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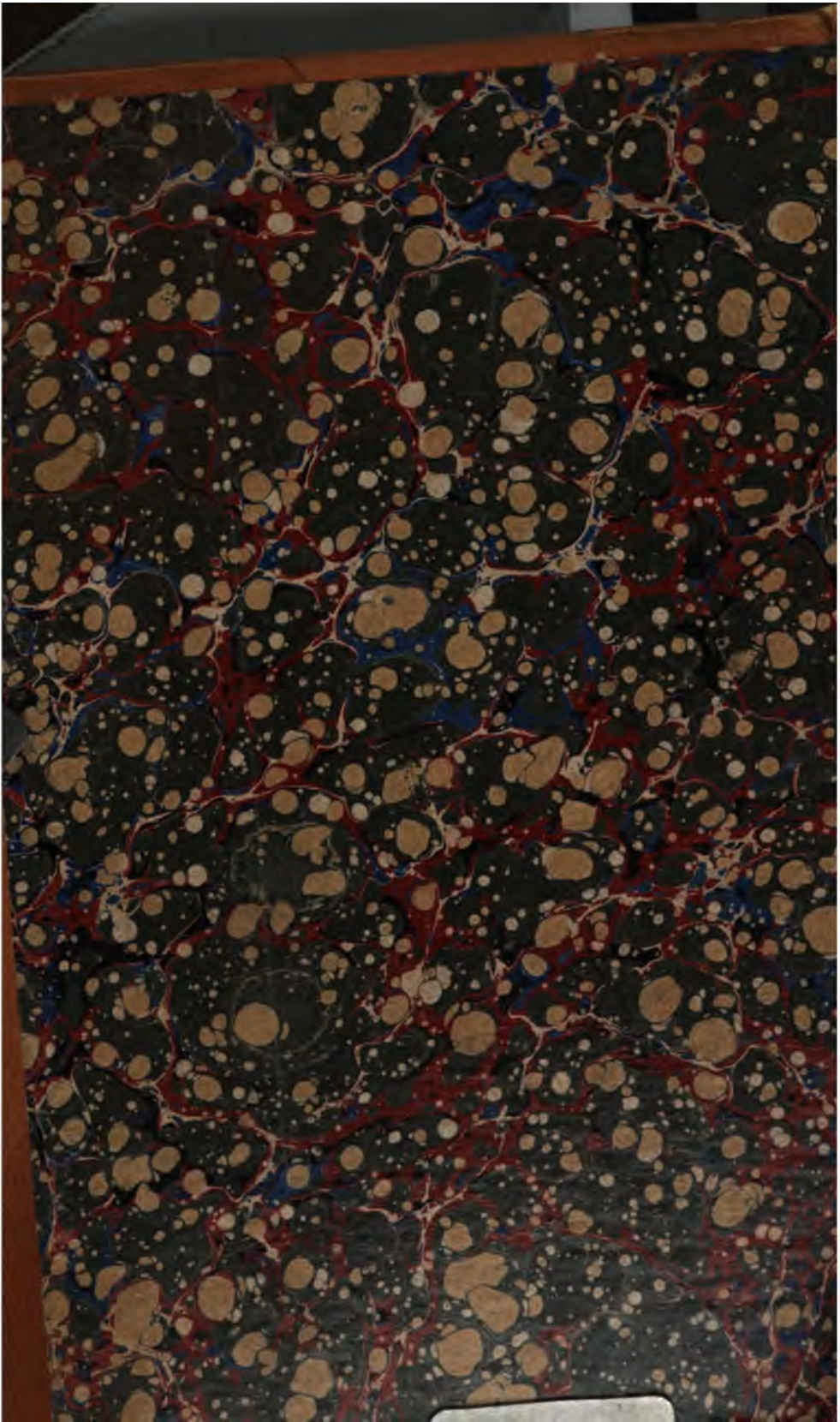
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