previous work accomplished by the State in that direction.

The work of the Commission at the Sisson Hatchery for the fall season of 1892 began October 11th, when the first shipment of salmon eggs was received from the United States Fish Commission station at Baird. The first shipment numbered 300,900 eggs of the late summer run, all of which were received in good order. These eggs were hatched by October 21st, and were retained in the boxes for four months. The eggs of the fall, or late run, were received in December, during which month the United States Commission forwarded us 2,514,000 eggs. These were hatched and transferred to the nursery ponds with a loss of less than 6 per cent. The young fish were allowed to escape from the nursery ponds into the streams tributary to the headwaters of the Sacramento at will, and the last had left at the end of about four months.

On February 1, 1893, there was received at Sisson 27,000 spawn of the *Salvelinus fontinalis*. This was a part of the 300,000 *fontinalis* spawn that the Commission had agreed to exchange with Hon. George T. Mills, of the Nevada Fish Commission, for a like amount of Rainbow spawn from the Shovel Creek station. This spawn was hatched with a slight loss, and the fry were distributed in Castle Lake, Shovel Creek, and the headwaters of the Sacramento River in Siskiyou County.

The work of procuring Rainbow trout spawn during the spring of 1893 began at Beswick on March 17th, and the station was closed on June 12th. Deputy J. A. Richardson was in charge during the season. He took 1,776 fish in the traps and eyed 1,151,500 eggs, of which 716,500 were sent to the Sisson Hatchery and 340,000 to the Nevada Fish Commission. One lot of 95,000 eggs was hatched at the Beswick station and the fry placed in Shovel Creek. The spawn from Shovel Creek was hatched with a small loss. Distribution began on July 30th and ended on October 11th. The details of distribution appear in the accompanying tables, to be found in the Appendix.

On May 1, 1893, Deputies Hunt and Shebley were sent to Independence Lake, in Nevada County, to establish a station to take *Salmo mykiss* spawn. The traps and boxes were placed in position by May 10th, but the season being unusually late the fish did not begin running until June 28th. The run then continued until July 31st, or just a few days over one month. During that time our deputies succeeded in taking 842 fish, from which, however, only 124,325 eggs were fertilized. Of this total number 10,000 were hatched and placed in Warren's Lake, and 114,000 were sent to the Sisson Hatchery. The loss, on account of unfertilized eggs, both in shipping and in hatching, was about 17,860. The work at this station was a failure for the season, owing to no lack of effort on the part of our deputies in charge, but from the peculiar fact that the female fish outnumbered the males more than twenty to one. This resulted from the destructive work of professional fishermen, who begin fishing through the ice as early as the 1st of April. At this time the male fish being restless hover near the surface, presumably waiting for the ice to break, and are thus easily taken, while the females, heavy with spawn, remain upon or near the bottom and in deeper waters.

If this method of fishing through the ice is allowed to continue, it will unquestionably render Independence Lake worthless as a source of food supply. Already some effort has been made to secure the fish better

protection. The Board of Supervisors of Nevada County, at the earnest solicitation of the Commission, passed an ordinance prohibiting the taking of any trout in that county before the first day of July. Aided by this ordinance, the Commission were enabled to stop all fishing through the ice in the spring of 1894. One of the strongest arguments in favor of the change in the trout season is the fact that the trout in Tahoe, Independence, and Donner Lakes, and the Truckee River have not finished spawning before the first of June. The market supply of trout for the entire State is derived almost entirely from this section, and if this indiscriminate slaughter at the spawning season is allowed to continue, there can be no doubt but that the fish supply of even so productive a body of water as Lake Tahoe will in a short time become greatly decimated if not entirely destroyed.

The Sisson Hatchery was transferred on September 13, 1893, to W. H. Shebley, who has been the Superintendent in charge ever since. Early in that same month arrangements were made for the reception of salmon spawn from the United States Fish Commission. The first lot of the summer run of salmon spawn was received on September 26th, and the last on October 13th. The total number of eggs received for this run was 1,734,000. The spawn was received in good condition, and was hatched with a loss of less than 0.0275 per cent. We were obliged to distribute this hatch much earlier than usual, in order to make room for the unusually large take of eggs of the fall run. Distribution began on November 13th, and was finished by the 23d. The table of distribution is annexed.

Mr. Livingston Stone, in charge of the United States Fish Commission station at Baird, began shipping the fall run of salmon eggs on December 4, 1893, and continued shipments up to December 30th. We received from this run 6,300,000 eggs, which were hatched with a loss of 209,916, or 0.0332 per cent. Our grand total of distribution for the season was 7,776,400. Distribution of the fry was made in the headwaters of the Sacramento River, as will be seen from the tables in the Appendix. We began the distribution on January 20, 1894, and the last were distributed on March 9th, with the exception of 1,170,000, which were placed in what is known as Sisson's Lake, where they were held for some time, and then allowed to escape of their own free will. The last of these fry left about the 1st of May.

This was unquestionably the most successful salmon hatch ever made by the California Commission. The previous largest hatch of any one season was 3,458,000 in 1888-89, as against 7,776,400 distributed during the season of 1893-94.

Mr. Stone's remarkable success in the taking of this spawn is in a great measure attributable to the efficient patrol that was rendered possible by the Commission's increased appropriation. The work of the U. S. Commission of Fish and Fisheries at Baird compares very favorably with the most successful previous seasons, as is shown by the table of the work at that station since it was established in 1873. Since that time the take of spawn has only exceeded the take of 1893 twice; *i. e.*, in 1875, when 8,750,000 eggs were taken, and in 1878, when the take was 14,000,000. In order to look after and handle this enormous amount of spawn, the Commission was obliged to temporarily increase their hatchery force. It was also found necessary to enlarge the hatchery by erecting a tank nursery building just south of the main building. This structure is

70 feet long and 10 feet wide, and so constructed that it can be readily enlarged. It contains four tank nurseries, or rearing-boxes, in which the alevens were placed as soon as they came from the egg. These boxes are 12 by 5 and 2 feet deep. During the forty-fifth fiscal year, in addition to the improvements made in the buildings at the Sisson Hatchery, the hatching-troughs, settling-tanks, head-troughs, and flumes were replaced with new ones, at a cost of several hundred dollars. The grounds were suitably fenced and greatly improved and beautified with flowers, and the buildings painted. Numerous ground nurseries and nursery ponds were built for the retention of breeding-fish and small fry, and there are now in these nurseries salmon fry, yearling and two-year-old salmon, eleven large Dolly Varden trout, fry of the Dolly Varden, Loch Leven, Steel-head, Cut-throat, Eastern Brook and Rainbow trout, large Steel-heads and Rainbows, the *Salvelinus fontinalis-malma* hybrids, and the Golden trout.

This work has added much to the usefulness and general attractiveness of the station. The Commission desired to retain the Loch Leven and Eastern Brook trout and large-mouthed bass for breeding, and to provide suitable waters rented of J. A. Sisson a good-sized lake situated upon his property, about one quarter of a mile from the hatchery. From Peter Klink we rented a similar body of water upon his property. We hope to derive great benefit from the use of these ponds in our efforts to stock the State with Loch Leven and Von Behr trout, pike perch, and big-mouthed bass.

On February 19, 1894, Deputy W. H. Shebley was sent to Shovel Creek, at Beswick, in Siskiyou County, to place traps in position and begin the taking of trout spawn. The traps were in place by February 26th, when the run of fish began. From that date to May 21st, Mr. Shebley took 1,129,000 spawn, of which 120,000 were hatched at Shovel Creek and planted in that stream. Of the remaining eggs, 719,000 were shipped to the Sisson Hatchery; 250,000 were sent to the Tahoe Hatchery, and 40,000 eggs were sent at different times to the Mendocino County aquarium exhibit at the Midwinter Fair. In addition to the eggs taken at Beswick, there were shipped to the hatchery from Verdi, Nevada, on May 15th, 45,000 *Salmo mykiss*, and from the Tahoe station, during May, there was received 1,300,000 *Salmo mykiss*. These eggs were hatched with a loss of 5 per cent and were distributed as per tables attached.

During the spring of 1894, the Commission made a contract with Morrill Brothers, of Verdi, Nevada, for trout spawn. Under this agreement the Morrill Brothers forwarded 40,000 eggs to the Sisson Hatchery and 30,000 eggs to the Tahoe Hatchery.

In April, 1894, Dr. C. H. Gilbert requested the Commission to obtain some eggs of Steel-head trout, to hatch the same and retain the fry in suitable nursery ponds where they could be allowed to attain a length of six or eight inches, when they will be large enough to afford an opportunity for determining their resemblance to our Rainbow trout. This, the Doctor explained, "would do more to settle a difficult question than anything else I can think of." The Commission therefore made application to the U. S. Commission for an assignment of Steel-head eggs from the Korbel station, situated on Redwood Creek, Humboldt County. The Commissioner graciously forwarded us 100,000 eggs, which were received in May. They were hatched and placed in nurseries, where they are doing nicely.

In 1892, the Commission made application to the National Commission for an assignment of spawn of Loch Leven and Von Behr trout, and in 1894 received 30,000 Loch Leven eyed eggs. These eggs were hatched, and as before stated the fry placed in one of the rented lakes near the hatchery, where they will be retained for breeders, from which the Commission hopes to obtain fry in sufficient numbers to begin stocking the waters of the State. The Loch Leven and the Von Behr trout were first brought to the United States in 1872. They have since been successfully introduced into the waters of several Eastern States, and it is believed they will do well in the large streams of California.

WORK OF THE BEAR VALLEY HATCHERY.

The Bear Valley Hatchery is situated at Olema, in Marin County, and has proved of great service to the Commission, being operated in 1893 and 1894. On January 9, 1893, Deputy E. W. Hunt was ordered to place the hatchery in readiness for the reception of Eastern Brook trout (*S. fontinalis*) spawn, which the Commission had arranged to receive in exchange from the Nevada Fish Commission. Unfortunately, California has no lake suitably located where the Commission can procure the *S. fontinalis* spawn, and the supply handled by the Commission has been obtained entirely through the courtesy of Hon. George T. Mills, the Nevada Commissioner.

During January, the Commissioners received 226,000 eggs from Nevada. This spawn was in good condition and was hatched with a slight loss. Distribution of the fry began on April 4th and was completed May 17th, on which latter day the hatchery was closed.

During the fall of 1893, the Commission perfected an arrangement with the Nevada Fish Commission whereby we were to furnish the services of Deputy E. W. Hunt and assistant to operate in conjunction with the deputies of Commissioner Mills in the procuring of spawn from Marlette Lake, in Nevada. Under this arrangement the California Commission was to receive 60 per cent of all the spawn taken at the lake. A further agreement, that the spawn should be eyed by the California Commission, necessitated the erection of a temporary station in Carson City. Deputies Hunt and Sullivan reported at Carson City on October 7th, and with Deputy Close, of the Nevada Commission, went to Marlette Lake on October 19th. They began taking fish on the 20th and returned to Carson on November 16th, having taken 316,000 eggs as our share. The loss in transferring the spawn was 2½ per cent. This loss is not heavy, considering that Marlette Lake is some 15 miles distant from Carson City and the journey must be made over one of the roughest mountain roads in Nevada. Owing to the situation of the lake it was impossible to establish an eyeing station on the lake shore, and for that reason the spawn had to be transported to Carson City as soon as taken.

The loss of eggs in the Carson eyeing station was about 6 per cent. Of the spawn eyed at Carson, 206,500 were sent to the Bear Valley Hatchery during December, and 91,000 to the Sisson Hatchery on January 12, 1894. The Carson station was closed on January 13th, after taking an inventory. Deputy Hunt then reported at the Bear Valley Hatchery and took charge. The last of the ova was hatched on February 1st, and the fry began feeding on February 13th. The rains during the latter part of January were very heavy, and the creek that

supplies the hatchery, which is ordinarily clear, was filled with sand and sediment, which for a time caused a considerable loss of spawn in the building. Shipping began on March 1st, and was completed by April 7th, when an inventory was taken and the hatchery closed.

Tables of distribution for the station are annexed.

TAHOE HATCHERY.

The appropriation for the forty-fourth fiscal year did not admit of our operating the Tahoe Hatchery during that season; but, under the increased appropriation for the forty-fifth fiscal year, we again resumed operations. The Commission sent Deputy E. W. Hunt and assistant to Tahoe City on April 2, 1894. Seining for spawn fish was commenced at the mouth of Taylor Creek, one of the large tributaries of Lake Tahoe, situated some 20 miles from the hatchery. Deputy Hunt continued to take fish at this point up to May 5th, capturing in all 2,300 spawn fish, from which he took 2,300,000 eggs. From June 18th to July 23d, Deputy Hunt and his assistant took, at the mouth of Blackwood Creek, 1,007 spawn fish, from which he stripped 850,000 ova. Unfortunately the females taken at the mouth of Blackwood Creek exceeded the males four to one, and a great many of the females he did not spawn, because of inability to impregnate the ova. This made a total "take" at the Tahoe station of 3,150,000 eggs of the Cut-throat trout. Of the eggs taken in May, 1,300,000 eyed ova were shipped to the Sisson Hatchery. The rest were planted in Tahoe, Donner, and Independence Lakes, the Truckee River, and other waters of the State, as will be seen from a reference to the table of distribution from the Tahoe Hatchery.

In addition to the 3,150,000 taken from the tributaries of Lake Tahoe, there were 250,000 eyed eggs shipped to this hatchery from Shovel Creek station in May, which eggs were hatched and the fry distributed in the Truckee Basin. This was the most successful operation ever conducted at the Tahoe station in any one season, and the work performed by Mr. Hunt and his assistant merited and received the hearty commendation of the Commission. It is the intention of the Commission to make some extended improvements at the station this fall, and to again operate the hatchery next spring and summer.

The results of the successful operation of the Tahoe Hatchery for the years 1888, 1889, and 1890, is made manifest by the large amount of trout taken and shipped from Lake Tahoe to the market in 1892, 1893, and 1894. There was shipped to the San Francisco market from Lake Tahoe in 1893, 37,500 pounds of fresh trout, while during the first six months of 1894, 27,400 pounds were shipped. This output does not include the thousands of pounds that are annually taken from the lake and served to visitors at the numerous hotels and camps.

YOSEMITE VALLEY.

The Commission hopes during the next season to erect in the Yosemite Valley a small branch hatchery, which can be operated at very slight expense to the State. From this hatchery we desire to further stock the waters of Yosemite and adjacent National Parks. The Commissioners in their past efforts to stock these streams have been greatly assisted by

Washburn Brothers, proprietors of the Yosemite-Raymond stage line, who furnished the means of transportation, the ice, and such help as our men required, all without charge. To Thomas Hill, the artist, and the late Captain Wood, U. S. A., and Captain Gale, U. S. A., our thanks are due for the care of the fry delivered at Wawona and the distribution of the same with the aid of the Army pack trains stationed at the National Park. Numerous fine lakes and streams in these mountains heretofore without fish have been successfully stocked, and will, in a few years, furnish food and sport to the thousands of campers who annually seek this wonderful region in search of health and recreation.

DISTRIBUTION OF FISH.

All applications made to us for fish to be used in stocking public waters have been filled, with the exception of a few made in behalf of streams which we considered ill adapted for the purpose. It has been our constant aim to make the widest distribution possible, and to reach those localities which have not been previously stocked. At the same time we have been governed by a desire that the young fry should find their way into the waters most suitable for them, to the end that we might accomplish the best and most satisfactory results.

Did the space allotted to this report allow, we might quote from letters showing the most remarkable growth of Eastern Brook and Cut-throat trout and black bass in streams and lakes which had never before been stocked.

Our plans for distributing this season's hatch of Rainbow trout were greatly disturbed—in fact, completely upset—by the railroad strike. Not only did the rapid growth of the fish render it necessary that they should be given more space and attention, but at the same time we stood in need of room for the Cut-throat alevins, which were then hatching. We were therefore compelled to make an immediate removal of the Rainbow fry, and for lack of transportation facilities placed them in the headwaters of the Sacramento River, which should furnish splendid fishing in two years' time.

In making assignments of black bass this season it was our aim to introduce them, so far as possible, into waters which had not before been reached. By this method we are in hopes of giving the black bass the wide distribution which they merit.

Fry were taken in Russian River by Deputy Wilson, as we were confident that better results would be accomplished with the young fish, both in our being able to get a large number, and also in distribution. That the result justifies our belief in this regard will be clearly seen by a reference to the season's table of distribution.

The deputies in the Hatchery Department have had charge of the distribution of fish, although the subordinates employed in the patrol work have been called upon to assist in the long-distance shipments. The distribution of black bass this season was wholly made by men connected with the patrol. Of all the duties which our deputies are called upon to perform, that of distribution is the most arduous. The young fish require constant attention from the time they are hatched until they are planted, so that the deputies in charge, in addition to their actual work are constantly laboring under a feeling of great

responsibility during the time occupied by the shipment, generally from two to three days.

Almost without exception applicants have been on hand with conveyances upon the arrival of the fish, and have given them a much wider distribution than would otherwise have been possible. Our employés engaged in this work have everywhere been received in the kindest manner, and report a rapidly increasing public interest in the work undertaken by the State through this Commission; expressions being heard on all sides of a wish to see our streams placed in the best possible condition.

To the end that the Board might act with intelligence in assigning fish to the public waters of the State, we adopted a blank form of application, which is mailed to persons requesting fish to stock streams and lakes in their respective localities of residence. When these applications are properly filled out and returned to our office they are placed on file until such time as the assignment of fish is made. At that time the applications are passed upon by the Board after a careful examination. The form of application adopted by the Board is as follows:

Applicants for fish for stocking public waters of the State must answer the following questions:

1. Name of applicant?
2. Post office address?
3. Variety of fish wanted?
4. To be distributed where?
5. Tributary to?
6. Flowing through what counties?
7. Are these waters public or private?
8. Is there any sawdust or other substances deleterious to fish emptied in the waters?
9. Give size of stream or lake.
10. Volume of water at time of drought.
11. Give highest temperature of water during year.
12. If stream, does it run through wild or cultivated lands?
13. If lake, what is depth and character of bottom?
14. What is the local sentiment in regard to enforcing fish and game laws?
15. Have fish of any kind been planted there?
16. How have they thrived?
17. What varieties of fish are now in these waters?
18. Give name of railroad station where fish are to be landed.
19. How many hours' travel, by heavy wagon, from railroad station to waters to be stocked?
20. Who will meet men in charge of fish at station?
21. Who will pay all local expenses?

All expenses of planting fish, including ice, cartage, help, and living expenses of attendants, from time of arrival at railroad station until returned thereto, must be paid by parties making application.

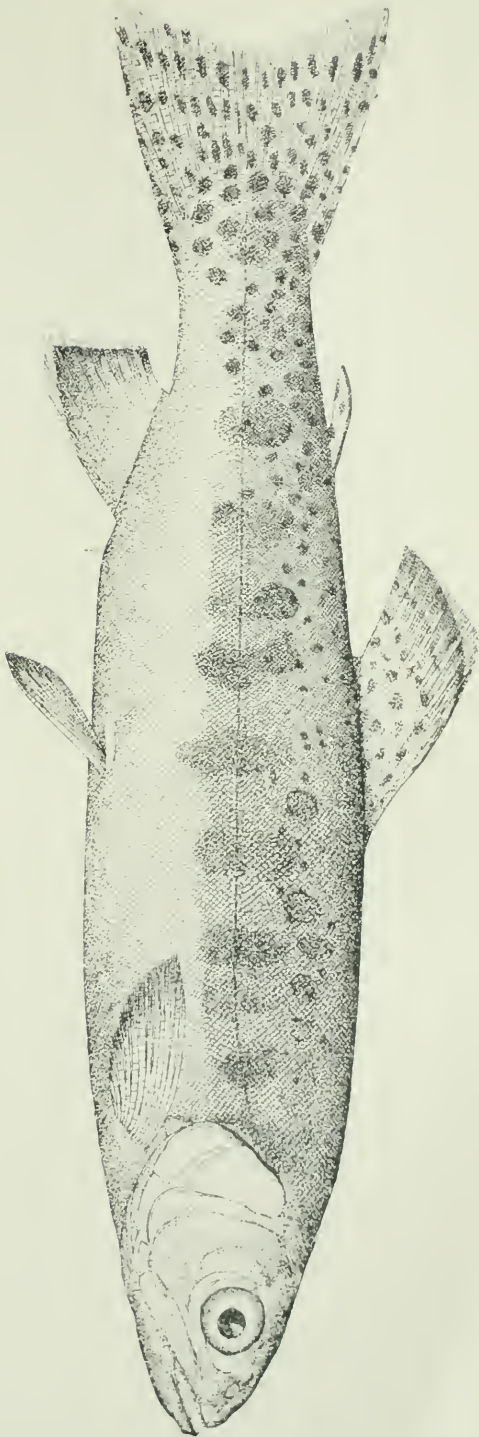
Fish are not planted in private waters, unless under contract whereby the Commission is given exclusive privileges of taking same, for public waters, for number of years.

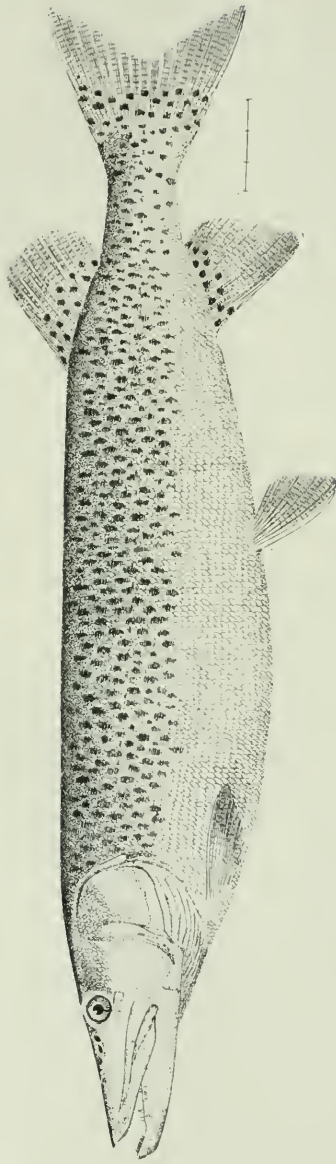
(Signature of applicant:)

CALIFORNIA FISH AT THE WORLD'S FAIR.

Acting with the U. S. Commission of Fish and Fisheries, our deputies, with the able assistance of Dr. C. H. Gilbert and a corps of Stanford University students, made, in 1893, a collection of living marine specimens for transportation to the aquarium at the World's Fair. The collection as it left California was pronounced by Dr. Gilbert to be the best living display of Californian marine specimens that he had seen. The collection was successfully taken to Chicago in the U. S. fish car No. 2, and thirty-two living specimens were placed in the aquarium in Chicago on June 22, 1893. Many of the specimens were strangers to the Atlantic coast, and the collection proved interesting alike to the public and to

GOLDEN TROUT. *Salmo mykiss aqua bonita.*





MUSKELLUNGE. - *Lucius musquemois*.

scientists. The transportation of these thirty-two living forms of marine life for over two thousand miles was in itself an interesting and valuable experiment, and served to throw much valuable light on many mooted questions affecting the acclimatization of fish. It was thoroughly demonstrated that the possibilities in this direction have been by no means exhausted.

GOLDEN TROUT.

Since Dr. David Starr Jordan first described the Golden trout of Mount Whitney Creek, the Commission have been desirous of obtaining these fish for breeding purposes, in order that the species might be added to our mountain streams. In August of 1894, through the efforts of the Visalia Sportsmen's Club, and with the assistance of Lieutenant Deane, Corporal Moffitt, and Private Sholberg, Troop B, U. S. A., Mr. J. Sub Johnson, the Secretary of the Club, brought to San Francisco thirty-six fine specimens of these beautiful fish and delivered them to the Commission. They were at once transferred to the Sisson Hatchery, where we now have, in one of our breeding ponds, twenty-one healthy specimens, from which we hope to take spawn next season. We are encouraged to believe that our experiment with these rare and beautiful fish will prove a complete success.

MONGOLIAN PHEASANTS.

The Commission, appreciating the remarkable success achieved by the States of Washington and Oregon in the introduction of Mongolian pheasants, determined, early in the year, upon an experiment in the same direction. To that end we obtained, in the spring of 1894, sixty-seven birds, which were distributed in the various counties of the State where it is believed that they will do well. The birds were placed in charge of citizens who have built, as we required, aviaries where the parent stock will be kept for breeding. It is agreed and understood that all birds produced from this parent stock are to be liberated upon public grounds. We are in receipt of numerous reports that our experiment is meeting with success, that the birds are doing well and increasing in numbers. The remarkable fecundity of the pheasant is best evidenced by the issue of Oregon's experiment, which commenced in 1879 with the introduction of ninety-seven birds. Since that time the birds have so multiplied, in the course of natural increase, that they are now to be found in almost every valley of the State. Hundreds are killed for the Oregon markets and by sportsmen, but with reasonable legal protection the birds are well able to hold their own in point of numbers.

MUSKALLUNGE.

Much effort on the part of the Commission has been directed toward securing a continued increase of the food fishes of the State, both in numbers and variety. It was in pursuance of that effort that the Commission, in the spring of 1893, made application to the New York Board of Fish Commissioners for a shipment of muskallunge. The New York Commission very generously gave us 100,000 fry, which we were enabled, through the courtesy and assistance of Hon. Marshall McDonald, United States Commissioner of Fish and Fisheries, to bring to the coast

in the United States fish car, No. 2. The National Commission even went so far, in its generosity, as to pay the entire expense of transporting the car to Ogden. We placed these fish in Lake Merced, the property of the Spring Valley Water Company, under an agreement that the fish were to be the property of the State, and that the Commission might be allowed to take such fish for spawning and distribution as they might desire. The fish were placed in the lake in seemingly good condition, but up to the present time all our efforts to find them with nets have been futile, and we are of the belief that none of them have lived.

There will be found in the Appendix drawings of fish introduced into the waters of the State since the organization of the Commission, as well as many varieties of salmon and trout of our own waters, over which there has been so much discussion. The descriptions of the new varieties of our mountain trout are from the pen of Dr. David Starr Jordan.

FOLSOM FISH LADDER.

The erection of a fish ladder at the dam of the Folsom Water Power Company, above Folsom, presents a difficult engineering feat. Legal steps have been taken in the matter, and we are assured by the water company that the project of their engineer, H. F. Knight, for a fishway will be undertaken and finished this winter, provided that the state of the river will admit of its being done. It is Mr. Knight's intention to blast out a water way on the north side of the river, to connect with the water gates at the north end of the dam, through which new channel there will run water sufficient to admit of the free passage of fish.

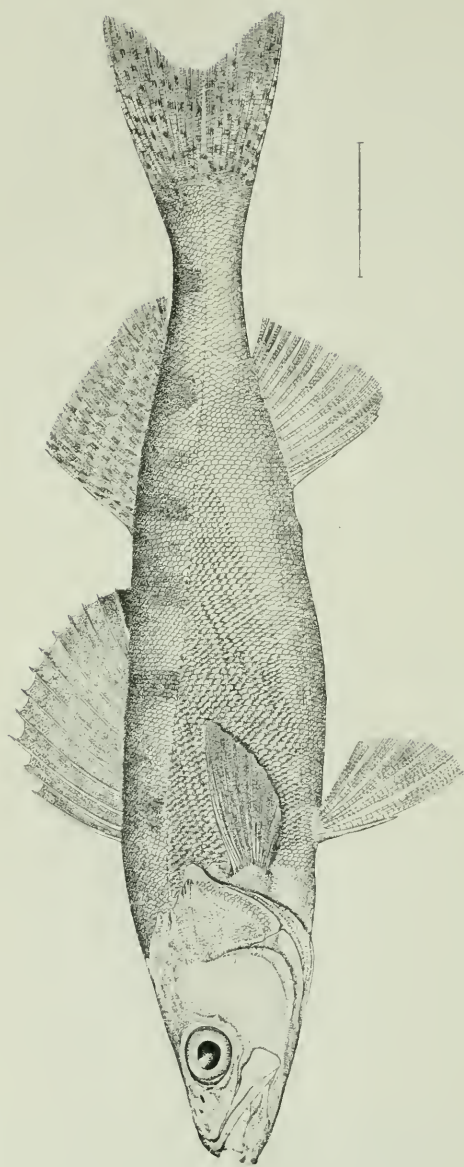
THE THANKS OF THE COMMISSION.

The members of the Commission desire to extend their thanks to Dr. David Starr Jordan and Dr. Charles H. Gilbert, of Leland Stanford Jr. University, for many acts of kindness and valuable assistance rendered in the classification of fish. To both of these gentlemen we are likewise indebted for efficient aid in the prosecution of various offenders arrested for the taking of young fish and the consequent spoliation of our waters. Dr. Jordan has also revised his excellent paper on "Salmon and Trout of the Pacific," in the light of more recent investigations made by Dr. Gilbert and himself; this paper is the recognized authority upon this fruitful subject, and we again make it a part of our report.

To the various railroads of the State our thanks are due for the free transportation of men and fish to various parts of the State. This aid has been invaluable, in that it has enabled the Commission to make a much more general distribution of fish than would otherwise have been possible. The Commission is also under obligation for assistance rendered by agents and employés of the various railroads and of Wells, Fargo & Co.

The Commission acknowledges a special debt of gratitude to Hon. Marshall McDonald, U. S. Commissioner of Fish and Fisheries, who kindly supplied us with the advance sheet of his reports for 1892. It is from these reports that we have taken the important statistics included in this report to show the value of California's fish products for that year.

We are also indebted to the National Commission for the salmon



WALL-EYED PIKE.—*Stizostedion canadense*.

spawn taken at Baird station, on the McCloud River, and for supplies of fry and eggs of the Loch Levin, Steel-head, and other trout. The Commission also forwarded us a carload of muscallunge fry which they transported from the State of New York to Ogden, Utah, free of charge. We now have their promise to forward a carload of large-mouthed black bass and a brood of pike-perch for introduction into our waters. The National Commission maintain and operate the Baird station on the McCloud River and the stations at Hoopa, Redwood, and Korbel, in Humboldt County, at an expense exceeding \$10,000 a year. Without the aid given us by the United States Commission of Fish and Fisheries we would be unable to operate the Sisson Hatchery in a satisfactory manner without a larger appropriation from the State.

The Commission is also indebted to and desires to thank the various wholesale fish dealers and canning companies for their kindness in allowing our deputies to gather from their books statistics of the fish handled by them. Special thanks are due to Messrs. Antoni, Costi & Co. for the free use of their steam fish boats and nets in collecting marine specimens for the aquarium display made at the World's Fair.

To the Hon. George T. Mills, Fish Commissioner of Nevada, thanks are due for supplies of *fontinalis* trout spawn, and for assistance rendered our deputies at Lake Tahoe.

For the supply of muskallunge sent to us in 1892, our thanks are due to the members of the New York Fish Commission.

We are indebted to the U. S. Coast and Geodetic Survey, through Prof. George Davidson and T. C. Mendenhall, LL.D., Superintendent, for figures relating to the coast-line of the various States.

We desire to express our thanks to Hon. H. C. Dillon, District Attorney of Los Angeles County, and his deputies, particularly Deputy M. W. Conkling, who have been of special service to us in our work in that county. Mr. Conkling prepared the very able brief which secured the decision from the Supreme Court on the question of imported deer meat and game.

CLUBS.

The Commission has been rendered valuable assistance by the various sportsmen clubs throughout the State. We can highly commend the organization of clubs upon the plan adopted by the Humboldt County Sportsmen and Recreation Club, the Creel Club of Los Angeles, the Visalia Sportsmen's Club, and many similar organizations. Such clubs can be and are of great assistance to the State in the enforcement of the game laws and in the building up of a local sentiment to maintain them. They are in no sense preserve clubs. The members fish in public waters and hunt upon public grounds, and their efforts are mainly confined to preserving the public interest in fish and game. The organization of such a club in each county of the State would result in a more general observance of the laws.

RECOMMENDATIONS.

The first and most important recommendation we have to make is, that for the forty-seventh and forty-eighth fiscal years, the Commission be given the same appropriation as was set aside for the forty-fifth and forty-sixth fiscal years. With this amount the Commission can fully protect the food-fish interests of the State and secure, not only the main-

tenance, but the increase of those species which go to make up the value of the products.

In urging upon your attention the importance of an extension of the close season for salmon from August 1st to October 1st, thus adding to the present close season the month of August, the Commission has taken into consideration all of the interests concerned. We believe that the salmon can only be maintained in our rivers by the aid of artificial propagation, and in order to carry out this work the supply of eggs must be obtained in the headwaters of the Sacramento River. During the spring and late fall runs, no salmon eggs can be obtained, because of the high condition of the water, which makes it impossible to take the fish, consequently we must depend upon the summer run for our egg supply. Under the present law very few of the August fish reach the spawning beds on the McCloud River, and the supply of ova obtained from the run of fish will not maintain the supply in our rivers. Additional provision must therefore be made to obtain the necessary spawn. Only by closing the river to all during August and September can this be accomplished. Hon. Marshall McDonald, U. S. Commissioner of Fish and Fisheries, has repeatedly urged the importance of having this change made in our laws. Under date of September 12, 1892, the Commissioner, in writing of our statute which permits the catching of salmon in August, states the objection in this concise and forcible way:

In its operation, the law causes great injury to the fish culture work at the Baird station, and it is prejudicial to the best interests of the salmon canners, because a large percentage of the fish at that date are badly deteriorated in flesh and altogether unfit for food. The greed of money-making may lead to the utilization of such fish, but the canning industry must necessarily be seriously injured thereby. * * * I greatly desire your coöperation in an effort to bring about a change in this California law, and believe that the interests of fish culture, as well as of the fisheries, will be subserved by a prompt movement in this direction.

We have no hesitancy in asserting this to be the most important change required in our fishery laws. It will be appreciated by all when it is known that our people annually consume over four million pounds of salmon; and that in the face of the work performed by the State and the National Commission to propagate and protect these fisheries, the catch shows a gradual decrease.

The convention for the revision of the fish and game laws, convened by you in San Francisco in April, 1894, after three days' discussion framed a bill to be presented to the Legislature. This bill meets with our hearty indorsement, and we trust that the Legislature in its wisdom may enact it, and that it may become the law of the State. The importance of the strict enforcement of our game laws is appreciated by the people. It no longer concerns the sportsmen alone. It affects the vast majority of our people who depend upon the market for their supply of game. They see that the market supply grows less every year, and the prices higher, and they demand that the season shall be more limited and the game better protected, that it may increase and afford a reasonable market supply. We have delayed too long in this important matter, and measures must be taken to preserve the supply we now have. Again, we ask why should we give this important matter less consideration than New York, Maine, Michigan, Colorado, and other States, which, in extent of territory, do not equal one third of California, and the game supply of which States does not figure in their markets, except as a luxury entirely beyond the mass of their people. This subject should be

examined as affecting the food supply, not from the standpoint of sportsmen, because they indorse the legislation, and are the leaders in its advocacy.

The State of New York, in addition to its Fish Commission Fund, appropriates \$22,050 for the support of twenty game wardens. Michigan, in addition to its Fish Commission, has also a game warden, who is paid \$1,800 per year, and allowed to employ ten additional wardens, who are paid by the State. In addition, there are also three game wardens for each county, paid by the counties. Maryland spends \$60,000 a year to protect her oyster interests. California is behind all the leading States of the Union in the matter of fish and game protection, though she has more game and fish to protect than nearly all of the others.

Your attention and the attention of the Legislature is called to the bill framed by the above mentioned convention, for other necessary changes and additions to the fish and game laws of our State.

There is in the State Treasury, to the credit of the Fish Commission Boat Fund, \$1,100. This money came from the sale of the tug Governor Stoneman. It having been demonstrated that it is cheaper to hire a launch than to own one, and believing that the Commission will never make any use of the money as it now stands, we recommend that it be paid into the Fish Commission Fund.

Awaiting with confidence the granting of the requests suggested herein, and in the anticipation that the Legislature about to convene will, as heretofore, treat this great subject of fish culture with the serious consideration it deserves, and with our assurance to you that our labors have been fraught with the same pleasure that all of the State officials have experienced under the present administration, we remain,

Yours respectfully,

JOSEPH D. REDDING,
HUGH L. MACNEIL,
WM. C. MURDOCH,
Commissioners.

SAN FRANCISCO, September 1, 1894.

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EXTRACTS FROM REPORTS OF F. P. DEERING, ESQ., ATTORNEY, AND THE DEPUTIES OF THE BOARD.

EXTRACTS FROM REPORT OF F. P. DEERING, ATTORNEY FOR THE BOARD.

[Under date of September 1, 1894.]

* * * Upon entering upon the duties of his office, your attorney found that there had been no recent compilation of the fish and game laws of the State, and that the legal business of the Commission had greatly accumulated, owing to the fact that no one had heretofore been appointed to act as attorney for the Board who would devote particular attention to these matters. The questions of special interest that demanded immediate consideration were:

First—The violation of the law forbidding the passing or allowing to pass into the waters of this State of sawdust, or other substances deleterious to fish.

Second—The compilation of the fish and game laws of the State, and the ascertaining what ordinances had been passed by the various Boards of Supervisors throughout the State, under the power conferred by the County Government Bill, giving authority to the Boards of Supervisors to pass fish and game laws.

Third—The consideration of the constitutionality of the Cold Storage Act.

Fourth—The legality of the provisions of the law directed to the prohibition of the sale of game brought from other States and Territories during our close season.

Fifth—The breaking up of the unlawful practice of dealing in deer hides.

Sixth—The enforcement of the provisions of the law in regard to kinds of nets and seines that may be used for salmon and shad fishing.

Seventh—The protection of salmon during the close season, when they are running up the streams for breeding purposes.

Eighth—The failure of dam owners to comply with the law regarding the construction of fish ladders.

All the foregoing matters have received the attention of your attorney, as hereinafter reported.

1. The violation of the law forbidding the passing of sawdust into the waters of the State was one of the most serious matters commanding the attention of the Commission. It was particularly flagrant upon the Truckee River, where several of the large mills upon that stream had openly violated the law for several years past, in spite of the efforts of the Commission to break up this unlawful practice. The managers and superintendents of mills had been arrested from time to time, but, owing to the influence of the milling industry in the counties where the

trials were obliged to be had, convictions were impossible, and those guilty of an infraction of the law in the particular mentioned, believing that the Commission was powerless, persisted in dumping the sawdust into the river, to the destruction of one of the finest trout streams in the State. One of the first things your attorney did, under your instructions, was to direct his attention to this sawdust nuisance, and proceedings were commenced against milling corporations on the Truckee River violating the law, with a view to forfeiting the charters of these corporations. Believing that the State, which forbade individuals to pour sawdust into the river, would not create nor permit to exist a combination of individuals, in the form of a corporation, to do what it made it criminal in individuals to do, papers were prepared in the suit against the Truckee Lumber Company, one of the largest corporations on the Truckee River, and highest up the stream, setting forth the violation of the law in regard to sawdust, and asking that the charter of the corporation be forfeited, and that it be mulcted in damages to the amount of \$5,000. This proceeding was an entire surprise to the corporation, and was productive of immediate negotiations on their part, with promises to abstain for all time from further violation of the law. Your attorney had correspondence with Mr. C. F. McGlashan, the attorney for the Truckee Lumber Company, who undertook, on behalf of the company, to cease the putting of sawdust, shavings, and other substances deleterious to fish into the Truckee River. Relying upon that promise, made on behalf of the company, your attorney agreed to suspend proceedings, in order to give the company an opportunity to do as it had agreed to do. These negotiations carried the matter over the milling season of 1893-94, and nothing further was done. The Commission and your attorney believed that the Truckee Lumber Company was acting in good faith in the matter until in August, 1894, when it was reported that the company was putting shavings from its factory into the river. Complaints for the arrest of the Superintendent of the Truckee Lumber Company were prepared and directed to be served. * * *

Your deputies found that the Truckee Lumber Company had broken its pledges, and the Commission caused Mr. Spaulding to visit San Francisco and confer with your attorney. The result was the immediate stoppage of the sawdust nuisance by this company and assurances, in the form of letters, not to repeat the same.

The suit above referred to, commenced against the Truckee Lumber Company for the forfeiture of its charter, is entitled *The People of the State of California, by the Attorney-General, on the relation of Jos. D. Redding et al., vs. Truckee Lumber Company (a corporation)*, and was brought in the Superior Court of Nevada County, the principal place of business of the defendant. A demurrer to the complaint was interposed, which would raise the legal questions involved, and the suit stands in this condition, ready to be pressed at any time, in case of renewed violation by the defendant company of the sawdust law. The Commission was not desirous of breaking up the defendant corporation, nor of injuring it in its business if it would comply with the law, and I will proceed no further with the suit, so long as the defendant observes the law.

The present understanding with the defendant company is that it is to put in a burner and keep all of its sawdust, shavings, and refuse matter out of the Truckee River; and the company has been notified

that upon the first renewal of the sawdust nuisance upon their part, the above suit will be pressed without further notice.

Notices to all the mill men between the Truckee Lumber Company's mill and the State line were served, and upon seeing the course taken with respect to the Truckee Lumber Company, all the mill owners below the Truckee Lumber Company have discontinued the practice which has given the Commission and the people of this State so much annoyance, and, at this writing, the Truckee River is running free from sawdust and shavings. * * *

So far as the sawdust nuisance on the Truckee River is concerned, your attorney believes that the successful results which have attended its contest with the Truckee Lumber Company will assure protection of fish in that stream, and the observance on the part of all mill owners of the law in that portion of the State. * * *

Correspondence has been had in regard to the violations of the sawdust law in other parts of the State. * * *

So far as your attorney is advised, in all places the violation of the law was stopped. As the largest mills throughout the State are operated by corporations, and as the proceeding which proved so effectual in the Truckee Lumber Company's case for the forfeiture of the corporation's charter, can be made to apply to any corporation created and doing business under the laws of this State, your attorney does not doubt that corporations may all be reached by this process and forced to observe the law. This will practically put an end to the sawdust nuisance throughout the State, and there are, at present, no cases of violation of the law reported.

2. The new edition of the fish and game laws of the State was found to be a necessity. Many of the Boards of Supervisors had exercised the power sought to be conferred upon them by Subdivision 29½ of Section 25 of the County Government Bill, giving Supervisors power "to make regulations for the protection of game and fish; when such regulations are made as provided in this section relating to game and fish, the laws of the State for the protection thereof are suspended in such county." (Statutes of 1891, page 306.) That same provision was reenacted by the Legislature of 1893, with two important changes. The words "and fish" were omitted after the word "game" in the statute of 1893, and the following clause was added: "and to regulate the size and kind of nets and seines to be used for fishing." (Statutes of 1893, page 358.) This clause in regard to nets and seines was designed to take the place of a similar provision in the Act of 1891, found on page 307 of the statutes of that year.