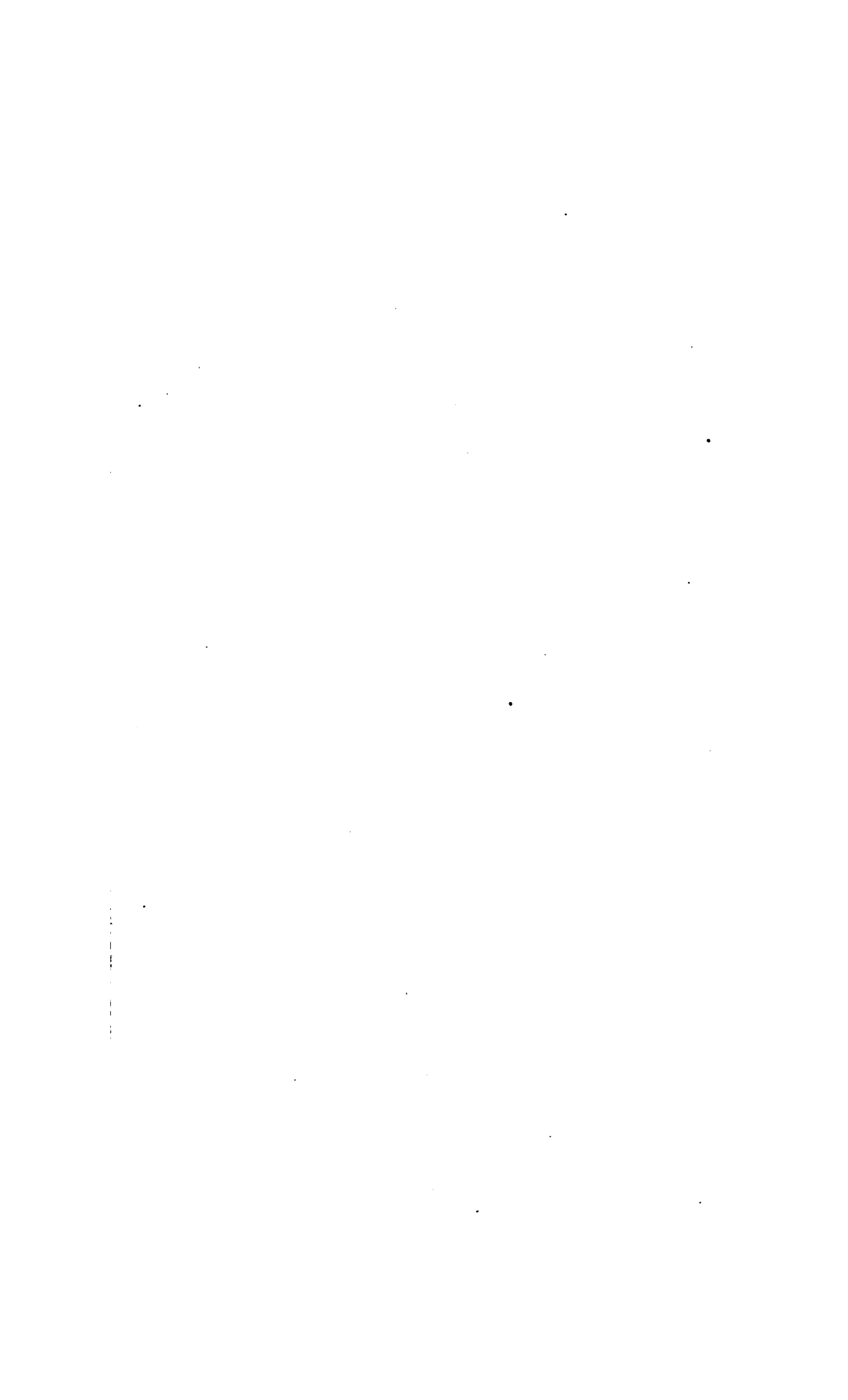
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CONSTITUTION,