In order to ascertain the extent to which this power had been exercised by the various Supervisors throughout the State, your attorney began a systematic correspondence with the County Clerks throughout the State. * * *

That the people generally might receive as early information as possible in regard to the open and close seasons throughout the different counties, your attorney first prepared, and there was printed by the Superintendent of State Printing, a schedule showing the open and close seasons under the general laws of the State, and the changes (if any) which had been made therein by the ordinances which had been adopted by the several counties. This schedule was issued in the form of a card and distributed broadcast through the State, and in due course

of time was followed by a complete compilation of the statutes, provisions of the code, and ordinances then in effect relating to the subject in question. This compilation was issued in pamphlet form in a volume of 142 pages. Since its issuance, several new ordinances have been adopted in the different counties, the substance of which has been communicated to the Commission as fast as the ordinances have been received from the County Clerks.

The existence of a varying and different open season in the different counties, subject to change at any time by the Supervisors, has given rise to a great deal of dissatisfaction, and the constitutionality of ordinances passed under the powers sought to be conferred by the Section 29½ above referred to, has been tested in two cases, which are now pending in the Courts of this State. One of them arose in the Superior Court of Sonoma County, where certain inhabitants of that county were arrested for violating an ordinance of the Supervisors of Sonoma County, designed to regulate fishing in the Russian River. The proceedings set on foot by the Fish Commission resulted in the conviction of those arrested, but the legality of the ordinance itself (as a constitutional exercise of power under Section 29½) has not yet been determined by the Superior Court of that county, owing to the fact that the same question is now under submission before the Supreme Court of the State. The case in Sonoma County is known as "The People vs. Silva." The case in the Supreme Court is known as "In re Asbill and others," and arises out of an effort on the part of the Commission to enforce the deer-skin law, and comes up on a conviction for its violation under an ordinance passed in Humboldt County.* This, in itself, will be of great value, as determining the question of the power of Supervisors over the subject of fish and game, and as immediately affecting the validity of the ordinances relating to those subjects now in existence, which number throughout the State fully fifty.

3. The killing of game during the open season and keeping it in cold storage for sale during the close season was one of the evils which the Commission was specially desirous of ending. An Act was passed at the last session of the Legislature making it a misdemeanor to keep in cold storage during the close season wild game. As soon as the open season closed in the spring of 1894 (in order to make a test case), you selected the largest cold storage company in San Francisco, and for that purpose caused search warrants to be issued, under which it was discovered that there were kept during the close season, by the Merchants Ice and Cold Storage Company, large quantities of wild duck and quail. The manager was at once arrested and conviction obtained in the Police Court upon a case stated. The matter was then taken to the Superior Court, where the question was very fully argued and discussed before Hon. James M. Trout, Department No. 8. The whole law on the subject was gone into, the accused being represented by Messrs. Dorn & Dorn, of this city, and after careful consideration, Judge Trout handed down his decision in favor of, and upholding the legality of the Cold Storage Act. This decision is a most important one, as a contrary ruling would have resulted in the killing during the open season of vast quantities of wild game which could not then have been disposed of, or sold, and

*The Supreme Court handed down its decision in this case on September 26, 1894, but dealt only with the wording of the complaint. The Court did not take up either the legality of the ordinance or the power of the county to pass same.

would have been placed in cold storage for sale during the entire year. Such a practice, it can readily be seen, would have resulted, in a very short time, in the destruction of all the wild game throughout the State. The name of the case in which this important question was raised and settled is "The People vs. Swanberg."

4. The next important matter which was taken up for action was the arrest of marketmen who undertook to sell during the close season game which they claimed to have imported from neighboring States and Territories. It can readily be seen that if game could be imported the law forbidding the sale of game during the close season would be practically a dead letter, as much game would be killed in this State and claimed to have been brought from without its borders. A test case was made in Los Angeles. One Simon Maier was arrested for the sale of deer meat brought from Texas. A conviction was had in the Police Court, and, after careful argument by Deputy District Attorney Conkling, that conviction was sustained in the Superior Court of Los Angeles County. The case was then taken before the Supreme Court of the State on a writ of habeas corpus, and, after a full investigation of the matter, the Supreme Court handed down its decision on the first day of August, 1894, declaring that it was no defense that the game offered for sale during the close season had been brought from neighboring States and Territories, where it had been killed during the open season in those places. The brief prepared by Mr. Conkling and the decision handed down by the Court are of so great importance that they are given you herewith in order that they may be included in your report.

5. The slaughter of deer for their skins was a practice against which the law was specially directed, and in order to prevent it arrests were made in San Francisco, and the important Asbill case in Humboldt County brought, to which reference has already been made. The arrest of offenders of the law in this particular has resulted in making its violation very much less flagrant, and no cases have been reported to your attorney since the Asbill case, above mentioned.

6, 7. The use of illegal nets and seines for the purpose of catching shad and salmon, especially in the headwaters of the Sacramento River, has also received the attention of your attorney. Some difficulty has been occasioned in this respect by reason of an ordinance passed by the Supervisors of Tehama County, reducing the size of the meshes of nets to be used in salmon fishing from $7\frac{1}{2}$ (the legal mesh) to 4 inches. When it came to the knowledge of the Commission that the Supervisors had taken this step, your attorney at once advised the Commission that in his opinion the ordinance was invalid, and in direct violation of the general law upon the subject, and so wrote to the District Attorney of Tehama County. While Subdivision 29 $\frac{1}{2}$, already referred to, did confer upon the Supervisors the power to regulate the size and kinds of nets, your attorney considered that power to be one which could be exercised only in conformity to the general law, and not in conflict with it. That while the general law regulated the minimum size of meshes in nets to be used for fishing for salmon and shad, the Legislature did not wish to restrict the Supervisors of any county from requiring a still larger mesh.

The power conferred by Subdivision 29½, and by Section 38 of the Act of 1891, authorized Supervisors to require a larger mesh than 7½ inches if they saw fit, but did not give them power to permit the use of a net with smaller mesh. This being the true meaning of the law, in the opinion of your attorney, deputies were dispatched to the headwaters of the Sacramento River during the close season of the last year, and upon its being known that the Commission would arrest for the use of nets with a less mesh than 7½ inches, the use of nets attempted to be authorized by the ordinance of Tehama County was abandoned. The county has passed a similar ordinance this year, and should the catching of salmon be attempted with nets having a mesh less than 7½ inches, the same course will be pursued this year as was successfully adopted last year, and in case of the use of nets by any one with a mesh of less than 7½ inches, arrests will be made and the legality of the Tehama County ordinance tested.

8. Your attorney has had occasion to send notices to the owners of dams, and those placing obstructions in the river, to construct and build the fish ladders required by law, in order to permit the passage of fish up the streams. Thus far, however, no failure to observe the notice sent has been brought to the attention of your attorney.

In addition to the above matters, your attorney has constantly advised with the deputies and the members of the Board in regard to their duties with respect to the construction of the various statutes and ordinances passed throughout the State. * * * Legal documents which the Board has had occasion to execute during the past year your attorney has also drawn. * * *

It is believed that with the breaking up of the sawdust nuisance throughout the State, the sustaining of the constitutionality of the Cold Storage Act, and the prevention of the sale of game brought from neighboring States, the past year has been the most important one in the legal history of the Commission.

EXTRACTS FROM REPORTS OF JOHN P. BABCOCK, CHIEF DEPUTY.

[Extract from Report for December, 1892.]

I visited the Presidio beach at least ten times during the month, and watched the men who drag their seines there, but they were as careful of small fish as the circumstances would admit of, and I saw nothing done that warranted an arrest. I visited the markets every morning. There has been some talk of the fish dealers selling small smelts for white bait. I was careful some time ago to send a number of these small fish to Dr. David Starr Jordan, and he says: "Of the fishes sent me by you, No. 1 is a goby (*Lepidogobius lepidus*). It is a common fish of San Francisco Bay, living on the sandy and muddy bottoms at a moderate depth. The specimens sent are adult, and the species does not grow much larger. I noticed that at the Palace Hotel and elsewhere, this fish is put on the table as 'white bait,' but it is far inferior to the real white bait, its bones being stronger and the flesh not very sweet. There is no objection to the sale of this fish.

"No. 2 is the real smelt of the Pacific Coast, *Osmerus thaleichthys*. It is very similar to the smelt of the Atlantic Coast, but a little smaller, and if anything a little finer food fish. It, too, is occasionally sold, especially by the dealer Inguglia, as 'white bait.' It is as good as the young herring to which the name white bait really belongs, and far superior to the goby (No. 1). The specimens sent are full grown, and there can be no objection to their sale, although the species deserves a higher price than the market men usually get for it. If it is separated from the poorer fishes and kept clean and fresh, it is one of the best food fishes. It is not very plentiful here. As you know, the name smelt is commonly taken for another and very different fish, an excellent food fish, usually called smelt, but which should be called pescerey.

"No. 3 is the young of the green cod, or cultus cod (*Ophiodon elongatus*). The adult of this fish is common in the markets. It is not a first-class fish, but the young ones ought not to be sold."

The dealers have always told me the same, and say that these small fish are only found in the bay a few months in the year. The amount of criticism that we are subjected to and the amount of talk that is indulged in by men who think they know all about these matters, is only equaled by their ignorance. Dr. Jordan has been kind enough to classify for me all of the small fish that figure in the markets here, and the dealers have also been very kind in advising with me and have signified a willingness to protect the young fish. The number and size of striped bass in the markets during the month has never been equaled any season since I have been familiar with the markets. Most of the fish are caught about and above Antioch—between Antioch and Jersey Landing. It was between these points that the shad were first taken. The fact that striped bass are caught in the lower Sacramento and Russian River shows better than anything else that the fish have come to stay and will figure more and more in our markets each year.

[Extract from Report for January, 1893.]

The effect upon the price of fish of the parenzella or drag-net fishing outside of the heads was exemplified during the stormy weather, from the 25th to the 27th. The outside tugs could not come in during the heavy weather, and the retail price of flounders and sole went from 5 cents to 12½ and 15 cents per pound. These tugs do but little damage, as they fish entirely upon the banks outside of the heads. There is a cry raised that they are driving the net fishermen out of the bay and out of business, but they are certainly giving the people cheap fish with little or no injury to the supply. Speaking of the parenzella, Dr. Jordan says: "They have thus far been rather a blessing than otherwise to the people of San Francisco."

[Extract from Report for February, 1893.]

On the 28th, Deputy Wilson and myself went to Point Reyes in quest of the set-net that was reported as being clear across Tomales Bay, near the mouth of Paper Mill Creek. We went over several miles of the channel, but found no net, nor could we learn from any of the people that there had been any fishing there. Deputy Wilson remained and went up Paper Mill Creek, but found no one fishing.

[Extract from Report for April, 1893.]

On April 3d, accompanied by Deputies Wilson and Koppitz, I left in the Launch "Hustler" for the Sacramento River. We visited the Chinese shrimp-fishing camp at San Pedro, and then went up through San Pablo Bay. At a point a mile or two west of Pinole, we overhauled and arrested A—— P—— for catching shad in a net the meshes of which were less than $7\frac{1}{2}$ inches. We took the Italian to Pinole and entered a complaint before Justice of the Peace Dohmann. The trial came off on the 5th. The defendant was acquitted by a jury, in spite of our having sworn that we saw him take twenty shad from the net which we exhibited in court.

From Black Diamond we went over the Chipp's Island "drift" and at 2 P. M. were in the "Cut-off," where we found six nets in the water. The owners of the nets abandoned them and went into their camp at our approach, and no one there would admit the ownership of the nets, though Greek A—— made a proposition to pay us \$50 per net if we would leave them in the water. We began taking the nets into the launch. The first one measured 400 fathoms, or 2,400 feet; the second one measured 340 fathoms. The launch would hold no more, but we began taking up another as a "bluff," and the owner, P—— G——, came out from the camp in his boat and claimed it. We arrested him and his net was placed in his own boat, which we took in tow, and then left for Benicia, leaving three nets in the water. The wind was blowing a gale at the time, and the sea in the "Cut-off" and Suisun Bay was very rough. We could not have remained in the "Cut-off" in so small a boat as the launch any longer than we did. * * *

The spring run of salmon is the largest in three years. There are three canneries running, and the markets are well supplied. The work of the State in propagating salmon is certainly producing good results. * * *

The patient and business-like treatment that the fishermen on the river have received at the hands of the present patrol has made friends of most of them, and the scenes of two years ago of fights and quarrels are no longer the result of a visit to their camp. * * * The patrol made seventeen arrests during the month of April.

[Extract from Report for May, 1893.]

Letters from Benicia informed me that the cases against the men who were arrested on April 30th had terminated in one man being convicted and sent to jail for fifty days. This is an old man who is substituted by the owners of one of the nets to save paying a \$50 fine. The owners of the other nets have not come forward, and some question has been raised as to our right to confiscate these nets. We do not claim that right, but do claim that when a man is fishing illegally and abandons his net upon our approach in order to escape arrest, we have a right to hold his net as evidence to aid in his conviction whenever he is caught. The nets are not confiscated, but are held as evidence.

[Extract from Report dated August 7, 1893.]

Having accepted the invitation of Antoni, Costi & Co., to use their steam fishing-boat "Farragut" outside the Heads, in collecting live marine specimens for the United States Fish Commission exhibit at

Chicago, on June 16th, I, in company with Dr. Gilbert, of the Leland Stanford Jr. University, and Deputy Wilson, left Fishermen's Wharf at 3 A. M., and ran to a point some four miles abreast of Point Reyes, where the parenzella net was placed in the water and dragged until noon, at which time we had secured sufficient living specimens to fill United States fish car No. 2. These specimens were placed in cans and barrels and we then proceeded direct to the old mole at Oakland, where we found the car awaiting us. After three hours of hard work we transferred the specimens to the car ready for transportation to Chicago on the train leaving at 5 P. M., June 16th. The crew of the "Farragut" did all in their power to further our efforts, and were exceedingly kind. I accompanied the car to Chicago, in accordance with permission granted by the Board. We arrived on the 20th of June, and turned over to the United States Commission in the Fisheries Building at Jackson Park, the following collection: 50 anemone, 12 star-fish, 1 wolf-fish, 2 sharks, 18 viviparous perch, 2 electric fish, 6 poggies, 6 sea-urchins, 7 viviparous cod, 6 crabs, 2 skates, 4 flounders, 12 naked mollusks.

Col. Marshall McDonald, Commissioner, was in Chicago upon our arrival, and expressed great gratification over the successful trip, saying that it was the most satisfactory made by the Commission, and the collection by far the most interesting that he had placed in the aquarium.

[Extract from Report for August, 1893.]

I went to Truckee on the night of the 21st, and after two days' consultation with Mr. Spaulding, the manager of the Truckee Lumber Company, and their attorney, Mr. McGlashan, we made the following agreement: The Truckee Lumber Company to have thirty days from September 21st in which to select the best method of burning the shavings and sawdust from their factory; that they would advise the Board of the machinery selected by them and give an estimate of the length of time required to place the same in their factory; that they would enlarge the sawdust flume running from their sawmill, and keep one man steadily engaged in watching the same and the dump up to October 1st; that they would burn their sawdust before they started up again. They also agreed to put two new fishways in their dam in the Truckee River. Mr. Spaulding signified his desire to comply with the requests of the Commission, and I believe the Board is at last nearing the end of their long fight with the sawmill men on the Truckee River.

I visited Lonkey's and the Richardson mills, and found no cause for complaint, though Lonkey does not always make use of his safe sawdust dump. The ladders in the Lonkey dam are in excellent condition. The Richardson ladder was somewhat broken down, and I remained there long enough to superintend its repair. The Tahoe Ice Company's ladder was not constructed according to the plan given them last year, but they were at work upon it on the 30th, and have no doubt placed it in good order by this time.

[Extract from Report for October, 1893.]

At 3 A. M. on the 18th inst., Deputy Wilson and myself arrested B. F.— at Fishermen's Wharf, in San Francisco, for having small striped bass in his possession. At 4:30 of the same morning we arrested S. T.—, of the Clay Street Market, for the same offense. T— gave us much trouble and we were obliged to call in the police in order to take

him from the excited crowd of Italians whose stalls adjoin his. F— pleaded guilty in Police Court No. 3, on the 19th, and was fined \$5. T—'s case was set for the 25th of October, in Police Court No. 2, and on that day he demanded a jury trial, and the case was set for November 15th.

[Extract from Report for December, 1893.]

We borrowed a make-shift of a boat of Mr. King, at Russian River station, and started down the river at 2 p. m. of the 26th. It was raining and cold. One mile above Moscoe Cottage we beached the boat and walked down the shore to the point opposite the cottage, where we found a set-net in the river. We waited until dark for the owner to show himself, but were obliged to return to our boat without his having done so. We crossed the river and found shelter from the rain in an old cabin, where we remained until 3 a. m., when we again took the boat and drifted down the river to within a few hundred yards of the net. Here we watched until daylight, when we discovered A. B. S— working the net. We drifted down upon him and were alongside his boat before he discovered our presence, when he became somewhat excited. We took up his net, and took him to Duncan's Mills. The man is well known and owns considerable property near Duncan's Mills. We took his boat, and, leaving the old tub that we had been using, went down to the mouth of the river, some eight miles, where we found and took up four good-sized nets that had been set in the stream. There were a number of men on the river in boats and around the fires on the shore, but they all disclaimed any knowledge of the owners of the nets. We took them up and returned to Duncan's Mills, and reached there at 5 o'clock. We had all the nets shipped to Santa Rosa, and I went there on the 29th and swore out a warrant for the arrest of A. B. S—, and also made complaint against John Doe, Richard Roe, etc., for using the unclaimed nets. It was very evident that our action was unpopular on all sides. We found our boat the next morning sunk in the river, with holes from six rifle bullets through its bottom. The people around Duncan's Mills were very free in offensive expressions of contempt for the law and our actions, and Mrs. S— took occasion to say to me: "You will die on the river if you don't leave it and the fishermen alone." S—'s case is set for January 12, 1894.

[Extract from Report for January, 1894.]

The S— case came up at Santa Rosa on the 12th, and the defendant was found guilty and fined \$75. His attorney gave notice of an appeal, and the case will come up early in February.

[Extract from Report for February, 1894.]

The Board has been subject to no little criticism during the month for its failure to enforce the trout law. A thousand patrolmen would not be able to fully patrol the streams of the State. The poaching is chiefly done by people who live along the banks. The men in the employ of the Commission have, I believe, been active and have performed their duties faithfully, although they have been unable to detect any one in the act of catching trout or with trout in their possession. It is not a misdemeanor to *fish*, but to *catch* fish. When a stranger appears on any stream he is at once regarded with suspicion and is watched by the

poachers, and no fish are killed while he is on the stream. This was demonstrated by Deputy Wilson and myself in Santa Cruz County, during the 8th, 9th, 10th, and 11th. We went from Santa Cruz to Watsonville, taking our rods and gum boots, and as anglers passed up and down the San Lorenzo River, Soquel Creek, Aptos Creek, and the Pajaro River. We found a number of men in Soquel Creek with spears in their possession, but they had no fish, and we were unable to do anything more than order them off the stream. They made no attempt to spear fish after we made our appearance.

[Extract from Report for March, 1894.]

I sent Deputy Wilson to Santa Cruz on the 24th, to look up the set-nets reported in Monterey Bay. He was there on the 24th and 25th, and reported that many fishermen set their nets on the reef in the bay, and that the nets were anchored with stones and extra heavy lead lines. We went to Santa Cruz on the 27th, and on the morning of the 28th arrested three of P—— Brothers crew and F. M——, and filed complaints against them. The preliminary examination was held on the 30th. The defense placed no witnesses upon the stand, and Justice Gardiner held all the men over to be tried before the Superior Court. The cases cannot come up for some weeks, as the calendar is full; but when they do come up for trial we shall have a good jury and an intelligent Judge, from whom we hope to get a legal definition of what constitutes a set-net.

I examined the Truckee Lumber Company's plant on the Truckee River, in company with A. S. Willis and Stewart McKay, on the 16th. The company were at work on the burners for both their sawmill and the factory. They agreed to have them in running order by June 1st. In the meantime the sawdust is run on to their old dump, and they have two men engaged in turning the stream every hour or so, confining all the sawdust to the dump.

On the 6th I procured a search warrant and investigated the Merchants' Ice and Cold Storage Company's warehouse, where I found large numbers of duck and quail. I took one duck and one quail for evidence, and swore to a complaint charging C. O. Swanberg, the President, with having violated the Cold Storage Act. The case was called on the 12th. Swanberg admitted the facts and was found guilty, and on the 14th was fined \$20, or five days in jail. In order to test the law, the attorneys for the defense, Dorn & Dorn, allowed Swanberg to go to jail, and at once took out a writ of habeas corpus. The matter is to come up before Judge Trout. There is no question but that the game in cold storage was killed during the open season. No further action was taken in these cases pending Judge Trout's decision.

[Extract from Report for June, 1894.]

The Monterey Bay set-net cases were tried in Santa Cruz on the 6th, the trial thereof lasting two days. The case for the People was well handled by Mr. Lindsay, the District Attorney. The defendant was acquitted by the jury on the afternoon of the 8th. I am satisfied that the nets are set-nets, but believe it to be impossible to convince a Judge or a jury of the fact, as all of the net fishermen in the bay seem to be perfectly willing to perjure themselves in the matter. Wilson and

myself came up from Santa Cruz on the 9th, and taking the launch "Hustler," the same afternoon proceeded to Collinsville, in order to try the cases of J— and N—, who were arrested on the 28th of May, for fishing with their nets extending more than one third across the stream. The case was tried on the morning of the 9th, before a jury, in Justice Rice's court. The men were promptly acquitted. After the trial, we ran up the river, through Three-Mile Slough, thence up the San Joaquin River to Bouldin Island, where we remained over night. Sunday we ran up and down the river all day, and tied up at Black Diamond for the night. Dr. Hugh M. Smith, Statistician of the U. S. Fish Commission, accompanied us on the trip. He has been studying up the acclimatized fish, and was interested in seeing the water from which the striped bass supply is taken. He was astonished at the extent of our inland sea. Few people comprehend the miles of water contained in this basin at the confluence of the Sacramento and San Joaquin Rivers. The May run of salmon was still the talk of people along the river, and all expressed themselves as satisfied with the catch. It was the best month of the spring run, and the largest in four years.

[Extract from Report for July, 1894.]

Acting upon information furnished me, I went to Santa Rosa and Windsor on the 24th. After a day's investigation I arrested George Shier for having used explosives to kill fish in Russian River. I took him to Santa Rosa. Shier confessed his guilt in the presence of witnesses, and gave me the names of men who took part with him. I thereupon swore to a complaint charging Ira Robbins, Ira Smith, and John Reynolds with killing fish with explosives, upon which they were arrested. At the preliminary examination George Shier, Ira Robbins, and John Reynolds were held to appear for trial in the Superior Court of Sonoma County. Ira Smith was discharged by the Justice, although the testimony showed that he went to the river with Reynolds, Robbins, and Shier, in the same wagon; that he stood upon the bank of the river and saw the other men gather in the fish after the explosion, and that he came away from the river in the same wagon with them. The evidence of the guilt of these men is conclusive, and there does not seem to be any successful defense possible for them. If they are convicted it is to be hoped that the Judge will be more severe in his sentence than was the Judge in Ukiah, who fined the man convicted of the use of powder in Russian River \$5, and added a warning that the next time he would be sent to jail.

[Extract from Report for August, 1894.]

On the 14th, I went to Truckee and found that the Truckee Lumber Company was dumping the shavings from their box factory into the river, as reported by Mr. Shain and Mr. Cummings. As witnesses I took W— and S— with me to the factory, and having secured the evidence desired, I went to Nevada City that night, and the next day consulted with District Attorney Ford and requested him to make out a complaint upon which I could arrest W. R. Spaulding, the manager of the company. Mr. Ford assured me of his willingness to prosecute the case, but said that he was so satisfied that the company would accede to our demand that they should keep the shavings out of the river, that he wished to telegraph Spaulding to come to Nevada City and talk the

matter over. The telegram was sent and Mr. Spaulding, with his attorney, Mr. McGlashan, arrived on the morning of the 16th, and in conference with Mr. Ford and myself they took the astonishing position that the agreement made last year with the Commission did not include shavings. Both Mr. Spaulding and his attorney denied that the word "shavings" was used by either of them in the correspondence of last year, or in any conversation, and that the agreement referred only to the sawmill. Unfortunately, I did not have with me copies of their letters. After a conference of an hour or so, Mr. Spaulding requested that further legal proceedings be suspended for one day, in order that he might go to San Francisco to consult with the President of the company. I granted the request, and we came to the city. On the afternoon of the 17th, in Mr. Deering's office, Mr. Spaulding was confronted with the correspondence that he had denied. He said that Mr. McGlashan had deceived him in the matter. Mr. Spaulding, on behalf of the company, then agreed to the terms demanded by the Commission, and promised that they should be put in force on the 18th. In order that I should not again be deceived in the matter, I went to Truckee that night, and on the 18th saw the sawmill closed down and the dumping of shavings from the factory into the river discontinued. I remained on the ground for two days, and leaving Deputy Wilson on watch, returned to San Francisco. * * *

Wilson reported on the 30th that the company were carrying out their agreement, and that the river was free from floating shavings or sawdust. * * *

Deputy Fletcher and myself have been busily engaged during the last three weeks in compiling and arranging your thirteenth biennial report to the Governor.

REPORTS OF A. W. WILSON.

[Extract from Report for May, 1893.]

May 1st, in company with Deputy Hunt, I went to Truckee with 10,000 trout fry. We arrived there on the morning of the 2d, and were met by Stewart McKay and William O'Neill. The snow was very deep, and it was impossible for us to reach the stream they wished to stock, and we were obliged to place the fish in Cold Stream and Donner Creek, the outlet of Donner Lake. I left Truckee on the night of the 2d and reached this city on the 3d. From the 4th to the 17th I was in the city and around the bay, taking in the markets and wharves every morning, and visited the Chinese camps at South San Francisco, Hunter's Point, and San Pedro Point. The Chinese are all catching shrimps, and their catches are almost entirely free of small fish. * * *

On the 23d, 24th, 25th, and 26th, I went to Fishermen's Bay and through the wholesale markets each morning at 2 A. M. with Chief Deputy Babcock, trying to locate the men who bring small striped bass to market. On the morning of the 26th we found some forty small fish in the possession of an Italian. We arrested him and I swore out a complaint, and the case went over until the 31st, when he pleaded guilty and paid a fine of \$10. From the 26th to the 31st I was engaged in the usual patrol duties in the city and on the bay shore.

[Extract from Report for August, 1893.]

August 1st to 3d, I was on detail in the city and on the bay shore.

August 4th to 6th was in Santa Cruz and on the beach of Monterey Bay.

August 7th, in the city markets, on wharves and beach. August 11th, visited the markets and the Chinese camps at San Bruno. There are three boats fishing in this camp, but they have very few shrimps on their drying-beds. * * *

August 19th, left Antioch on the way to Rio Vista. On the way up the San Joaquin we arrested G. B—— for using sturgeon lines. We caught him in the act of stripping his lines; took up two of them, and returned to Antioch, where we swore out a complaint before Justice Gribble. The trial was set for the 23d and he was tried by a jury. The evidence was all that any Court could ask for, but the verdict was as usual in these cases, "not guilty." We ran the launch to Rio Vista for the night.

August 20th and 21st, we ran down the river and arrested three men for fishing for salmon on Sunday; took them to Collinsville, where they were held by Justice Rice. We then proceeded down the river and ran into the "Cut-off." We found the bay full of nets and boats; there must have been at least forty boats on the drift. We succeeded in overhauling two of them, but the wind was blowing a gale and there was such a heavy sea that we could not overtake any of the others. We did these men a great deal of damage, however, for in their hurry to get away from us many of them were obliged to cut their nets. There were four men in the two boats that we caught; we took them to Collinsville. On Monday morning they pleaded guilty and were fined \$50 each, or fifty days in jail. They went to jail. One of the three men we took to Collinsville on the 21st was fined \$100, the other two, \$50 each, which they all paid. * * *

August 27th, left Collinsville at 3 A. M., and ran through the "Cut-off" into Suisun Bay. At the mouth of Montezuma Slough we found a net drifting in the water. A Greek came out from the camp and claimed the net. It was the only one in the water that morning. We took him to Collinsville and he pleaded guilty, and was fined \$50 or fifty days in jail. He went to jail.

August 29th, cruised through Carquinez Straits down to Vallejo, and then into San Pablo Bay and back to Martinez.

August 30th, Martinez to Black Diamond; Collinsville to Rio Vista.

August 31st, Rio Vista, Courtland, Sacramento.

[Extract from Report for September, 1893.]

The work of the patrol in the Sacramento River during the month of September was as thorough as was possible, and while I do not claim that we stopped all the fishing, I do claim that we prevented it in a great measure, and that no camp on the river was without fear, and that fishing, if any fishing was carried on, was in the night time, when the wind was high and navigation difficult. The men on every "drift" had signal men stationed on prominent points above and below their fishing grounds, and the approach of the launch or any strange sail was at once signaled by camp fires or gun shots. In spite of these signals we know that we did these illegal fishermen great damage; many of

them are loud in their abuse of us, and openly state that they will have the political heads of the patrol. W—— Brothers approached Deputies Tunstead and Koppitz and offered to, as they expressed it, "square things" with them if they could be let alone. The work of Deputies Tunstead and Koppitz is covered by my report, as per instructions given me by your Chief Deputy. They at all times were willing and efficient, and stood the long watches with patience and good nature. The following is a detail of every day's cruise during the month:

September 1st, in Sacramento and vicinity.

September 2d, ran to Rio Vista, Clarksburg, and Walnut Grove.

September 3d, left Rio Vista at 4 A. M.; ran to Collinsville and then to Antioch.

September 4th, left Antioch early, went to Chipp's Island; thence to the "Cut-off," where we found a large net in the water, and took it up. The owners were not in sight. It was a net like they use on the Columbia River; much deeper than those used in the Sacramento. We took the net to Antioch, where we had it placed upon a rack on the 5th, and on the 6th we stored it at Collinsville. This net has never been claimed. * * *

September 13th, at Rio Vista ran up Cache Slough ten miles, back to Rio Vista at noon. Left for Collinsville, and at Toland's Landing we ran down two men who had their net out. They had been warned of our approach by the lookouts firing shotguns, and were putting the end of the net in the boat at the time we first sighted them. We gave chase and they ran into the tules, jumped out, and escaped. The boat they left was not fastened. We took it and the net to Antioch, where we tied up for the night. * * *

September 19th, at Antioch; ran up False River, Three-Mile Slough, back into the Sacramento River; and, on the Emmerton Drift, just above Toland's Landing, the signal men fired their shotguns. We crowded the launch for all she was worth and reached the "drift" before the men could get their net out of the water. We took it up and carried it to Winter's Island, where it was placed on the racks and dried. It contained forty-seven large salmon.

[Extract from Report for January, 1894.]

January 1st, I went to Russian River station, taking John Low as a boatman. We made the run of the river on the night of the 2d, arriving at the mouth before daylight. We found three nets anchored in the river, and there being no owners who would claim them we took them up and carried them to Duncan's Mills and shipped them as freight to Santa Rosa. In order to insure the safety of our boat we had it hauled to the station from the river and placed it in the warehouse at the N. P. C. R. R. We made the run of the river every day or night up to the 11th, but found no more nets. On the 12th I was in Santa Rosa giving my evidence in the case of the People vs. A. B. S——, the man arrested on the 26th. He was convicted. I returned to the river on the 13th with Chief Deputy Babcock, and we made the run of the river on the 14th. It began raining that night, and the river rose over 22 feet up to the morning of the 16th. I returned to the city that night, as fishing was out of the question. On the 25th we returned to the river and made the run every day until the 30th. The local sentiment at the mouth of

the river is as bitter as ever, but the men have lost all heart and fishing for the present is stopped.

[Extract from Report for March, 1894.]

On the 13th I went back to Taylorville, on Paper Mill Creek, and began the removal of the jam at the dam. The high water wrecked the dam completely, but the damage was of such a character that few if any fish could pass save at extreme high water. I hired two men from the mill to help me remove the jam. We worked two days, and I went back on the 16th and concluded the work on the 17th. The fish were quick to take advantage of the opening that I had made, and two hours after there was not a large fish to be seen below the dam, although I should say there had been a hundred there before the opening was made.

REPORTS OF GEORGE H. KOPPITZ.

[Extract from Report for October, 1892.]

October 12th, acting under your instructions, Deputy Tunstead and myself proceeded to Redding, Shasta County, to investigate the manner of the taking of the large number of small-sized salmon which were being shipped to the markets of San Francisco. We arrived at Redding on the morning of October 13th, and immediately left for Hooker Flat, a small town some twenty miles below Redding, and, after having received the necessary information from Mr. —, we left the same evening for Cottonwood. Proceeding from there on the following morning to a place on the river some 15 miles below, we arrived at the camp of the fishermen, who undoubtedly had heard of our arrival, as they were not fishing. In answer to our questions they said that they were in the habit of using a four-inch mesh net, which they were allowed to do by an ordinance passed by the Supervisors of Tehama County, and they showed us a clipping from a Red Bluff paper in support of their statement. We deemed it advisable to investigate the matter before making any arrests, and proceeded to Red Bluff at once. We were informed there by the District Attorney that such an ordinance had been passed, and although we explained to him that it was in strict opposition to the State law, he refused to prosecute, and we were obliged to return without making the arrests. On the 16th we proceeded to Tehama, thinking we might be able to catch some fishermen violating the Saturday-Sunday law. We had proceeded but about a mile down stream, when we came upon five fishermen at work. We arrested them and took them in, and their trials were set for the 25th, when they were convicted and fined \$50 each, which was paid.

[Extract from Report for May, 1893.]

From May 8th to 11th I was in the vicinity of Martinez, Black Diamond, Bethany, San Joaquin, Lathrop, and Stockton, collecting licenses, and was quite successful. I discovered no illegal fishing at these points. At this season of the year the fishermen in that vicinity catch little else but shad. They are so plentiful in the San Joaquin River and the sloughs about Stockton that great numbers are taken out

with pitchforks by the farmers. The price paid by the "hucksters" to the fishermen is half a cent per pound. They are sold in the markets at about 5 or 6 cents, and as the roe brings 15 cents per pound it makes a very profitable fish for the market. * * *

May 26th, accompanied by Deputy Fletcher, I left Los Angeles for Santa Monica to collect licenses at that point. We were compelled to walk along the beach for several miles to where the men were drawing seines, clad only in bathing suits, and, as they had no money with them, we were obliged to wait until they had finished fishing and then return with them to town. Arriving there they absolutely refused to take out a license, and I was compelled to arrest W. W. S——, the owner of the outfit. He was taken before Justice Twitchell, who permitted him to pay the costs provided he would take out his license. It would take an extra page to write a full account of the manner in which he treated us and to detail the abuse the Commission and all State officers in general received. I came in for my share, as usual.

[Extract from Report for September, 1893.]

Throughout the month of September, I was on the launch in company with Deputies Wilson and Tunstead patrolling the Sacramento and San Joaquin Rivers. * * * Deputy Wilson was called to the city on the 15th. Having received information that salmon was being sold to the farmers in the vicinity of Marsh Landing, Deputy Tunstead and myself procured a team and drove there. We found two men there who had sixty-five salmon in their possession. We immediately arrested them and brought them before Judge Gribble. They were convicted a few days later and fined \$100 each.

[Extract from Report for January, 1894.]

January 3d, in company with Deputy Babcock, I left for the Sacramento and San Joaquin Rivers on the launch "Hustler." We arrived at Martinez that night and left the next morning patrolling the river as far as Roe Island, thence through the "Cut-off," but without finding any violations, notwithstanding the fact that it had been reported that the fishermen in that vicinity were using small mesh-nets. * * *

There are no salmon being caught in the vicinity of Old River, but striped bass are taken here in large numbers. They are very plentiful in the upper San Joaquin and Mokelumne Rivers, one man having caught eight hundred pounds in one week. I did not see any one fishing for bass, but I am informed that all the fishermen in that vicinity use a four-inch mesh net in taking them. * * *

January 8th and 9th I spent in the vicinity of Pinole and Martinez. Large numbers of shad are being caught here, but no salmon.

REPORTS OF W. R. McFARLAND.

[Extract from Report dated Antioch, April 14, 1894.]

We left Martinez on board the launch "Hustler" at 8 A. M. on the 11th, and went through the "Cut-off," visiting the Black Diamond Cannery and boarding fishing boats on the drift, and at 6 P. M. went into Antioch for the night. We collected four licenses at camps in the

“Cut-off,” seven from boats on the drift, five at the Black Diamond Cannery, and two in Black Diamond, besides taking several orders during the day.

[Extract from Report dated Rio Vista, April 17, 1894.]

We left Antioch this morning at 8 o'clock and ran directly to Collinsville. In that vicinity I collected eighteen licenses from boats on the drifts.

From thence we proceeded up the river, collecting two at Sherman Island, two at Emmerton drift, and six near Rio Vista, making a total of twenty-eight for the day's work. About Collinsville to-day all of the boats were making good catches of salmon, and above that place they were doing fairly well.

[Extract from Report dated Antioch, April 29, 1894.]

Yesterday at 5 A. M. we left Bouldin Island and ran up Old River, as we were informed that there were Chinese engaged there in illegal work. We proceeded up Old River as far as its junction with Reclamation Canal, passing three Chinese camps en route, but without finding any evidence of the alleged illegal fishing. We then ran up the canal some four miles to Middle River, and descended the canal again to Old River, without results, however, and from there continued to the ferry at Bethany. After collecting two licenses there we again ascended the canal to the head of Middle River; from there we went into the San Joaquin and down that river to Bouldin Island, where we arrived at 10:30 in the evening, having failed to discover any illegal work on the part of any one, notwithstanding the representations to the contrary.

[Extract from Report dated May 5, 1894.]

Tuesday morning, May 1st, we left Courtland at 7 o'clock and proceeded up the Sacramento River, keeping a close watch for licenses which we had previously missed. At Clarksburg we found a number of boats delivering salmon, all seeming to have done well. The fish were of extra large size, one weighing fifty-nine pounds, which was the largest we saw on the trip.

[Extract from Report dated June 1, 1894.]

On May 8th, I went to Independence Lake to investigate the reported illegal fishing. My business was to “buy wood” in that vicinity. I secured all the information regarding the fishing that was going on there without exciting suspicion, and succeeded in seeing the fish brought in from the lake the next morning. The men agreed to take me with them on their return, and I went to the lake, put on snowshoes, and accompanied them to their holes in the ice, even going so far as to put a line in myself. It was very pleasant to hear them declare what satisfaction it would be to throw any one into the lake who might come there to interfere with their work. Having secured the necessary evidence to convict, I returned to Sierraville, where complaints were filed. The men were tried on May 16th, before a jury, and as is usual in such cases were found not guilty; however, I feel confident that they will not again engage in their illegal work. They, of course, denounced me roundly for having imposed upon them in not declaring my business.

REPORTS OF ARTHUR G. FLETCHER.

[Extract from Report for August, 1893.]

Two so-called sportsmen, G. S—— and F. J. O——, drove to Glendale on August 2d for the purpose of shooting doves. Quail as well as doves were exceedingly plentiful where they were hunting, and they could not resist the temptation to shoot them also. Word of this was brought to me, and Deputy Sheriff Doyle and myself drove out to where they were and found the report to be well founded. They had in their possession seven quail. We arrested them and started for Los Angeles. On the way to Glendale they did their best to induce us to accept a bribe and let them go, and failing in this they concluded to get away if possible. They turned off the road at the first convenient point; and, to make my report as short as possible, I will simply say that when we caught them we were obliged to use force to bring them back to Glendale. During the attempted escape Deputy Sheriff Doyle was struck several times. I took S—— in the buggy with me and the Deputy Sheriff followed with O——. We were obliged to turn them over to the Sheriff, as it was too late to find a Justice when we reached Los Angeles. They were arraigned on the afternoon of the 3d and given until the next day to plead, in order that their attorney might file a demurrer to the complaint. The demurrer was overruled and the examination set for the 9th. On that day they were discharged, notwithstanding the fact that we produced a witness who saw them shoot the quail, and that both Doyle and myself testified to the finding of the birds in their possession. They themselves admitted having shot the quail, but claimed it was done by mistake, and that six out of the seven birds had been bagged at once. It would no doubt have been the same had there been three times as many birds. The matter, however, has not been dropped. I was summoned before the grand jury on the 21st, and am in hopes that body will find a bill against them.

[Extract from Report for September, 1893.]

I arrested J. W. H——, a fish dealer, on the 9th, for handling salmon during the close season. He was tried on the 16th and convicted, as he could not show that the salmon was "refrigerated" for any other reason than to keep it *fresh*. * * *

The quail hunters were indicted by the grand jury on the 18th. In order to gain time their attorney filed a demurrer stating that the indictment did not show that the birds had not been killed prior to the close season. This was argued on the 26th, and much to every one's surprise the demurrer was sustained. I am sure you will feel as relieved as your deputy when a case can be carried to the Supreme Court and thus forever settle these questions and determine the constitutionality of the game laws.

[Extract from Report for December, 1893.]

In making my usual daily visits to the markets I found that one of the largest dealers in meat in Los Angeles had several deer hung up in his market on the 1st. I purchased some, securing a bill of sale, and then had a talk with the proprietor, Simon Maier. I found that the deer had been shipped by him from Texas, but not before he had consulted with his attorney and corresponded with Wells, Fargo & Co. relative to the law in the case. He was confident that it would be impos-

sible for us to convict him, but as the law seemed plain, I determined to file a complaint and press the matter. The case was argued at length on the 8th (the People being ably represented by Deputy District Attorney Conkling), and taken under advisement by Police Judge Seaman. He handed down his decision on the 12th, and held that the defendant was not guilty under the law. Mr. Maier was as anxious as myself to have the question settled, as other dealers were handling venison—and showing way-bills to prove that the deer came from Texas—and complaints were being made on every hand. In order to settle the matter it was stipulated that a complaint should be drawn alleging that the deer was legally killed in Texas and brought into California to be sold. This was filed on the 18th. Mr. Maier pleaded guilty, and his attorneys immediately applied to the Superior Court for a writ of habeas corpus. Briefs were filed by them and by the District Attorney. I at once set about securing evidence against the other dealers who are selling venison, and am prepared to bring suit as soon as the Maier case is settled in the Superior Court. Deputy District Attorney Conkling feels confident that the case will be decided in our favor. He has devoted much time to the preparation of our brief and has handled the case admirably throughout. I am very much pleased with the attention all of our cases have received at the hands of the District Attorney. * * *

As a whole this has been rather a bad month for fish in the Los Angeles market. They have been very scarce, except during the second week, and then more were received than could be handled to advantage. One market man has for some time been putting the surplus in cold storage, and this month he has found a ready sale for them. These fish, however, did not present a good appearance, and would probably have found no sale had there been fresh ones in the markets. Smelt and bastard halibut have been the principal kinds caught, with a few rock-cod and surf-fish. Prices, 8 to 10 cents per pound.

[Extract from Report for January, 1894.]

Besides continuing my investigations at San Pedro and Redondo, I have this month thoroughly examined the methods in use at Port Harford, Santa Barbara, Ventura, and Hueneme, besides getting a great deal of information relative to the catch, markets, seasons, etc. The details of this trip have already been reported.

[Extract from Report dated March 17, 1894.]

As noted in a previous report, on or about the 20th of February, and for several days thereafter, large numbers of fish were driven ashore from Santa Barbara as far south as Newport Beach, dead or in a stupefied condition, the greatest number being found at Santa Monica, Redondo, and Long Beach. Upon investigation it appears that they were almost entirely so-called deep-water fish, principally barracuda, yellow-tail, and halibut; and that, while many were indeed washed ashore, the number was far less than reported. Many of these were still alive when washed ashore; and, the next wave taking them out, they swam off in a lazy manner. At Santa Monica on February 25th there was a vast school of barracuda lazily swimming about the wharf near the surface, in such condition that they were being hooked for the market with all sorts of contrivances; and these schools were also noticed

off shore in many other localities. They were seen to stick their snouts out of the water as if in quest of air.

Many theories were at once advanced, the chief ones being that the fish were diseased, that dynamite was being used by the Italian fishermen, and that there had been a subterranean explosion. We will consider these theories in the order named. The fish were found to be in good condition—firm and with bright gills—and in no instance have I been able to learn that they were soft, flabby, or rotten when first found, as would necessarily have been the case had they been diseased. The story of their being dynamited seems to have started at Long Beach, and going there I traced it through a Spanish boy, who had heard a noise at one point and seen a splash at another when coming from Catalina Island a year ago. This story had gained ground from the fact that fishermen casting a seine there had felt a shock while in the water and had attributed it to a dynamite explosion. There are off the coast of Redondo what may be called oil wells, and a kind of petroleum can be found along the shore there at any time. It seems reasonable to suppose that new wells may have broken out after a subterranean explosion, filling the water with gas and petroleum; and it is a fact that the coast captains have seen oil floating on the water in localities where it has never been found before. The water being mixed with oil must needs affect the fish, killing some and stupefying others.

I had the pleasure, when at San Diego on the 10th instant, of meeting Captain Tanner, of the United States Fish Commission steamer "Albatross," and he very kindly gave me much information on this subject. Mr. Miller, of the "Albatross," gave the matter a thorough investigation and found that the air bladder of some of the fish that he examined had been broken, and that all of them showed traces of petroleum in the gills. He said that a subterranean explosion must have taken place, killing many of the fish by breaking the air bladder, and causing the water to be filled with oil and gases which killed or stupefied others. It is a well-known fact that fish cannot live with oil in their gills.

The story that the fish were diseased gained much headway; and, as the fact became known that many of them were being shipped to the markets, it so frightened the people that they refused to buy or eat any kind of fish, and the trade was cut down more than one half in all the markets, and indeed the dealers still feel the effects to a great extent.

[Extract from Report for March, 1894.]

On the 22d, I met Deputy Richardson in Los Angeles and took charge of the young Eastern Brook trout consigned to the Santa Ana River. He delivered four cans and one case, and they contained the finest lot of fish that I have seen. I arrived at Redlands that evening at 5:15, where I found a wagon waiting for me. We drove fourteen miles up into the mountains, arriving at Skinner's about 10 o'clock. Deputy Gee was waiting there with burros. We placed the fish for the night under running water, and the next morning left for the Santa Ana with the four cans on the burros. I left the case with Deputy Skinner and he distributed the fry in Mill Creek and its tributaries.

It took us all day to cover the twenty miles, over the mountains, to "Seven Oaks," on account of the snow drifts, many of which were fifteen feet deep. The burros, of course, found it very hard work to get through these drifts with their heavy load. It was a hard trip. On the way

over we put half a can in Mountain Home stream, a tributary of Mill Creek, and the rest were generally distributed in the Santa Ana and its tributaries. There was a loss of only nine fish in one can, and the total loss was about $1\frac{1}{2}$ per cent, which I think is exceptionally good, considering the hard trip, and the fact that the fish were three days and nights on their journey from the hatchery to their future home. The Santa Ana is an admirable trout stream, and the Eastern trout should do well there. The temperature of the water is 33° , and there is no danger of it running dry. * * *

Prior to March 1st notice was given the market men of Los Angeles not to keep any game in cold storage during the close season, and I also notified the manager of the cold storage warehouse to have it removed before that time. * * * On my return from San Diego I again visited the warehouse on the 20th, accompanied by several witnesses, and found that there was one box of quail and a large number of ducks still there; so I arrested the manager and also the market man who owned the game. They were arraigned on the 27th, pleaded not guilty, and their cases were set for trial April 19th.

[Extract from Report for April, 1894.]

One more step has been taken in the Simon Maier deer case this month, and I now look for a speedy termination. Judge Smith of the Superior Court of Los Angeles County handed down his opinion, a copy of which has already been forwarded to you, on the 10th, refusing to grant a writ of habeas corpus. It was a great surprise to most people, and is a decision which has done much toward molding public sentiment and placing the work of your honorable Board in a more favorable light in the southern part of the State. Mr. Maier gave notice that he would apply to the Supreme Court of the State for a writ of habeas corpus, and I understand that the petition was filed with the Clerk of that Court on the 16th. I am told we may look for a decision in from sixty to ninety days.

It was agreed with Maier at the time of his arrest that the other dealers should not be allowed to sell venison while he was forced to stand the expense of testing the law. With the aid of Deputy Gee, I secured the necessary evidence to convict the others while the venison was being handled. Complaints were filed on the 11th against F. Haniman and two others. The latter two pleaded guilty at once and were fined \$20 each. Haniman asked to have his case set ahead until the Supreme Court could pass upon Maier's case, and this was done. * * *

The cold storage case came up on the 19th. Mr. Haniman, the market man, admitted the facts in the case and asked to have it continued until a decision could be rendered in the Maier deer case. As the same points are involved in both cases, I consented to this, and it was set for June 21st.

[Extract from Report for May, 1894.]

I made the rounds of the markets every morning looking for violations of the laws, and on the 17th I arrested Ah Lay in Washington Alley for having offered a lot of young cod, three and four inches in length, for sale. He was tried the same day in Judge Campbell's Court, found guilty, and sentenced to pay a fine of \$100 or go to jail. He had no money and went to jail.

REPORTS OF JAMES A. RICHARDSON.

[Extract from Report dated July 31, 1893.]

Inclosed please find statement of the quota of salmon eggs received from United States salmon station on the McCloud River and the hatching of the same at the Sisson Hatchery for the season of 1892-93. The first shipment of the season, 300,900 ova, was received October 11, 1892. This was the only shipment of the summer run received; the ova were remarkably perfect in every way. They were all hatched October 25th, and retained in the hatchery boxes for four months, with a total loss of less than 1 per cent. The first shipment of the eggs of the late run was received December 1st, and there were five shipments in all. The entire lot of eggs were hatched with a loss of 6 per cent. After being taken from the hatchery boxes they were retained in the nursery ponds until they were on an average about four months old. After the screens were removed many remained of their own free will until they were ten months old and were exceedingly healthy and lively, becoming very tame and feeding out of one's hand. At this age they would vary from two to four inches in length. These ponds were connected with the Sacramento River, two miles away, by Cold Creek, and by this means the fry eventually found their way to the ocean.

[Extract from Report dated January 24, 1894.]

As an experiment, 2,000 ova were obtained from a Dolly Varden (*Salvelinus malma*) and crossed with the *Salmo fontinalis*—the first time the cross has been made—and it was entirely successful. These fry are held near the Sisson Hatchery, and at one year of age they were very healthy and vigorous, and as black as night.

[Extract from Report for July, 1893.]

In feeding the fry, about fifty gallons of milk and over four hundred pounds of liver have been consumed. We would have used twice as much meat had it been possible to obtain it, but we were obliged to send out of town for nearly all that we used. On the 15th C— Brothers were arrested for running sawdust into the Shasta River, and they were tried by a jury in Judge Autenriech's Court and acquitted. The jury came to the quick conclusion that every possible effort was being made to prevent sawdust from getting into the creek.

[Extract from Report for September, 1893.]

Acting under your instructions, I went to Pokegama on the 21st, to repair and make any changes necessary, and to build an addition to the fishway. This fishway was built when the river was at high-water mark, and of necessity was left incomplete, being minus three riffles which would bring it down to low water, thus making it impossible for the salmon to surmount the first riffle. Strange as it may seem, trout went over this riffle with less trouble and fuss than salmon. * * * The present addition makes the fishway seventy-six feet long, with a grade one foot in six, and seems to serve the purpose in as satisfactory a manner as could be wished for.

REPORTS OF W. H. SHEBLEY.

[Extract from Report dated August 14, 1893.]

Acting under your instructions, Deputy Hunt and myself proceeded to Independence Lake to take ova there. We arrived at the lake on June 7th and found it two thirds covered with ice. We started from Boca on the 1st, but could not get any nearer that day than Corey's Station, four miles distant, on account of the snow, which covered the ground to a depth of from three to six feet. The market fishermen were fishing through the ice, which was still strong enough to enable them to go on it without danger. From early spring until the ice gets too soft, the market fishermen take a great many trout. They cut holes through the ice and fish with short hand lines. Nearly all the fish taken this way are males. The females at this season are heavy with ova, and naturally feed on the bottom. The males, as the spawning season approaches, become restless and active, swimming near the surface, where they are caught and shipped to market. This method of fishing is fast depleting our mountain lakes, and especially Independence Lake, because it is comparatively easy of access. The fish are carried from here on hand sleds over the snow before the roads are opened.

We opened the road on the 10th of June, and took our material for the trap down to the lake. We immediately commenced work on it, and in four or five days had it secured. The bed of the creek is of sand and fine gravel, and it was very difficult to make the trap tight. The fish commenced running on the 28th of June. From this day to the 31st of July we caught 842 fish, of which record was kept. We caught quite a number of others and put them above the trap, as they were not of any use to us. There was a great preponderance of female fish over males, about twenty females to each male. We took 124,325 ova. When we could not get males, we agreed to stock Warren Lake with 10,000 eggs, provided the fishermen would give us the use of all the males they caught. As they were desirous of having this lake stocked, they agreed to this and gave us all they caught, which was only about a couple of dozen. We kept our word with them and stocked the lake on July 30th.

[Extract from Report dated September 30, 1893.]

I wish here to acknowledge the aid and many courtesies extended to the Commission by applicants for fish. Almost without exception, teams have been in waiting upon our arrival to transport the fish from the railway stations to the water. In several instances, where the streams were located in almost inaccessible places, the applicants would work for hours carrying the cans to the water. In every place we visited, the people gave us a welcome and seemed more than ever to appreciate the work of the Commission.

[Extract from Report dated November 5, 1893.]

Since my last report, conditions strange and heretofore unknown to me have come to the salmon alevins in this hatchery. Two or three days after hatching, a white spot appears on the right side of the body on a line directly below the dorsal fin, at a place where the umbilical sac and body unite. It is about the size of No. 6 shot and is disc-shaped. The umbilical sac is covered with small brown spots about the

size of a pin point. As soon as I discovered this strange condition, I immediately commenced a thorough examination to see if I could find the cause. The troughs, tanks, and all parts of the water system were kept thoroughly clean and everything was done that was possible to aid in the prevention of the growth of fungus. I tried every experiment that I could think of to discover fungus either on the troughs or on the alevins and ova, but failed to find any. The appearance of the alevins led me to think that the eggs had been roughly handled during their transportation here. Hon. Livingston Stone, Superintendent of the United States Hatchery on the McCloud River, who is authority on the diseases of fish, accompanied by Chief Deputy Babcock, arrived here day before yesterday, and after a careful examination of the alevins and ova and the general condition of the hatchery, Mr. Stone concurs with me in my opinion that the cause is rough handling in transporting the spawn. He found no fault with our method of hatching and said no blame could be attached to us as far as the work of the hatching was concerned. It is now ten days since the first appearance of this condition and no deaths have resulted as yet. I think the greater number will outgrow it.

[Extract from Report dated December 1, 1893.]

I am glad to say that the queer disease which seem to have affected the salmon shortly after they were hatched out was entirely outgrown by them and the fish became strong and vigorous.

[Extract from Report dated January 12, 1894.]

The salmon ova of the fall run which is now in the hatchery are coming out in fine condition and the tank nurseries are doing good service. We place the alevins in them as soon as they are hatched, and when large enough we will distribute a number of them in the streams of this vicinity, as we have not nursery room enough for all of them. We have received from the late fall run of salmon 6,300,000 eggs. Our estimate is a little larger than Mr. Stone's, as we overrun his measure. We received 1,734,000 eggs from the early run, which makes a total for the season of 8,034,000 eggs, the largest hatch ever undertaken by the California Fish Commission.

[Extract from Report dated March 23, 1894.]

On the 19th of February, I proceeded to open Shovel Creek eyeing station, after getting the traps, weirs, and eyeing apparatus in order. I placed Mr. E. T. Sullivan in charge of the work of taking spawn.

February 26th, the fish were running in considerable numbers and the work of taking spawn began. From that day up to the 11th instant 500,000 eggs were taken. The water turned cold and stormy and the fish stopped running on the 14th. From the 14th to the 20th it stormed continuously, and on the 15th the water became so high in Shovel Creek that a section of the trap had to be cut out to save it from being entirely washed away. It did no material damage, except the extra labor in repairing it. The weather is now getting warmer and a run of fish may be looked for in a few days.

[Extract from Report dated March 31, 1894.]

I send you with my report for March the record of work taking trout spawn at Shovel Creek station. For convenience I have added to the table the record of three days' work in February.

Record of Work Taking Trout Spawn at Shovel Creek Station, Beswick, Siskiyou County, for month of February and March, 1894.

1894.	Trout Taken—A. M.		Trout Taken—P. M.		Trout Spawnd.....		Number of Eggs.....	Water Tem- perature.....		REMARKS.
	M.	F.	M.	F.	M.	F.		Lowest..	Highest	
Feb. 26	17	16						38	40	Clear.
27	25	25						38	44	Clear.
28	152	140			25	22	45,000	37	45	Raining.
Mar. 1	52	48	32	30	42	35	50,000	37	41	Wind southeast; raining P. M.
2	12	15	10	10	35	21	20,000	36	37	Snow, four inches A. M.
3				2				33	37	8° above zero.
4	2							37	39	Two inches of snow during night.
5					20	15	15,200	37	38	Two inches snow, hard wind P. M.
6								34	42	No fish, morning cold.
7	4	13			58	18	25,000	39	40	Rain and snow.
8			8	21				40	42	Fish running P. M.
9	30	76	14	41	40	96	110,000	38	40	Rained during night.
10	9	16	10	23	45	40	65,000	38	41	Cloudy all day.
11	22	28	33	65	18	36	45,000	40	43	Clear.
12	42	53			90	105	170,000	40	44	Clear A. M., cloudy P. M.
13	90	99			40	69	105,000	40	42	Squall A. M., clear P. M.
14	19	14			10	11	10,000	38	43	Creek rising.
15	29	27	1	7	8	12	15,000	40	42	Heavy rain, creek rising.
16	1	3			6	7	7,000	38	40	Squally with sunshine.
17								37	40	Changeable; trap went out.
18								38	41	Two inches snow.
19								37	39	Snowing all day; repaired trap.
20								37	42	Clearer to-day.
21			6	7	5	6	9,000	37	42	Clear all day, north wind.
22	1	2	4	2	5	5	7,000	37	43	Cold and clear, north wind.
23	3	7	7	13	6	5	7,000	38	44	Clear and warm, creek rising.
24	10	17	14	15	10	18	20,000	39	46	Clear, warm spring day.
25	10	19	18	32				39	46	Warm, creek still rising.
26	7	21	8	49	15	39	45,000	40	47	Showers P. M.
27	14	48	16	27	20	23	25,000	42	46	Creek rising, wind south P. M.
28			5	19	8	11	10,000	42	46	Water high in creek; raining.
29								42	42	Rain; creek very high.
30								40	44	Warm, high water.
31					16	23	35,000	40	44	Changeable.
Totals	551	686	188	373	523	622	840,200			

[Extract from Report dated June 7, 1894.]

The Shovel Creek eyeing station was closed on the 4th instant. The fry that were hatched there, 120,000 in number, were distributed in Shovel Creek on the 1st and 2d. The Klamath River is higher than it has been for years. The crib at the mouth of Shovel Creek was carried away by the water several days ago.

REPORTS OF E. W. HUNT.

[Extract from Report dated Olema, March 31, 1893.]

The weather has been very severe for the greater part of the month, the creeks in the neighborhood being very high and roiley. Cold Stream, which is usually very clear, was roiley for a week, and it was very hard to see the fish in the hatchery. After the weather cleared up and I could make an examination I found that the condition of the water had not made any material difference in the loss, which, up to date, is about $1\frac{1}{4}$ per cent. I commenced feeding on the 10th. The fish have begun to feed and are doing very well. I received a list of applications from your honorable Board and orders to get my cans in readiness to start in shipping as soon as the fish were large enough. I began shipping at once and will continue the work until the fish are all out of the building, when I will report in full, giving the names of applicants, number of fish, streams, and location of same.

[Extract from Report dated Carson City, January 15, 1894.]

Acting under your instructions, I started for Carson City, Nevada, on October 7th, for the purpose of taking Eastern Brook trout (*Salmo fontinalis*) spawn. * * *

On the 19th I met Mr. Close, Superintendent of the Carson Hatchery, who was to accompany me and cooperate in the work of securing this spawn. We started for Marlett Lake, fifteen miles distant, over a very rough road. On our arrival we commenced repairing the seine and impounding weir to hold fish in until the time to take spawn. From the 20th to the 27th we fished with varying success, depending on the condition of the weather and the run of the fish. When the weather was stormy or very cold the fish did not run. The total number of fish caught during this interval was 950. On the 27th we examined the fish in the weir and stripped 103 ripe females for our share, and started with the ova for the hatchery at Carson. * * * From the 13th to the 16th we caught 134 fish, and stripped 78 for our share. The weather was now very threatening, and the indications were that there would be a big storm. On the 15th the lake was frozen over with ice to a depth of $1\frac{3}{4}$ inches. At this season of the year a heavy fall of snow may be expected at any time, and if we were caught it would be very difficult to get the spawn, apparatus, and even ourselves from the lake. Mr. Close thought it advisable for us to pack up our things and start for Carson, which we did. The maximum temperature at the Carson Hatchery was 45° and the minimum 39° ; average, 42° . The loss in carrying green spawn to the hatchery was $2\frac{1}{2}$ per cent, which left us a total of 316,875. * * * The loss in Carson during the eyeing process was 6 per cent, leaving a balance of 297,862. I made three shipments in all, 206,862 going to the Bear Valley Hatchery and 91,000 to the Sisson Hatchery. The Hon. George T. Mills was kind and courteous to us, and lent us all the assistance in his power.

[Extract from Report dated March 31, 1894.]

January 17th, I arrived at Bear Valley Hatchery and found the ova and young fish in Mr. Allen's care doing as well as could be expected under the circumstances, as the weather had been very stormy and threat-

ening. Upon examination I found the dam full of gravel and debris. It needed to be cleaned immediately, which was done. In a few days there was a much worse storm, which filled the dam and reservoir with gravel and sediment again, causing the work of cleaning, etc., to be repeated. * * *

From January 25th to February 1st, the weather was pleasant. The last ova hatched on February 1st. The young fish are doing very well and look strong and healthy, although they are growing rather slowly, on account of the water being so very cold. I commenced to feed the oldest fish on February 13th.

[Extract from Report dated Carson City, April 5, 1894.]

I arrived in Carson yesterday, and have made arrangements to have my paraphernalia taken to Tahoe to-morrow. The road is not yet open all the way for wagons. I go over half the way by wagon, and from there by sleigh. There is no chance to get in by Truckee for at least one month. There are quite a number of fish in the Truckee River, and parties about Reno are catching nice strings.

[Extract from Report dated Tahoe City, August 1, 1894.]

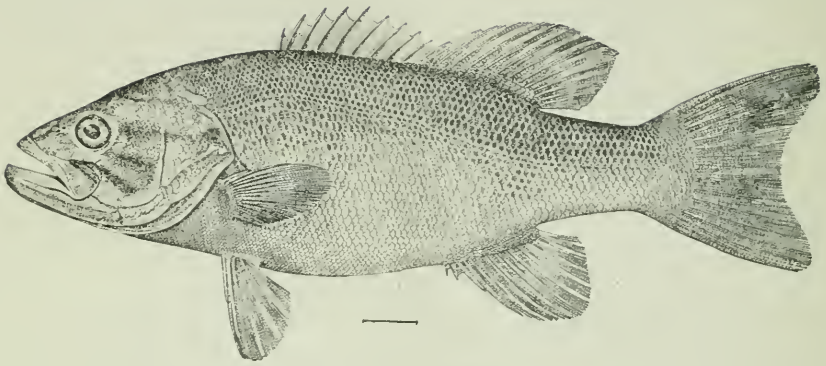
April 2d: Acting under your instructions, I started with my assistant, Mr. F. C. Boyce, to open the Tahoe Hatchery for the purpose of taking *Salmo mykiss* ova.

April 6th: Started from Carson City for Tahoe by way of Glenbrook. The mountains are still covered with snow, making it necessary to transfer the load several times from wagon to sleigh. After a very hard trip we arrived at Glenbrook, and that night went from there by steamer to Tahoe City.

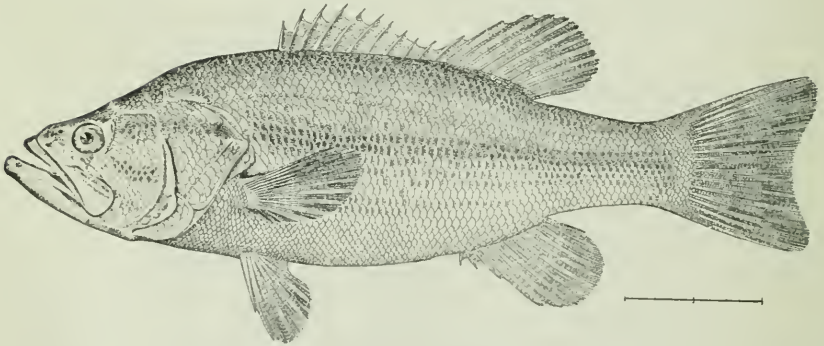
April 7th: Inspected the buildings and found them in a very good state of preservation, although the inside of the hatchery was in a very bad condition, owing to its long idleness. The troughs, etc., were badly warped and checked, and all had to be re-nailed, caulked, and painted. * * *

April 12th: Commenced seining, and continued until May 5th. Caught in the above period in the neighborhood of 2,300 trout. They averaged $1\frac{1}{2}$ pounds to the fish, and were about equally divided as to sex. They averaged 2,000 eggs to the fish, making 2,300,000 eggs taken at that station. The eggs were transported to the hatchery in eight lots—three by steamer and five in a row-boat. It took us six hours to make the trip by row-boat. The loss in transporting the green spawn to the hatchery was 2 per cent. Finished operations and moved seine, cars, etc., to Blackwood Creek, which was the next point of operation. * * *

June 22d: The trap was completed and the first fish caught. From that date until July 24th, we had varying success with the trap, and caught on an average of thirty fish per day. The run of this year compares favorably with that of four years ago, when we last took spawn at that point. We took 850,000 eggs, making a grand total for the season of 3,150,000. The alevins were strong and healthy and developed very fast. The loss at Blackwood up to date has been very light. The shipping report will follow as soon as the work is completed.



SMALL-MOUTHED BLACK BASS. *Micropterus Dolomieu*.



LARGE-MOUTHED BLACK BASS.—*Micropterus Salmoides*.

FISH DISTRIBUTION.

DISTRIBUTION OF THE SUMMER AND FALL TAKE OF SALMON—1892.

Date.	Distribution.	Number of Fish.
1893.		
April 1..	Allowed to escape at will from nursery ponds into Sacramento River, via Cold Creek	2,554,450

DISTRIBUTION OF THE SUMMER TAKE OF SALMON—1893.

Date.	Distribution.	Number of Fish.
1893.		
Nov. 13..	Wagon Valley Creek	125,000
Nov. 13..	Cold Creek	125,000
Nov. 13..	Suloway Creek, at junction of Cold Creek	125,000
Nov. 13..	Suloway Creek, at P. Klink's ranch	128,000
Nov. 14..	Suloway Creek, at junction of Big Spring Creek	120,000
Nov. 14..	West Fork Sacramento River, between Stevens' Bridge and Box Cañon	195,000
Nov. 14..	Suloway Creek, near County Road Bridge	130,445
Nov. 15..	Wagon Valley Creek, above Suloway's ranch	110,000
Nov. 15..	Cold Creek, near Williams' ranch	110,000
Nov. 15..	Suloway Creek, below County Road Bridge	110,000
Nov. 15..	Castle Creek	112,000
Nov. 16..	Cold Creek, near Odell's	100,000
Nov. 16..	Suloway Creek	50,000
Nov. 16..	Sacramento River, at 18th Crossing California and Oregon Railroad	106,230
Nov. 23..	Suloway Creek	39,640
	Total	1,686,315

DISTRIBUTION OF FALL TAKE OF SALMON—1893.

Date.	Distribution.	Number of Fish.
1894.		
Jan. 20..	Big Spring Creek	100,000
Jan. 21..	Cold Creek, near Odell's	100,000
Jan. 21..	Suloway Creek, at junction of Cold Creek	100,000
Jan. 21..	Big Spring Creek	100,000
Jan. 22..	Cold Creek	100,000
Jan. 22..	Big Spring Creek, at junction of Suloway Creek	100,000
Jan. 22..	Sacramento River	100,000
Jan. 22..	Wagon Valley Creek	100,000
Jan. 23..	School-house Creek	100,000
Jan. 23..	Cold Creek, at Williams' ranch	100,000
Jan. 23..	Suloway Creek, at junction	80,000
Jan. 23..	Wagon Valley Creek	120,000
Jan. 26..	Sacramento River	100,000
Jan. 26..	Junction of Suloway and Cold Creeks	100,000
Jan. 28..	Wagon Valley Creek	100,000
Jan. 30..	Sacramento River	100,000
Feb. 1..	Junction of Suloway and Cold Creeks	150,000
Feb. 1..	Wagon Valley Creek	150,000
Feb. 3..	Sacramento River	150,000
Feb. 5..	Sacramento River	150,000

DISTRIBUTION OF FALL TAKE OF SALMON, 1893—Continued.

Date.	Distribution.	Number of Fish.
Feb. 12..	Big Spring Creek	150,000
Feb. 13..	School-house and Sulloway Creeks	150,000
Feb. 24..	Cold Creek, below bridge	150,000
Feb. 26..	Sulloway Creek	150,000
Feb. 26..	Sacramento River	200,000
Feb. 27..	Sacramento River	100,000
Feb. 27..	Castle Creek	100,000
Feb. 28..	Castle Creek	100,000
Feb. 28..	Sacramento River, near 18th Crossing	100,000
Mar. 3..	Sulloway Creek, at Klink's ranch	100,000
Mar. 3..	Sulloway Creek, at junction	100,000
Mar. 3..	School-house Creek	100,000
Mar. 3..	Cold Creek	100,000
Mar. 6..	Cold Creek	100,000
Mar. 6..	Sacramento River, near 18th Crossing	200,000
Mar. 7..	Castle Creek	100,000
Mar. 7..	Big Spring Creek, at junction	100,000
Mar. 8..	Castle Creek	100,000
Mar. 8..	Sacramento River	100,000
Mar. 9..	Sulloway Creek, at junction	140,000
Mar. 9..	Sacramento River, near 18th Crossing	180,000
Mar. 9..	Wagon Valley Creek	100,000
Mar. 23..	Placed in Sisson Lake and released from time to time	1,170,084
	Total	6,090,084

DISTRIBUTION OF EASTERN BROOK TROUT (*Salvelinus fontinalis*) FROM BEAR VALLEY HATCHERY, SPRING OF 1893.

Date.	Distribution.	Number of Fish
1893.		
April 4..	Paper Mill Creek, Marin County	10,000
April 4..	Lagunitas Creek, Marin County	10,000
April 5..	Dry Creek, Napa County	2,000
April 5..	Napa Creek, Napa County	2,000
April 5..	Rector Creek, Napa County	2,000
April 5..	Milliken Creek, Napa County	4,000
April 8..	Little Castle Creek, Siskiyou County	25,000
April 10..	San Lorenzo River and tributaries, Santa Cruz County	5,000
April 16..	East and West Austin Creeks, Sonoma County	10,000
April 18..	Big Sulphur Creek, Sonoma County	10,000
April 18..	Little Sulphur Creek, Sonoma County	10,000
April 20..	Lake north of Towle Station, Placer County	5,000
April 20..	Blue Cañon Creek, Placer County	5,000
April 20..	South Fork American River, Placer County	5,000
April 20..	South Fork Yuba River, Placer County	10,000
April 25..	Kern River, Kern County	10,000
April 28..	Tule River, Tulare County	10,000
May 1..	Donner Creek, Nevada County	10,000
May 1..	Prosser Creek, Nevada County	5,000
May 1..	Alder Creek, Nevada County	5,000
May 5..	Yosemite Valley streams	25,000
May 17..	Santiago Creek, Orange County	10,000
May 17..	Trabuco Creek, Orange County	10,000
May 17..	Lake Hemet, Riverside County	1,000
May 17..	Brown's Creek, tributary to San Gabriel River, Los Angeles County	3,000
May 17..	Creel Club Creek, tributary to San Gabriel River, Los Angeles County	10,000
May 17..	Bear Creek, tributary to San Gabriel River, Los Angeles County	12,000
	Total	226,000

DISTRIBUTION OF EASTERN BROOK TROUT (*Salvelinus fontinalis*) FROM SISSON HATCHERY, DURING SUMMER OF 1893.

Date.	Distribution.	Number of Fish.
1893.		
June 15..	Angel Creek, tributary to McCloud River.....	8,000
June 26..	Headwaters Trinity River.....	2,000
June 30..	Castle Lake, Siskiyou County.....	3,000
July 1..	Butte Creek, Siskiyou County.....	1,500
Sept. 2..	Stevens Creek, Siskiyou County.....	500
Sept. 5..	Shovel Creek, Siskiyou County.....	2,500
Sept. 24..	Castle Lake, Siskiyou County.....	2,500
Oct. 4..	Squaw Creek, tributary to McCloud River.....	3,500
Nov. 1..	Antelope Creek, Siskiyou County.....	2,000
	Total.....	25,500

DISTRIBUTION OF EASTERN BROOK TROUT (*Salvelinus fontinalis*) FROM BEAR VALLEY HATCHERY, DURING MARCH AND APRIL, 1894.

Date.	Distribution.	Number of Fish.
1894.		
March 2.	South and Middle Forks Kaweah River.....	20,000
March 5.	East and West Austin Creeks, Marin County.....	10,000
March 7.	Kern River and tributaries.....	2,500
March 8.	Pauma Creek, San Diego County.....	10,000
March 8.	Lake Hemet, Riverside County.....	10,000
March 11.	Garcia Creek, Monterey County.....	7,500
March 11.	Carmelo River, Monterey County.....	7,500
March 14.	Four headwater tributaries to Ventura River.....	7,500
March 16.	Dry, Napa, and Milliken Creeks, Napa County.....	10,000
March 17.	Sulphur Creek, Sonoma County.....	5,000
March 17.	Pieta Creek.....	5,000
March 22.	Santa Ana River and tributaries, San Bernardino County.....	12,500
March 22.	San Gabriel River and tributaries, Los Angeles County.....	10,000
March 22.	Agua Blanco and tributaries, Ventura County.....	2,500
March 27.	Little Sulphur Creek, 6 miles above Geyserville.....	10,000
March 30.	Cold Stream, tributary to Donner Creek.....	20,000
March 30.	Blue Cañon Creek, Placer County.....	2,500
March 30.	North Fork of American River, Placer County.....	2,500
March 30.	Main Fork of American River, Placer County.....	2,500
April 7.	North Fork of Fresno, tributary to San Joaquin River.....	5,000
April 7.	Chowchilla River, tributary to San Joaquin River.....	2,500
April 7.	Headwaters Merced River, above Wawona.....	15,000
	Honolulu, Hawaiian Islands.....	1,000
	Total.....	181,000

DISTRIBUTION OF EASTERN BROOK TROUT (*Salvelinus fontinalis*) FROM SISSON HATCHERY, SPRING OF 1894.

Date.	Distribution.	Number of Fish.
1894.		
May 9..	Shovel Creek, Siskiyou County.....	25,000
June 21..	McCloud River.....	20,000
July 6..	Big Spring and Cold Creeks, Siskiyou County.....	10,000
July 10..	Sacramento River.....	30,000
	Total.....	85,000

DISTRIBUTION OF RAINBOW TROUT (*Salmo irideus*) FROM SISSON HATCHERY, DURING SUMMER OF 1893.

Date.	Distribution.	Number of Fish.
1893.		
July 30..	Carmelo River, Monterey County	20,000
Aug. 2..	Truckee River, Placer County	20,000
Aug. 5..	North Fork of American River	10,000
Aug. 5..	South Fork of Yuba River, Placer County	10,000
Aug. 8..	Soda Creek, Shasta County	20,000
Aug. 8..	Transferred to nursery ponds	75,000
Aug. 9..	Napa River and tributaries, Napa County	10,000
Aug. 12..	Sonoma Creek, Sonoma County	20,000
Aug. 15..	Cache Creek, Yolo County	10,000
Aug. 16..	South and Middle Forks of Tule River, Fresno County	10,000
Aug. 18..	Nursery ponds	30,000
Aug. 18..	Tributaries to Eel River	13,000
Aug. 20..	Nursery ponds	50,000
Aug. 21..	Pickens Creek, Los Angeles County	10,000
Aug. 21..	Malibu Creek, Los Angeles County	5,000
Aug. 21..	San Antonio Creek, Los Angeles County	10,000
Aug. 23..	Mark West Creek, Napa County	20,000
Aug. 25..	Nursery ponds	62,000
Aug. 27..	Austin Creek, Sonoma County	20,000
Aug. 27..	Ward Creek, Sonoma County	10,000
Aug. 29..	Susser Creek, Monterey County	10,000
Aug. 30..	Los Baños Creek, Santa Clara County	10,000
Aug. 30..	Slagas Creek, Santa Clara County	10,000
Aug. 30..	Nursery pond	75,000
Sept. 3..	Kaweah River, Tulare County	15,000
Sept. 3..	Kern River, Kern County	10,000
Sept. 3..	Santa Paula Creek, Ventura County	10,000
Sept. 3..	See-Saw Creek, Ventura County	5,000
Sept. 9..	Cucamonga Creek, Los Angeles County	10,000
Sept. 9..	White Water Creek, San Bernardino County	10,000
Sept. 9..	Strawberry Creek, Riverside County	10,000
Sept. 12..	Pauma Creek, San Diego County	10,000
Sept. 12..	Big and Alder Creeks, Nevada County	20,000
Sept. 27..	Bolivar Creek, San Mateo Creek	20,000
Oct. 1..	Sacramento River, near Sisson	10,000
Oct. 2..	Carmelo River, Monterey County	12,500
Oct. 2..	Junction Carmelo River and Los Gatos Creek, Monterey County	7,500
Oct. 11..	Tributaries Sacramento River	64,000
	Total	754,000

DISTRIBUTION OF RAINBOW TROUT (*Salmo irideus*) FROM SISSON HATCHERY, DURING SUMMER OF 1894.

Date.	Distribution.	Number of Fish.
1894.		
June 2..	Shovel Creek, Siskiyou County	70,000
June 3..	Shovel Creek, Siskiyou County	50,000
June 13..	Shelly Creek, tributary to Smith River, Del Norte County	5,000
June 13..	Patrick's Creek, tributary to Smith's River, Del Norte County	15,000
June 13..	Lake Earl, Del Norte County	2,500
June 13..	Moscher Creek, tributary to Elk River, Del Norte County	2,500
June 15..	Huckleberry Creek, Siskiyou County	30,000
June 16..	Angel Creek, Siskiyou County	25,000
June 17..	McCloud River, below the Falls	25,000
June 18..	Squaw Creek, tributary to McCloud River	25,000
June 19..	McCloud River, near Horseshoe Bend	25,000
June 25..	Los Uvas, Santa Clara County	15,000
June 25..	Pajaro River, Santa Clara County	15,000
June 25..	Elk Creek, Siskiyou County	5,000
June 28..	Sacramento River, near Smithson	20,000
June 28..	Soda Creek, Shasta County	14,000
June 29..	Sulloway Creek, Siskiyou County	25,000
June 30..	Castle Creek, Shasta County	28,000

DISTRIBUTION OF RAINBOW TROUT FROM SISSON HATCHERY—Continued.

Date.	Distribution.	Number of Fish.
June 30..	Sacramento River, near Castella	20,000
July 2..	Sacramento River, near Box Cañon	50,000
July 6..	School-house Spring Creek, Siskiyou County	25,000
July 6..	Cold Creek, below Odell's, Siskiyou County	14,000
July 13..	Wagon Valley Creek, Siskiyou County	25,000
July 27..	Junction of Sulloway and Cold Creeks, Siskiyou County	50,000
July 27..	Sacramento River, near Dunsmuir	30,000
July 27..	Castle Creek, Shasta County	20,000
July 27..	Paper Mill Creek, Marin County	15,000
July 27..	Laguinitas Creek, Marin County	10,000
Aug. 3..	Castle Lake, Trinity County	20,000
Aug. 3..	Sacramento River, near Castle Crag	20,000
Aug. 6..	Shasta River, Siskiyou County	2,000
Aug. 6..	Sacramento River, near Smithson	20,000
Aug. 6..	Sacramento River, near Castle Crag	15,000
Aug. 6..	Soda Creek, Shasta County	15,000
Aug. 9..	Sacramento River, near Dunsmuir	30,000
Aug. 10..	Sulloway Creek, near Klinks, Siskiyou County	22,000
Sept. 23..	Cold Creek, Siskiyou County	10,240
	Total	810,240

DISTRIBUTION OF RAINBOW TROUT (*Salmo irideus*) FROM TAHOE HATCHERY DURING SUMMER OF 1894.

Date.	Distribution.	Number of Fish.
1894.		
July 6..	Truckee River, 2½ miles below Tahoe City	75,000
July 18..	Truckee River, ½ mile below Tahoe City	15,000
July 28..	Bear and Squaw Creeks, tributary to Truckee River	25,000
Aug. 5..	Fallen Leaf Lake and Taylor Creek, Tallac	36,000
Aug. 6..	Cascade Lake, Tallac	30,000
Aug. 11..	Fallen Leaf Lake, Tallac	34,000
Aug. 13..	Lake near Alta, Placer County	15,000
Aug. 14..	Blackwood Creek, tributary to Lake Tahoe	15,000
Aug. 15..	Bear Creek, tributary to Truckee River	10,000
Aug. 15..	Five Lakes Creek, tributary to Middle Fork of American River	15,000
	Total	270,000

DISTRIBUTION OF INDEPENDENCE LAKE TROUT (*Salmo mykiss*) FROM SISSON HATCHERY, DURING SUMMER OF 1893.

Date.	Distribution.	Number of Fish.
1893.		
Sept. 18..	Marble Fork, tributary to Kaweah River	20,000
Sept. 19..	Shovel Creek, tributary to Klamath River	3,000
Sept. 24..	Castle Lake, Siskiyou County	3,000
Sept. 25..	Various streams in Yosemite Valley	25,000
Sept. 30..	Lake Hemet, Riverside County	10,000
Oct. 2..	Russian River, Mendocino County	25,000
Oct. 5..	American River, near Placerville	10,000
	<i>Also Distributed from Independence Lake.</i>	96,000
July 30..	Warren Lake, Nevada County	10,000
	Total	106,000

DISTRIBUTION OF CUT-THROAT TROUT (*Salmo mykiss*) FROM SISSON HATCHERY, DURING SUMMER OF 1894.

Date.	Distribution.	Number of Fish.
1894.		
June 25..	Las Uvas Creek, Santa Clara County	10,000
June 25..	Pajaro River, Santa Clara County	5,000
June 25..	Coyote Creek, Santa Clara County	5,000
June 28..	Sacramento River, near Dunsmuir	6,000
June 30..	Cold Creek, Siskiyou County	50,000
June 30..	Wagon Valley Creek, Siskiyou County	50,000
July 2..	West Fork of Sacramento River, Siskiyou County	50,000
July 2..	Sulloway Creek, Siskiyou County	80,000
July 3..	West Fork of Sacramento River, Siskiyou County	20,000
July 5..	Junction of Cold and Sulloway Creeks	64,000
July 6..	Spring Creek, Siskiyou County	20,000
July 7..	McCloud River, Siskiyou County	50,000
July 9..	Wagon Valley Creek, Siskiyou County	34,000
July 13..	Sacramento River, near Box Cañon, Siskiyou County	75,000
July 27..	Streams and lakes in Yosemite Valley	25,000
July 31..	Sacramento River, near Smithson	40,000
Aug. 2..	North Fork of Kaweah River tributary, Tulare County	10,000
Aug. 2..	East Fork of Kaweah River tributary, Tulare County	15,000
Aug. 2..	Tule River, Tulare County	25,000
Aug. 5..	Rector Creek, Napa County	5,000
Aug. 5..	Hagen's Creek, Napa County	5,000
Aug. 5..	Dry Creek, Napa County	10,000
Aug. 5..	Milliken Creek, Napa County	10,000
Aug. 5..	Sarcos Creek, Napa County	10,000
Aug. 5..	Napa Creek, Napa County	10,000
Aug. 6..	Griffens Creek and Shasta River, Siskiyou County	5,000
Aug. 7..	Pluton River, Sonoma County	25,000
Aug. 7..	Sulphur Creek, Sonoma County	25,000
Aug. 10..	Sacramento River, near Castle Crag	20,000
Aug. 10..	Soda Creek, Shasta County	10,000
Aug. 10..	Castle Creek, Shasta County	10,000
Aug. 13..	Strawberry Lake, Golden Gate Park, San Francisco	25,000
Aug. 13..	Arroyo Valle, Alameda County	25,000
Aug. 13..	San Lorenzo River, Santa Cruz County	25,000
Aug. 18..	Soquel Creek, Santa Cruz County	15,000
Aug. 18..	Los Gatos Creek, Santa Clara County	10,000
Aug. 21..	Mill Creek, tributary to Kings River, Fresno County	5,000
Aug. 21..	Middle Fork of Kaweah River, Tulare County	5,000
Aug. 21..	Clover Creek, tributary to Middle Fork of Kaweah River, Tulare Co.	10,000
Aug. 21..	Marble Fork, tributary to Middle Fork of Kaweah River, Tulare Co.	5,000
Aug. 24..	Lake Hemet, Riverside County	15,000
Sept. 5..	Pieta Creek, Mendocino County	30,000
Sept. 10..	Cold Creek, Mendocino County	50,000
Sept. 15..	Walker Valley Creek, Mendocino County	50,000
Sept. 22..	Wagon Valley Creek, Siskiyou County	25,000
Sept. 22..	Cold Creek, Siskiyou County	25,000
Sept. 22..	Lagunitas Creek, Marin County	26,750
Oct. 10..	Stony Creek, Colusa County	50,000
	Total	1,277,750

DISTRIBUTION OF TAHOE TROUT (*Salmo mykiss*) FROM TAHOE HATCHERY, DURING SUMMER OF 1894.