—AND—

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LIST OF OFFICERS AND MEMBERS

OF THE

HISTORICAL SOCIETY OF SOUTHERN CALIFORNIA;

TOGETHER WITH THE

INAUGURAL ADDRESS of the PRESIDENT.



H

LOS ANGELES, CAL:  
NEWS AND RECREATION PRINT.

1884.



c.

**CONSTITUTION,**

**STANDING RULES,**

—AND—

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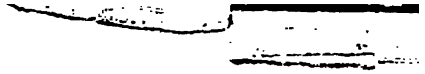
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# Constitution and Standing Rules of the Committee and the Society.

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## Constitution.

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ARTICLE I. The name of the Society shall be the Historical Society of Southern California.

ARTICLE II. The objects of this society shall be the collection and preservation of all material which can have any bearing upon the history of the Pacific coast in general and of Southern California in particular; also the discussion of historical subjects, the reading of such papers and the trial of such scientific experiments as shall be determined by the General Committee.

ARTICLE III. The officers of the Society shall be a President, four Vice Presidents, a Treasurer and a Secretary.

ARTICLE IV. There shall be a General Committee consisting of the officers of the Society and ten other members.

ARTICLE V. The officers of the Society and the other members of the General Committee shall be elected annually by ballot; they shall hold office until their successors are elected and shall have power to fill vacancies.

ARTICLE VI. It shall be the duty of the General Committee to make rules for the government of the Society and to *transact all its business.*

ARTICLE VII. This constitution not be amended except by a two-thirds vote of the members present at an annual meeting for the election and after notice of the proposition shall have been given in writing at the stated meeting of the Society four weeks previously.

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## Standing Rules of the Committee, Dec., 1

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1. The President and Vice President shall hold like offices in the General Committee.

2. There shall be a Secretary and a Treasurer of the General Committee who shall be elected by ballot by the General Committee.

3. The President shall have the right to call special meetings of the General Committee and to appoint Sub-Committees.

4. The Sub-Committees shall be organized to transact the business for the General Committee and to perform such other duties as may be entrusted to them.

5. There shall be two standing committees; one on Communications for the Stated Meetings of the Society and another on Publications.

6. The General Committee shall meet at seven o'clock on the evening of the first day of each month.



g of the Society and by ad- other times.

purposes except for the f the Standing Rules of the of the Society, and the mbers, six shall constitute

mes of proposed new mem- ended in conformity with the Standing Rules of the be presented at any meet- eral Committee, but shall least four weeks before d the concurrence of twelve e Committee shall be neces- m. The Secretary of the nittee shall keep a chron- or of the elections and ac- members.

tanding rules and those for nt of the society shall be with the consent of a ma- jeneral Committee.

### Rules of the Society, cember, 1883.

ted meetings of the Society at half-past seven o'clock onday evening of each cal- ; the place of meeting to be the General Committee.

of the time and place of be sent to each member by r of the Society. When eial meetings may be called ent.

nual meeting for the elec- s shall be the stated meet- er. *The order of proced-*

ings, which shall be announced by the Chair, shall be as follows:—

*First.* The reading of the minutes of the last annual meeting.

*Second.* The presentation of the annual reports of the Secretary of the Society and of the Secretary of the Committee, which reports shall contain a list of the names of members elected since the last annual meeting.

*Third.* The presentation of the annual report of the Treasurer.

*Fourth.* The announcement of the names of members, who, having complied with Section 12 of the Standing Rules, are entitled to vote on the election of officers.

*Fifth.* The election of President.

*Sixth.* The election of four Vice Presidents.

*Seventh.* The election of Treasurer.

*Eighth.* The election of Secretary.

*Ninth.* The election of ten members of the General Committee.

*Tenth.* The consideration of amendments to the constitution of the Society if any such shall have been proposed in accordance with Article VII. of the constitution.

*Eleventh.* The reading of the rough minutes of the meeting.

4. Elections of officers are to be held as follows:—

In each case nominations shall be made only by means of an informal ballot, the result of which shall be announced by the Secretary, after which the first formal ballot shall be taken.

In the ballot for Vice-Presidents and members of the General Committee, each voter shall write on one ballot as many names as there are officers to be elected,

viz., four on the first ballot for Vice-Presidents and ten on the first for members of the General Committee; and on each subsequent ballot as many names as there are persons yet to be elected, and those persons who receive the highest majority of the votes cast shall be declared elected.

If in any case the informal ballot result in giving a majority for any one, it may be declared formal by a majority vote.

5. The stated meetings, with the exception of the annual meeting, shall be devoted to the consideration and discussion of historical and scientific subjects.

The stated meeting next preceding the annual meeting shall be set apart for the delivery of the President's Annual Address.

6. Sections representing special branches of science may be formed by the General Committee upon the written recommendation of twenty members of the Society.

7. Persons interested in historical and scientific matters, who are not residents of Los Angeles, may be present at any meeting of the Society, except the annual meeting, upon invitation of a member.