Date.	Distribution.	Number of Fish.
1894.		
July 5..	Burton Creek, tributary to Lake Tahoe.....	65,000
July 6..	Burton Island, Lake Tahoe.....	65,000
July 7..	Saxon's Point, near Old Mill, Lake Tahoe.....	65,000
July 8..	Ward Creek, tributary to Lake Tahoe.....	65,000
July 9..	Sea Gull Point, Lake Tahoe.....	65,000
July 11..	Smith's Point, Lake Tahoe.....	65,000
July 13..	Observation Point, Lake Tahoe.....	65,000
July 21..	Blackwood Creek, tributary to Lake Tahoe.....	67,000
July 24..	Donner Lake, 3 miles north of Truckee.....	50,000
July 26..	Donner Lake, 3 miles north of Truckee.....	50,000
July 28..	Bear Creek, tributary to Truckee River, 5 miles west of Tahoe.....	12,500
July 28..	Five Lakes Creek, tributary to Middle Fork of American River, Placer County.....	12,500
July 29..	Independence Lake, 16 miles north of Truckee.....	50,000
July 30..	Independence Lake, 16 miles north of Truckee.....	50,000
Aug. 3..	McKinney's Creek, tributary to Lake Tahoe.....	50,000
Aug. 4..	In Lake Tahoe, near the snag at McKinney's.....	50,000
Aug. 13..	Lake near Alta, Placer County.....	15,000
Aug. 15..	Meek's Bay, Lake Tahoe.....	63,000
Aug. 17..	Sugar Pine Point, Lake Tahoe.....	61,200
Aug. 27..	Squaw Creek, Placer County, tributary to Truckee River.....	25,000
Aug. 27..	Five Lakes Creek and Small Lakes, tributary to American River, Placer County.....	25,000
Aug. 28..	Donner Lake, 3 miles north of Truckee.....	50,000
Aug. 29..	North Fork of American River and tributaries, near Blue Cañon, Placer County.....	50,000
Aug. 31..	South Fork of Yuba River, near Cisco, Placer County.....	50,000
Sept. 1..	Webber Lake, 26 miles north of Truckee.....	50,000
Sept. 3..	Susanville, Susan River, Lassen County, and west branch North Fork of Feather River, Plumas County.....	50,000
Sept. 5..	Brush, Slab, and Rock Creeks, Placerville, El Dorado County.....	25,000
Sept. 8..	Ward Creek, tributary to Lake Tahoe.....	50,000
Sept. 8..	Blackwood Creek, tributary to Lake Tahoe.....	50,000
Sept. 10..	Squaw Creek, tributary to Truckee River.....	25,000
Sept. 10..	Truckee River, 6 miles below Tahoe City.....	25,000
Sept. 12..	Lake Merced, San Francisco County.....	25,000
Sept. 12..	New Crystal Springs Lake, San Mateo County.....	25,000
Sept. 17..	Agua Blanca Creek, Ventura County.....	10,000
Sept. 17..	Piru Creek, Ventura County.....	5,000
Sept. 17..	Sespe Creek, Ventura County.....	2,500
Sept. 17..	Santa Paula Creek, Ventura County.....	2,500
Sept. 17..	Coyote Creek, Ventura County.....	2,500
Sept. 17..	Matilija Creek, Ventura County.....	7,500
Sept. 17..	Chino Creek, San Bernardino County.....	5,000
Sept. 17..	Mill Creek, San Bernardino County.....	5,000
Sept. 17..	Snow Creek, Riverside County.....	5,000
Sept. 24..	Blue Lakes, Lake County.....	50,000
Sept. 26..	American River, above Folsom.....	15,000
Sept. 29..	Blue Lakes, Lake County.....	30,000
Sept. 29..	Lagunitas Creek, Marin County.....	10,000
Sept. 29..	Paper Mill Creek, Marin County.....	10,000
Oct. 1..	Rubicon River.....	30,000
	Total.....	1,706,200

DISTRIBUTION OF BLACK BASS DURING SUMMER OF 1893.

Date.	Distribution.	Number of Fish.
1893.		
July 12..	Lake near Rodeo, Contra Costa County.....	135
Aug. 11..	Buena Vista Lake, Kern County.....	20
	Total.....	155

DISTRIBUTION OF BLACK BASS DURING SUMMER OF 1894.

Date.	Distribution.	Number of Fish.
1894.		
May 16	Piedmont Water Co.'s reservoir, Oakland	200
May 18	West Lake City Park, Los Angeles	600
May 18	Irvine Lake, Tustin, Orange County.	500
May 18	La Fuentes Rancho, Santa Barbara	600
May 18	Ponds west of Daggett, San Bernardino County	500
May 18	Freeman's Pond, Centinella, Los Angeles County	150
May 18	Ross Pond, Glendale, Los Angeles County	50
May 18	Garvey Lake, San Gabriel, Los Angeles County	500
May 18	Pomeroy Lake, Burbank, Los Angeles County	150
May 18	Jennings Pond, Clearwater, Los Angeles County	50
May 18	Kinney's Pond, Sierra Madre, Los Angeles County	50
May 21	Lake Yosemite, Merced County	1,000
May 21	Elk Beyo, Tulare County	400
May 21	Kaweah River, Tulare County	500
May 21	Bravo Lake, Tulare County	400
May 21	Coss Creek, Tulare County	200
May 21	San Joaquin River, near Herndon, Fresno County	1,000
May 30	Freshwater Lake, Humboldt County	2,000
May 30	Stony Lake, Humboldt County	500
	Total	9,350

SUMMARY OF DISTRIBUTION OF FISH DURING THE TWO YEARS ENDING
SEPTEMBER 1, 1894.

Variety.	1893.	1894.
Salmon	2,554,450	7,776,400
Eastern Brook trout	251,500	266,000
Rainbow trout	754,000	1,080,240
Cut-throat trout	106,000	2,983,950
Black bass	155	9,350
Muskallunge	93,000
Total	3,759,105	12,115,940

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STATEMENT OF FISH PLANTED BY BOARD OF FISH COMMISSIONERS.

In addition to the fish shown by the following statement to have been brought from the East in the aquarium car in 1874, Mr. Livingston Stone transported and planted 23 small tautogs and one can of small salt-water eels. In 1877 there were also planted 100 "awa," natives of the Hawaiian Islands (*chanos*). In bringing fish from the Eastern coast to this State special cars were provided in 1874, 1879, 1880, 1888, and 1893.

When the comparatively small number of fish which have been planted is considered, together with the great success attending these experiments, the failures, if they may be called such, sink into insignificance. Those from which no results can be said to have come are the plants of white-fish, land-locked salmon, silver eels, and lobsters. The plants of Eastern salmon and glass-eyed perch cannot well be classed as failures, as a fair trial has never been made with either of those species. There can be no doubt of the result of the success of the plants of shad, carp, catfish, and striped bass, as will be seen by numerous references made in this report to their abundance.

Besides the forty million and odd salmon which have been planted by the State Commission, there have been many millions distributed by the United States Fish Commission and by parties who have made application to them for fry.

The shad were all presented to the State by the U. S. Fish Commission, which bore a part or all of the expenses attending the transportation and planting of the same, with the exception of those fish brought in 1871 and 1876. The total expense of these two plants was borne by this State.

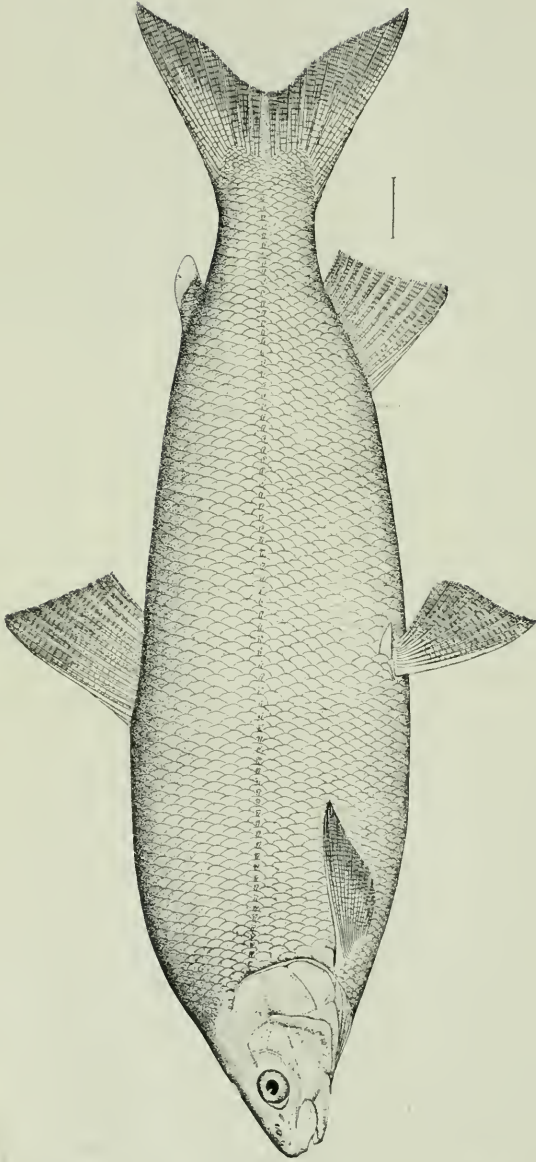
All the white-fish eggs are sent us from Lake Michigan stations through the courtesy of the U. S. Commissioner.

But 450 striped bass, which stood the long journey across the continent, have ever been planted; and they, like the black bass, of which but 107 were originally planted, have found congenial homes in our waters. The original plant of 144 catfish seems to have given results equaled only by the striped bass. It will be noticed that wide distribution was given this species in later years.

Five attempts have been made to introduce the Eastern lobster into Pacific waters. As the result of three of these attempts there were planted off the coast of the State 357 adult lobsters and 104,000 embryos. The first attempt, under the joint direction of the United States and California Commissions in 1873, was a total failure, because of the wrecking of the train near Omaha. The second and third attempts, in 1874 and 1879, were made under the sole auspices of the California Commission. The first three shipments were under the supervision of Mr. Livingston Stone; and, considering the fact that lobster transportation was then a new experiment, the shipments were a success. The fourth

attempt was conducted jointly by the United States and California Commissions, and the lobsters were successfully transported in a United States fish car. In addition to 332 lobsters planted in 1888 near Monterey and at Trinidad Light-house, there were also planted 104,000 embryos, which were hatched from eggs brought at the same time. The 223 lobsters transported at the fifth trial were planted in waters adjacent to Oregon and Washington. While these attempts are apparently without results, they have been worth many times the expenditure in the experience and the information gained from them. It has not been positively determined as yet that the Eastern lobster is not thriving in our waters, although the chances and presumptions are against it.

Most of the carp now swimming in our streams and sloughs are the progeny of eight fish imported from Germany in 1872 by R. A. Poppe, of Sonoma, who did a thriving business in their sale for stocking purposes. The 88 fish planted in 1877 were received from the Department of Agriculture of Japan in exchange for trout eggs. The U. S. Commission delivered 298 to us in 1880, and the subsequent plants made by the Commission (but 383 fish altogether) were from the young of these fish. In addition to these, over 2,000 were delivered to private parties throughout the State.



WHITEFISH.—*Coregonus clupeaformis*.

STATEMENT OF FISH PLANTED BY THE BOARD OF FISH COMMISSIONERS FOR THE STATE OF CALIFORNIA, SINCE ITS ORGANIZATION.

Year.	Quinnat Salmon (<i>Oncorhynchus tshawytscha</i>)	Trout.			Shad (<i>Alosa sapidissima</i>)	Whitefish (<i>Coregonus clupeaformis</i>)	Striped Bass (<i>Morone saxatilis</i>)	Black Bass (<i>Micropterus dolomieu</i>)	Catfish (<i>Ameiurus nebulosus</i>)	Silver Eels (<i>Anguilla chryssypa</i>)	Eastern Salmon (<i>Salmo salar</i>)	Glass-eyed Perch (<i>Stizostedion vitreum</i>)	Eastern Lobster (<i>Homarus americanus</i>)	Land-locked Salmon (<i>Salmo salar sebago</i>)	Carp (<i>Cyprinus carpio</i>)	Muskallunge (<i>Lucius maquinongy</i>)
		Rainbow (<i>Salmo trideus</i>)	Cut-throat (<i>Salmo mykiss henshawi</i>)	Eastern Brook (<i>Salvelinus fontinalis</i>)												
1871			22,000	6,000	15,000	*25,000										
1872					35,000			85	144	12	305	16	4			
1873																
1874	850,000			*60,000	99,000	*20,000										
1875	2,000,000			*133,000	110,000	*300,000			8,400					88		
1876	2,200,000	45,000		*70,000	115,000											
1877	2,500,000	33,500														
1878	2,300,000	61,200	50,000	*41,500	240,000	*565,000	150	22	39,000	4,000			21	298-12		
1880	2,225,000	32,000			240,000				10,050					*20,100		
1881	2,420,500	23,600			220,000	*230,500			2,662						71	
1882	1,680,000						300		500	10					300	
1883	600,000	95,000				*500,000										
1884		214,000							500					*25,000		
1885		150,000														
1886		100,000														
1887		2,000,000	500,000													
1888	1,200,000	50,000	601,000													
1889	2,108,000		1,027,000						500							
1890	1,320,000	906,000	873,000	*63,000					357				332			
1891	2,708,250		88,000													
1892	2,651,000	506,500		137,000												
1893	2,554,450	754,000	106,000	*251,500												
1894	7,776,400	1,080,240	2,983,950	1,266,000												95,000
Totals	40,733,600	6,141,040	6,250,950	1,228,000	834,000	1,640,500	450	10,469	61,266	4,022	305	16	357	95,100	769	93,000

Italics show fish and eggs that were brought from without the State.
 † Eggs were hatched by Commission.
 * Eggs were taken by Commission in Nevada and hatched at our hatcheries.

FINANCIAL STATEMENT.

APPROPRIATION FOR SUPPORT AND MAINTENANCE OF THE STATE
HATCHERIES.*Warrants Drawn during Forty-fourth Fiscal Year, ending June 30, 1893.*

1892.			
July	1—Amount appropriated.....		\$5,000 00
Aug.	3—J. W. Hartley, salary, July.....	\$15 00	
	R. E. Wilson, expenses.....	95 30	
	10—E. W. Hunt, salary and expenses, July.....	156 20	
	W. H. Shebley, salary and expenses, July.....	127 40	
	24—J. A. Richardson, salary and expenses, July.....	161 35	
	E. D. Stewart, salary, July.....	77 50	
Sept.	1—J. Caire, wire cloth, etc.....	9 58	
	7—J. A. Richardson, salary and expenses, August.....	153 95	
	E. D. Stewart, salary and expenses, August.....	96 75	
	9—John Nelson, hauling fish and cans.....	36 00	
	W. H. Shebley, salary and expenses, August.....	150 40	
	E. W. Hunt, salary and expenses, August.....	156 50	
	13—S. C. Mills, salary and expenses, August.....	58 40	
	Union Ice Company, ice for shipping.....	35 63	
	22—Sisson, Crocker & Co., supplies.....	62 81	
	30—E. W. Hunt, salary and expenses, September.....	151 75	
	W. H. Shebley, salary and expenses, September.....	130 15	
	J. A. Richardson, salary and expenses, September.....	153 95	
Oct.	31—E. W. Hunt, salary and expenses, October.....	29 00	
	J. W. Hartley, salary and expenses, October.....	67 90	
	W. H. Shebley, salary and expenses, October.....	118 80	
	E. D. Stewart, salary and expenses, September.....	45 75	
	J. A. Richardson, salary and expenses, October.....	155 50	
	C. W. Wickham, carpenter labor.....	38 50	
	S. Kaufman, stenographic services.....	67 70	
Nov.	10—Overland Monthly Company, plates for reports.....	25 00	
	17—W. E. Sell, office rent, September.....	25 00	
	30—H. W. Spaulding, stenographic services.....	11 30	
	J. A. Richardson, salary and expenses, November.....	143 00	
	W. H. Shebley, salary and expenses, November.....	57 00	
	4—J. J. Deane, office rent, November.....	37 50	
Dec.	31—J. W. Hartley, salary and expenses, December.....	85 10	
	J. A. Richardson, salary and expenses, December.....	165 80	
1893.			
Jan.	3—J. J. Deane, office rent, January.....	37 50	
	9—W. H. Shebley, salary and expenses, December.....	143 95	
Feb.	1—Jerry Adams, supplies, Bear Valley Hatchery.....	11 45	
	W. H. Allen, salary, January.....	40 00	
	T. E. Sullivan, salary, January.....	47 50	
	J. A. Richardson, salary and expenses, January.....	173 15	
	L. C. Nilson, shipping salmon eggs.....	64 50	
	E. W. Hunt, salary and expenses, January.....	156 25	
	3—Livingston Stone, maturing and packing salmon eggs.....	169 20	
	6—W. H. Shebley, salary and expenses, January.....	129 45	
	18—H. L. Macneil, expenses.....	95 30	
Mar.	1—E. W. Hunt, salary and expenses, February.....	127 55	
	J. W. Hartley, salary and expenses, February.....	71 10	
	J. A. Richardson, salary and expenses, February.....	165 95	
	W. C. Murdoch, expenses.....	49 90	
	2—J. J. Deane, office rent, March.....	37 50	
	6—W. H. Shebley, salary and expenses, February.....	137 00	
	31—J. A. Richardson, salary and expenses, March.....	124 78	
	E. D. Stewart, salary, March.....	67 00	
Apr.	4—W. H. Shebley, salary and expenses, March.....	114 50	
	E. W. Hunt, salary and expenses, March.....	135 00	
		\$5,000 00	\$5,000 00

Warrants Drawn during the Forty-fifth Fiscal Year, ending June 30, 1894.

1893.	July 1—Amount appropriated.....		\$7,500 00
Aug.	1—J. A. Richardson, salary and expenses, July.....	\$161 05	
	E. D. Stewart, salary and expenses, July.....	82 15	
	15—E. W. Hunt, salary and expenses, July.....	114 50	
	W. H. Shebley, salary and expenses, July.....	108 00	
Sept.	4—J. A. Richardson, salary and expenses, August.....	198 32	
	J. W. Hartley, salary and expenses, August.....	70 90	
	J. J. Deane, office rent, September.....	30 00	
	L. J. Griffen, food for fry.....	29 82	
	Whittier, Fuller & Co., paint, etc.....	25 00	
	E. D. Stewart, salary and expenses, August.....	141 45	
	J. H. Sisson, ice for shipping.....	21 50	
	16—E. W. Hunt, salary and expenses, August.....	170 35	
	W. H. Shebley, salary and expenses, August.....	157 45	
	18—W. C. Murdoch, expenses.....	54 80	
	M. Harney, stenographic services.....	13 00	
	27—J. H. Sharp, rent of Tahoe Hatchery to July 1, 1894.....	50 00	
	30—E. W. Hunt, salary and expenses, September.....	220 15	
Oct.	3—Whittier, Fuller & Co., asphaltum paint.....	4 50	
	9—W. H. Shebley, salary and expenses, September.....	207 65	
	J. M. Bowles, supplies, repairs to cans.....	29 50	
	E. D. Stewart, salary, 17 days, September.....	42 50	
	10—J. A. Richardson, salary and expenses, September.....	132 85	
	11—T. E. Sullivan, salary, September.....	24 00	
	18—Sisson Mill and Lumber Co., lumber and supplies.....	29 64	
	J. D. Redding, expenses.....	80 00	
Nov.	1—E. D. Stewart, expense hauling.....	5 00	
	A. E. Montgomery, carpenter labor.....	40 00	
	D. L. Oliver, labor.....	55 00	
	W. D. Sisson, hauling fish and cans.....	42 65	
	W. H. Shebley, salary and expenses, October.....	143 15	
	4—T. E. Sullivan, salary and expenses, October.....	91 50	
	6—E. W. Hunt, salary and expenses, October.....	212 84	
	22—S. S. Bass, expense on account of salmon eggs.....	60 00	
Dec.	1—T. E. Sullivan, salary and expenses, November.....	92 75	
	A. E. Montgomery, carpenter labor.....	41 85	
	F. L. Montgomery, carpenter labor.....	21 54	
	E. W. Hunt, salary and expenses, November.....	167 35	
	D. L. Oliver, labor.....	55 00	
	W. H. Shebley, salary and expenses, November.....	112 75	
	George T. Mills, expense of obtaining spawn.....	188 87	
	A. Green, painting Bear Valley Hatchery.....	45 00	
	9—W. D. Sisson, hauling eggs and cases.....	57 05	
	J. J. McDonald, material, Independence Lake.....	38 05	
	Mrs. L. M. Sisson, rent of Sisson Lake.....	50 00	
	Whittier, Fuller & Co., oil and paint.....	11 00	
1894.	Jan. 2—L. J. Griffen, labor.....	42 10	
	D. L. Oliver, labor.....	40 00	
	W. H. Shebley, salary and expenses, December.....	177 05	
	Frank Shebley, salary and expenses, December.....	58 35	
	J. A. Richardson, expenses, December.....	4 50	
	T. E. Sullivan, salary and expenses, December.....	79 90	
	Sisson Mill and Lumber Co., lumber, nails, etc.....	103 15	
	J. Caire, wire cloth.....	39 60	
	5—W. D. Sisson, hauling eggs and cases.....	17 75	
	E. W. Hunt, salary and expenses, December.....	243 35	
Feb.	1—T. E. Sullivan, salary, January.....	60 00	
	Frank Shebley, salary, January.....	50 00	
	D. L. Oliver, labor, January.....	40 00	
	W. D. Sisson, hauling eggs and cases.....	66 50	
	W. H. Shebley, salary and expenses, January.....	168 58	
	E. W. Hunt, salary and expenses, January.....	173 30	
	W. H. Allen, salary, January.....	65 00	
Mar.	1—E. L. Oliver, labor, February.....	40 00	
	Frank Shebley, salary, February.....	64 50	
	E. W. Hunt, salary and expenses, February.....	109 00	
	W. H. Shebley, salary and expenses, February.....	165 07	
	T. E. Sullivan, salary and expenses, February.....	68 25	
	28—David Hun, supplies.....	2 50	
	Holbrook, Merrill & Stetson, fish shipping cases and repairs.....	77 50	
	Amounts carried forward.....	\$5,636 98	\$7,500 00

1894.	Amounts brought forward	\$5,686 98	\$7,500 00
April 2—	T. E. Sullivan, salary and expenses, March	106 00	
	Whittier, Fuller & Co., paint	35 80	
	J. Cairé, wire cloth	37 76	
	E. W. Hunt, salary and expenses, March	147 50	
	W. D. Sisson, hauling fish and cans	77 15	
	John Nelson, hauling fish and cans	39 00	
	Frank Shebley, salary and expenses, March	81 00	
	D. L. Oliver, labor, March	40 00	
	W. H. Shebley, salary and expenses, March	148 70	
May 1—	W. H. Shebley, salary and expenses, April	131 55	
	Holbrook, Merrill & Stetson, repairs to cans	2 50	
	T. E. Sullivan, salary and expenses, April	105 00	
	Frank Shebley, salary and expenses, April	80 00	
	W. P. Fuller & Co., asphaltum paint	8 00	
8—	E. W. Hunt, salary and expenses, April	319 62	
	F. C. Boyce, salary and expenses, April	75 50	
June 1—	W. H. Shebley, salary and expenses, May	137 24	
	Frank Shebley, salary and expenses, May	65 50	
	T. E. Sullivan, salary and expenses, May	105 00	
8—	E. W. Hunt, expenses, May	70 20	
		<hr/>	<hr/>
		\$7,500 00	\$7,500 00

APPROPRIATION FOR RESTORATION AND PRESERVATION OF FISH IN
THE WATERS OF THE STATE.

Warrants Drawn during the Forty-fourth Fiscal Year, ending June 30, 1893.

1892.	July 1—Amount appropriated		\$5,000 00
Aug. 1—	S. C. Mills, salary and expenses, July	\$59 05	
	John P. Babcock, salary and expenses, July	119 05	
3—	George H. Koppitz, salary and expenses, July	115 65	
	Thomas Tunstead, salary and expenses, July	130 25	
	W. E. Sell, office rent, July	25 00	
16—	S. Kaufman, stenographer	38 80	
17—	J. W. Hartley, salary and expenses, July	54 05	
Sept. 1—	George H. Koppitz, salary and expenses, August	163 55	
	Thomas Tunstead, salary and expenses, August	169 25	
	J. W. Hartley, salary and expenses, August	15 00	
	J. P. Babcock, salary and expenses, August	150 80	
2—	A. Hayward, office rent, August	25 00	
10—	W. A. Bacon, supplies, camera, and fixtures	80 00	
28—	Jos. D. Redding, expenses	68 10	
	S. Kaufman, stenographer, compiling report	182 35	
30—	J. P. Babcock, salary and expenses, September	119 95	
	S. C. Mills, salary and expenses, September	60 70	
Oct. 1—	George H. Koppitz, salary and expenses, September	172 30	
	J. W. Hartley, salary and expenses, September	15 00	
	J. J. Deane, office rent, October	37 50	
	Thomas Tunstead, salary and expenses, September	167 40	
31—	F. M. Bacigalupi, salary and expenses, October	11 90	
	J. P. Babcock, salary and expenses, October	150 50	
Nov. 5—	Thomas Tunstead, salary and expenses, October	137 25	
17—	H. S. Crocker Company, stationery	23 00	
	George H. Koppitz, salary and expenses, October	114 40	
30—	F. M. Bacigalupi, salary and expenses, November	115 50	
	J. P. Babcock, salary and expenses, November	141 10	
	J. W. Hartley, salary and expenses, November	82 60	
Dec. 1—	George H. Koppitz, salary and expenses, November	107 25	
	J. J. Deane, office rent, December	37 50	
14—	Thomas Tunstead, salary and expenses, November	124 00	
31—	J. P. Babcock, salary and expenses, December	130 95	
1893.	Jan. 1—George H. Koppitz, salary and expenses, December	101 00	
	3—Thomas Tunstead, salary and expenses, December	27 50	
Feb. 1—	Thomas Tunstead, expenses, January	34 50	
	J. P. Babcock, salary and expenses, January	171 25	
	J. W. Hartley, salary and expenses, January	69 35	
17—	J. J. Deane, office rent, February	37 50	
Mar. 3—	J. P. Babcock, salary and expenses, February	148 85	
	A. W. Wilson, salary and expenses, February	35 00	
		<hr/>	<hr/>
	Amounts carried forward	\$3,870 15	\$5,000 00

1893.	Amounts brought forward	\$3,870 15	\$5,000 00
Mar. 31	J. W. Hartley, salary and expenses, March	110 15	
	J. P. Babcock, salary and expenses, March	129 70	
	A. W. Wilson, salary and expenses, March	104 65	
April 3	J. J. Deane, office rent, April	37 50	
May 1	George H. Koppitz, salary and expenses, April	117 70	
	A. W. Wilson, salary and expenses, April	124 90	
	J. P. Babcock, salary and expenses, April	186 35	
June 1	J. P. Babcock, salary and expenses, May	151 60	
	George H. Koppitz, salary and expenses, May	162 25	
	Balance not used	5 05	
	Totals	\$5,000 60	\$5,000 00

Warrants Drawn during the Forty-fifth Fiscal Year, ending June 30, 1894.

1893.	July 1—Amount appropriated		\$10,000 00
Aug. 1	G. H. Koppitz, salary and expenses, July	\$114 15	
	J. P. Babcock, salary and expenses, July	115 00	
	J. W. Hartley, salary and expenses, July	89 85	
	M. Hearney, stenographer	13 00	
	J. J. Deane, office rent, August	30 00	
15	A. W. Wilson, salary and expenses, July	128 00	
Sept. 5	J. P. Babcock, salary and expenses, August	150 05	
	G. H. Koppitz, expenses, July	9 70	
	G. H. Koppitz, salary and expenses, August	139 05	
	9—Thomas Tunstead, salary and expenses, August	83 65	
	Henry Rowson, launch "Hustler"	140 00	
	11—H. L. Macneil, expenses	11 00	
	30—J. P. Babcock, salary and expenses, September	169 50	
	Henry Rowson, launch "Hustler"	210 00	
	J. W. Hartley, salary and expenses, September	71 55	
	J. J. Deane, office rent, October	30 00	
Oct. 2	Thomas Tunstead, salary and expenses, September	159 10	
	A. W. Wilson, salary and expenses, August	135 30	
	A. W. Wilson, salary and expenses, September	220 05	
	7—G. H. Koppitz, salary and expenses, September	154 50	
	9—H. Martin, labor, fish ladder	22 75	
	J. Gilpin, labor, fish ladder	22 75	
	Klamath River Lumber Co., fish ladder, lumber	61 92	
	A. G. Fletcher, expenses, August	2 20	
	A. G. Fletcher, expenses, September	8 35	
	10—M. Hearney, stenographer	13 00	
	11—F. P. Deering, attorney, salary and expenses, July	243 70	
	F. P. Deering, attorney, salary and expenses, August	202 10	
	F. P. Deering, attorney, salary and expenses, September	104 75	
	18—H. L. Macneil, expenses	20 00	
Nov. 1	F. P. Deering, attorney, salary, October	100 00	
	Thomas Tunstead, salary and expenses, October	116 75	
	J. W. Hartley, salary and expenses, October	60 00	
	S. Kaufman, stenographer	19 20	
	J. P. Babcock, salary and expenses, October	168 60	
	G. H. Koppitz, salary and expenses, October	115 55	
	A. G. Fletcher, salary and expenses, August and Sept.	200 00	
	A. W. Wilson, salary and expenses, October	114 75	
	14—A. G. Fletcher, salary and expenses, October	50 00	
	J. C. Irvine, badges for patrolmen	13 00	
Dec. 1	J. P. Babcock, salary and expenses, November	153 55	
	A. W. Wilson, salary and expenses, November	102 00	
	J. W. Hartley, salary and expenses, November	60 00	
	J. J. Deane, office rent, November	30 00	
	F. P. Deering, attorney, salary and expenses, November	300 00	
	9—A. G. Fletcher, attorney, salary and expenses, November	62 20	
1894.	Jan. 2—M. Hearney, stenographer	26 00	
	H. L. Macneil, expenses	14 65	
	J. P. Babcock, salary and expenses, December	188 80	
	A. W. Wilson, salary and expenses, December	150 80	
	F. P. Deering, attorney, salary, December	100 00	
	Livingston Stone, hauling 4,390,000 salmon eggs	175 60	
	G. H. Koppitz, salary and expenses, November	104 00	
	G. H. Koppitz, salary and expenses, December	180 60	
	A. G. Fletcher, salary and expenses, December	55 30	
	S. Kaufman, stenographer	34 50	
	Amounts carried forward	\$5,570 82	\$10,000 00

1894. Amounts brought forward		\$5,570 82	\$10,000 00
Jan.	5—Charles H. Gilbert, expenses, November and December	63 55	
	J. J. Deane, office rent, December	30 00	
Feb.	1—A. W. Wilson, salary and expenses, January	126 75	
	G. Watson, expenses, January	25 00	
	John Low, labor and expenses, January	103 25	
	F. P. Deering, attorney, salary, January	100 00	
	G. H. Koppitz, salary and expenses, January	112 20	
	J. P. Babcock, salary and expenses, January	200 40	
	S. Kaufman, stenographer	60 00	
	2—J. J. Deane, office rent, January	30 00	
	A. G. Fletcher, salary and expenses, January	99 40	
	3—J. C. Irvine, badges, patrolmen	13 65	
Mar.	1—A. G. Fletcher, salary and expenses, February	66 20	
	8—S. Kaufman, stenographer	81 15	
	J. J. Deane, office rent, February	30 00	
	A. W. Wilson, salary and expenses, February	144 45	
	J. P. Babcock, salary and expenses, February	160 30	
	Livingston Stone, hauling salmon eggs	64 40	
	G. H. Koppitz, salary and expenses, February	116 80	
	M. Godley, Jr., salary and expenses, February	65 73	
	J. J. Deane, office rent, March	30 00	
	20—B. Wilson & Co., cloth for posters	15 15	
April	2—A. W. Wilson, salary and expenses, March	149 35	
	J. P. Babcock, salary and expenses, March	178 25	
	M. Godley, Jr., salary and expenses, March	76 84	
	J. A. Richardson, salary and expenses, March	162 40	
	J. C. Parker, launch "Belvedere"	40 00	
	3—A. G. Fletcher, salary and expenses, March	93 35	
	5—G. H. Koppitz, salary and expenses, March	21 40	
	13—S. Crocker, salary and expenses, March	122 50	
	J. J. Deane, office rent, April	30 00	
	17—Union Ice Company, ice, March and April	15 25	
	24—J. A. Richardson, salary and expenses, February	80 40	
	30—M. Godley, Jr., salary and expenses, April	115 00	
	S. Kaufman, stenographer	41 25	
	J. J. Deane, office rent, May	30 00	
May	1—Wm. C. Murdoch, expenses	28 30	
	M. Hearney, stenographer	23 00	
	J. P. Babcock, salary and expenses, April	166 35	
	A. G. Fletcher, salary and expenses, April	94 80	
	Henry Rowson, launch "Hustler"	250 00	
	5—A. W. Wilson, salary and expenses, April	147 50	
June	1—J. P. Babcock, salary and expenses, May	145 95	
	A. W. Wilson, salary and expenses, May	130 05	
	A. G. Fletcher, salary and expenses, May	97 45	
	W. R. McFarland, salary and expenses, May	164 20	
	J. Low, salary and expenses, May	71 50	
	S. S. Bass, transferring fish to Truckee	28 25	
	J. J. Deane, office rent, June	30 00	
	30—A. G. Fletcher, expenses, June	7 46	
	Balance on hand	150 00	
Totals		\$10,000 00	\$10,000 00

FISH COMMISSIONERS' FUND.

Warrants Drawn during the Forty-fourth Fiscal Year, ending June 30, 1893.

1892.			
July	1—	Amount on hand	\$163 64
		Receipts into fund	4,495 17
		J. P. Babcock, salary and expenses, June	\$152 10
		S. C. Mills, salary and expenses, June	55 90
		G. H. Koppitz, salary and expenses, May	111 50
	14—	G. H. Koppitz, salary and expenses, June	140 25
		J. W. Hartley, salary	15 00
	18—	Thomas Tunstead, salary and expenses, May	123 90
	26—	T. Price & Son, analysis of sample water	25 00
		Thomas Tunstead, salary and expenses, June	152 00
		W. H. Shebley, salary and expenses, June	111 80
		E. W. Hunt, salary and expenses, June	144 55
		E. W. Stewart, salary, June	75 00
		A. Hayward, office rent, June	25 00
		T. E. Sullivan, salary, June	60 00
Aug.	3—	J. A. Richardson, salary and expenses, June	154 35
		T. E. Sullivan, salary, July	10 50
Sept.	1—	Whittier, Fuller & Co., 70 gallons of naphtha	14 00
		J. G. Woodbury, salary, March 31 to April 17, 1892	70 83
	23—	Joseph D. Redding, expenses	153 60
Oct.	11—	Warner Harris, salary, December, 1890	100 00
Nov.	12—	John Nelson, hauling fish, etc., May	23 00
June	1—	Union Ice Company, ice in May	11 40
		Ora Hardman, salary, Bear Valley Hatchery, May	15 00
	2—	S. Grendi, lumber, Bear Valley Hatchery	9 73
		Andrew Howe, labor, Bear Valley Hatchery	40 00
1893.			
Jan.	1—	T. W. O'Neill, painting license tags	28 00
	3—	A. Carlisle & Co., stationery	34 65
	16—	Joseph D. Redding, expenses	81 55
Feb.	1—	Henry Cowell & Co., supplies	10 90
Mar.	2—	S. Kaufman, stenographer	17 70
	4—	L. J. Griffen, labor and material, Sisson Hatchery	65 50
April	3—	H. C. Chipman, painting license tags	212 80
	16—	J. A. Richardson, expenses, March	1 97
	19—	Henry Rowson, launch "Hustler"	170 00
May	4—	J. W. Hartley, salary and expenses, April	75 75
		E. D. Stewart, salary and expenses, April	75 00
		J. A. Richardson, salary and expenses, April	134 50
		W. H. Shebley, salary and expenses, April	155 21
		J. J. Deane, office rent, May	37 50
		M. Hearney, stenographer	13 00
		S. Kaufman, stenographer	14 60
	5—	W. H. Allen, salary, Bear Valley Hatchery	60 00
		E. W. Hunt, salary and expenses, April	189 15
June	1—	W. H. Allen, salary, May	28 00
		A. W. Wilson, salary and expenses, May	109 50
		E. D. Stewart, labor, May	75 00
		J. W. Hartley, salary and expenses, May	69 15
		M. Hearney, stenographer	13 00
		J. J. Deane, office rent, June	30 00
		E. W. Hunt, salary and expenses, May	157 65
	5—	W. H. Shebley, salary and expenses, May	130 36
		S. P. R. R. Co., transporting muskallunge from Ogden	234 60
	30—	Balance on hand	634 36
		Totals	\$4,658 81
			\$4,658 81

FISH COMMISSIONERS' FUND.

Warrants Drawn during the Forty-fifth Fiscal Year, ending June 30, 1894.

By balance on hand, July 1, 1893.....		\$634 36
Receipts into fund		3,472 02
1893.		
June 1—W. C. Murdoch, expenses.....	\$28 55	
7—J. A. Richardson, salary and expenses, June.....	185 15	
30—J. P. Babcock, salary and expenses, June.....	129 90	
J. W. Hartley, salary and expenses, June.....	91 30	
S. S. Bass, transporting fish.....	6 00	
J. J. Deane, office rent, July.....	30 00	
E. D. Stewart, salary and expenses, June.....	80 95	
M. Hearney, stenographer.....	13 00	
S. P. R. R. Co., transportation of U. S. fish car.....	83 00	
A. W. Wilson, salary and expenses, June.....	154 00	
J. D. Redding, expenses.....	73 70	
July 5—F. P. Deering, attorney, salary and expenses, June.....	250 00	
J. A. Richardson, salary and expenses, June.....	152 15	
Geo. H. Koppitz, salary and expenses, June.....	125 85	
11—W. H. Shebley, salary and expenses, June.....	115 75	
E. W. Hunt, salary and expenses, June.....	141 75	
15—Union Ice Company, ice.....	15 50	
S. Kaufman, stenographer.....	27 30	
Sept. 11—H. L. Macneil, expenses.....	16 50	
30—A. G. Fletcher, expenses, May.....	33 15	
20—J. A. Richardson, expenses, August.....	7 70	
Oct. 26—J. C. Irvine, patrolmen's badges.....	16 90	
Dec. 7—J. G. Woodbury, rent of grounds, Tahoe Hatchery.....	50 00	
1894.		
Jan. 18—H. S. Crocker Co., printing and stationery.....	27 65	
Feb. 1—Holbrook, Merrill & Stetson, supplies.....	12 50	
Mar. 1—Swan & Stein, painting extra license tags.....	11 25	
9—H. C. Chipman, painting license tags.....	195 00	
May 5—W. R. McFarland, salary and expenses, April.....	134 13	
8—H. S. Crocker Co., office supplies.....	9 56	
J. C. Irvine, patrolmen's badges.....	16 25	
June 1—Mary C. Rowson, launch "Hustler," May.....	70 00	
Justinian Caire, supplies for Tahoe Hatchery.....	34 00	
W. P. Fuller & Co., paint, Sisson Hatchery.....	7 75	
L. J. Griffen, labor, Sisson Hatchery.....	55 12	
D. L. Oliver, labor, Sisson Hatchery, May.....	24 09	
8—W. D. Sisson, hauling fish and spawn, May.....	14 00	
E. W. Hunt, salary and expenses, May.....	153 74	
F. C. Boyce, salary and expenses, May.....	60 00	
C. F. Selvage, salary and expenses, May.....	74 00	
30—Balance on hand.....	1,379 24	
Totals.....	\$4,106 38	\$4,106 38

STATEMENT OF LICENSES ISSUED.

AMOUNT RECEIVED FROM LICENSES FOR THE YEAR ENDING APRIL 1, 1893.

Class.	Received of Controller.	Value of Each.	On Hand April 1, 1892.	Sold During the Year.	Total Value of Licenses Sold.	Commissions Paid for Collecting.	Net Amount Paid the State.
A	600	\$5 00	68	532	\$2,660 00	\$85 10	\$2,574 90
B.....	50	7 50	22	28	210 00	7 50	202 50
C.....	50	10 00	44	6	60 00	-----	60 00
D.....	50	12 50	18	32	400 00	-----	400 00
E.....	50	-----	46	4	90 00	-----	90 00
Totals	800	-----	198	602	\$3,420 00	\$92 60	\$3,327 40

AMOUNT RECEIVED FROM LICENSES FOR THE YEAR ENDING APRIL 1, 1894.

Class.	Received of Controller.	Value of Each.	On Hand April 1, 1893.	Sold During the Year.	Total Value of Licenses Sold.	Commissions Paid for Collecting.	Net Amount Paid the State.
A	700	\$5 00	130	570	\$2,850 00	\$67 50	\$2,782 50
B.....	50	7 50	29	21	157 50	1 10	156 40
C.....	50	10 00	41	9	90 00	1 50	88 50
D.....	50	12 50	23	27	337 50	-----	337 50
E.....	50	-----	50	0	-----	-----	-----
Totals	900	-----	273	627	\$3,435 00	\$70 10	\$3,364 90

AMOUNT RECEIVED FROM STURGEON LICENSES FOR THE YEAR ENDING OCTOBER 1, 1894.

Received of Controller.	Value of Each.	Number Sold.	Amount Collected.	Net Amount Paid the State.
100	\$10 00	61	\$610 00	\$610 00

LOCATION OF THE FISHERIES OF CALIFORNIA.

SAN DIEGO COUNTY.

This is the extreme southernmost county of the State, and has a coast-line of about 57 miles. Most of the fishing is conducted in two indentations of the coast, known as San Diego Bay and False Bay, although fishing off the coast for barracuda and other varieties of open-sea fish cuts no small figure. Captain Collins, of the United States Fish Commission, reported extensive Chinese fisheries in San Diego in 1888. These fisheries have since been abandoned, however, and at this time there are comparatively few Chinese connected with the industry.

The fisheries of the county chiefly center in San Diego City, where most of the catch is marketed in a fresh condition. A considerable number of bonito are taken, and after being salted are shipped to San Francisco. The chief species of this region are barracuda, flounders, bonito, yellow-tail, smelt, and rock-fish. The most important of these is the barracuda, of which 309,614 pounds were taken in 1892. The total value of the fishery products in 1888, when the output of the industry seemed at its height, was \$63,068 80. This represented an increase of \$5,459 80 over 1880. The fisheries of 1892 show a decrease of \$15,530 80.

In 1888 there were employed in the fishery industry, 22 vessels, of which 9 were engaged in the outside fisheries, and used troll lines almost entirely. The others, together with 43 small boats, were engaged in and about the bay fishing with seines and gill-nets as well as troll lines. Pots and traps are also used for catching the craw-fish or "spiny" lobster. There was in 1888 an increase of 43 vessels and boats over 1880; while in 1892 there was a further increase of 22.

The total investment in 1892 was \$41,067, an increase of \$8,242 over 1888, and of \$31,267 over 1880.

During 1888 there were employed in the industry 159 men, as against 92 in 1892, and but 47 in 1880.

In the winter of 1888-89 the United States Fish Commission steamer "Albatross" discovered what is known as the Tanner Bank, some 45 miles from San Diego. A thorough examination was made at the same time of the Cortez Bank, some 12 miles south of Tanner Bank, developing the fact that many valuable food fish can be taken at both places. There seems to be no limit to the outside supply of fish, although the bay has been sadly depleted during the past few years. We take pleasure in reporting the passage of local ordinances which promise in time to restore the standing of the bay fisheries.

ORANGE COUNTY.

There are no figures for Orange County until 1892, as it was up to that time a part of Los Angeles County, and its fishery products are included in that county's output. The county, however, possesses fisheries of no inconsiderable extent. Along the coast-line of 20 miles

there are many sandy beaches, all of which furnish good grounds for surf fishing. The favorite location with fishermen is Newport Beach. It is persistently dragged with seines and the catch shipped to inland markets in a fresh condition. There were in 1892 engaged at this point 12 men, who used six small boats, valued, together with their gear, at \$750. In 1892 the total value of the fishery product of the county was \$3,025. The chief catch was of smelt, the amount taken being 25,621 pounds.

LOS ANGELES COUNTY.

Los Angeles County in 1892 ranked ahead of all the counties south of San Francisco in its fishery product. Its coast-line has an extent of about 100 miles, and except in the northern part of the county, its shores are generally low, with sandy beaches. The principal indentations are San Pedro and Santa Monica Bays, and the breakwater at San Pedro helps to make the only good harbor for fishing boats in the county. The principal fishing stations are Alamidos Bay, San Pedro, Wilmington, Portuguese Bend, Redondo, Santa Monica, and Catalina Island. Surrounding the latter is one of the most important fishing-grounds on the coast. The island is situated some 18 miles distant from the main land, and the banks in the channel afford splendid grounds for barracuda, yellow-tail, flounder, and rock cod. The fishing boats used are small boats and undecked, and the majority are feluccas. Gill-nets are used to a greater extent than any other kind of gear, especially in taking smelt and barracuda, although hand lines (including trolls) and trawls are operated from most of the fishing centers. Surf seines are also operated to a large extent in Santa Monica Bay. The principal species taken are barracuda, mackerel, smelt, sardines, and the "spiny" lobster. The majority of the catch is sent to the markets of Los Angeles and the interior in a fresh condition, although a large proportion of the sardines and mackerel, and some bonito, are canned by the California Fish Company. This company has erected extensive buildings at East San Pedro, and is placing upon the market a sardine which is said to be as fine as any of the Eastern sardines.

There were 234 men employed in the fishing industry in 1892, an increase of 181 since 1880, and 97 since 1888. They used 13 vessels and boats in 1880, 69 in 1888, and 124 in 1892. The total investment of capital in 1880 was \$2,005, and this had increased in 1888 to \$15,835, and in 1892 to \$49,261. The value of the fishery products in 1888 was \$41,901, while \$49,541 represented the value in 1892.

VENTURA COUNTY.

Captain Collins reported Ventura County without a single professional fisherman, in 1888. Although this county has a coast-line of about 36 miles, there are but two points, Hueneme and Ventura, at which fishing has ever been carried on, and they are so unprotected that the few fishermen located there have a hard time to save their property in times of storm. This accounts for the poor showing which this county makes. In 1892 there were four men located in Ventura County, who used troll lines entirely, taking barracuda, rock-fish, and halibut. Their catch was all disposed of in a fresh condition in the

local markets, and was valued at \$1,960. The total investment of capital in this county in 1892 was \$885.

SANTA BARBARA COUNTY.

The coast-line of Santa Barbara County is upwards of 100 miles in length, and stretching parallel with the coast about 20 miles distant is a group of islands. Between these and the main land lies the stretch of water known as Santa Barbara Channel, one of the best fishing-grounds on the Pacific Coast. Here barracuda, bonito, rock-fish, and other species are taken. Santa Barbara has important "spiny" lobster fisheries, as will be seen from the fact that 154,850 pounds were taken in 1892. Large numbers of these are shipped to the San Francisco markets, which derives from this locality their chief supply. Troll-lines are used in the channel in the winter, and also in taking barracuda and yellow-tail in the summer. Gill-nets are employed chiefly in the winter time, and seines are operated on the beach during the summer. Crawfish are taken in hoop-nets in the summer, and the regular pot made of laths is used in the winter.

There were 26 vessels and boats used in this county in 1892, an increase of 2 since 1888, and of 21 since 1880. The value of the investment in 1880 was \$7,350. In 1888, on account of the abandonment of the whale fisheries, this amount had decreased to \$4,452. In 1892, on account of the increase of the food fisheries, the value had reached \$10,315. The city of Santa Barbara is the chief fishing center, and a majority of the fish caught are consumed there in a fresh condition, the surplus only being sent to San Francisco. The same species are taken in this county as in the counties farther south, and were it possible for the fish to be marketed, the catch might be increased to unlimited figures.

SAN LUIS OBISPO COUNTY.

The coast-line of San Luis Obispo County is some 80 miles in length, and unfortunately is without a good harbor, although the bay at Port Harford affords some protection for fishing craft. This county was the seat of extensive whale fisheries in years past, but at this time there are no men engaged in that fishery. At the present time Port Harford is the chief fishing center, being the only point from which the product can be shipped. This is unfortunate, as it necessarily limits the catch which might otherwise attain an unlimited figure, as there is apparently no lack of supply. The species caught do not vary much from those taken farther south. The sea-bass is one of the most important species of this county. Rock-fish of numerous varieties are also taken in great numbers, and constitute a large part of the entire catch, 104,500 pounds being taken in 1892. Flounders, pompano, king-fish, perch, and other varieties are caught in small quantities. The rock-fish are taken with trawls, and drift-nets are used for the other varieties, although barracuda and some others are caught by trolling. There were 38 men engaged in fishing in this county in 1892, using 16 boats. These boats, together with the gear used, were valued at \$5,615. The value of the food fish in 1892 was \$8,487, a slight increase over 1888, and an increase of nearly \$6,000 since 1880.

MONTEREY COUNTY.

The coast-line of Monterey County stretches north from its junction with San Luis Obispo County in an almost unbroken line, until the shore makes an abrupt curve at the south end of Monterey Bay. The high mountains of the Santa Lucia range run parallel with the shore, and render fishing impossible on that part of the coast. Point Pinos shelters the lower end of Monterey Bay, thus affording protection to the chief fishing center of the county.

Captain Collins says: "Monterey Bay is celebrated for its abundance of fish, and is especially noted for being apparently the limit of migration for many species that abound north and south of this point. Of the many species found in abundance farther south, few are ever seen in great numbers north of Monterey Bay. It is said that many northern species, among which the salmon is included, are generally rarer south of this point, and are sometimes not found."

Drag-seines, gill-nets, and hand-lines are chiefly used by the white fishermen, as are also drift-nets during the summer time. The Chinese use the trawl and also small purse-seines in taking squid, which are abundant in their season. Rock-fish, flounders, and smelt are the species chiefly taken during the winter, but the same species are taken here as farther south during the summer. Almost the entire catch of the white fishermen, as well as a part of that taken by the Chinamen, is shipped to San Francisco in a fresh condition. Squid are dried by the Chinese, and sent to San Francisco, from whence they are shipped to China. There were 121 men employed in this county in 1892, using 84 vessels and boats. The total amount of capital invested was \$32,145, an increase of \$27,000 since 1880. The value of the product was \$61,000 in 1892.

SANTA CRUZ COUNTY.

The fishing of Santa Cruz County is chiefly carried on in the bay of Monterey, where there are, in places, some sandy beaches, although the cliffs in many places are so high that they offer no shelter or landing-place for shipping craft. The chief fishing centers are Santa Cruz, Capitola, and Aptos. The same methods are employed here, and the same species caught, as in Monterey County. Salmon and shad are here, however, more abundant than in Monterey County. During the summer of 1893, the fishermen in Monterey Bay reaped a rich harvest during the great salmon run. There were but 25 fishermen in this county in 1888, but this number was increased to 60 in 1892. In the latter year they used 55 boats, which, together with their gear and shore property, were valued at \$10,000. Their catch that year was valued at \$14,168, the chief species taken being rock-fish, 172,220 pounds.

SAN FRANCISCO FISHERIES.

At and about San Francisco are located the most extensive fisheries to be found on the coast. Captain J. W. Collins, of the U. S. Commission of Fish and Fisheries, has said: "As a whole, San Francisco and vicinity may be considered one of the leading fishing centers of the United States, and its possibilities for development in that direction are

believed to be very great." (See Report on Fisheries of the Pacific Coast, 1891.)

The geographical features of San Francisco are particularly favorable to the development of the fisheries. A review of San Francisco fisheries, however, is naturally made to include the adjacent counties of Alameda, San Mateo, Santa Clara, Contra Costa, Solano, Sonoma, Marin, Sacramento, Tehama, and Shasta. The headquarters of the fishing industry in most of these counties is at San Francisco.

The marine fisheries of this region are so important as to exceed in value of combined products the value of fish taken at all similar fisheries on the Pacific Coast. In addition to the large local fisheries, San Francisco is also extensively interested in the whale, fur-seal, and cod fisheries, the products of which reach a very considerable value.

The extent and importance of the shore or local fishing-grounds of San Francisco may best be appreciated when it is considered that the entire area included within San Francisco, San Pablo, and Suisun Bays, constitute good fishing-ground. Extensive fisheries are also maintained outside the heads, from Pigeon Point to Point Reyes, and as far west as the Farrallon Islands; also in Tomales Bay, the Sacramento and San Joaquin Rivers, and numerous tributary sloughs. These waters contain many species of fish, crustaceans, mollusks, and so forth, and afford the fisherman some kind of a catch for every month in the year. So extensive is the supply of fish from all sources that in the matter of the market prices there is never any cause for complaint from the consumers.

San Francisco is the chief fishing center of this entire region, although salmon fishermen work from nearly every town of any size on the Sacramento River. By far the greater number of men, however, make their headquarters in San Francisco, going from there to the various fishing-grounds and then returning in time to market their catch in a fresh condition.

There are two salmon canneries in operation at the present time, upon the Sacramento River, one at Benicia, and the other at Chipp's Island. These canneries take about one fourth of the salmon catch of the Sacramento River, the balance being forwarded to the San Francisco market in a fresh condition.

Several Chinese camps are located at different points on San Francisco and San Pablo Bays. The Chinese are principally engaged in catching shrimp, which are dried and then exported to China and the Hawaiian Islands.

Until a few years ago there were several large stations devoted to the curing of cod. The business was then quite extensive, but of late years it has been permitted, for various reasons, to decline, until now the station at California City is the only one in operation. The decrease in the value of the product commenced prior to 1888, and has continued ever since.

San Francisco is the headquarters of the Pacific whaling fleet, and of many vessels engaged in sealing operations. Space does not permit of an extensive outline of these fisheries, which fact is to be regretted, as there is much of interest that might be written.

Besides the sloops used for carrying oysters to market, and salmon to the canneries, and the steam tugs employed for outside fishing, nearly all of the fishing craft used are small boats, the greater number being feluccas. The regular salmon boat is in use on the Sacramento River.

On account of the great variety of fish caught, and the character of the different fishing-grounds, nearly all kinds of gear are used. The large paranzella nets are hauled upon the banks off Point Reyes by steam tugs, and take the greater proportion of flounders and soles. Many of the fishermen use troll lines and trawls the greater part of the year in fishing outside the heads for cod and rock-fish. Gill-nets are operated wherever the fish happen to be temporarily abundant. The salmon, smelt, herring, and shad, as well as several other varieties, are taken in this manner.

Smelts and sardines are also taken with seines, and in the upper Sacramento gill-nets are used as seines in taking the salmon. The sturgeon are taken on sturgeon lines to which are attached large hooks. Hoop nets are used in taking the crabs.

While many of the varieties are taken in all parts of San Francisco and San Pablo Bays, some points furnish much better fishing for some varieties than others. Smelt are found in the greatest abundance in the southern portions of San Francisco Bay. The salmon are chiefly taken in the Sacramento River and adjacent sloughs, and in Suisun Bay, although good catches are sometimes made in San Pablo Bay. A favorite locality for flounders is in the northern part of San Pablo Bay. The principal catch of sturgeon is made in Suisun Bay, although these fish are also found in San Francisco and San Pablo Bays, and in the lower Sacramento River. Shad are found in those localities where salmon are taken. Striped bass, carp, and catfish are most abundant in the San Joaquin River and adjacent sloughs. Some idea of the immense number of fish taken from these waters may be gained from the following figures for 1892:

Cod	2,274,565 pounds.	Rock-fish	644,372 pounds.
Sardines	703,130 pounds.	Shad	491,394 pounds.
Sturgeon	718,017 pounds.	Salmon	3,484,049 pounds.
Smelt	1,506,103 pounds.	Flounders	3,557,113 pounds.
Herring	4,376,887 pounds.	Clams and mussels	2,054,860 pounds.
Crabs	2,750,000 pounds.	Shrimp and prawns	5,315,075 pounds.

Naturally the San Francisco market is at all times well supplied with fish. It is true of this market, as of all others on the coast, that for lack of proper handling when caught, the fish, by the time they are offered for sale, are far from being as fresh as they should be. No ice is used, and very rarely are the fish cleaned before being sent to the market. This results from the great plenitude of fish, and from the fact that fishermen are able to market their catch within such short distance of the place of capture.

Flounders, rock-fish, perch, carp, and sturgeon are found in the market at all seasons. Salmon and smelt are also found throughout the year, the former, however, being more plentiful during the summer months, and the latter during the winter. Shad are very abundant from October to June, and only about one third as many are taken as could be were these fish in greater demand. Sardines and mackerel are very abundant during the summer. Many fish are sent from San Francisco to the markets of the interior, and the exports of dried and canned fish amount to many thousand pounds a year. The large majority of the men engaged in the fishing in this region are natives of the countries of Southern Europe, and almost the entire number are foreigners.

It would be much more satisfactory had we the figures at hand to

make a comparison of the different branches of the fisheries of this region, but, unfortunately, in compiling the data no division has been made prior to 1892.

There were 4,430 men engaged in the fishery industry in this territory in 1892, an increase of 171 since 1888. In 1888, there were 1,023 vessels and boats used, and in 1892, the number had decreased to 900. There was an investment of \$2,541,730 in 1888, and although the amount invested in the whaling fleet had fallen off nearly a million dollars in 1892, there was a decrease of but \$206,897 in the total investment. In 1892 the value of the product was \$2,793,535, a decrease of \$1,402,329, on account of the decline in the whale and seal fisheries. This still leaves, however, the extremely large valuation of \$2,793,535 to be credited to this region, which is justly considered one of the finest in the world, not only because of the large variety of fish at hand, but, moreover, because of its magnificent possibilities.

Aside from the benefits our people derive directly from the food fisheries, it must be remembered that we are so situated as to be able to send the products of this industry to foreign lands, and thus add a considerable amount to the income afforded by domestic trade. Until the establishment of the new steamship lines from northern points a few years ago, a considerable portion of the output from British Columbia and the Columbia River was shipped to foreign countries from San Francisco. These shipments have not only ceased since steamers commenced running from Oregon, Washington, and British Columbia, but more than this, because of favorable transportation rates, some of the dried and shell-fish products of San Francisco fisheries have been sent north for export, instead of being shipped, as formerly, direct from San Francisco. The following table shows a decided decrease of exports in 1893, because the low prices for canned salmon in England and the British Provinces made it advantageous for the dealers to place their season's pack on the home market:

Exports of Fish from San Francisco in 1892 and 1893.

	1892.	1893.
Codfish	\$26,681 00	\$21,412 00
Dried fish	34,439 00	27,043 00
Salmon, canned	1,810,567 00	621,336 00
Salmon, in barrels	46,986 00	44,157 00
Other canned fish	10,715 00	9,828 00
Oysters	9,655 00	7,432 00
Other shell-fish	226,063 00	188,532 00
Totals	\$2,165,106 00	\$919,740 00

PLACER AND NEVADA COUNTIES.

The fishery interests of Placer and Nevada Counties are confined to the fresh-water varieties, and consist almost entirely of trout, though a few white-fish are taken. The principal market supply is taken with trolls in Lake Tahoe, the use of nets being prohibited, otherwise the white-fish of this lake would figure quite extensively in our markets.

In 1893, there were 30 persons engaged in market fishing at Lake Tahoe, and their apparatus is valued at \$2,250. There were shipped

to the San Francisco market in 1893, 37,500 pounds of lake trout (*S. mykiss*), valued at \$4,700.

In the first three months of the season of 1894, a total of 27,410 pounds were marketed, of which 4,500 pounds were taken in April, 10,500 pounds in May, and 12,350 pounds in June, for which the fishermen realized a net amount of \$3,428. These figures do not include the thousands of pounds served to guests at the many hotels on the lake, nor those carried away by the many sportsmen who yearly visit these waters, of which no record is kept.

A considerable number of pounds of trout are annually caught by market fishermen in Donner and Independence Lakes and the Truckee River, and shipped to the San Francisco markets, the amount of which we have been unable to obtain.

MENDOCINO COUNTY.

The shores of this county are high and rocky, and are ill adapted to the fishing industry. During the winter months, however, large quantities of steel-heads are caught in the waters of the county, and in 1893 there were several men engaged in this pursuit.

HUMBOLDT COUNTY.

The fisheries of Humboldt County are principally confined to Humboldt Bay and Eel and Mad Rivers, although there are fisheries of note in the vicinity of Trinidad Light-house, which have come into notice within a few years. The jetties built at the entrance of Humboldt Bay have had a marked effect upon the outside fishing, and it is believed the catch can be considerably increased.

The salmon fisheries are of the first importance, the fish being mostly taken in the Eel and Mad Rivers. There is no spring run of salmon in these rivers, and the catch is all made in the fall. The main part of the salmon catch is shipped to San Francisco in a fresh condition, as the cannery located on Eel River has not been operated for some years.

The principal marine species taken are flounders, smelts, halibut, rock-fish, and cod. Large quantities of crabs and clams are annually taken.

The chief species taken in 1892 were as follows: Flounders, 145,873 pounds, valued at \$2,917; salmon, 1,082,517 pounds, valued at \$32,875; crabs, 112,320 pounds, valued at \$3,900.

The total fish products for 1892 were valued at \$47,038, an increase of \$15,000 over 1888. The value of the apparatus in use in 1880 was \$18,010, and this had increased to \$26,390 in 1892. There were 320 persons employed in the fisheries in 1892.

DEL NORTE COUNTY.

The only fish taken in this county are those which are chiefly caught in the Smith and Klamath Rivers. The output of the canneries on these rivers in 1892 amounted to 282,250 pounds. These fish are chiefly taken in gill-nets, and in 1892, 118 men were employed during the fall season, using 25 boats. The investment in gear and shore property that year was \$31,900, and the catch was valued at \$5,988.

REPORT OF OBSERVATIONS RESPECTING THE OYSTER RESOURCES AND OYSTER FISHERY OF THE PACIFIC COAST OF THE UNITED STATES.

By CHARLES H. TOWNSEND.

[Extract from Report of U. S. Commissioner of Fish and Fisheries for 1889-91.]

CALIFORNIA.

SAN FRANCISCO BAY.

The oyster industry of the Pacific Coast, exclusive of the trade in the small indigenous species, has never extended beyond the limits of the bay of San Francisco, where it has been restricted to the growing or fattening of seed or yearling oysters, brought annually in large quantities from the Atlantic Coast and kept in the waters of the bay until they attain a marketable size. Although this method of supplying the market has been practiced by the oyster-dealers of San Francisco for many years, so that since the completion of the first overland railroad there has constantly been a supply of Eastern oysters in the bay, it has generally been understood that there was no natural increase of the species, its alleged failure to propagate being usually attributed to the low temperature of the water. Some recent studies of the oyster-beds and of the physical conditions of the bay of San Francisco by myself, under the direction of the United States Commissioner of Fish and Fisheries, have yielded data sufficient to warrant a review of the entire subject in a new light.

The interesting fact that oysters do propagate in San Francisco Bay, in certain favorable localities at least, calls for some explanation as to the long acceptance by the public of the statement that there has been no natural increase. This state of things may have resulted from one or more of the following conditions, perhaps in part from all of them, namely: The popular knowledge of the low temperature of the water as compared with the same latitude on the Atlantic coast; the peculiar situation of the localities where the imported oysters were laid out; the enemies they were known to have in Pacific waters; and the lack of sufficient public interest to demand the study and outlay necessary to discover the real truth respecting the life of the Eastern oyster in California waters. Doubtless one reason for the lack of information necessary to effect a change in the method of handling oysters is the fact that all the minor firms engaged in the business were early merged into one or more important companies, which, having practically the control of the entire oyster industry of the Pacific Coast, had no need to change the methods of a business already profitable. Importations of seed oysters from Atlantic waters have therefore been made annually almost to the present time, while it is by no means proven that seed oysters can not be raised in that region. The methods of nearly twenty years ago are

still in vogue, the only advancement made being the larger scale on which the business is now conducted. * * *

In view of the great success that attended the introduction of certain Atlantic species of mollusks and fishes into the waters of California, such as the soft-shelled clam, shad, striped bass, carp, catfish, etc., there was reason for expecting similar results from the introduction of the oyster. The investigations of this subject have simply disclosed the facts that the oyster has to some extent adapted itself to the new habitat in common with the other introduced species, and that in spite of many unfavorable conditions it is slowly increasing. Future study with reference to oyster culture on the Pacific Coast should be made in the light of these facts.

Temperature.—The popular belief that the low temperature of the water of San Francisco Bay has prevented the increase of the oyster is not based on any exact information on the subject. The temperature of the bay in the vicinity of the city of San Francisco, usually not much higher in summer than in winter, was early assumed to be too low for oyster propagation and, from the lack of special evidence of oyster increase, this gradually became the common explanation to casual inquirers about the matter, no one making any attempt to disprove it, although the spat from imported oysters has, it seems, been developing and growing in secluded places, doubtless from the very start. The oyster growers apparently keep no record of temperatures, or of other observations that would throw light upon the physical conditions of the bay during the different seasons of the year.

Mr. M. B. Moraghan, an oyster dealer of San Francisco, says that the temperature at his oyster-beds at Millbrae ranges from 58° to 65° F. At the extreme southern end of the bay the summer temperature has recently been found to be much higher, ranging from 67° to 74° F. for July and August. My personal observations on the temperature were of course limited to times when the "Albatross" happened to be in port, and as this never occurred in summer the most important season is as yet but little understood. The importance of studying this subject is evident when the influence of the marked rainy and dry seasons of California upon the waters of the bay is considered. Although the water never reaches the summer warmth of corresponding latitudes on the Atlantic coast, the temperature is more equable than that of most places upon the Atlantic coast where oysters grow, and the extremes of temperature are within those of such regions. It may be that the temperature during the spawning season of the oyster, which is of course the critical period, is low enough to seriously limit the quantity of spat developed, but this can readily be determined by a careful study of the beds at the proper season, which has not yet been done.

Experiments in the artificial propagation of the oyster indicate that the nearer the temperature to 70° the more likely is success. During the latter part of October, 1890, I found the temperature of the southern part of the bay, near Belmont, to be usually 61° F. On the same dates, in the region of San Mateo, a few miles nearer the sea, it was 1° lower; while at California City, still nearer, it was 57°. Recent observations have shown, however, that the water temperature is much lower in October than in the midsummer season. It is altogether probable that the extreme southern portions of the bay, 20 or 30 miles back from the sea, are several degrees warmer at all seasons than those farther north, since the region is more sheltered from sea winds, and the strong breezes

of San Francisco are less noticeable there. The French system of *claires* would furnish still warmer water than any of the bays of California.

The following table of observations upon the temperatures of water and air in the Golden Gate, at 7 A. M., for ten years, 1874 to 1883, is taken from Davidson's "Pacific Coast Pilot":

Table showing the Temperature of the Water and Air in the Golden Gate for 10 years, from 1874 to 1883, inclusive.

[Observations taken daily at 7 A. M., and reduced to monthly means.]

Months.	Water.	Air.	Water—Air.
January	50.49°	46.89°	+3.60°
February	50.99	49.21	+1.78
March	52.49	51.98	+0.51
April	54.23	54.72	-0.44
May	56.46	53.33	-1.87
June	58.35	60.27	-1.92
July	58.83	58.78	+0.10
August	59.23	58.00	+1.23
September	59.68	58.86	+0.82
October	57.83	57.30	+0.53
November	54.66	52.40	+2.26
December	51.94	48.58	+3.35

Professor Davidson says: "The lowest temperature of the water is for the month of January, 50.49°; and the highest for the month of September, 59.68° F.," and he adds that "the temperature of the air follows very closely that of the water."

Hourly water temperatures taken by the "Albatross" at the foot of Market Street and at the Union Iron Works, San Francisco, for limited periods, indicate a slightly higher temperature than in the Golden Gate. Temperatures taken by the same vessel at Mare Island, where the water is more subject to the influence of the Sacramento River, show a much lower temperature.

A series of temperatures taken in Oakland Creek from September 7, 1890, to May 20, 1891, at 4 A. M. daily, range from 49.8° for December to 64.9° for September.

Recent summer temperatures taken by authority of the United States Commissioner of Fish and Fisheries at the extreme southern end of the bay, through the coöperation of the Morgan Oyster Company, have yielded valuable information, the water of that part of the bay having been found to have a summer warmth amply sufficient for the propagation of the oyster. The important table of temperatures from this locality is condensed to means of ten days from a lengthy series of daily observations at both high and low tide.

Temperature at the Oyster-Beds one mile from Dumbarton Point, San Francisco Bay
July 12 to October 12, 1891.

Date.	Air Tempera- ture.	Surface-Water Tem- perature.		Range of Water Tempera- ture.
		High Tide.	Low Tide.	
	°F.	°F.	°F.	°F.
July 12 to 19.....	68.0	69.6	71.9	67 to 73
July 20 to 29.....	68.9	70.9	71.9	69 to 74
July 30 to August 8.....	67.3	69.5	69.7	68 to 72
August 9 to 18.....	68.4	70.3	70.7	68 to 72
August 19 to 28.....	72.3	71.4	72.0	69 to 74
August 29 to September 7.....	66.8	70.7	69.1	67 to 72
September 8 to 17.....	66.4	67.8	68.0	64 to 71
September 18 to 27.....	65.7	66.1	67.3	64 to 70
September 28 to October 7.....	64.2	65.6	62.9	58 to 70
October 8 to 12.....	61.9	63.2	64.0	62 to 65

Peculiar Situation of the Oyster-Beds.—There are at present no Eastern oysters in San Francisco Bay that are not laid upon tide lands, or so-called mudflats, completely exposed at the time of low tide. The principal reason for the selection of such situations is that the beds may be readily fenced in by closely set stakes to protect them from the depredations of the stingray (*Myliobatis californicus*), which enters the bay every spring and is the principal enemy of the oyster in these waters. In this complete dependence for oyster-growing upon tide lands, frequently left dry, is doubtless to be found one explanation of the slow increase of the species. The California summer is absolutely dry and rainless. It is a season of cloudless skies and regularly recurring heat in the daytime; therefore, an oyster-bed at this season, when the tide is out, is exposed not merely to the air, but to a heat sufficient to dry the moisture off from all the oysters in sight, and perhaps injure the majority of the spat that might have been attached to their shells. If embryo oysters, set free on the beds, drift with the receding tides to deeper waters outside the stake-protected area of the flats, they are exposed to the stingrays when they have attained sufficient size.

Stingrays, and the Stake Protection Employed against them.—The California stingray (*Myliobatis californicus*) enters San Francisco Bay in large numbers in the spring and remains until late in the fall. It is said to be as destructive to oysters in these waters as the starfish is on certain parts of the Atlantic coast. It has heavy flat teeth, arranged in a sort of pavement in each jaw, and is essentially a feeder on shellfish. Its presence requires the fencing in of all the oyster-beds in the bay with closely set stakes about 12 feet long, which are driven about 4 feet into the ground. When a broken stake allows a school of stingrays to raid an oyster-bed, the surface, after the tide has gone out, presents much the appearance of a field that has been rooted by hogs. Sometimes the oystermen, discovering their presence, manage to entrap them inside the line of stakes, and thus destroy many of them during one low tide.

Fencing oyster-beds against stingrays constitutes another heavy expense to the California oystermen, in addition to the annual outlay for seed oysters from the Atlantic coast. The fences must be looked after constantly and kept in repair. The heavy winds that sometimes during the winter season cause vessels in San Francisco Bay to drag

their anchors do great damage to the fences of the oystermen, which they must manage to have in good condition by the time the stingrays reappear in the bay.

I do not know how late in the fall stingrays continue to menace the oysters, but I netted a few small specimens in San Pablo Bay as late as November 7, 1890. They first appear in April.

The danger from stingrays is probably overestimated, in view of the natural increase of oysters upon wide tracts unprotected by stakes.

Other Enemies of the Oyster.—The drill (*Urosalpinx cinerea*) has not become troublesome upon the oyster-beds of San Francisco Bay until very recently, and even now is abundant only in the southern part of the bay. The oystermen showed me heaps of shells, all more or less drilled with small holes, in evidence of its ravages. At the Belmont beds I had no difficulty in gathering a quart of these mollusks in less than ten minutes by merely turning over the large oysters when the water had receded from the beds. Sometimes half a dozen were to be found on a single oyster. With its minute "tongue-file" this creature drills a hole through the oyster's shell, and inserting its proboscis into the opening, barely large enough to admit a pin, it feeds directly upon the soft parts.

This destructive animal may have been introduced much earlier than the oystermen suppose, as a few individuals accidentally imported among the original oysters would require several years to increase to the present numbers. Mr. Moraghan informed me that there were no drills upon his beds at Millbrae, which, as stated above, are much nearer the sea than the Belmont beds. If they are restricted to the Belmont beds, as seems to be the case, it would pay the oyster growers to pick them off as far as possible. Any gathering of drills that would keep them in check is important, as their increase will cause great loss in the future.

Two species of crabs are found upon the San Francisco oyster-beds, one of which is exceedingly abundant, but their presence has probably no effect upon the oysters.

Large numbers of shells were found honeycombed by the boring sponge.

The starfish has never proved troublesome to the oyster-beds of the bay, and, in fact, is seldom found upon them. It is doubtful if it occurs, except as a straggler, farther south in the bay than the wharves of San Francisco and Oakland, and requires no special mention in this connection, as its presence upon a bed would be readily detected at low water, when stray specimens would be picked off by hand and disposed of effectually. The original bedding-grounds for oysters at Sausalito, being so close to the sea, were sometimes visited by starfish, but they were not considered troublesome.

Preparation of Ground for Laying Out the Oysters.—The mudflats are always more or less prepared for oyster-ground by gangs of workmen, who level the surface by removing the elevations and filling in the depressions. This is done, of course, when the proposed oyster-bed is laid bare at low tide. There seems to be very little improvement of the ground by the use of old shells of the Eastern species. Mr. Moraghan returns the shells from his restaurant stands in the California Market in San Francisco to his beds at Millbrae, but he uses them for filling depressions, and does not distribute them over the beds as spat-collectors.

Fixation of Spat.—Not only are the chances for the fixing of spat diminished by the use of ground in some places where there are very few old shells upon the bottom, but almost all of the shells of *Ostrea virginica* are returned from the marketmen to the principal oyster company, who sell them for the manufacture of lime, instead of using them for the improvement of the beds. These shells of Eastern oysters, if returned to the beds where they were grown, or to other portions of the bay, would certainly increase the chances for the fixation of spat set free from the beds where adult oysters are growing. It is probable that careful attention to this matter of increasing the fixing surface required by the young oyster might make just the difference between rapid self-propagation and the present slow increase.

So far as has been ascertained, no recent attempt has been made by any one to collect the spat of *Ostrea virginica* in San Francisco Bay, and it is evident that the prevailing impression that there is no propagation of the species here is not founded upon conclusions based upon actual investigations. Previous to my first examination of the oyster-beds, a gentleman as keenly alive to matters of public interest as any one in California, and a member of the original Tide Lands Commission, said to me, "You will find that the oyster does not propagate here." A general impression had simply grown into a widespread belief. With the exception of a few persons connected with the management of the oyster business, the men employed in the industry know little of the subject outside of the peculiar methods practiced in California.

Hundreds of thousands of bushels of oyster shells have been distributed over the bottom of Long Island Sound in deep water, as cultch to which the oyster spat could attach itself, with the very best results. Strewing the shells of Eastern oysters in the slightly deeper waters just outside the existing beds upon the tide lands, and in other parts of the bay, might furnish the lacking element in these waters, viz., fixing-surfaces for spat. Young oysters found in such situations could be taken up before the next annual appearance of the stingray, and used as seed oysters in the customary way. It would seem that there are possibilities for oyster culture in San Francisco Bay by methods entirely distinct from those now practiced there.

Evidences of Natural Propagation.—One of the first indications I had of the natural propagation of the oyster was the finding of young oysters six months or a year old upon beds where those three or four years old were kept. They were in most instances attached to clusters of dead shells of the small native oyster. Very few were to be found attached to adult specimens of *Ostrea virginica*, but this may be explained by the fact that such oysters are frequently handled and "laid out" to keep them well upon the surface and prevent any settling in the mud. The handling is done in order to select and clean the largest for market, the others being also cleaned of the ever-accumulating native oysters, which would involve the destruction of such small Eastern oysters as might be among them upon the shells of the large oysters.

The fact of young Eastern oysters being attached to anything is proof that they grew in the bay where they were found, for oysters do not have the power of fixing themselves a second time. All these small oysters are knocked off the large shells with a small cleaning hatchet, and the operation is a necessary one, as the extremely productive natives

cluster upon the large species in such numbers as to greatly interfere with their growth.

In October, 1891, I discovered some oysters of large size in certain sloughs of the south bay, where they had long escaped the stingrays in consequence of bars which shut off the sloughs from all but the highest tide. These were the largest oysters seen at San Francisco, and had evidently lain there for several years. More recently I obtained a quantity of oysters, apparently two years old, in Oakland Creek. As the oyster-beds maintained there several years ago by Mr. Doane, now of the Morgan Oyster Company, have long since been abandoned and the stakes removed, it is evident that a limited number of oysters have found conditions suitable for their development and growth, even in this muddy place. They are no longer found on the mudflats, where they were originally kept, but live in the mud of the channel, from which I obtained them with tongs.

Mr. Cleveland Forbes, of the Spring Valley Water Company, informed me that several years ago he found full-grown Eastern oysters upon the piles of an old narrow gauge railroad trestle, across a slough near Dumbarton Point, and that the men of his party frequently found many upon banks composed of shells of the native species, near where the pipes of the company cross the bay.

Mr. H. D. Dunn has recently reported through the press the discovery of a full-grown Eastern oyster near Mile Rock in the Golden Gate.

It is possible that during the long time Eastern oysters have been kept in the bay they have become in a measure acclimated, and that there is a constantly increasing tendency to propagate; that is, the progeny of oysters grown here become hardier with each generation and better adapted to the colder but more equable waters.

During my latest examinations of the bay (May and June, 1891) Eastern oysters, very large and old, were found in the following places near the sites of former oyster-beds: Several adhering to the piles of the narrow gauge railroad trestle across San Leandro Bay; a few upon the rocks at the extreme north point of Sheep or Brooks Island, near low-water mark; a few upon the rocks at Point San Pedro (at entrance to San Pablo Bay). Those from San Leandro Bay doubtless originated as spat from the oyster-bed near the entrance to that bay, at the end of the bay northwest from the island. Those from Sheep Island had merely drifted as young across the half mile of distance from the old beds near Ellis Landing, while the San Pedro oysters originated upon the beds between Marin Island and Point San Quénin, a couple of miles distant.

Mr. H. D. Dunn informed me that wild Eastern oysters had been reported to him from some other place near Point San Pedro, but I did not discover them, being without a pilot. These finds are very interesting, as showing not only the breeding of the oyster in various parts of the bay, but that the species began breeding several years ago when oysters were laid out in those northern parts of the bay. At Point San Pedro oysters are directly exposed to the influences of the Sacramento River. But the largest and most important tract of oyster propagation is in the region of the natural shell-banks of native oysters along the east side of the bay, beginning at Bay Farm Island and extending well southward and off into deep water. Here wild Eastern oysters may be found during the low tides that expose the outer portions of the shell-

banks. At this place they are numerous, and when the tides are sufficiently low it is possible to gather them by the score, ranging in size from yearlings to those several years old. This deposit is at least four miles removed from the nearest site of a former oyster bedding-ground, and there is no doubt about the oysters upon the whole tract being of volunteer growth. A channel several feet wide separates this tract from the old bed on the north, while it is nearly ten miles to the nearest beds on the south.

Examination of two or three hundred oysters gathered in this region shows the fixing surface for the spat to have been the shells of the native oyster (*Ostrea lurida*). Indeed, there is nothing on this whole bank but clean shells of the native species. The bank is exposed to heavy seas during the season of strong winds, and many Eastern oysters doubtless become buried beneath the easily drifted shells of the small natives. It is probable that there is a very great production of Eastern oysters here that we know nothing of, as the whole tract is accessible to stingrays, which prey upon every kind of shell-fish outside of the stake-protected beds. It is also probable that the heavy seas which at times sweep across this shallow section of the bay, and actually break up the clusters of native oysters by rolling them toward the beaches, have an injurious effect upon newly fixed Eastern spat by burying them beneath the drifting shells.

Considerable quantities of wild Eastern oysters are annually gathered upon this and other shell-banks in the bay. They are retailed in Oakland and Alameda at \$1 50 per hundred, or sold to the oyster companies, who lay them out on their fenced beds for further growth. They are obtained when unusually low tides happen to expose them. No tonging or dredging is done, the oyster being gathered by hand. The work is performed chiefly by boys. I have no means of knowing the quantity of oysters derived from this source.

It appears, therefore, that there are other parts of San Francisco Bay as good for oyster-culture as those now inclosed, and that the increase of wild oysters now growing there would be more rapid if they were inclosed and afforded similar protection from heavy seas, stingrays, etc.

Spawning Season.—It is not unlikely that the oyster spawns here as early as on the North Atlantic coast, as the warming to which adult oysters are often exposed early in the spring during low tides must have a tendency to hasten the process. I have not examined them earlier than the 1st of May, but from that time until July 15th, plenty of them are to be found ripe with eggs. Of other months I cannot speak personally. Dr. H. W. Harkness, President of the California Academy of Sciences, informed me that during one year he examined many oysters from the market stalls with the microscope, and he expressed the belief that oysters could be found with eggs during most months of the year. Opinions of oystermen differ as to the duration of the spawning season, but from April to August seems to be the decision of the majority.

Notes on the General History of the Oyster Industry of San Francisco Bay.—Live oysters were first brought here by A. Booth, of Chicago, about the year 1870, when the first overland railroad was completed. Afterwards, from time to time, others engaged in the introduction of Eastern oysters, and they eventually brought only supplies of seed oysters, which were bedded until they became marketable.

Corville & Co. established an oyster-bed a short distance south of Point

San Bruno about 1872. This place was subsequently owned by Swanberg & West, who had both Eastern and Willapa Bay oysters at Pinole Point at one time.

Doane & Co. once had Shoalwater Bay oysters a short distance north of Point San Bruno, but they were lost during a "northeaster," and the locality was abandoned. The same firm kept both species of oysters in Oakland and Alameda Creeks, but these localities were abandoned with the increase of traffic and on account of sewers.

Before the introduction of the Eastern species, oyster dealers in San Francisco maintained a trade in Willapa Bay oysters, which is continued up to the present time. As these oysters are obtained readily from their natural beds, no attempt is made to propagate them here; they are simply freshened before they are marketed. The localities originally used for bedding oysters by Morgan & Co., Doane & Co., Swanberg & West, and other firms now consolidated with the Morgan Oyster Company, viz.: Sausalito, Point San Quentin, Sheep Island, and Oakland and Alameda Creeks, have all been abandoned in favor of localities south of San Francisco, where the nearest are from 10 to 15 miles removed from the influence of the Sacramento River, and where they are almost free from deposits of sediment. There was always a large percentage of loss from oysters settling in the mud at the old localities. I examined all these old beds, but found no oysters on any of them.

When oysters are removed from certain localities to others better suited to their fattening, the shells of the native oysters are knocked off them with a light, long-bladed, adz-shaped instrument adapted to the purpose.

In the frequent transplanting of oysters may be found another feature of their treatment tending to reduce propagation; many Eastern oystermen consider "plants" (transplanted oysters) infertile for a year or two. If there is truth in this the extent to which oysters are moved at San Francisco must certainly have its influence.

Seed oysters are brought to San Francisco in the fall by fast freight. Not more than 10 per cent loss is expected under ordinarily favorable circumstances. The mere freezing of the liquid about the oyster is not considered injurious. In illustration of the length of time cold or frozen oysters may remain out of water without losing their vitality, Mr. Morgan told me that from a number of carloads of oysters consigned to his company one car was lost through some mistake and turned up in St. Louis. When it finally arrived at San Francisco, after being two months on the way, and the frozen oysters were bedded, it was found that there was but little more loss than in shipments of ordinary duration.

A new company, the Chesapeake Oyster Company, a branch of the International Oyster Company of New York, has lately begun the shipment of fresh marketable oysters to San Francisco, and at present has a quantity of them deposited at Sausalito.

Quantity of Oysters Put upon the Market.—Statements on this subject were conflicting. Certain oyster dealers said that there were from 350 to 400 boxes of oysters (containing 200 full-grown oysters to each box) put upon the San Francisco market daily; while from the statements of certain outsiders, it appeared that the quantity was much greater. Neither did I learn what proportion to this amount the shipments to outside towns bear. From certain sources I heard that there were about 100 carloads of seed brought west annually, while others discredited this statement and placed the amount at half that number.

The consumption of Eastern oysters on the Pacific Coast has greatly increased of late years, while the rate of importation of seed oysters has not; in fact, after considerable inquiry, the conclusion is that it has decreased; so we may infer that the beds, although not self-sustaining, are nevertheless contributing something in the way of natural increase to meet the demand.

The market for oysters in San Francisco is good, and all that are produced sell readily. They are ordinarily packed in boxes containing 200, worth \$4 per box. It will be seen that they cost twice as much as on the Atlantic coast, where choice oysters are worth \$1 per hundred, and good oysters, not specially selected, can usually be bought for 75 cents per bushel. Californians will undoubtedly consume more oysters when they get them at Eastern prices.

Oysters are always in season in California, the sales and prices being the same in summer as in winter.

The Pacific Coast Native Oyster (Ostrea lurida).—This small oyster abounds in San Francisco Bay, where it is utterly worthless as compared with the oyster from Washington. It is present upon all the bedding-grounds of the Eastern species. When the latter are permitted to lie too long undisturbed they become coated with the small shells of *O. lurida*. There are extensive deposits of this species in the shallow waters all along the western part of the bay, and their dead shells washed ashore by the high seas that accompany the strong winds of the winter season have formed a white glistening beach that extends from San Mateo for a dozen or more miles southward. So abundant are they that this constantly increasing deposit of shells covers everything alongshore and forms bars extending into the bay.

Schooners frequently carry away loads of them for the making of garden walks and for other purposes to which old oyster shells are adapted. Quantities are ground up and scattered about poultry ranches. The supply is unfailing. Their small size and thin, light shells permit them to be readily drifted about the bay, and thus render them unsuitable as collectors of the spat of Eastern oysters. They break apart and disintegrate, and shift so freely when exposed to heavy waves that they cannot be considered good fixing-surfaces for the large species when in exposed places. If the banks formed of these little shells could be protected from the heavy waves by some firm outside barrier, and be covered with an abundance of large shells not so likely to drift, a permanent bed might readily be formed. The Eastern oysters laid out on the natural shell-banks in some places are frequently rolled along the bed and washed high and dry upon the beaches. The original bedding-grounds along the east side of the bay have been abandoned mainly on this account.

It is possible that I have not attached sufficient importance to the evil of overcrowding by the remarkably fertile native species. This little oyster, naturally adapted to these places, finds the large shell of the Eastern oyster a fixing-surface specially adapted to its needs. It is thus protected from the bad results attendant upon the changing surface of its natural shell-banks; it has the advantage of the protection of the fences; it is nearer to the muddy bottom, from which much of its food is derived, and yet is lifted by the shell of the large oyster to a safe height above that bottom, where the under shells of a cluster of any species of oyster would be smothered in the mud. So closely do these

indigenous oysters crowd upon the shells of the large species that when a heap of the latter have been cleaned for market the accumulated parasites almost equal in bulk the edible species. Doubtless they are responsible for crowding many of the young of the less adaptive Eastern species completely out of existence.

The native oyster (*O. lurida*) grows twice as large at Willapa Bay, Washington, as it does at San Francisco, and is constantly misnamed the "California oyster." But no use is made of the small California coast oyster, except as its shells are utilized in the ways previously mentioned.

The Morgan Oyster Company.—This company now maintains six important stations or groups of oyster-beds in San Francisco Bay, where oysters imported from the Atlantic coast are kept until they reach a marketable size. All are situated in the southern part of the bay, and are from 15 to 35 miles back from the Golden Gate. At each of these localities there is a comfortable building for housing the employés. Each station is supplied with fresh water by an artesian well, which usually elevates the water a few feet above high tide, windmills being added at three of the stations to raise the water to tanks. At four stations (Dumbarton, San Bruno, Millbrae, and Alvarado, the last now abandoned) the houses are built upon piles, and are 1 or 2 miles from the nearest land. At the other stations they are upon islands or the shores of the bay. There are several inclosed oyster-beds near each of the houses, varying in extent from 50 to 100 acres each. I had no means of knowing the actual extent of the oyster-beds of this company, but will roughly estimate the territory fenced in by stakes at 1,500 or 2,000 acres. This should, perhaps, be regarded as a guess rather than as an estimate.

The station known as San Bruno was established by Corville & Co. about 1872. It was subsequently owned by Swanberg & West, and finally passed into the hands of the Morgan Oyster Company.

The establishment at Millbrae dates from 1874, and is one of the most valuable. The house is nearly 2 miles off shore, and is connected by telephone with the city office.

Dumbarton was begun in 1877 and may be considered the most important station of all. The oyster-beds here are the most remote from the sea. There is probably sufficient warmth of water here in summer to admit of more extensive oyster-spawning than elsewhere. South of this point the tide water backs up many sloughs and creeks far inland, where it can become warm, and there is little doubt that future tests will show this to be decidedly the warmest part of the bay and the best adapted for raising seed oysters.

Alvarado place, about 8 miles north of this and in a very exposed situation, has been abandoned on account of the heavy seas, caused by winter winds, to which it was subjected. The South Belmont place was started in 1877 and North Belmont in 1884. The last, founded by Doane & Co., was later consolidated with the Morgan Oyster Company, of which Mr. Doane is now the field superintendent. The San Mateo oyster station has been in operation for five or six years. The employés are moved from station to station as the beds at different places require attention.

Seed oysters are usually laid out at the Dumbarton beds or the Belmont beds (all of which are near the head of the bay) for a couple of

years, and are then transferred to the beds at Millbrae and San Bruno for the final year before being put on the market, as the latter localities are supposed to be better adapted to fattening them.

This company employs a schooner, quite a fleet of sloops or "plungers," many scows or barges, and some floats. No retail stands or restaurants are operated. They have considerable territory in Willapa Bay, Washington, devoted to the cultivation of the Washington coast oyster (*Ostrea lurida*). Large regular shipments of this species are made to San Francisco. The wholesale oyster business of the company is transacted at a commodious building on Third Street, San Francisco, from which oysters, opened or in the shell, are supplied to the hotels and restaurants of the city, and boxed or canned, are shipped to all the large towns of the Pacific region, from Victoria to San Diego, and from Salt Lake to Honolulu.

Oyster Establishment of M. B. Moraghan.—Mr. M. B. Moraghan, an importer, planter, and wholesale and retail dealer in oysters in the California Market, San Francisco, established his oyster bedding-ground at Millbrae about 1882, where he owns 200 acres and leases 900 acres of tide lands. Much of the product of these beds is used at his restaurant stalls in the California Market. The methods of the Morgan Oyster Company, previously described, apply also to this place.

Vessels.—The vessels employed are schooners, sloops, scows, floats, and a few small row-boats.

The floats are large barges with the bottom plank sufficiently separated to admit the water freely. They are used as temporary receptacles for oysters that have been culled and cleaned, and to keep them fresh while awaiting transfer to market. They are kept afloat by "air boxes," *i. e.*, air-tight compartments along the sides and ends, and, in extra large floats, lengthwise through the middle. The bottom is made of 3-inch square timbers separated by half-inch spaces. The float thus constructed has a free circulation of water among the oysters stored in it, and will hold great quantities of them in a fresh and healthy condition. Floats are constructed in varying sizes adapted to the requirements of each station, the large double floats with central air box being usually 40 feet long by 20 wide. The single compartment floats are about half this size.

The scows are used in tonging up oysters and for sorting and otherwise handling them. They are shallow and flat-bottomed, with sides very slightly tapering from the middle to the square ends. The flush decks slope a little toward the low rail strip at the sides. Each end is fitted with a large iron ring, through which the heavy propelling poles are passed and driven by hand into the mud to steady it in tonging. In this operation the scow is gradually moved broadside across the oyster-bed, permitting a thorough taking-up of all oysters in its course, which is previously laid out by occasional light poles set up on the bed at low tide. When loaded, the scow is pushed alongside the float and moored to it until its oysters are culled. Scows are made in different sizes, with decks averaging 8 feet by 24 feet.

The sloops or "plungers" in use are built upon several models, some of them with flush decks and a large central cockpit divided by a center-board. A larger size is a keel boat with low deckhouse. Both forms are commonly cat-rigged. They are employed for general transportation between the oyster stations and to carry oysters to market.

A good-sized schooner of unusually light draft has been built by the Morgan Oyster Company for oyster work in the bay, and has been found very efficient.

When the tide goes out and all these craft are left high and dry upon the tide lands, the workmen, putting on leather-soled rubber boots for wading in the mud, are employed in leveling or otherwise improving the surface for oyster bedding.

Employés.—Usually about 100 men are employed upon the oyster-beds of San Francisco Bay, this number being considerably increased at certain times. They are recruited from the ranks of the sea-going class, nearly always numerous about the wharves of San Francisco, and are constantly changing, none of them developing into regular oystermen. About 90 per cent of them are of Scandinavian origin.

San Pablo Bay.—The most diligent dredging from a steam launch failed to reveal any shell life, except clams, upon the bottom of San Pablo Bay. The native oyster, *O. lurida*, so abundant in San Francisco Bay, particularly far south of the city, was not found here at all. It is probable that it formerly lived here, for there are extensive deposits of shells of this species to be seen in the faces of the bluffs along the west side of Mare Island fronting on San Pablo Bay. Nearly all the supply of soft-shelled clams is derived from the mudflats of San Pablo Bay. This species is apparently as abundant here as if it had always existed in these waters.

While San Pablo Bay appears to be devoid of shell life, except clams, it is rich in shrimps and fishes.

The muddy character of the bottom is due to its being a favorable place for the waters of the Sacramento River to expand and thereby deposit the sediment carried by its current. The river maintains a deep channel along the south side of the bay on its course to the sea, but when it meets an incoming tide at the entrance to San Francisco Bay its muddy flood is spread all over the broad extent of San Pablo.

Mr. M. Manson, engineer for the Harbor Commission, states that the shoaling of San Pablo Bay dated from the time of hydraulic mining, but that since the cause of debris has been removed the bay has improved and will doubtless continue to do so. He recommended an examination of the west side of San Pablo Bay with reference to the possibility of its being made bedding-ground for oysters, but as far as I was able to examine it there were no indications of firm bottom like that of the west side of San Francisco Bay.

Mr. McNear, proprietor of the wharves at McNear's Landing, on San Pablo Bay, once laid out Eastern oysters upon a narrow mudflat near the landing, but lost most of them from continued rough weather, during which they were either washed upon the beach or covered by soft mud. The experiment was not repeated.

Though I have as yet found no oysters in San Pablo beyond McNear's Landing, the discovery of many Eastern and Willapa Bay oysters about the narrows at the entrance to the bay is interesting as showing the propagation of oysters exposed to the fresh water of the river, and is an indication that something might be done for oyster-culture in San Pablo Bay if firmer bedding-grounds can be secured.

Tide Lands.—The sale of the tide lands of San Francisco Bay has hitherto been considered as exercising a retarding influence upon the development of the oyster industry, as well as of other branches of

business. These lands, surveyed and sold by the State at \$1 25 per acre, have gradually passed into the hands of the larger oyster companies. This is especially true of the extensive flats in the southern part of the bay most available for the present system of laying out oysters, and the managers of the Morgan Oyster Company informed me that they owned about all that they considered valuable for their method of growing oysters. Many consider the sale of the tide lands an injustice to the people. It is said that the railroad companies are proprietors in tide lands to such an extent that the city of Oakland is greatly handicapped for water frontage and wharf facilities.

The law permitting the sale of the tide lands is not, however, an unmixed evil, for while it might lead to monopoly it would allow oyster-planters to reap the harvests they sow. It is now conceded by many who have long upheld the system of public dredging in the Chesapeake region, that private cultivation must be provided for before there can be any marked increase in the oyster supply.

The Tide Land and Water Front Company of San Francisco are proprietors of the tide lands to a considerable extent, and offer them for sale at the uniform price of \$25 per acre. Notwithstanding the fact that much desirable oyster bedding-ground is already fenced in, there is still much good oyster ground unoccupied in the southern part of the bay. In the Long Island Sound region, where the oyster ground can be bought or leased from the States, the system of private ownership of the beds has been found perfectly practicable and very advantageous.

In reply to inquiries respecting the value of the tide lands now inclosed and used by the oyster growers of San Francisco, Mr. Moraghan writes me:

The price depends upon the location, the kind of bottom, whether mud, shell, or sand, etc., and more than all, upon the improvement or amount of labor bestowed on the land. We have some beds that are worth fully \$1,000 per acre to us, as we have been improving and working upon them for the past ten years in bringing them to their present condition.

Mr. Moraghan adds that unimproved tide land, such as is used in the Californian method of bedding oysters, is very cheap, being worth \$10 per acre, and that such lands can be had adjacent to the best inclosed beds for \$20 per acre.

Suggested Introduction of Other Species of Oysters.—With evidence at hand of the propagation of our own oyster (*O. virginica*) in California, the introduction of foreign species seems superfluous; but Prof. George Davidson and Mr. H. D. Dunn, of San Francisco, both of whom have resided in Japan, have frequently spoken to me of the large oyster of Japan in connection with the subject of oyster-growing in California. Professor Davidson sends the following note on this subject:

The oyster I knew in Japan was found in the vicinity of Nagasaki, where I was stationed during the three months October, November, and December, 1874, and part of January, 1875. The oyster is there very large, full, and well flavored. I obtained some shells that were fully 12 inches long. I tried to interest some of our steamship captains to bring them to San Francisco, but at that time the trip frequently consumed a full month, with a change of steamer at Yokohama, and they doubted the success of such an experiment. With the present more rapid transportation and a better knowledge of their treatment en route, I think it very advisable to try and introduce them to the Pacific Coast.

The introduction of oysters from Japan would probably not be difficult, as a great many species of shell-fish from that region are identical with California species.

Attempts have been made by oyster growers in San Francisco Bay to introduce the large oysters of the Yaqui River lagoons and other parts of western Mexico, which strikingly resemble *O. virginica*, but a large percentage of the oysters died on the voyage. The change from the warm waters of that latitude to the bay of San Francisco was supposed to be too great, even if they survived the voyage. I can testify to the large size, good flavor, and great abundance of the Yaqui River oysters from personal experience. They are so abundant that we frequently loaded the dingey of the "Albatross" by merely gathering them from the borders of the shell heaps exposed everywhere at low tide. The temperature of the water while we were there (March 31st and April 1, 1889) ranged from 69° to 73° F. Now that there is railroad connection between Guaymas, Mexico, and San Francisco, the introduction of these oysters by rail might give better results.

Table showing the Temperature of the Water in the Vicinity of the Natural Oyster-Beds near the Mouth of the Yaqui River, Mexico, March 31st and April 1, 1889.

Locality and Time.	Air.	Water.	Locality and Time.	Air.	Water.
<i>Off Algodones Lagoon.</i>			Apr. 1, 4 a. m.	65	67
Mar. 31, 12 m.	73	69	Apr. 1, 5 a. m.	65	69
Mar. 31, 1 p. m.	71	72	Apr. 1, 6 a. m.	64	69
Mar. 31, 2 p. m.	71	73	Apr. 1, 7 a. m.	65	69
Mar. 31, 3 p. m.	72	73	Apr. 1, 8 a. m.	66	69
Mar. 31, 4 p. m.	71	72	Apr. 1, 9 a. m.	71	72
Mar. 31, 5 p. m.	73	72	Apr. 1, 10 a. m.	73	74
Mar. 31, 6 p. m.	72	72	Apr. 1, 11 a. m.	73	73
Mar. 31, 7 p. m.	71	70	<i>Off Yaqui River.</i>		
Mar. 31, 8 p. m.	70	70	Apr. 1, 12 m.	71	73
Mar. 31, 9 p. m.	69	70	Apr. 1, 1 p. m.	72	73
Mar. 31, 10 p. m.	69	69	Apr. 1, 2 p. m.	72	73
Mar. 31, 11 p. m.	68	68	Apr. 1, 3 p. m.	73	73
Mar. 31, 12 p. m.	70	70	Apr. 1, 4 p. m.	74	73
Apr. 1, 1 a. m.	69	68	Apr. 1, 5 p. m.	74	73
Apr. 1, 2 a. m.	65	68			
Apr. 1, 3 a. m.	65	68			

It should be stated that the hourly temperatures taken by the "Albatross" were not in Algodones Lagoon or in the mouth of Yaqui River, but at the ship's anchorage, a mile or two outside, in the Gulf of California.

In December, 1890, a large shipment of oysters was made from Acapulco to San Francisco, but most of them died on the way. The few that reached market were considered good. This species was doubtless the *Ostrea iridescens*, a large oyster common in the vicinity of Acapulco.

Australian Oysters.—A sack of oysters was recently brought to San Francisco by a steward of one of the Australian steamers. These oysters were sold by M. B. Moraghan at his stand in the California Market and were considered as good as Eastern oysters.

Suggestions.—In view of the fact that there is considerable propagation among the oysters of San Francisco Bay and that no attempt has been made to collect spat, it would be desirable to experiment in the vicinity of the most southerly beds of the bay with a variety of spat-collecting surfaces. There are many suitable channels, creeks, and tracts of deep water close to the beds. Bundles of brush could be anchored outside the lines of stakes about the beds or in the creeks, and floating collectors could be moored anywhere; these could be made scow-

shaped, the sides and ends of coarse timbers of any sort, and the bottom of wide-meshed wire netting; such a craft, loaded with all the shells it could conveniently float, could be towed anywhere, and might be large or small. In view of the existence of stingrays, this pattern of collector or the brush collectors would be safest, to say nothing of the ease with which they could be inspected for presence of spat.

If there were fixing-surfaces of any description in the creeks or sloughs that extend from the southern part of the bay far back toward San José, Redwood, Belmont, Newark, and through the marsh lands generally, it is probable that oysters would attach. When the cold tide flows in across the extensive sun-heated flats in the spring time, it warms rapidly and fills the creeks with water of a much higher temperature than is found elsewhere in the region of the bay. The warm water flowing across the oysters brings them into spawn very suddenly when the weather conditions are favorable. My attention was called to this fact by the oystermen.

The creeks are, without exception, very muddy and absolutely without any firm surfaces upon which drifting oyster spat might settle. These creeks are similar in character. Most of them retain a considerable depth of water at low tide. They are named on the charts of San Francisco Bay as follows: Union City Creek, Coyote Creek, Beard Creek, Mud Creek, Alviso Slough, Redwood City Creek, Steinberger Creek, Angela Creek. Quantities of brush from the drier lands, just back of the marshes through which they flow, could readily be deposited in them as spat-collectors. From the fact that oysters have been taken from the timbers of two or three old trestles that cross them, we might reasonably expect favorable results from a careful experiment with brush collectors.

Should it finally be found advantageous, these creeks could readily be sown with quantities of shells of the native oyster from the shell heaps about the shores of the bay. That the native species have never penetrated into them is no argument against the propagation of the Eastern species there. Occasional specimens have already been found growing there, and the creeks may prove as favorable to them as similar creeks are on the Atlantic coast.

The proper time for placing collectors in San Francisco Bay is yet to be determined.

OTHER BAYS OF THE CALIFORNIA COAST.

In Tomales Bay, Messrs. Weinard and Terry laid out about seventeen carloads of Eastern oysters in 1875. They remained there only two or three years, until all were marketed or removed to more accessible places in San Francisco Bay. The experiment was not repeated. Captain Lawson, one of the oldest residents upon Tomales Bay, says that these oysters lived and fattened as well apparently as those in San Francisco Bay. They were laid out at Millerton Station, near the southern end of the bay, where some of the stakes used in fencing the bed are still standing. There is perhaps no reason why the extensive mudflats of Tomales Bay should not be used for laying out oysters in the same manner as is done in San Francisco. The bay is nowhere very deep. With two or three good-sized streams flowing into it, the natural conditions ought to prove very similar to those of San Francisco. It is 18 miles

long and averages 2 in breadth. There are no signs of the propagation of Eastern oysters there, although *Ostrea lurida* is not uncommon.

From correspondents in Southern California I have recently learned that Eastern oysters are reported as propagating in San Diego Bay. A few years ago a quantity of oysters were placed there, and they still remain in good condition. It is said also that a lot of Mexican oysters, brought in a steamer from Guaymas several years ago, were found to be dying rapidly when the vessel arrived in San Diego Harbor, and were thrown overboard. It is claimed that survivors from this accidental planting are occasionally found. This bay, more than 400 miles south of San Francisco Bay, is much warmer, and it might be that the oyster of the Gulf of California, which failed to live in the cold water of San Francisco Bay, would be a success in San Diego Bay. The greater part of this bay is shallow and there are extensive mudflats. There are no constant streams flowing into it, though False Bay, immediately north of it, receives San Diego River, a stream which disappears in mid-summer.

Humboldt Bay, 200 miles north of San Francisco, is a large and shallow bay that may be found available for oyster growing when the question of temperature has been studied. By far the greater area of this bay consists of tide lands, exposed at low water. My personal recollection of Humboldt mudflats, visited in 1885, is that they are altogether firmer than those of San Francisco, the bottom being more sandy.

Ballona Bay, near Santa Monica, in Southern California, is a small bay where, I am informed, oysters have been placed and found to grow well, but it is not known whether they breed there. A report upon the small bays about Wilmington, near Los Angeles, has already been published by the Fish Commissioners.*

* Report upon certain investigations relating to the planting of oysters in Southern California. By Charles H. Gilbert. Bull. U. S. F. C., 1889, pp. 95-98.

STATISTICS PERTAINING TO THE FISHERIES OF THE UNITED STATES—Continued.

	Value of Fishery Products.....	Square Miles of Area.....	Miles of Coast-Line..	Square Miles of Coast Waters(Bays, Gulfs, etc.).....	Square Miles of Rivers and Streams..	Square Miles of Lakes and Ponds..	Square Miles of Water Area.....	Amount Appropriated.....	Amount per Square Mile Total Area...	Amount per Square Mile Coast Waters and Line.....	Amount per Square Mile Fresh Water..	Amount per Square Mile Total Water Area and Coast Line.....
Wyoming.....	97,890	.....	.....	85	230	315	5,200	05	.....	16 51	16 51
Kansas.....	82,080	.....	.....	380	.....	380	500	01	.....	1 32	1 32
West Virginia.....	24,780	.....	.....	135	.....	135	500	02	.....	3 70	3 70
Nevada.....	110,700	.....	.....	35	925	960	1,500	01	.....	1 56	1 56

* In figuring, \$60,000 is added. This is revenue received from oystermen, and is used in protecting the oyster industry.
 † In figuring, \$10,000 is added. This is revenue received from permanent contrivances for catching salmon.
 ‡ In figuring, \$3,500 is added. This is revenue received from net fishermen.

EXPLANATORY.

The amounts shown by this table are, with few exceptions, the appropriations for 1893. To these amounts should be added the sum derived from fines in almost every State—not large amounts, but still a source of revenue.
 The figures of the coast waters include the sinuosities only, although each State has jurisdiction three miles from shore. For convenience, the length of coast-line is added to the square miles of coast water area, in estimating amount allowed per square mile of same, instead of multiplying that length by three before adding. This is, perhaps, a better method, because of the fact that the protection given to coast waters is, with few exceptions, along the shore.
 The value of products given are for 1892, and taken from "Statistics of the Fisheries of the United States," by Dr. H. M. Smith, of the U. S. Commission of Fish and Fisheries. The coast-line figures were furnished by the U. S. Coast and Geodetic Survey.
 The areas of land and water are taken from L. P. McCarty's "Annual Statistician," and are approximate areas made from careful estimates at the Bureau of Statistics, Washington, D. C.

THE SIMON MAIER DEER CASE.

BRIEF ON BEHALF OF FISH COMMISSIONERS, RESPONDENT.

IN THE SUPREME COURT OF THE STATE OF CALIFORNIA.--IN RE SIMON
MAIER, ON HABEAS CORPUS.

The petitioner was arrested on a warrant issued out of the Police Court of Los Angeles City, on a complaint under Section 626, Penal Code (amendments 1893, p. 280), charging him with having sold one pound of venison; and it was further alleged in the complaint that the venison was cut from a deer which had been killed in Texas and imported into this State whole.

The petitioner seeks his discharge on the ground that the facts stated do not constitute a public offense, and makes the following objections, which I will consider in this order:

1. That the section of the code does not apply to game taken and killed out of the State.
2. That it conflicts with the Constitution of the State of California.
3. That it is in conflict with the Constitution of the United States.

I.

Section 626, P. C. (Amendments 1893, p. 278), means what it says: "Every person in the State of California who shall at any time sell, or offer for sale, the hide or meat of any deer, etc., shall be guilty of a misdemeanor."

The chapter of the code under which Section 626 is found is entitled, "Violation of the Laws for the Preservation of Game."

From this petitioner claims it is shown that the object of the law was the preservation of game, and that the Legislature could not have had in mind the preservation of game out of the State of California, and that therefore it did not mean to prohibit the selling of game killed outside the State. But the prohibition of the sale of game from without the State will and does help to preserve native game. Native game is neither branded nor ear-marked. No man can tell a New Mexico deer from a California deer. And experience has shown in every State in the Union that as long as deer meat is allowed to be sold at all, the native deer will be slaughtered. Our laws on the subject of killing game began in this State in 1852. (Stats. 1851-3, page 895, and has since been amended as follows: Stats. 1854, page 55; 1857, page 89; 1871-2, page 433; 1880, amendments to Penal Code, page 41; 1883, page 80; 1887, page 236; 1891, page 472; 1893, page 280.)

An examination of these amendments shows that they have been made stricter and stricter, in 1880 first making the possession of game during the close season *prima facie* evidence of guilt, then providing that it should be unlawful to have possession of game during the close season,

then providing in 1893, especially as to deer; that no person should sell deer meat at any time in California, and providing that every cold storage company, market-man, or other person who should have game in his possession during the close season, should be guilty of a misdemeanor. If anything was necessary to show the intent of the Legislature to absolutely prohibit the sale of game during the close season, the last mentioned clause of the law of 1893 (Stats. 1893, p. 280), relating to cold storage companies, etc., would assuredly show it.

It is a matter of such common knowledge that the Court will take judicial knowledge of it, that our laws have been made thus strict, for the reason that otherwise it would be absolutely impossible to prevent the extermination of native game. There are no brands or ear-marks on California game whereby they can be distinguished from the game of other States. They are clandestinely caught in one part of the State, clandestinely shipped to another part of the State, and as the conscience of the pot-hunter has been proved by experience to be elastic, especially where there is no possible fear of contradiction, the extermination of native game was rapidly taking place when the present stringent laws were passed. And they were passed, as would appear from the various amendments shown, for the purpose of preventing a fraud which it was impossible otherwise to check.

I say, therefore, that the law in question must be construed, being amendatory of existing laws, with a view of accomplishing the end sought by the Legislature, and of remedying the defect in the previously existing law which merely made possession *prima facie* evidence of guilt. If the present law is to be construed the same as the old law, which merely forbade the killing of game in California during the close season and made its possession during the close season *prima facie* evidence of guilt, what was the amended law passed for, and what effect is to be given to the last amendment passed by the Legislature?

Section 626, P. C., as it stood prior to the amendment of 1883, merely made the possession during the close season *prima facie* evidence of guilt. The amendment of 1883 struck out the provision making possession *prima facie* evidence of guilt and made the possession a crime, and so the law has since stood. So that under the existing law, either the possession itself is a crime, or else in a prosecution under the law the people must absolutely prove, beyond a reasonable doubt, that the game possessed was taken in the State contrary to law. Such a construction would nullify the law and make it of no effect.

This amending the game law by striking out the provision making possession *prima facie* evidence, etc., was the very point discussed by the Court in the case of *Whitehead vs. Smithers*, 21 Moak's English Reports, 458, and the Court there held as we have herein argued, and the case is exactly in point, in fact precisely like the case at bar.

In this country, in the States of New York, Illinois, Ohio, and Missouri, similar statutes to Section 626, P. C., have been held to mean what they say and to make the possession of game during the close season punishable by law, no matter where the game was caught. (*Phelps vs. Racey*, 60 N. Y. 10; *Wagner vs. People*, 97 Ill. 333; *Roth vs. State*, 7 Ohio Ct. Ct. 62; *State vs. Randolph*, 3 Cent. L. J., 187; *State vs. Judy*, 7 Mo. App. 524; *State vs. Farrell*, 23 Mo. App. 176.)

The cases holding the contrary may all be distinguished from the case at bar. In the Massachusetts case (*Com. vs. Hall*, 128 Mass. 410), the

Court cited the case of *Phelps vs. Racey, supra*, and did not disagree with the conclusion there reached, but the Massachusetts Supreme Court distinguished the Massachusetts law from that prevailing in New York, and the decision is based on the peculiar wording of the Massachusetts statute, and on the further fact that as the Massachusetts statute made the possession of the game *prima facie* evidence of guilt, it could not be construed to also make it conclusive evidence.

The Pennsylvania, Michigan, Maine, and Oregon cases cited to the contrary, show the same differences in the law construed as that last noted in the Massachusetts case. The law contains a provision making possession *prima facie* evidence of guilt, and how can such a provision be reconciled with a construction that the possession itself is criminal and the accused not permitted to show that the game came from out of the State? Those decisions were correct under the law there construed. The Oregon decision is, like the Massachusetts, based principally on the peculiar wording of the statute. The Ontario case is the only one left, and even in that case the Court hedged on the peculiar wording of the Ontario statute.

It is worthy to be added, in this connection, that a case has recently arisen, and is now pending in our Police Court, where a party during the close season caught lake trout from Lake Tahoe on the Nevada side and shipped them into Los Angeles, where they were sold by a dealer at retail. The catching of trout in Nevada, even from Lake Tahoe, cannot be prohibited by our Legislature; so that if petitioner's contention is correct all of California Lake Tahoe trout may be caught from the Nevada side during the close season and sold in California, and thus California trout exterminated from the Nevada shore by the aid of California appetites and markets, and our State is powerless to prevent their destruction. And this, although the catching of those same trout would be unprofitable, and would cease if they could not be sold in the California markets, they being the principal markets for all the Pacific Coast.

II.

Does Section 626, P. C., conflict with the Constitution of the State of California?

It is a well-settled rule that the State Legislature has all power not denied it in the State Constitution or given to Congress by the United States Constitution. Therefore, it is necessary to support the petitioner's contention that he point out some article or section which the law conflicts with; just what provisions of our Constitution the section under consideration conflicts with.

Counsel for petitioner in his brief regales us with numerous decisions relative to police power granted by constitutions, charters, etc., but nowhere speaks of the reserved and inherent police power which rests in the people themselves and which they exercise through the State Legislature. The police power granted to city and county governments is an entirely different thing from the reserved police power of the State. The right of a City Council to legislate depends on its city charter, which, as a grant of power, is strictly construed, and the City Council can only act within the scope of the authority granted, which, in almost all cases, is to "make all reasonable and necessary police and sanitary regulations."

And under such a grant, of course, the Courts have a right, and it is their duty, to decide whether any questioned regulation is necessary and reasonable.

The power of the State Legislature is entirely different. It is the People of the State of California represented in Senate and Assembly—and the power of “the People” is restricted only by the Constitution. What provision of our Constitution is violated by the law in question? Certainly none if not the first article of the first section of the Constitution: “All men are by nature free and independent and have certain inalienable rights, among which are those of enjoying and defending life and liberty, acquiring, possessing, and protecting property, and pursuing and obtaining safety and happiness.”

Now, to allow all the game of the State to be exterminated, would be to deprive the citizens of the State of one means of enjoyment of life; to say they shall not be exterminated to some extent, perhaps, like every law, deprives some one of one means of enjoying life. Between these extremes comes the true province of the Legislature to so *regulate natural rights* that the greatest happiness to the greatest number will be attained. “The power to determine what is necessary and appropriate legislation to accomplish the end of government” is vested in the Legislature. (*Ex parte Smith and Keating*, 38 Cal. 702.)

“If the Legislature abuse this power to make laws and to judge of their necessity and reasonableness, the remedy lies, under our form of government, with the people through the ballot-box.” (*Idem.*; affirmed *In re Lineshan*, 72 Cal. 114.)

A great many laws have been held to be constitutional which, in some sense, deprived individuals of the privilege of enjoying life in a certain manner.

Private business, innocent business, lawful business, such as that of hackmen, marketmen, warehousemen, has been restricted in various ways, and such laws have been held constitutional, and such decisions are all placed upon the ground that such employment is “affected with public interest.” (*Munn vs. People*, 69 Illinois, 80-91; affirmed in U. S. Supreme Court, *Munn vs. People*, 94 U. S. 113-125.) Surely the selling of game is “affected with public interest.”

“The State has a right to determine what employments shall be permitted, and to forbid those which are deemed prejudicial to general good.” (Cooley Const. Limitations, page 743.)

It is not contended that to hold that the complaint in this case states a public offense will interfere with any property which the petitioner had prior to its enactment—any vested right—but petitioner contends that with full knowledge of the law he may purchase deer meat and retail it in this State, even though it is necessary for the preservation of game in this State that the same may be not done—even though it is against the interest of the public.

Mr. Cooley, after considering the effect of prohibitory liquor laws, where property before held innocent and lawful is confiscated and its owner deprived of his hitherto lawful employment, says: “A statute which can do this must be justified upon the highest reasons of public benefit; but whether satisfactory or not, the reasons address themselves exclusively to the legislative wisdom.” (Cooley Const. Limitations, page 721.)

Prohibitory liquor laws have been repeatedly held constitutional by

our Courts, although they were regulations of natural rights. But petitioner contends that the sale and use of intoxicating liquors affects the morals of the community, while it does not injure the property of the State, its native deer, to allow deer meat to be sold which was killed outside the State. It will be seen, however, that it is not the use of intoxicating liquors which affects the morals of the community, for no one pretends that any man becomes worse because he takes a drink of intoxicating liquor. It is not its use but its abuse which causes Legislatures to put a ban upon its sale. It is not that the mere sale of liquors necessarily destroys health or morals, but that experience has shown that evil does follow the general sale of intoxicating liquors, and that such evil cannot be prevented but by prohibiting the sale of intoxicants absolutely. Just so while the sale of foreign killed deer does not *ipso facto* injure the native deer, the abuse of such a privilege will. What will follow from allowing such an exception to the law we all know, and the Legislature evidently knew.

And in Indiana it has ever been held that a law is constitutional which prohibits a man from catching fish from his own waters of which he is sole proprietor, and for the reason that it is "affected with public interest." (*Gentile vs. State*, 29 Ind. 409.)

Counsel in his brief, by his quotations, seems to intimate that the prohibition of the sale of deer meat in this State is to "prohibit a business," the prosecution of which inflicts no damage on others.

We contend not only that the Legislature is the judge of that matter, but that as a matter of fact to allow such a business to be carried on will inflict damages on others, because it can but result in the extermination of California deer, and if any different result could in reason have been expected, the Legislature would not have passed the law. Surely the extermination of California deer will inflict damage on the whole people of the State, and such regulation certainly is "required for the protection of public interest."

And the constitutionality of just such legislation as that here questioned has been expressly affirmed in *Am. Ex. Co. vs. People*, 31 C. L. J. 271; *Phelps vs. Racey*, 60 N. Y. 10; *State vs. Randolph*, 3 C. L. J. 187; *Roth vs. State*, 7 Ohio Ct. Ct. 62.

III.

Is Section 626, P. C., in conflict with the Constitution of the United States?

The complaint in this case shows that it was the whole deer which was imported, and after importation the "original package" was broken.

The famous "Original Package Case," *Leisy vs. Hardin*, 135 U. S. 100, has settled our law on that subject, and it did not overrule *Phelps vs. Racey*, 60 N. Y. 10, or the *License cases*, 5 Howard (U. S.), 504, except so far as original packages were concerned. And since *Leisy vs. Hardin*, numerous cases have been decided holding that when the original package is broken the article ceases to be one of interstate commerce. (*State vs. Kibling*, 22 Atlantic R. 613; *Com. vs. Schollinberger*, 27 Atlantic R. 30; *Com. vs. Gagne*, 26 N. E. 449; *Com. vs. Gay*, 26 N. E. 571.)

In conclusion, I will say that if the law in question cannot be sustained, then our Fish and Game Commission might as well be dissolved and all game laws repealed, for experience has shown that without the

provision in question it is utterly useless to attempt the preservation of game.

I have annexed hereto the opinion of the honorable Judge who heard and decided this case when it was pending in the Superior Court.

Respectfully submitted.

H. C. DILLON,
District Attorney.

By M. W. CONKLING, Deputy.

OPINION OF THE SUPERIOR COURT.

IN THE SUPERIOR COURT OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA.—EX PARTE SIMON MAIER.

This is an application on the part of petitioner for his release on *habeas corpus*, the defendant having been arrested upon a criminal complaint filed in the Police Court in this city charging him with violation of the game laws of this State.

The complaint charges that "on the 18th day of December, 1893, at and in the city of Los Angeles, State of California, the defendant did willfully and unlawfully sell to one John Doe, whose true name is unknown, etc., one pound of deer meat, which said pound of deer meat was then and there by the said Simon Maier cut from the carcass of an entire deer, which said deer had been theretofore brought by said Maier from the State of Texas, in which State said deer had been lawfully killed."

The law for the preservation of game in this State is found under Section 626, Penal Code, and that particular clause of said section which defendant is alleged to have violated reads as follows: "Every person in the State of California who shall at any time sell, or offer for sale, the hide or meat of any deer, * * * shall be guilty of a misdemeanor."

It is claimed on the part of the defendant that the complaint charges him with no crime; that Section 626 has reference only to deer killed within the State of California, and counsel urge upon the Court, with great ability, such a construction of our statute.

And, for a second contention, it is urged with equal force that if our Legislature intended what the language of the section seems to import, then the Act is unconstitutional and void, as being inhibited by Article 1, Section 8, Paragraph 3, of the Constitution of the United States, which provides: "Congress shall have power to regulate commerce with foreign nations and among the several States," etc.

As to the first contention, that the Legislature intended the Act to apply only to deer killed within our State, I think a review of the Acts and amendments thereto of the laws for the preservation of game in this State, must lead to the inevitable conclusion that the present Act was intended to convey the plain import of its language; for, so far as any ambiguity or uncertainty are concerned in the language itself, there exists none, and there is no room for construction from that view.

But it is urged, if the language of the Act leads to an absurdity or to the violation of unalienable or constitutional rights, and such conclusions can be avoided and the Act sustained, such construction should be

given. Undoubtedly this is a sound rule of construction, and whether it should be invoked in this case depends upon the question as to whether the plain reading and import violates any natural or constitutional right that defendant may have.

Our first game law was passed in 1852, and has been amended, modified, and changed from time to time, in 1854, 1857, 1871, 1880, 1883, 1887, 1891, and the present Act was passed in 1893. An examination of these laws and amendments must convince any one that each successive Act was intended to be more explicit and comprehensive than the one preceding it. During a portion of that time the law made the possession of game in the close season *prima facie* evidence that it was killed in this State, again providing it should be unlawful to have possession of game during the close season, and lastly, in 1893, making it unlawful to sell deer meat at any time anywhere in the State. The last Act also provides that every cold storage company, market-man, or other person who should have game in his possession during the close season, is guilty of a misdemeanor. So that I am satisfied the Legislature intended to inhibit the sale of deer meat throughout the State irrespective of the place where the animal was killed.

Is the Act unconstitutional? Many cases have been cited from United States reports, but none bearing directly on the point; that is, I am aware of no case where the Federal Courts have passed on the game laws of the States.

The United States Courts have held, as in *Minnesota vs. Barber*, 136 U. S. 313, that a State cannot pass a law restricting or interfering with the free importation of beef or healthy cattle from one State to another; that any law, under the pretext of inspecting cattle and beef, which practically prevents such importation, is in violation of the section of the Constitution quoted above, and an unwarrantable interference with interstate commerce; and there are several Federal cases of like import deciding the same question.

But those cases must be distinguished from the case at bar, in this: No State can prohibit the sale of healthy beef, mutton, grain, and those common necessities of life. It does not come within the police powers of the States to thus legislate. Such laws invade the first fundamental law of organized society, viz.: to own and dispose of property. But all property has not the same status. Intoxicating liquors are property, but it has long since been decided by the Courts that a State may prohibit their manufacture and sale under its police powers, to protect the lives and well-being of its citizens. The wild game of a State is quite different from beef, mutton, pork, and grain—different in its relation to man in most of those conditions and surroundings that apply to the former. It has never been denied that a State had ample powers to protect and preserve its game. It comes directly within its police power. Counsel for defendant cites the case of *Bowman vs. C. & N. W. Ry. Co.* This is the celebrated Iowa case, in which the Supreme Court of the United States held invalid an Iowa statute prohibiting the importation of intoxicating liquors into the State.

That statute forbid any common carrier to bring into the State for any person or persons or corporation any intoxicating liquors from any other State or Territory; and the Supreme Court held the Act void, as being an unwarrantable interference with interstate commerce; going beyond the limits of its own territory and legislating against those out-

side its borders, and the Court says: "The section of the statute of Iowa, the validity of which is drawn in question, does not fall within the legitimate exertion of the police power; it is not an exercise of the jurisdiction of the State over persons and property within its limits; on the contrary, it is an attempt to exert that jurisdiction over persons and property within the limits of other States. It seeks to prohibit and stop their passage and importation into its own limits, and is designed as a regulation of commerce before the merchandise is brought to its border. * * * It is not a regulation confined to the purely internal and domestic commerce of the State. It is not a restriction which only operates upon property after it has become mingled with and forms part of the mass of the property within the State. * * * But the right to prohibit sales, so far as conceded to the States, arises only after the act of transportation has terminated, because the sales which the State may forbid are of things within its jurisdiction."

In short, that decision holds that all articles of legitimate commerce over which the police powers of a State extend, though a State may not prevent their importation and sale in bulk, but when mingled with the property of the State it becomes subject to the laws of the State. So that if this case has any bearing on the one at bar, it is that when the venison was placed upon the block and retailed out, it was subject to the law the same as if killed in this State.

It will be observed that the Act in question does not attempt to interfere with importation, but simply makes it unlawful to sell deer meat in the State.

When we come to the decisions of the State Courts on this question they are divided in opinion, Michigan intimating that such Acts are unconstitutional and void, while Ohio, New York, Illinois, and Missouri hold similar Acts valid.

I believe it best for the people of this State that the law be sustained. The wild game of the State belongs to the whole people of the State. Under the common law the game belonged to the sovereign. The game in our State does not belong to any one individual or set of individuals, but to the sovereignty. The Legislature exercises that sovereignty in trust for us, and have a right to say what shall be or not be as to our game.

I am satisfied that any less stringent game law would expose our game, and especially our deer, to destruction. The law as it stands is necessary to preserve the deer of our State from extinction. Any other or less stringent law could be so easily evaded as to render it inoperative and farcical.

I am therefore of the opinion that the law is a reasonable exercise of the police powers of the State, and valid, and that the petitioner must be remanded, and it is so ordered.

B. N. SMITH,
Judge.

SUPREME COURT DECISION.

[No. 21,116. In Bank.—Filed August 1, 1894.]

EX PARTE SIMON MAIER, ON HABEAS CORPUS.

For petitioner, Hunsaker, Goodrich & McCutcheon.

For respondent, H. C. Dillon, District Attorney.

Petitioner was arrested and is held in restraint under a warrant issued out of the Police Court of the city of Los Angeles, based on a complaint charging him, under Section 626 of the Penal Code, with unlawfully selling, on the 18th day of December, 1893, at said city, one pound of deer meat, which meat the complaint alleges "was then and there, by said Simon Maier, cut from the carcass of an entire deer, which said deer had been theretofore brought by said Simon Maier from the State of Texas, and in which State said deer had been lawfully killed." Petitioner asks for his discharge on *habeas corpus*, upon the ground that the complaint does not state a public offense; and, if that be true, there is no question but that he is entitled to his discharge in this proceeding. (*Ex parte Corryell*, 22 Cal. 179; *Ex parte Harrold*, 47 Cal. 129; *Ex parte Kearney*, 55 Cal. 212.)

Section 626 is one of the provisions of the Penal Code for the preservation and protection of the wild game of this State, and the particular paragraph or subdivision of the section under which petitioner is charged (as amended, Stats. 1893, p. 280) reads: "Every person in the State of California who shall at any time sell, or offer for sale, the hide or meat of any deer, elk, antelope, or mountain sheep, shall be guilty of a misdemeanor." Petitioner contends that this provision of the statute, properly construed, does not prohibit the sale of deer meat lawfully taken without the State, but has reference solely to deer killed within this State; that the law is intended to protect game within the State, not to prohibit the importation and sale of game from other States. With this contention we are unable to agree. It is true the law is intended for the protection of the game within the State, but it by no means follows from that fact that it is not the intention, as a means to accomplish that very end, to prohibit the sale of the meat of the animals procured elsewhere. The statute is perfectly plain and unambiguous in its terms, and is sufficiently broad and comprehensive to include the inhibited article wheresoever taken or procured. It does not confine itself in terms or by implication to the meat of deer killed in this State, but denounces as unlawful the sale of the meat of *any deer*: and there is nothing elsewhere in the statute tending to give it a more restricted sense. The language is too plain to leave room for construction, and we are not at liberty, even if so disposed, to place a limitation upon the meaning of the Legislature which its language will not support. But we have no doubt that the Legislature intended exactly what its words import. Aside from the explicit language in which this particular provision is couched, an examination of the various changes which these sections of the Code relating to protection of game have undergone at the hands of the Legislature, is persuasively convincing of the intention to do just what this Act does by its terms, entirely prohibit traffic in the meat of these game animals within the State, no matter where killed. And it need hardly be suggested that such a provision, if enforced, will

lend great aid to the attainment of the object sought. The facility and ease with which the statutes for the protection of game have been evaded in the past is a matter of common knowledge. Deer and other game have been slaughtered during the close season and foisted upon the market as game procured without the State, and owing to the practical impossibility in the great majority of cases of proving with certainty the source from which it was procured, the attempted enforcement of the statutes for its protection has largely proven abortive. These and like considerations no doubt actuated the Legislature in the premises, and induced the enactment of the statute in its present stringent form. And we know of no good reason why it should not be held to mean what it says. Similar statutes in other States have received a like construction. In *Magner vs. The People*, 97 Ill. 331, involving a statute of Illinois making it unlawful to sell or have in possession quail and certain other game birds during the close season, and which was not in terms limited to birds taken in the State, it was contended, as here, that the statute did not condemn the possession or sale of the birds taken and killed beyond the limits of the State, and shipped into the State for sale. But the Court held that the statute must be taken as comprehending within its terms the prohibited game, no matter where taken. It is there said: "But it is argued that this cannot be the fair construction, because such a prohibition does not tend to protect the game of this State. To this there seems to be two answers: (1) The language is clear and free of ambiguity, and in such case there is no room for construction—the language must be held to mean just what it says. (2) It cannot be said to be within judicial cognizance that such a prohibition does not tend to protect the game of this State. It being conceded, as it tacitly is, by the argument, that preventing the entrapping, netting, ensnaring, etc., of wild fowls, birds, etc., during certain seasons of the year, tends to the protection of wild fowls, birds, etc., we think it obvious that the prohibition of all possession and sales of such wild fowls or birds during the prohibited seasons would tend to their protection, in excluding the opportunity for the evasion of such law by clandestinely taking them, when secretly killed or captured here, beyond the State, and afterwards bringing them into the State for sale, or by other subterfuges and evasions."

The Court of Appeals of New York held to the same effect under a statute very like ours, saying: "The penalty is denounced against the selling or possession after that time [close of the open season] irrespective of the place of killing." (*Phelps vs. Racey*, 60 N. Y. 10.) In *Whitehead vs. Smithers*, 2 C. P. Div. 553, Lord Coleridge held that under an English statute for the protection of British game which made it unlawful to sell or have in possession plover during the close season, a party who imported the dead birds from Holland and sold them in the British market came within the prohibition of the statute, and said: "It is said it would be a strange thing for the Legislature of the United Kingdom to interfere with the rights of foreigners to kill birds. But it may well be that the true and only mode of protecting British wild fowl from indiscriminate slaughter, as well as protecting other British interests, is by interfering indirectly with the proceedings of foreign persons. The object is to prevent British wild fowl from being improperly killed, and sold under pretense of their being imported from abroad." See also *State vs. Judy*, 7 Mo. App. 524, and *State vs. Farrell*, 23 Mo. App. 176.

The cases relied upon by petitioner are clearly distinguishable from the cases referred to above. In most of them, as in *Comm. vs. Hall*, 28 Mass. 410, and *People vs. O'Neil*, 71 Mich. 325, the statutes under consideration contained a provision making possession of the game during the close season *prima facie* evidence of a violation of the law, and the construction of the prohibitive features of the statute largely turned upon the effect of that provision. In *Comm. vs. Hall*, which is followed by the Michigan case, it is said: "Saying that possession should be *prima facie* evidence necessarily implies that it shall not be conclusive; if the mere possession of birds, during the time within which the taking or killing of them is prohibited, of itself constituted an offense under the previous sections of the statute, to say that such possession would be *prima facie* evidence would be superfluous if not absurd." And it is held that the statute must therefore be construed as referring only to game unlawfully taken within the State during the close season. As suggested by counsel for the People, our statute contained a similar provision up to 1883, when the Legislature by an amendment (Stats. 1883, p. 80) eliminated it, thereby evincing an intention to remove from the law anything calculated to qualify or limit its otherwise plain and explicit terms. We have no doubt that the intention of Section 626 is to prohibit the sale of deer meat brought from without, as well as that taken within the State.

Nor do we think that in giving the Act this effect it contravenes the Constitution of this State as being in excess of the police power of the State. The wild game within a State belongs to the people in their collective, sovereign capacity; it is not the subject of private ownership, except in so far as the people may elect to make it so; and they may if they see fit absolutely prohibit the taking of it, or any traffic or commerce in it, if deemed necessary for its protection or preservation, or the public good. To this extent it is conceded that the State may go. But it is contended that to go further and prohibit the sale of game lawfully killed elsewhere and brought here as private property is in effect to destroy private property, and that this is going beyond a proper exertion of the police power. While it is true that the power to regulate is not the power to destroy, in its absolute sense, it is, nevertheless, true that the right to regulate frequently and as a necessary sequence carries with it the right to so control and limit the use or enjoyment of private property as to amount to its destruction. In the case of *Phelps vs. Racey*, *supra*, the same objection was raised, and it is there said: "The objection of a want of power in the Legislature to pass the Act is not tenable. It is not in conflict with the State Constitution, within the case of *Wynhamer vs. People*, 13 N. Y. 378. That case involved the validity of the prohibitory liquor law, and determined that such law, so far as it applied to and substantially destroyed property in liquors owned or possessed at the time the Act took effect, was in violation of the provision of the State Constitution which declares that no person shall be deprived of life, liberty, or property without due process of law; but impliedly, if not necessarily, it affirmed the power if the law had only applied to liquors subsequently manufactured and acquired. Here the property was acquired subsequent to the passage of the Act, and with the presumed knowledge of its provisions and conditions. The Legislature may pass many laws the effect of which may be to impair or even destroy the right of property. Private interest must yield to the public advantage.

All legislative powers, not restrained by express or implied provisions of the Constitution, may be exercised. The protection and preservation of game has been secured by law in all civilized countries, and may be justified on many grounds, one of which is for purposes of food. The measures best adapted to this end are for the Legislature to determine, and Courts cannot review its discretion."

And these principles have been repeatedly upheld. In some instances their enforcement may work hardship, but we see no such result here. The statute does not prevent a party from importing all the venison he wants for his own use or consumption if he desires to do so. It simply says that for the better protection of the rights of the people in these wild animals, and as a means of preventing their destruction, the meat shall not be a lawful article of sale. There can be no serious injury to any one under such a regulation. If any person imports the meat of the deer into the State he does it with his eyes open and a knowledge of the purposes for which the law permits it, just as the petitioner did here. Under such circumstances he cannot complain if he is prevented from making a use of the article which the Legislature has declared to be detrimental to the well-being of the State. As suggested in *Phelps vs. Racey, supra*, he acquired the property after the passage of the Act, and his rights in it are necessarily subject to the regulations imposed upon its use.

It is further strenuously urged, however, that the Act so construed violates the Constitution of the United States, in that it is an attempt to regulate interstate commerce—a subject wholly committed to Congress. But after a very careful consideration of the numerous authorities cited in support of this view, we do not think the statute open to this objection. It is true its enforcement may indirectly or incidentally affect to some extent traffic in the inhibited article between the people of this and other States, but that of itself is not sufficient to bring it within the objection urged. The right of the States, under the very comprehensive police power reserved to them under our dual system of government, to regulate and control their own internal affairs, including trade, to the reasonable advantage and good of their people, is conceded and upheld in all the cases in which the questions growing out of the right of the Federal Congress to regulate interstate commerce has arisen. The only difficulty has been in defining the limitations of that power. In *Railroad Co. vs. Husen*, 95 U. S. 470, it is said: "We admit that the deposit in Congress of the power to regulate foreign commerce and commerce among the States was not a surrender of that which may properly be denominated police power. What that power is it is difficult to define with sharp precision. It is generally said to extend to making regulations promotive of domestic order, morals, health, and safety. As was said in *Thorp vs. The Rutland and Burlington Railroad Co.*, 27 Vt. 149: 'It extends to the protection of the lives, limbs, comfort, and quiet of all persons and the protection of all property within the State according to the maxim *Sic utere tuo ut alienum non lædas*, which, being of universal application, it must of course be within the range of legislative action to define the mode and manner in which every one may so use his own as not to injure others.' It was further said that by the general police power of a State 'persons and property are subjected to all kinds of restraints and burdens, in order to secure the general comfort, health, and prosperity of the State;

of the perfect right of the Legislature to do which no question ever was, or upon acknowledged principles ever can be made, so far as natural persons are concerned." "Many Acts of a State" (say the Court further in that case) "may indeed affect commerce, without amounting to a regulation of it in the constitutional sense of the term. And it is sometimes difficult to define the distinction between that which merely affects or influences and that which regulates or furnishes a rule for conduct." And in the celebrated cases commonly designated as "The License Cases," 5 How. 504, it is held that the fact that a regulation may incidentally and to a certain extent affect commerce between the States, does not affect its validity. In *Pierce vs. New Hampshire* (one of the License Cases, *supra*), Mr. Justice Woodbury, in one of the opinions of the majority of the Court in discussing this power of the States, says: "The subject of buying and selling within a State is one as exclusively belonging to the power of the State over its internal trade as that to regulate foreign commerce is with the General Government, under the broadest construction of that power." "The idea, too, that a prohibition to sell would be tantamount to a prohibition to import, does not seem to me either logical or founded in fact. For even under a prohibition to sell, a person could import, as he often does, for his own consumption and that of his family and plantations; and also, if a merchant extensively engaged in commerce often does import articles with no view of selling them here, but of storing them for a higher and more suitable market in another State or abroad." In the subsequent case of *Bowman vs. C. & N. Ry. Co.*, 125 U. S. 465, the same Court held a statute of Iowa, which forbid any common carrier to bring into the State for any person or corporation any intoxicating liquors from any State or Territory, void, as being an unwarrantable interference with interstate commerce and not a legitimate exercise of police power, in that it was more than a regulation of its own internal affairs or an exercise of the jurisdiction of the State over persons and property within its limits; "it is an attempt" (say the Court) "to exert that jurisdiction over persons and property within the limits of other States. It seeks to prohibit and stop their passage and importation into its own limits, and is designed as a regulation of commerce before the merchandise is brought to its border. * * * It is not a regulation confined to the purely internal and domestic commerce of the State. It is not a restriction which only operates upon property after it has become mingled with and forms part of the mass of the property within the State. * * * But the right to prohibit sales so far as conceded to the States arises only after the act of transportation has terminated, because the sales which the State may forbid are of things within its jurisdiction." And it is held that the State cannot, under the guise of a police regulation, prevent the importation of legitimate articles of commerce and trade. And in the later case of *Leisy vs. Hardin*, 135 U. S. 100, it was held that it not being within the power of the State to prohibit the importation of lawful commodities, neither can she prohibit the sale by the importer of such commodities upon their receipt by him, since the right to sell any article imported was an inseparable incident to the right to import it. But this right of sale was distinctly limited to the right of the importer to sell or dispose of the article imported in its original, unbroken package or condition as brought by him into the State, and the principle is in that case, as in *Bowman vs. C. & N. Ry. Co.* and the other cases

cited, distinctly upheld, that the authority of Congress over any article of commerce imported into a State ceases "when the importer has so acted upon it that it has become incorporated and mixed up with the mass of property in the country, which happens when the original package is no longer such in his hands," and that thereupon the property becomes subject to the jurisdiction of the State and affected and controlled by its regulations. Tested by these principles we cannot see wherein the statute, applying its provisions to the case made in the complaint, is open to the objection that it attempts to or does regulate interstate commerce. Petitioner imported the meat into the State, broke the original package, and put the commodity upon the market. It thereupon became property strictly subject to State regulation and control, and falls within the denunciation of the statute. Whether petitioner could have sold the meat as an entire carcass is a question which does not confront us, and which it is not, therefore, necessary to determine.

We think the complaint states a cause of action, and it follows that the petitioner should be remanded.

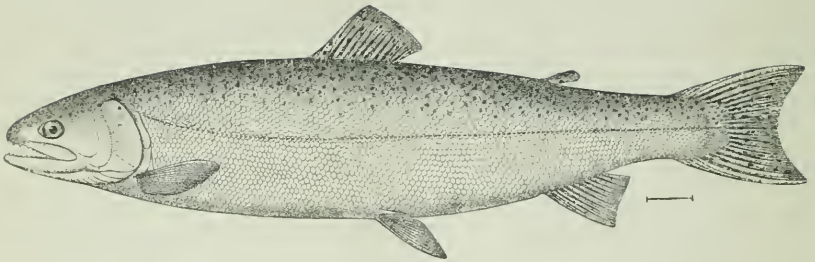
It is so ordered.

VAN FLEET, J.

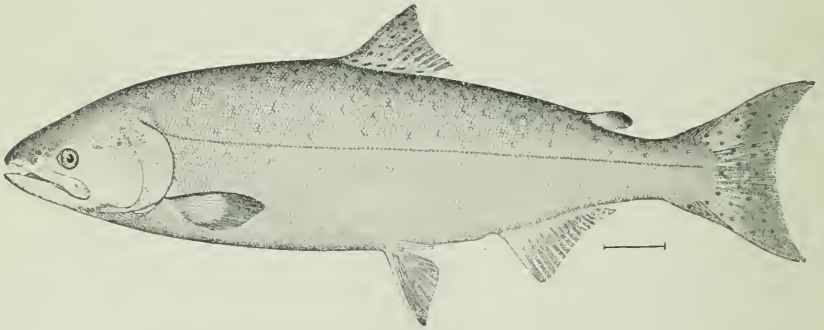
We concur :

McFARLAND, J.,
GAROUTTE, J.,
HARRISON, J.,
BEATTY, C. J.,
FITZGERALD, J.

DeHaven, J., being absent, did not participate in the foregoing decision.



STEELHEAD TROUT.—*Salmo gairdneri*.



QUINNAT SALMON.—*Onchorhynchus chonicha*.

SALMON AND TROUT OF THE PACIFIC COAST.

By Dr. DAVID STARR JORDAN, President of the Leland Stanford Junior University.

Of all the families of fishes; the one most interesting from almost every point of view is that of the *Salmonidæ*, the Salmon family. As now understood, it is not one of the largest families, as it comprises less than a hundred species; but in beauty, activity, gaminess, quality as food, and even in size of individuals, different members of the group stand easily with the first among fishes.

The *Salmonidæ* are found only in the North Temperate and Arctic regions, and within this range they are everywhere almost equally abundant wherever suitable waters occur. Some of the species, especially the larger ones, are marine and anadromous, living and growing in the sea, and ascending fresh waters to spawn. Still others live in running brooks, entering lakes or the sea when occasion serves, but not habitually doing so. Still others are lake fishes, approaching the shore or entering brooks in the spawning season; at other times retiring to waters of considerable depth. Some of them are active, voracious, and gamy, while others are comparatively defenseless and will not take the hook.

All the *Salmonidæ* feed upon fish; the smaller ones upon worms, insects, and small fish; the larger forms on fishes and crustacea—whatever they can find. The eggs of the species are much larger than in fishes generally, and the ovaries are without special duct, the eggs falling into the cavity of the abdomen before they are excluded. The large size of the eggs, the fact that they do not stick together, and the ease with which they may be impregnated, render all the *Salmonidæ* peculiarly adapted for artificial culture.

We may divide the *Salmonidæ* into ten genera: *Coregonus*, the White Fish; *Arctogrosomus*, the Ciscoes; *Plecoglossus*, a little annual fish which is found in the waters of Japan, born in the spring, runs up the rivers in the summer, and dies in the following winter, only the young surviving; *Brachymystax*, a large and scarcely known salmon-like fish in the waters of Siberia; *Stenodus*, the Inconnu, a large, weak-toothed salmon found in the Mackenzie River; *Hucho*, the Huchen, or Rothfish of the River Danube, a large, voracious, pike-like salmon, which seems to be little known either to naturalists or to anglers; *Oncorhynchus*, the Pacific Coast Salmon, or Quinnats; *Salmo*, the Salmon and Black-spotted or true Trout; *Cristivomer*, the Great Lake Trout with gray spots; and *Salvelinus*, the Charr, or Red-spotted Trout. The Grayling, *Thymallus*, usually classed with the Trout, belongs to a different family, *Thymallidæ*, well distinguished by the structure of its skull and dorsal fin.

Of these, the various fishes commonly known as salmon and trout belong to the last four genera. The others need not be further mentioned in the present discussion. In order to get a better idea of the proper application of the various vernacular names that are used in America, it is necessary to go back to Europe, the source from which these names

have been drawn. First, we have a large fish, common in the salt waters of Northern Europe, spending most of its life near the shores in regions where the water is cold and clear, and ascending the rivers in the spring when the high water comes down from the mountains, going through rapids with great force, leaping cataracts, and finally casting its spawn on the gravelly bed of a small stream. This was known to the Latin writers as *Salmo*, the word coming from *solio*, which means "to leap," and in the different languages which are derived from the Latin having as its name some form of the word "salmon." The scientific name of this fish is *Salmo salar*.

Very similar to the salmon in all technical respects, like it having black spots over the surface of the body and rather large silvery scales, is a smaller fish which rarely descends to the sea, and makes its home in the rivers and lakes throughout Northern and Central Europe. This fish was known by the name of *Fario* to the old Latin writers, the most important of whom, in this regard, was Ausonius, who wrote feelingly and poetically of the fishes of the River Moselle. From the Latin word "fario" comes the German name "forelle." This fish is the trout of all English writers, the trout of Izaak Walton, and its scientific name is *Salmo fario*.

Half way between the salmon and the trout there is a large trout which lives mostly in the estuaries of the rivers, sometimes mistaken for salmon, sometimes for trout, rarely ascending the rivers very far, and seldom venturing far into the sea. This is the *Trutta* of the Latin authors; from this name the word "trout" is derived. Curiously enough, the word "fario," in its various forms, has come to be the name of the trout in all the German* and Scandinavian countries, while derivatives of the word "trutta" are applied to the same fish in the Latin† countries and with the English. The scientific name of this large fish, half salmon and half trout in appearance, altogether trout in fact, is *Salmo trutta*, and to this fish properly belongs the name of salmon trout. Very lately English writers have questioned the distinction between the European trout and salmon trout. The opinion is growing that the salmon trout is the sea-run form of the same fish. If this view is correct, the salmon trout is to be called *Salmo trutta*; the brook form *Salmo trutta fario*.

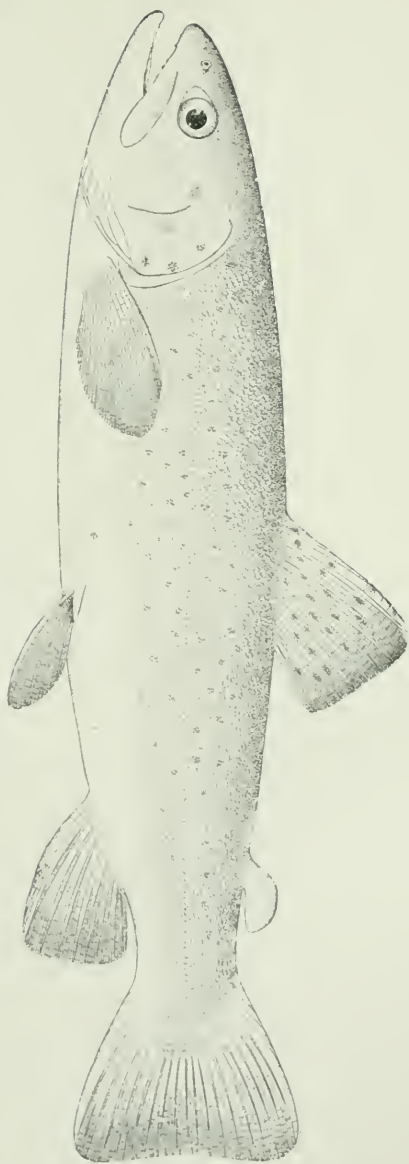
There are thus in England, whence our names have come, three species or forms of black-spotted silvery salmonoids: (1) The salmon, largest of all and anadromous, that is, running up the rivers to spawn, and living in the sea; (2) the trout, living in the brooks and the lakes only; (3) the salmon trout, which stands between the two, with the appearance of trout and the habits of salmon. All three belong to the genus *Salmo*, and the only difference of any importance between the salmon and the trout, so far as structure goes, lies in the fact that the salmon sheds the teeth on its vomer, that is, the middle part of the roof of its mouth, as it grows older, while in the trout these teeth are preserved throughout the life of the animal. Living in salt water and feeding on large fishes and crustacea, the salmon is the more vigorous, with coarser and more oily flesh, but this difference becomes of small importance as a matter of distinguishing species.

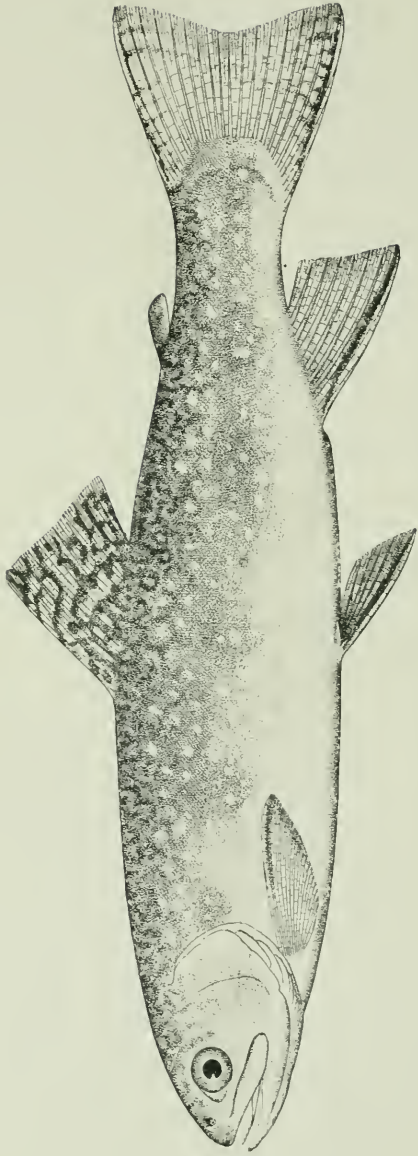
Besides these three, there is another and a finer fish, found in the

* German, Forelle; Danish, Forelse, etc.

† French, Truite; Spanish, Trucha; English, Trout, etc.

LOCH LEVEN TROUT.—*Salmo trutta leucis*.





EASTERN BROOK TROUT. *Salvelinus fontinalis*.

coldest and clearest lakes of the Alps and of Northern Europe, dark colored and spotted with bright red, the scales so small that they seem as mere impressions in the slimy skin, so that the average fisherman does not recognize their existence. This is a finer and more beautiful fish than any of the trout, and in most waters it is very much less abundant. This fish is known in England as the Charr, and on the Continent it has, in Germany, the name of Saibling or Sälbling (both words from the low Latin name *Salvelinus*, which again is a sort of diminutive of *Salmo*—a little salmon). In France it is called the Ombre Chevalier, which come from the Latin name *Umbla*, from *Umbrā*, shade, given to the same fish in allusion to its dark colors and its love of shady places in the lakes and brooks. This charr differs from all the trout in various anatomical respects, the most notable of which is the entirely different form of its vomer, a character which could only be satisfactorily described by a series of comparative drawings. This character of the vomer distinguishes the genus *Salvelinus*, to which the Saibling belongs. Its scientific name is *Salvelinus alpinus*.

Knowing these names of salmon, trout, salmon trout, and charr, our ancestors came to America. The name "charr" was doubtless unfamiliar to most of them, for the charr is scarcely found in England except in the lake districts of Cumberland. For this reason it has never been in common language applied to any American fish. It was as unfamiliar to them as the name *Barracuda* would be to an Illinois farmer.

Our ancestors found, running up the rivers of the Atlantic Coast, a large fish precisely like the salmon of Europe; in fact, the very same thing. So they naturally and correctly called it Salmon. In the fresh waters of New England and New York, in all the clear streams throughout the Alleghany region, and in the lakes of Canada and to the northwest, our forefathers found a red-spotted, fine-scaled, dark-colored speckled beauty. Having found no real trout with black spots and large scales in the rivers, and having forgotten the name of "charr," they gave to this fish the name of trout, or speckled trout, or brook trout, and in spite of the fact that in reality it is not a trout but a charr, the name of brook trout is likely to adhere forever to the *Salvelinus fontinalis*.

Real trout there are none on our Atlantic Coast, salmon trout is likewise wanting, but the name salmon trout is often given to the brook trout, or charr, which has run out into the sea. The same name is also often given to another fish, a very large, coarse species, which has no parallel in Europe, with spots of gray or cream color. This fish is found in all the lakes, from Alaska and British Columbia to Maine, across the northern half of our continent. This is the Great Lake trout (*Cristivomer namaycush*), and, except for its large size and comparative coarseness, it would never be mistaken either for trout or salmon. The name salmon trout is wholly inapplicable to it.

In the lakes of Greenland and the eastern part of British America, the European charr (*Salvelinus alpinus*) is as abundant as it is in Europe—a fact which has been only lately made manifest, and even yet there is some question whether the European charr which are found in certain lakes in New Hampshire and Maine have not, some time or other, been brought over and planted there from Europe.

In the lakes of Maine, and on to the north as far as the Arctic Circle, there is still another charr, smaller and finer than the European one,

the Blue-back trout of the Rangeley Lakes, known as *Salvelinus equassa*.

Thus, instead of one salmon, one salmon trout, one trout, and one charr, of Europe, we have in the Eastern States the same salmon, the same charr, and two other charrs, one Great Lake trout, but no true trout and no salmon trout.

In coming to the Pacific Coast, the settlers of California brought with them from the East names to which they had been accustomed, but found none of the fishes to which these names belong. Salmon they found, similar in habits and in value as food, but some of them larger, finer, and vastly more abundant than any of the salmon of Europe. The salmon of California differ from all the rest of the salmon family in the fact that the number of rays in the anal fin is from fourteen to twenty, while in all the salmon and trout on the other side of the Atlantic, this fin contains no more than eleven rays. The usual number is nine or ten. The Pacific Coast salmon have also an increased number of branchiostegal rays, an increased number of gill-rakers, and a much larger number of pyloric cæca, or pancreatic glands, attached behind the stomach. These fishes are therefore, in strictness, not salmon at all, but something more intensely salmon than the salmon of Europe itself is. They have therefore been placed in another genus, known as *Oncorhynchus*. For the lack of any other common name they are always spoken of and will always be canned, as long as the canning industry lasts, under the name of salmon. The Chinook name *Quinnat* was early applied to them, and if we feel the need of some other name to distinguish them from real salmon, we may call the Pacific Coast salmon *Quinnat* or *Quinnat* Salmon. These species of *Quinnat* salmon all live in the ocean, ascend the rivers in the spring and summer, spawn in fresh water in the fall, the young, as soon as they are able to swim, floating tail foremost down the river and growing rapidly as soon as they reach the ocean and the peculiar ocean food. There are five species of these *Quinnats*, which will be described farther on.

Besides the salmon, the settlers of California found in the brooks an abundance of what they called trout. These are black-spotted, silver-scaled, and in every way they closely resemble the trout of Europe; at the same time they are wholly unlike the charr, or so-called trout, of the Eastern States. The name trout by rights belongs to these fishes, and they are placed in the genus *Salmo*. The three forms or species of trout found in the Pacific waters will be mentioned farther on. One of these is so similar to the salmon trout of Europe that it might fairly be called, as it often is called, by the same name.

A charr is also found in Pacific waters, but as the name "charr" had been wholly forgotten by our ancestors, they could only call this, like the others, a trout. In Oregon the red-spotted trout, or charr, is distinguished by the name of Bull Trout. In California it had, for a long time, no distinctive name. The landlady at the hotel at the Upper Soda Springs, at the time of the Dolly Varden craze, noticing the gaudy colors of this California charr, proposed to call it the Dolly Varden trout. This name coming to the notice of Professor Baird, then United States Fish Commissioner, pleased his fancy. At that time I was in Washington engaged in the classification of the trout in the Smithsonian Institution. Professor Baird asked me to give this species the common name

of Dolly Varden trout, and so, in the books at least, Dolly Varden trout it is to this day.

Turning back to the Quinnat salmon, or the salmon of the Pacific Coast, we often find persons puzzled to distinguish its young from the various forms of trout. Any person who can count and will take the trouble to learn which of the fins is the anal fin—the one on the lower side, just behind the vent—can distinguish the young Quinnat salmon from any form of trout. All the so-called salmon of the Pacific Coast, all the Quinnats or species of *Oncorhynchus*, have an increased number of rays in the anal fin, from fourteen to twenty, not counting the stubs or rudiments in front of the first ray. All forms of trout in whatever country, all the charrs, and the Atlantic Coast salmon have in this fin but nine or ten or eleven fully developed rays. This is a matter of some importance, in view of the fact that the fishery laws of this State discriminate between trout and salmon, permitting the catching of the one when to take the other is forbidden.

The existence of large salmon-like fishes in the Pacific has long been known. The different species were first recognized about one hundred and fifty years ago (1731) by that most exact of early observers, Steller, who described and distinguished them with perfect accuracy, under their Russian vernacular names. In 1792 the German compiler Johann Julius Walbaum gave scientific names to all the salmon and trout which travelers had described. For these salmon of Kamtschatka he used the Russian names as scientific appellations. After Steller and Walbaum, Pallas (1811), another excellent observer, recognized these same species and gave them other names. Since the time of Steller and Pallas, writers of all degrees of incompetence, and writers with scanty material, or with no material at all, have done their worst to confuse our knowledge of these salmon, until no exact knowledge of any of the species remained. In the current system of a few years ago,* the breeding males of the five species known to Steller and Pallas, constituted a separate genus of many species (*Oncorhynchus*, Suckley); the females were placed in the genus *Salmo*, and the young formed still another species of a third genus, called *Fario*. This was supposed to be a genus of trout. The young breeding males (*grilse*) of one of the species (*Oncorhynchus nerka*) made still a fourth genus, designated as *Hypsifario*. Not one of the writers on these fishes of thirty years ago knew a single species definitely, at sight, or used knowingly in their descriptions a single character by which species are really distinguished. Not less than thirty-five nominal species of *Oncorhynchus* have already been described from the North Pacific, although, so far as is now known, only the five originally noticed by Steller really exist. The descriptive literature of the Pacific salmon is among the very worst extant in science. This is not, however, altogether the fault of the authors, but it is in great part due to the extraordinary variability in appearance of the different species of salmon. These variations are, as will be seen, due to several different causes, notably to differences in surroundings, in sex, and in age, and in conditions connected with the process of reproduction. The writer and his associate, Prof. Charles H. Gilbert, have had, under the auspices of the United States Fish Commission, better opportunities to study the different species of *Oncorhynchus* than had fallen to the lot of any previous ichthyologists. Entirely

* See report U. S. Pacific R. R. Explorations, 1858.

similar conclusions have been independently reached by Dr. Tarleton H. Bean, of the United States Fish Commission, who has several times visited Alaska for the purpose of investigating its salmon fisheries, and whose means of studying the different species has been as extensive as ours. It is very gratifying to see that the results of these different sets of observations agree in all essential respects; they also agree fully with the observations made so long ago by Steller.

There are certainly five distinct species of *Oncorhynchus* inhabiting both shores of the North Pacific. There is no evidence of the existence of any more on either the American or the Asiatic side. These species may be called: (1) The Quinнат, or King Salmon, (2) the Blue-back Salmon, or Red-fish, (3) the Silver Salmon, (4) the Dog Salmon, and (5) the Humpback Salmon; or (1) *Oncorhynchus tshawytscha*, (2) *Oncorhynchus nerka*, (3) *Oncorhynchus kisutch*, (4) *Oncorhynchus keta*, and (5) *Oncorhynchus gorbuscha*; these being the scientific names conferred on them by Walbaum. All these species are now known to occur in the waters of Kamtschatka as well as in those of Alaska and Oregon. These species, in all their varied conditions, may usually be distinguished by the characters given below. Other differences of form, color, and appearance are absolutely valueless for distinction, unless specimens of the same age, sex, and condition are compared.

The King salmon, or true Quinнат, or Chinook salmon (*Oncorhynchus tshawytscha*), has, at three years old, in the Columbia, an average weight of 22 pounds, but older individuals weighing as high as 70 to 100 pounds are occasionally taken. In the Sacramento its average weight is 16 pounds, and it grows still smaller to the southward. It has about 16 anal rays, 15 to 19 branchiostegals, 23 (9+14) gill-rakers on the anterior gill arch, and 140 to 185 pyloric cæca. The scales are comparatively large, there being from 130 to 155 in a longitudinal series. In the spring the body is silvery, the back dorsal fin and caudal fin having more or less of round black spots, and the sides of the head having a peculiar tin-colored metallic luster. In the fall the color is often black or dirty red, and the species can then only be distinguished from the Dog salmon by its technical characters. Its southern limit is, so far as known, the Ventura River.

The Blue-back salmon (*Oncorhynchus nerka*) usually weighs from 5 to 8 pounds. It has about 14 developed anal rays, 14 branchiostegals, and 75 to 95 pyloric cæca. The gill-rakers are more numerous than in any other salmon, the number being usually about 39 (16+23). The scales are larger, there being 130 to 140 in the lateral line. In the spring the form is plumply rounded, and the color is a clear, bright blue above, silvery below, and everywhere immaculate. Young fishes often show a few round black spots, which disappear when they enter the sea. Fall specimens in the lakes are bright red in color, hook-nosed, and slab-sided, and bear little resemblance to the spring run. This species appears to be sometimes land-locked in mountain lakes, in which case it reaches but a small size. Such specimens, called "Kokos" by the Indians, have been sent us from Lake Whatcom, Washington, by Mr. T. J. Smith, of Whatcom. Similar specimens have been sent in from other mountain lakes. This land-locked mountain form has changed considerable from the original stock, and is sometimes regarded as a distinct species, *Oncorhynchus kenneerlyi*. The Blue-back salmon is

rarely seen south of the Columbia River, and probably never in California. In Alaska it far outnumbers all other kinds.

The Silver salmon (*Oncorhynchus kisutch*) reaches a weight of 3 to 8 pounds. It has 13 developed rays in the anal, 13 branchiostegals, 23 (10+13) gill-rakers, and 45 to 80 pyloric cæca. There are about 127 scales in the lateral line. In color it is silvery in spring, greenish above, and with a few faint black spots on the upper parts only. In the fall the males are mostly of a dirty red. This species is not common south of the Columbia, but is sometimes taken in California.

The Dog salmon (*Oncorhynchus keta*) reaches an average weight of about 12 pounds. It has about 14 anal rays, 14 branchiostegals, 24 (9+15) gill-rakers, and 140 to 185 pyloric cæca. There are about 150 scales in the lateral line. In the spring it is dirty silvery, immaculate, or sprinkled with small black specks, the fins dusky. In the fall the male is brick-red or blackish, and its jaws are greatly distorted. This species and the next are most common to the northward, and are not often taken in California.

The Humpback salmon (*Onchorhynchus gorbuscha*) is the smallest of the species, weighing from 3 to 6 pounds. It has usually 15 anal rays, 12 branchiostegals, 28 (13+15) gill-rakers, and about 180 pyloric cæca. Its scales are much smaller than in any other salmon, there being 180 to 240 in the lateral line. In color it is bluish above, silvery below, the posterior and upper parts with many round black spots. The males in the fall are red, and are more extravagantly distorted than in any other in the *Salmonidæ*.

Of these species the Blue-back predominates in Fraser River, and in the Yukon River, the Silver salmon in Puget Sound, the Quinnet in the Columbia and the Sacramento, and the Silver salmon in most of the streams along the coast. All the species have been seen by us in the Columbia and in Fraser River; all but the Blue-back in the Sacramento and in waters tributary to Puget Sound. Only the King salmon has been noticed south of San Francisco. Its range has been traced as far as Ventura River. Of these species, the King salmon and Blue-back salmon habitually "run" in the spring, the others in the fall. The usual order of running in the rivers is as follows: *nerka*, *tshawytscha*, *kisutch*, *gorbuscha*, *keta*.

The economic value of the spring-running salmon is far greater than that of the other species, because they can be captured in numbers when at their best, while the others are usually taken only after deterioration. To this fact the worthlessness of *Oncorhynchus keta*, as compared with the other species, is probably wholly due.

The habits of the salmon in the ocean are not easily studied. King salmon and Silver salmon of all sizes are taken with the seine at almost any season in Puget Sound. This would indicate that these species do not go far from the shore. The King salmon takes the hook freely in Monterey Bay, both near the shore and at a distance of six to eight miles out. We have reason to believe that these two species do not necessarily seek great depths, but probably remain not very far from the mouth of the rivers in which they were spawned. The Blue-back and the Dog salmon probably seek deeper water, as the former is seldom or never taken with the seine in the ocean, and the latter is known to enter the Strait of Fuca at the spawning season, therefore coming in from the open sea. The great majority of the King salmon, and nearly

all the Blue-back salmon, enter the rivers in the spring. The run of both begins generally at the last of March; it lasts, with various modifications and interruptions, until the actual spawning season in November, the time of running and the proportionate amount in each of the subordinate runs varying with each different river. In general, the runs are slack in the summer and increase with the first high water of autumn. By the last of August only straggling Blue-backs can be found in the lower course of any stream; but both in the Columbia and in the Sacramento the Quinnat runs in considerable numbers, at least till October. In the Sacramento the run is greatest in the fall, and more run in summer than in spring. In the Sacramento and the smaller rivers southward, there is a winter run, beginning in December. The spring salmon ascends only those rivers which are fed by the melting snows from the mountains, and which have sufficient volume to send their waters well out to sea. Those salmon which run in the spring are chiefly adults (supposed to be at least three years old). Their milt and spawn are no more developed than at the same time in others of the same species which are not to enter the rivers until fall. It would appear that the contact with cold fresh water, when in the ocean, in some way causes them to run toward it, and to run before there is any special influence to that end exerted by the development of the organs of generation. High water on any of these rivers in the spring is always followed by an increased run of salmon. The salmon canners think, and this is probably true, that salmon which would not have run till later are brought up by the contact with the cold water. The cause of this effect of cold fresh water is not understood. We may call it an instinct of the salmon, which is another way of expressing our ignorance. In general, it seems to be true that in those rivers and during those years when the spring run is greatest, the fall run is least to be depended upon.

As the season advances, smaller and younger salmon of these species (Quinnat and Blue-back) enter the rivers to spawn, and in the fall these young specimens are very numerous. We have thus far failed to notice any gradations in size or appearance of these young fish by which their ages could be ascertained. It is, however, probable that some of both sexes reproduce at the age of one year. In Fraser River, in the fall, Quinnat male grilse of every size, from eight inches upwards, were running, the milt fully developed, but usually not showing the hooked jaws and dark colors of the older males. Females less than eighteen inches in length were rare. All of either sex, large and small, then in the river, had the ovaries or milt developed. Little Blue-backs of every size, down to six inches, are also found in the upper Columbia in the fall, with their organs of generation fully developed. Nineteen twentieths of these young fish are males, and some of them have the hooked jaws and red color of the old males.

The average weight of the Quinnat in the Columbia in the spring is twenty-two pounds; in the Sacramento, about sixteen. Individuals weighing from forty to sixty pounds are frequently found in both rivers, and some as high as eighty or even one hundred pounds are recorded. It is questioned whether these large fishes are those which, of the same age, have grown more rapidly; those which are older, but have for some reason failed to spawn; or those which have survived one or more spawning seasons. All these origins may be possible in individual cases; we

are, however, of the opinion that the majority of these large fishes are those which have hitherto run in the fall, and thus having spawned not far from the sea, have survived the spawning season of the previous year.

Those fish which enter the rivers in the spring continue their ascent till death or the spawning season overtakes them. Probably none of them ever return to the ocean, and a large proportion fail to spawn. They are known to ascend the Sacramento to its extreme headwaters, about four hundred miles. In the Columbia they ascend as far as the Bitter Root Mountains, and at least to the Spokane Falls, and their extreme limit is not known. This is a distance of six to eight hundred miles. At these great distances, when the fish have reached the spawning grounds, besides the usual changes of the breeding season, their bodies are covered with bruises, on which patches of white fungus develop. The fins become mutilated, their eyes are often injured or destroyed, parasitic worms gather in their gills, they become extremely emaciated, their flesh becomes white from the loss of oil; and as soon as the spawning act is accomplished, and sometimes before, *all* of them die. The ascent of the Cascades and the Dalles probably causes the injury or death of a great many salmon.

When the salmon enter the river they refuse to take bait, and their stomachs are always found empty and contracted. In the rivers they do not feed, and when they reach the spawning grounds their stomachs, pyloric caeca and all, are said to be no larger than one's finger. They will sometimes take the fly, or a hook baited with salmon roe, in the clear waters of the upper tributaries, but there is no evidence known to us that they feed when there. This question* is still disputed, and additional evidence on the subject is much needed. Only the Quinнат and Blue-back (there called Red-fish) have been found at any great distance from the sea, and these (as adult fishes) only in late summer and fall.

The spawning season is probably about the same for all the species. It varies for each of the different rivers, and for different parts of the same river. It doubtless extends from July to December. The manner of spawning is probably similar for all the species, but we have no data for any except the Quinнат. In this species the fishes pair off; the male, with tail and snout, excavates a broad, shallow "nest" in the gravelly bed of the stream, in rapid water, at a depth of one to four feet; the female deposits her eggs in it, and, after the exclusion of the milt, they cover them with stones and gravel. They then float down the stream tail foremost. As already stated, a great majority of them die. In the headwaters of the large streams, unquestionably all die; in the small streams, and near the sea, an unknown percentage probably survive. The young hatch in about sixty days, and most of them return to the ocean during the high water of spring.

The salmon of all kinds, in the spring, are silvery, spotted or not, according to the species, and with the mouth about equally symmetrical in both sexes. As the spawning season approaches, the female loses her silvery color, becomes more slimy, the scales on the back partly sink

*The present summer, 1894, has been spent by Dr. Gilbert on the Columbia, for the purpose of securing light on this and other subjects connected with the natural history of the salmon. Much valuable information should be derived from his report of his work.

into the skin, and the flesh changes from salmon-red and becomes variously paler from the loss of oil, the degree of paleness varying much with individuals and with inhabitants of different rivers. In the Sacramento the flesh of the Quinnat, in either spring or fall, is rarely pale. In the Columbia a few with pale flesh are sometimes taken in spring, and a good many in the fall. In Fraser River the fall run of the Quinnat is nearly worthless for canning purposes, because so many are "white-meated." In the spring very few are "white-meated," but the number increases toward fall, when there is every variation, some having red streaks running through them, others being red toward the head and pale toward the tail. The red and pale ones cannot be distinguished externally, and the color is dependent on neither age nor sex. There is said to be no difference in the taste, but there is no market for canned salmon not of the conventional orange color.

As the season advances, the difference between the males and females becomes more and more marked, and keeps pace with the development of the milt, as is shown by dissection. The males have (1) the premaxillaries and the tip of the lower jaw more and more prolonged, both of the jaws becoming, finally, strongly and often extravagantly hooked, so that either they shut by the side of each other like shears, or else the mouth cannot be closed. (2) The front teeth become very long and canine-like, their growth proceeding very rapidly, until they are often half an inch long. (3) The teeth of the vomer and tongue often disappear. (4) The body grows more compressed and deeper at the shoulders, so that a very distinct hump is formed; this is more developed in *Oncorhynchus gorbuscha*, but is found in all. (5) The scales disappear, especially on the back, by the growth of spongy skin. (6) The color changes from silvery to various shades of black and red, or blotchy, according to the species. The Blue-back turns rosy red, the Dog salmon a dull blotchy red, and the Quinnat generally blackish. The distorted males are commonly considered worthless, rejected by the canners and salmon salters, but preserved by the Indians. These changes are due solely to influences connected with the growth of the reproductive organs. They are not in any way due to the action of fresh water. They take place at about the same time in the adult males of all species, whether in the ocean or in the rivers. At the time of the spring runs all are symmetrical. In the fall all males, of whatever species, are more or less distorted. Among the Dog salmon, which run only in the fall, the males are hook-jawed and red-blotched when they first enter the Strait of Fuca from the outside. The Humpback, taken in salt water about Seattle, have the same peculiarities. The male is slab-sided, hook-billed, and distorted, and is rejected by the canners. No hook-jawed females of any species have been seen. It is not positively known that any fully hook-jawed old males survive the reproductive act. If any do, the jaws must resume the normal form.

On first entering a stream the salmon swim about as if playing. They always head toward the current, and this appearance of playing may be simply due to facing the moving tide. Afterwards they enter the deepest parts of the stream and swim straight up, with few interruptions. Their rate of travel at Sacramento is estimated by Stone at about two miles per day; on the Columbia at about three miles per day. Those who enter the Columbia in the spring and ascend to the mountain

rivers of Idaho, must go at a more rapid rate than this, as they must make an average of nearly four miles per day.

As already stated, the economic value of any species depends in great part on its being a "spring salmon." It is not generally possible to capture salmon of any species in large numbers until they have entered the rivers, and the spring salmon enter the rivers long before the growth of the organs of reproduction has reduced the richness of the flesh. The fall salmon cannot be taken in quantity until their flesh has deteriorated; hence the Dog salmon is practically almost worthless, except to the Indians, and the Humpback salmon is little better. The Silver salmon, with the same breeding habits as the Dog salmon, is more valuable, as it is found in the inland waters of Puget Sound for a considerable time before the fall rains cause the fall runs, and it may be taken in large numbers with seines before the season for entering the rivers. The Quinnot salmon, from its great size and abundance, is more valuable than all the other fishes on our Pacific Coast taken together. The Blue-back, similar in flesh, but much smaller and less abundant, is worth much more than the combined value of the three remaining species of salmon.

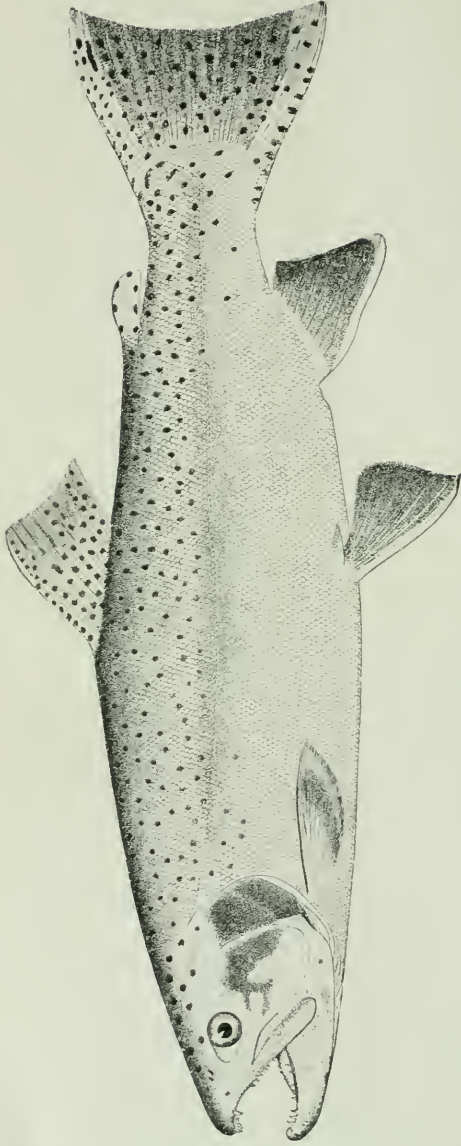
The fall salmon of all species, but especially of the Dog salmon, ascend streams but a short distance before spawning. They seem to be in great anxiety to find fresh water, and many of them work their way up little brooks only a few inches deep, where they perish miserably, floundering about on the stones. Every stream, of whatever kind, has more or less of these fall salmon.

It is the prevailing impression that the salmon have some special instinct which leads them to return to spawn in the same spawning grounds where they were originally hatched. I have not yet found any positive evidence of this in the case of the Pacific Coast salmon, and we do not believe it to be true. It seems more probable that the young salmon hatched in any river mostly remain in the ocean, within a radius of twenty, thirty, or forty miles of its mouth. In their movements about in the ocean, these may come into contact with the cold waters of their parent rivers, or, perhaps, of any other river, at a considerable distance from the shore. In the case of the Quinnot and the Blue-back, their "instinct" seems to lead them to ascend these fresh waters, and, in a majority of cases, these waters will be those in which the fishes in question were originally spawned. Later in the season the growth of the reproductive organs leads them to approach the shore and search for fresh waters. Still the chances are that they may find the original stream. But undoubtedly many fall salmon ascend, or try to ascend, streams in which no salmon were ever hatched. In little brooks about Puget Sound, where the water is not three inches deep, are often found dead or dying salmon, which have entered them for the purpose of spawning. It is said of the Russian River and other California rivers, that their mouths, in the time of low water in summer, generally become entirely closed by sand-bars, and that the salmon, in their eagerness to ascend them, frequently fling themselves entirely out of water on the beach. But this does not prove that the salmon are guided by a marvelous geographical instinct, which leads them to their parent river in spite of the fact that the river cannot be found. The waters of Russian River soak through these sand-bars, and the salmon instinct, we think, leads them merely to search for fresh waters. This matter is

much in need of further investigation; at present, however, we find no reason to believe that the salmon enter the Rogue River simply because they were spawned there, or that a salmon hatched in the Clackamas River is more likely, on that account, to return to the Clackamas than to go up the Cowlitz or the Des Chûtes. In the hatchery on Rogue River numerous fishes have been marked, set free and then caught again. But what becomes of those not recaptured, no one can say. Such experiments should be tried on the Columbia, to test the return of fishes not only to the parent basin, which can be readily accounted for, but to the original tributary in which they were spawned. Such experiments must be made before we can have confidence in the geographical accuracy of the "homing instinct" of salmon, or of any other fishes.

In regard to the diminution of the number of salmon on the coast, Dr. Gilbert and myself published in 1880, in the report of the United States Census Bureau, the following observations: "In Puget Sound, Fraser River, and the small streams, there appears to be little or no evidence of diminution. In the Columbia River the evidence appears somewhat conflicting. The catch in 1880 was considerably greater than ever before (nearly five hundred and forty thousand cases of forty-eight pounds each having been packed), although the fishing for three or four years had been extensive. On the other hand, the high water of that year undoubtedly caused many fish to become spring salmon which would otherwise have run in the fall. Moreover, it is urged that a few years ago, when the number caught was about half as great as in 1880, the amount of netting used was perhaps one eighth as much. With a comparatively small outfit the canners caught half the fish; now with nets much larger and more numerous, they catch them nearly all, scarcely any escaping during the fishing season (April 1st to August 1st). Whether an actual reduction in the number of fish running can be proved or not, there can be no question that the present rate of destruction of the salmon will deplete the river before many years. A considerable number of Quinnet salmon run in August and September, and some stragglers even later; these are all which now keep up the supply of fish in the river. The non-molestation of this fall run therefore does something to atone for the almost total destruction of the spring run. This, however, is insufficient. A well-ordered salmon hatchery is the only means by which the destruction of the salmon fisheries of the Columbia can be prevented."

Since this was written the over-fishing has gone on steadily, the number of nets used is two or three times as great as it was in 1880, while the catch has steadily fallen off. Seines are now used freely in the Columbia, as well as salmon wheels and other appliances by which great numbers of young salmon, too small for use in the canneries, are destroyed. The utter disappearance of the salmon fishery of the Columbia is only a question of a few years unless some vigorous means is taken to prevent over-fishing, to prevent the destruction of young fish, and to replenish the losses from all these causes. The same story of the destruction of the rich fisheries of the Columbia will be told again in the Fraser River and in the Yukon, and in every other stream where unlimited fishing is allowed, and where no adequate effort is made to keep up the supply. Just as the forests are wantonly and thoughtlessly destroyed by early settlers and by lumbermen, just so the fisheries of this coast will go under the hands of the canner.



RAINBOW TROUT, ADULT MALE.—*Salmo iridens*.

Of the American trout, the one which most nearly approaches the European *Salmo fario*, is the Rainbow trout of California, *Salmo irideus*, as it was named some forty years ago by Dr. W. P. Gibbons, of Alameda, or *Salmo gairdneri irideus*, as it now seems best to call it, for its relation to the Steel-head seems to be that of a variety rather than a distinct species. The name Rainbow trout is simply a translation of the Latin name *irideus* given by Dr. Gibbons, and in default of any better common name this name is likely to last. The distinctive characters of this trout lie mainly in the large scales (about one hundred and thirty-five) in a lengthwise series, in the comparatively small mouth and plump body. The color is bluish, the sides silvery, usually with a red lateral band, and marked with reddish and dusky blotches. The young, as in all trout, are crossed by dark bands, which are, in every case, a mark of immaturity. The red mark of the Cut-throat trout this species seldom shows. The typical trout of the Coast Range never shows it at all. In the Rainbow trout the head, back, and upper fins are sprinkled with round black spots, which are very variable in number. In specimens taken in the sea, this species, like most other trout in similar conditions, is bright silvery, and sometimes immaculate. This species is especially characteristic of the waters of California. It abounds in every clear brook from the Mexican line northward to Mount Shasta, and perhaps farther. No specimens have been anywhere obtained to the eastward of the Cascade range or of the Sierra Nevada. It varies much in size, specimens from Northern California often reaching a weight of six pounds, while in the Rio San Luis Rey, the southernmost locality from which I have obtained trout, they seldom exceed a length of six inches. Although not an anadromous species, the Rainbow trout frequently moves about in the rivers, and it often enters the sea. All of the small trout which I have seen from the streams of the Coast Range belong to this species, which is the common trout of California, and is found in the coastwise streams as far as Puget Sound. Four notable varieties of this species have been described from California waters. The true *irideus* is the trout of the Coast Range streams. Dr. Gibbons' specimens came from San Leandro Creek, in Alameda County.

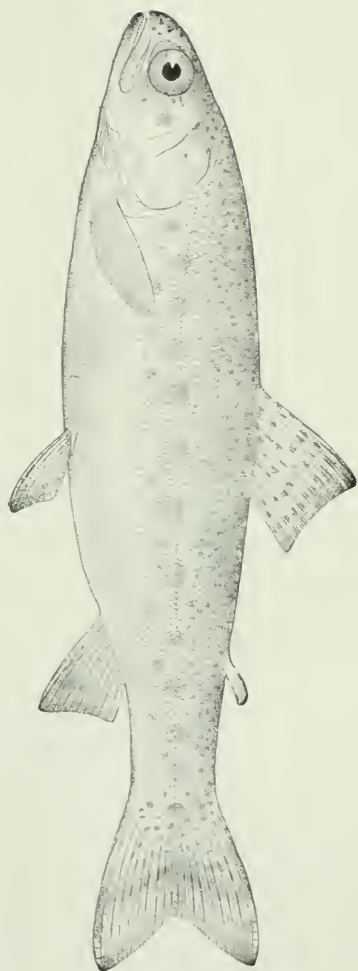
The Shasta trout, *Salmo gairdneri shasta*, is the common trout of the Upper Sacramento, the Rainbow trout of fish culturists. It is larger than the Coast Range trout, deeper in body, and shows traces of the red cut-throat mark. Its scales are also somewhat smaller.

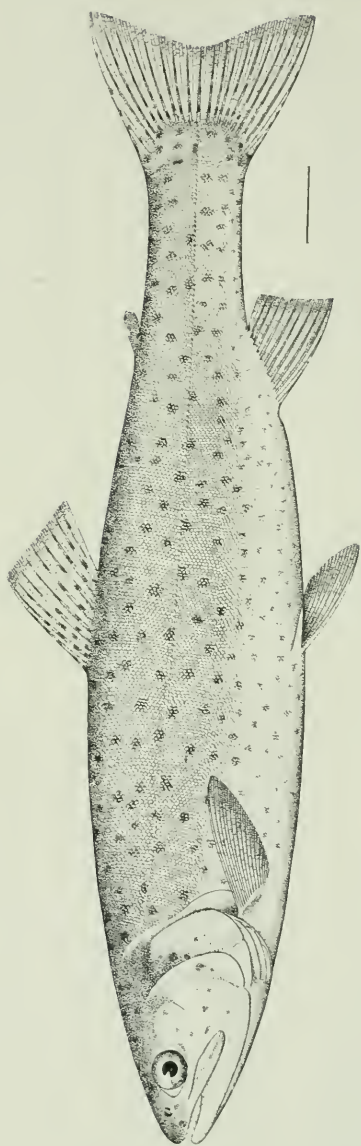
In the McCloud River and other tributaries of the Upper Sacramento, there is still another form of trout, known to the Indians as No-Shee, or Nissuee. Its scientific name is *Salmo gairdneri stonei*, the species having been sent to me by Livingston Stone, the capable Director of the United States Hatchery at Baird. The No-Shee is a large trout, with scales almost as small as those of the Cut-throat trout. Its black spots are few and mostly scattered on the posterior half of the body. According to the Indians, it is common in places on McCloud River, but I have seen only three specimens. In Kern River the common large trout is also small-scaled, but with the spots scattered over the body and the cut-throat mark distinct. This form, first brought in by Dr. Gilbert, is *Salmo gairdneri gilberti*. A singular offshoot from it is the "Golden trout" of the upper tributaries of Kern River; a beautiful inhabitant of the mountain meadow brooks and waterfalls, *Salmo gairdneri aqua-bonita*. The Kern River trout, *gilberti*, shows many points of resem-

blance to that form of the Cut-throat trout (*Salmo mykiss pleuriticus*) which inhabits the Colorado Basin. This resemblance has led to the suggestion which I have elsewhere developed that the trout of California came to the State across the deserts from the Colorado to the San Joaquin; thence, changing with circumstances, it has spread through the basins of the San Joaquin and Sacramento, and through the streams of the Coast Range. From these waters it has spread northward along the coast, invading and occupying the territory of its ancestors, the Cut-throat trout. Now the Cut-throat, the Rainbow, and the Steel-head can be found together in the same waters all the way from Humboldt Bay up to Puget Sound. If it were not for the Kern River trout and other intermediate forms, no one would question the right of the Rainbow and Cut-throat to be called different species. But following the forms from river to river throughout their range no one can tell where one form leaves off and the other begins. There is, as already stated, some reason to believe that our American trout are immigrants from Siberia, the Cut-throat trout being close to the original stock. The trout still crosses Bering Sea, and there is no obstacle to its dispersion through the streams of Alaska, British Columbia, Washington, and Oregon. From the Columbia its course across Two Ocean Pass to the Yellowstone and the Upper Missouri has been distinctly traced by Dr. Evermann. From the Upper Missouri it seems to have entered the North Platte. From the South Platte it has crossed to the Rio Grande and thence to the upper tributaries of the Colorado. From the Colorado Basin it may have entered Colorado. In the glacial epoch the climate of the deserts of San Bernardino and Mono Counties must have been very different from what it is now. We may imagine these desert sinks filled up with glacial lakes, by which the trout might have easy access to waters now seemingly remote. The trout of the Great Basins of Utah and Nevada were evidently derived from those of the Snake River. There is plenty of geological evidence that these basins had an outlet to the north at a period not very remote.

Another California trout is the so-called Steel-head, often known in California as salmon trout, a fish really very much like the salmon trout of Europe. The name Steel-head seems to me preferable because it is given to no other fish. The name comes from the color of its head and the hardness of the bones of its skull as compared with the bones of the Quinnet salmon. The Steel-head is found very abundantly in the mouth of the Columbia and other rivers at the time of the salmon run. Its usual weight in the Columbia is about twelve pounds, but it occasionally reaches twenty or twenty-five pounds. The fishes seen in the river mouth at the time of the early salmon runs are evidently spent fishes. They are lean and lank, the flesh is pale and poor, and the bones are hard, for all of which reasons it is, or ought to be, rejected by the canners, although there is no doubt that the Steel-head, when taken at its best, may be one of the finest of all trout. It certainly reaches a larger average size than any other real trout in any country. Its scientific name is *Salmo gairdneri*, named for Dr. Gairdner, of Fort Vancouver, a bright young naturalist in his day, in the employ of the fur company. Dr. Gairdner first discovered the species and sent it to John Richardson. The fact that these fishes are spent in the spring would indicate a spawning time later than that of the salmon—probably midwinter—they are probably found in the rivers at this time, because

RAINBOW TROUT, YOUNG.—*Salmo trutta*.





CUT-THROAT OR TAIHOE TROUT. — *Salmo mykiss*.

they are returning toward the sea. Steel-heads are most abundant in the Columbia, but they are common in the Sacramento, as well as in the Klamath, the Eel River, and the streams about Monterey. It is not unlikely that the most of the trout in the coastwise streams of northwestern California belong to this species.

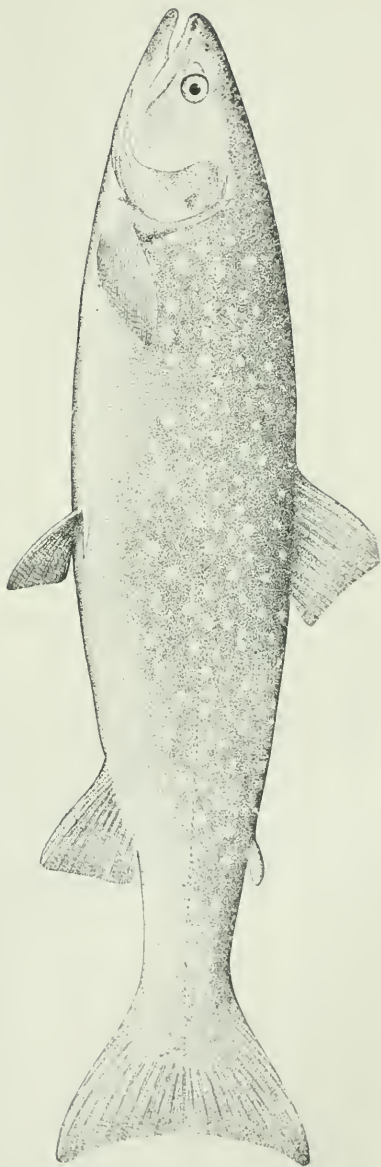
Comparing the Steel-heads with the Rainbow trout, I find no differences, other than that the former is of much larger size, and has a larger mouth, and its caudal fin is square at tip instead of forked. But the tail becomes less forked and the mouth larger with age in all species of salmon and trout. If a Rainbow trout were to reach the size of the Steel-head, it ought to acquire characters similar to those of the latter species. It is not at all unlikely that the Steel-head is simply a Rainbow trout which has descended into the sea and which has grown larger and coarser, and acquired somewhat different form and habits on account of its food and its surroundings. If this be true, the very young Steel-heads would not be distinguishable from the young Rainbow trout, and I do not know a single structural character of any kind by which the two may be separated. Dr. Gilbert writes me that at Astoria he can distinguish young Steel-heads in the brooks from the Rainbow trout that live with them. In California neither he nor I have yet been able to do this. In every other case of closely related species there is some mark, some difference in the number of scales or bones, by which we can tell the species of trout, the one from the other; but in the case of the Steel-head there is absolutely no such difference. The Rainbow trout is a small, plump fish, found in the fresh-water streams, and having certain peculiarities of form and coloration. In every internal respect, in every bone and every part of its structure, the Steel-head and the Rainbow trout agree. It is still one of the unsettled problems connected with the fisheries of California whether the Steel-head is a distinct kind of trout, or whether any Rainbow trout, placed in the ocean or the river mouth, and allowed to feed on the rich food which the salmon gets, would not, in time, develop into a Steel-head regardless of the form of its parents. The evidence, so far as it is in, is conflicting. There are some things which go to show that the two are distinct fishes. Other evidence would show that they are simply forms of the same thing, and a still more thorough study of the coastwise streams of this State is necessary before this point can be settled. If the two are absolutely the same, then the name *Salmo irideus* must drop from our lists, because the Steel-head was first introduced to science and the name of *Salmo gairdneri* is the oldest.

The remaining trout of this coast is the species known as the Cutthroat trout, or *Salmo mykiss*. This is the longest known of the American trout, having been discovered first by Steller, who gave it the Russian name of *mykiss*, which science has preserved. It is the most widely distributed of all our trout, being found throughout Alaska, Kamtschatka, in all the streams of Washington and Oregon, in the northwestern part of this State, throughout the rivers of the Great Basin of Utah, in all the streams on both sides of the Rocky Mountains until we come to the desert lands, where the washes of sand make the streams uninhabitable to any trout, and thence extending its range southward in the mountains as far as the springs in Chihuahua, the southernmost point reached by any trout in any country. Throughout this vast area some form of the *Salmo mykiss* is found. It is subject to very great variations according

to the character of the water, according to the food which it receives, and according to various other less known circumstances. It is, however, in all this region, substantially the same fish. In some places it reaches a weight of twenty-five or thirty pounds. In the southernmost limit of its range it never becomes more than a fingerling, but everywhere in this whole great region every specimen retains more or less distinct traces of the same mark—a deep scarlet blotch on the half-concealed membrane between the two branches of the lower jaw—the mark which has suggested the name of Cut-throat trout. The same red mark at the throat is the sign manual of the Sioux Indian. This identity is recognized in the Dakotas, where Sioux and trout are found together. It has much smaller scales than the Rainbow trout or the Steel-head. In fact, it has smaller scales than any other of the known species of trout, although much larger than the scales of any of the charrs. In a longitudinal series along the side the usual number is about one hundred and seventy. Excepting the red blotch and the presence of black spots somewhere, all other details of coloration are extremely variable. As we go eastward the spots tend to bunch themselves more and more on the tail, so that in eastern Colorado, on the Rio Grande and the Platte, most specimens that are taken are spotted almost entirely on the tail. In Washington and Oregon the spots are usually evenly divided over the back, and in the trout of Lake Tahoe they commonly cover the belly also. In California the Cut-throat has been positively found only in Lake Tahoe, in the Feather River, and in the streams of the northwestern part of the State. Its southern limit along the coast seems to be in Humboldt County. It is in Elk River and Mad River, and in the lagoons near the sea. I am told that it has not been taken in Eel River, where only the Rainbow and its double, the Steel-head, are found. It will probably be found to be the common trout of Lassen and Modoc Counties, and perhaps along the east slope of the entire Sierra Nevada. The largest known specimens have been taken in Lake Tahoe and in the salt water about Puget Sound. About Puget Sound it is a very common fish. As in the case of all trout entering salt water, these sea-run individuals are more silvery and less spotted than those found in the mountain streams and the lakes. The presence of salt water in all fishes destroys the black spots and markings which are found in fresh water, replacing them by a uniform silvery hue. The same effect is noticeable when trout enter alkaline lakes. Thus, the trout of Utah Lake are more silvery than those which inhabit any of the surrounding streams, the waters of Utah Lake, in the summer at least, being milky with alkali.

The remaining fish of this family to which I need refer, is the Dolly Varden trout, or charr, which is the finest of the trout-like fishes on this coast. It is found in the Upper Sacramento, and thence along the line of the Cascade range as far as Kamtschatka. It often enters the sea, where it loses its spots and becomes plain silvery gray. I have myself obtained a specimen, weighing eleven pounds, near Seattle, in Puget Sound, but in the mountain streams specimens weighing even a single pound are comparatively rare. It is true of all the trout that their size depends upon the conditions. They all grow large in the sea, and in the little mountain brooks their size corresponds to their advantages; every trout, large or small, is perfect so far as he goes. The Dolly Varden trout is scarcely different from the Eastern Brook trout, the slight difference being, on the whole, to his advantage. It is rather plumper

DOLLY VARDEN TROUT, *Salvelinus malma*.



in body than the brook trout of the East. The red spots are found on the back as well as on the sides, and the back and upper fins do not show the dark green marblings which are characteristic of *Salvelinus fontinalis*. In food, in body, and in gaminess, the Dolly Varden, or *Salvelinus malma* (this, too, a Russian name, first given it by Steller), is not inferior to its Eastern cousin.

Everywhere on the Pacific Slope, in every clear stream of the Cascade, the Sierra Nevada, the Coast Range, Rocky Mountains, and all their flanking ranges, some variety of trout abounds. This region should be the Mecca of anglers as it is of all lovers of the beautiful and the sublime in nature. In the East the trout or charr has almost passed away. The "trout hog" has devoured him, and the angler is turning his hand unwillingly to black bass and tarpon, as the successor of Izaak Walton fills his basket with gudgeon and chub. Says Myron W. Reed, a veteran angler:

"This is the last generation of trout fishers. The children will not be able to find any. Already there are well-trodden paths by every stream in Maine, in New York, and in Michigan. I know of but one river in North America by the side of which you will find no paper collar or other evidence of civilization. It is the Nameless River. Not that trout will cease to be. They will be hatched by machinery, and raised in ponds, and fattened on chopped liver, and grow flabby and lose their spots. The trout of the restaurant will not cease to be. He is no more like the trout of the wild river than the fat and songless reed-bird is like the bobolink. Gross feeding and easy pond life enervate and deprave him. The trout that the children will know only by legend is the gold-sprinkled living arrow of the white water; able to zigzag up the cataract; able to loiter in the rapids; whose dainty meat is the glancing butterfly."

But on the Pacific Slope the rivers are still many and the anglers are few. The "trout hog" is with us, but Mother Nature is too much for him. For a hundred generations she will be strong enough to make good whatever mischief he may do.

In writing on the trout of California, one does not willingly lay down the pen at the end. The most beautiful of fishes, the most charming of lands, where the two are connected, one wishes to say something better of them than has yet been said. It is with regret that he lets fall the pen in confession of inability to say it.

DESCRIPTIONS OF NEW VARIETIES OF TROUT.

By Dr. DAVID STARR JORDAN.

THE NO-SHEE TROUT.

(*Salmo irideus stonei*, Jordan.)

Anal rays, 11. Depth of body contained four times in its length. Pectoral, $1\frac{1}{3}$ in head. Eye large, $4\frac{1}{2}$ in head. Maxillary, $2\frac{1}{10}$. Distinguished from *Salmo irideus* by its small scales, the number of scales in a longitudinal series being about 155, 82 before dorsal, where they are small and imbedded, 25 above lateral line. Teeth fewer and smaller than in the Rainbow trout. Those on the vomer in a single zigzag series. Axillary scales of ventral small. Upper parts plain greenish. Spots few, and confined chiefly to the posterior part of the body; spots small and sparse on the dorsal, adipose fin, and caudal; a red lateral band, usually distinct; cheeks and opercles with red, no red between branches of lower jaw.

Described from a specimen 14 inches in length, collected by Mr. Livingston Stone in McCloud River at Baird, California. This form is well known to the Indians and fishermen on the Upper Sacramento, where it is known as the No-Shee. The name Nissuee is said to be used for the same fish by the Indians in Siskiyou County. According to Mr. Stone, the Indian fishermen say that it is abundant in the McCloud River, about eight miles above Baird. The trout are larger in size than the ordinary *irideus*, one having been taken that weighed 12 pounds. A second specimen sent by Mr. Stone is deeper in color, the red lateral band very distinct (female taken in May). The scales rather large (140) and irregularly placed.

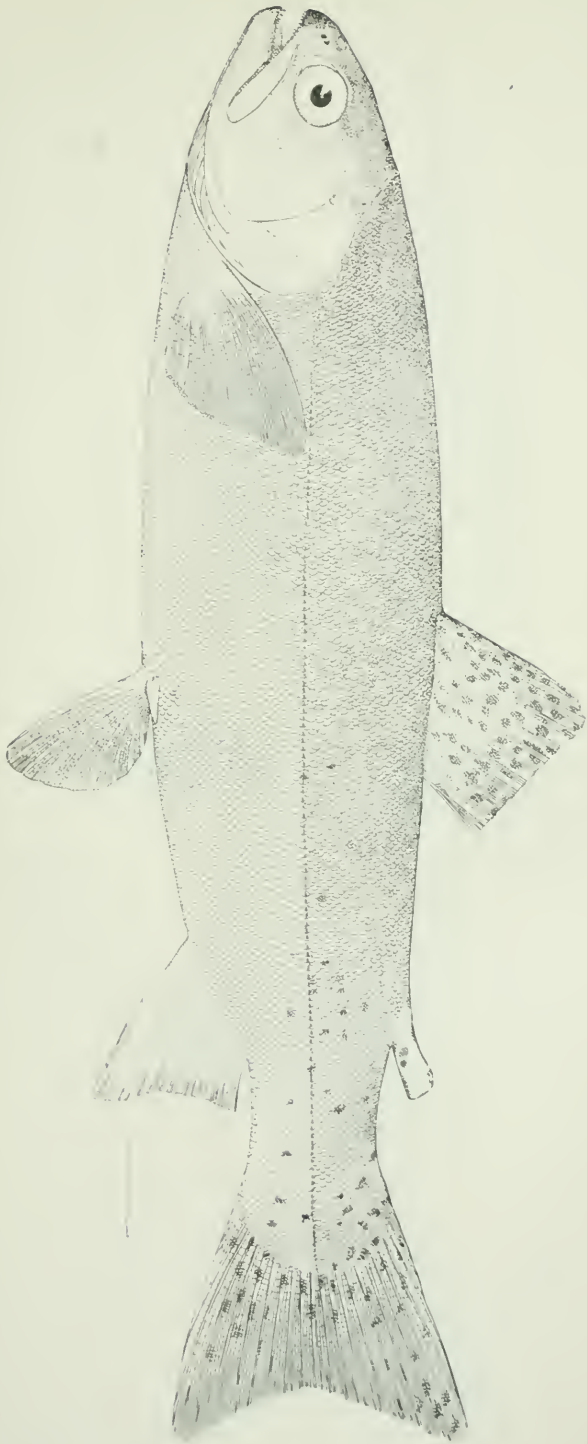
This variety of Rainbow trout is named for Livingston Stone, Director of the United States fish hatchery at Baird, Shasta County, California, one of the most successful workers in practical fish culture in our country.

McCLOUD RIVER TROUT; SHASTA TROUT.

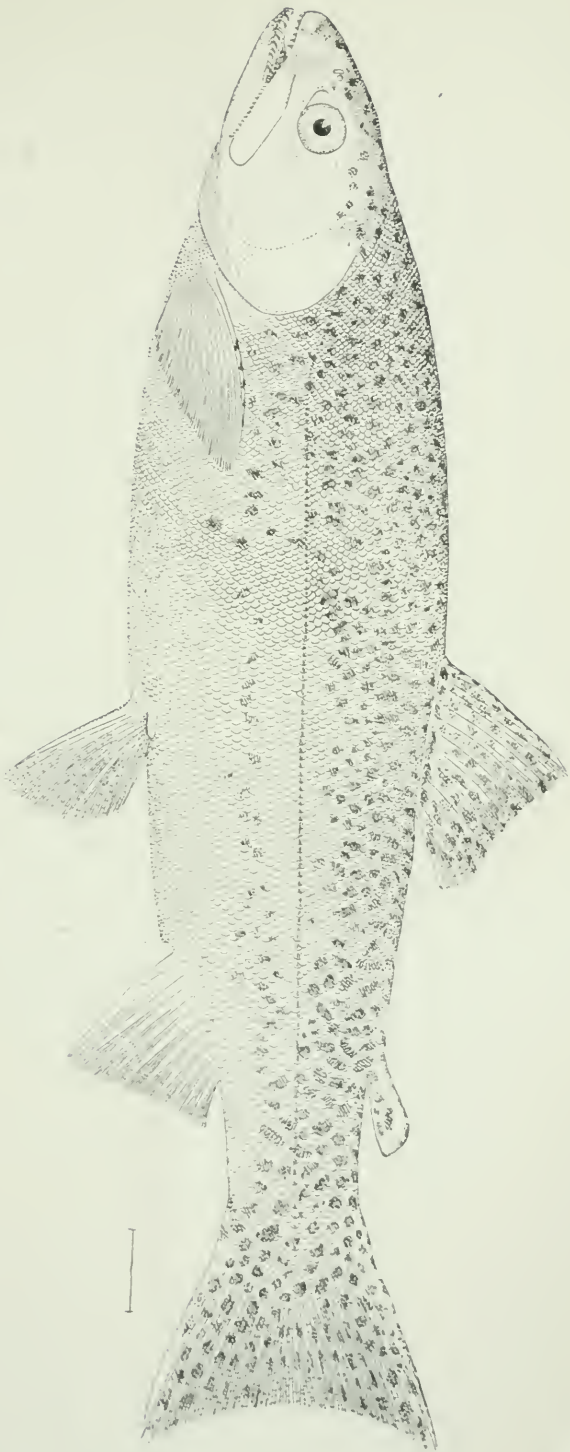
(*Salmo gairdneri shasta*, Jordan. Rainbow Trout of the Fish Culturists.)

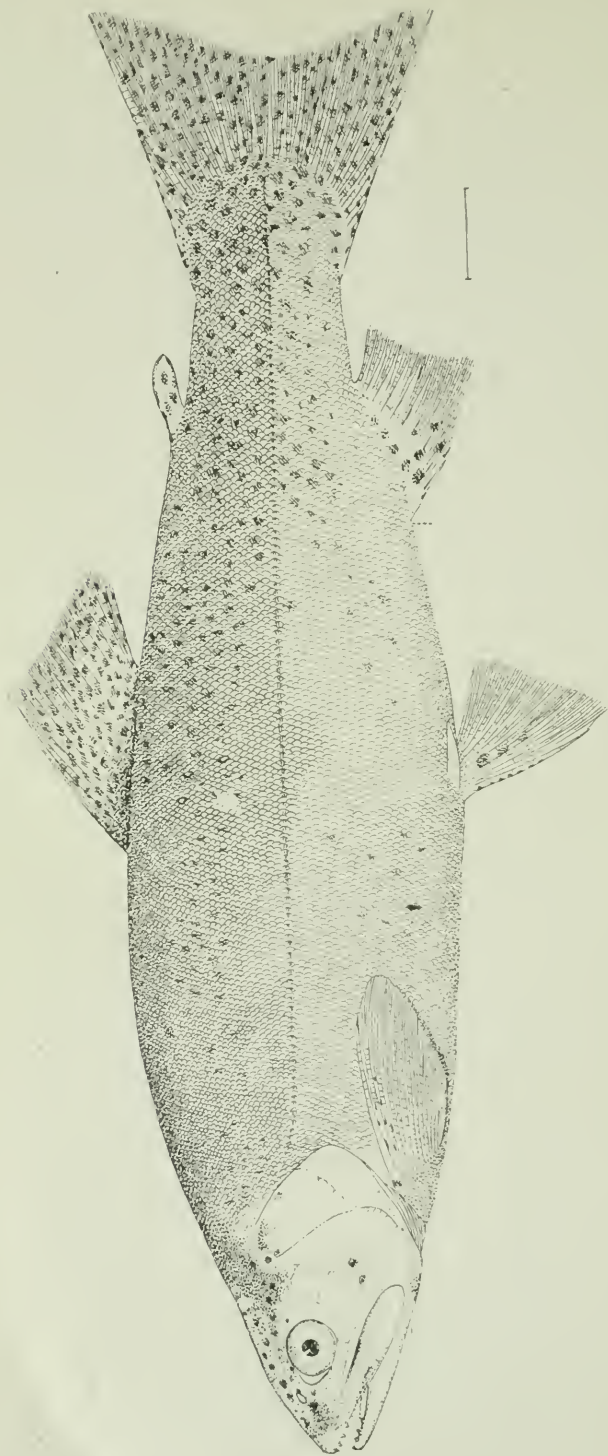
Body comparatively short and deep, compressed. Head short, convex, obtusely ridged above. Mouth comparatively small, the broad maxillary scarcely reaching beyond the eye, except in old males; the maxillary is about $1\frac{3}{4}$ in head in males, 2 in females. Eye large, about 5 in head. Vomerine teeth in two alternating series; hyoid teeth wanting. Dorsal fins moderate; caudal distinctly lunate or slightly forked. Scales intermediate in size between those of the Coast Range trout (*Salmo gairdneri irideus*) and those of the Cut-throat trout; the usual number of transverse series about 145. Head, 4 in length; depth, $3\frac{1}{2}$. D. 11, A. 10 or 11.

No-SHEE TROUT.—*Salmo iridicus stonci*



McClouid River Trout. — *Salmo gairdneri shasta*.





KERN RIVER TROUT. -- *Salmo gairdneri gilberti*.

Color greenish above, with bright reflections, silvery below; above everywhere profusely but irregularly spotted; spots present on head; spots on caudal small; belly nearly plain. Males, and usually females, also with a broad red lateral band and red blotches; much red on cheeks and opercles; fins usually not red; usually a trace at least of orange dashes between branches of lower jaw.

This name is given to the trout of the Upper Sacramento, the types having been sent by Mr. Livingston Stone from the United States fish hatchery on the McCloud River at Baird. This form has been largely planted in other streams, both east and west, under the name of Rainbow trout. The name Rainbow trout is a translation of the name *Salmo irideus*, first applied by Dr. Gibbons to trout taken in San Leandro Creek in Alameda County. The name *irideus* belongs therefore to the Coast Range trout, which differs slightly from the Shasta trout above described. The scales are larger in *irideus*, usually about 130, and there is no trace of the "cut-throat" marks under the lower jaw. In what degree the two forms intergrade we cannot say as yet, and the present arrangement is only tentative until the various forms of the Rainbow trout are better known. Only a complete survey of the trout-bearing waters of California and neighboring States can give us accurate knowledge of the relationship of the different forms.

THE KERN RIVER TROUT.

(*Salmo gairdneri gilberti*, Jordan.)

This trout, inhabiting the deeper parts of Kern River, is very similar to the Shasta trout, differing in the still smaller scales, which are nearly as small as in typical *Salmo mykiss*, in about 165 transverse series. The body is robust, the mouth moderate in size, the back and sides profusely and rather finely spotted anteriorly and posteriorly, and there is in adult specimens more or less orange between the branches of the lower jaw, this mark being faint or wanting in the young. Upper ray of pectoral spotted; belly nearly or quite immaculate.

This form of trout seems intermediate between the ordinary Rainbow trout, or California trout, and the forms known as Cut-throat trout. It is abundant in the Kern River Basin, in the river channels, and reaches a weight of 5 to 6 pounds or more.

The specimens examined by us were collected by Dr. Charles H. Gilbert, for whom the form is named.

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