8. Similar invitation to residents of Los Angeles, not members of the Society, must be submitted through the Secretary of the Society to the General Committee for approval.

9. Invitations to attend during three months the meetings of the Society and participate in the discussion of papers, may, by a vote of nine members of the General Committee, be issued to persons *nominated by two members.*

10. Communications intended for publication under the auspices of the Society shall be submitted in writing to the General Committee for approval.

11. New members may be proposed in writing by three members of the Society for election by the General Committee; but no person shall be admitted to the privileges of membership until he signifies his acceptance thereof in writing within one month after the date of the election.

12. Each member shall pay to the Treasurer, on admission, the sum of two dollars (\$2) and also annual dues of three dollars (\$3), payable quarterly. No member whose dues are unpaid shall vote at an annual meeting for the election of officers, or be entitled to the publications of the Society. In the absence of the Treasurer the Secretary is authorized to receive the dues of members. The names of those members in arrears shall be dropped from the list of members. Notice of resignation or withdrawal of membership shall be given in writing to the General Committee through the President or Secretary of the Society.

13. The fiscal year shall terminate with the annual meeting.

14. Any member not in arrears at the time of the annual meeting, by the payment of one hundred dollars, may become a life member and be released from all further dues and other assessments. All moneys received in payment of life membership shall be invested as portions of a permanent fund, which shall be directed to the furtherance of such special projects of historical research as may be ordered by the General Committee.

## List of Officers and Members, March 1, 1884.

### Officers for 1884.

President—J. J. WARNER.  
 Vice-Presidents { H. D. BARROWS,  
                           J. G. DOWNEY,  
                           A. F. CORONEL,  
                           JOHN MANSFIELD.  
 Treasurer—J. M. GUINN.  
 Secretary—C. N. WILSON.

### Members of the General Committee.

MARCUS BAKER,  
 R. F. DEL VALLE,  
 S. C. FOSTER,  
 GEO. B. GRIFFIN,  
 VOLNEY E. HOWARD,  
 E. W. JONES,  
 I. MORE,  
 J. B. NILES,  
 J. W. REDWAY,  
 J. P. WIDNEY.

### Committee on Communications.

MARCUS BAKER,           GEO. B. GRIFFIN.  
 J. P. WIDNEY,

### Committee on Publication.

H. D. BARROWS.           J. B. NILES.  
 I. MORE,

### List of Members.

BARROWS, LUCIUS 1103 South Park street,  
                           Kalamazoo, Michigan.  
 BAKER, MARCUS . . . . . Magnetic Observa-  
                           tory, 347 Hill street.  
 BARRON, JOHN MARK 12 New High st.  
 BARROWS, HENRY DWIGHT . . . . .  
                           76 San Pedro street.  
 BENTON, EDWIN . . . . . Temple Block.  
 BIRCHFIELD, ABIEL J. 836 S. Hope street.  
 BROWN, ANTONIO FRANCO . . . . .  
                           7th and Alameda streets.  
 BROWN, MRS. ANTONIO FRANCO . . . . .  
                           7th and Alameda streets.  
 DEL VALLE, REGINALDO FRANCISCO . . . . .  
                           City of Paris Block.  
 DOWNEY, JOHN GATELY . . . . . 239 S. Main st.

EDGAR, WM. F. . . . . Washington street.  
 ESTUDILLO, JOSE GUADALUPE 328 Hill st.  
 FOSTER, STEPHEN C. . . . .  
 FULLER, HENRY . . . . . 5 Clay street.  
 GRIFFIN, GEORGE BUTLER . . . . .  
                           Office 225 N. Main street.  
 GUINN, JAMES MILLER . . . . . 11 S. Charity st.  
 HAMILTON, HENRY . . . . .  
 HANSEN, GEORGE . . . . . Temple Block.  
 HOWARD, FRANCIS H. . . . . 341 S. Spring st.  
 HOWARD, VOLNEY E. . . . . 207 S. Spring st.  
 JONES, EDWARD WADSWORTH . . . . .  
                           P. O. box 1438.  
 KINLEY, ISAAC . . . . . 110 Nadeau Block  
 KOHLER, AUGUST . . . . . City Court Room  
 LEMMERT, PAUL HENRY . . . . . S. Figueroa st.  
 LEVERING, NOAH . . . . . 426 Pearl street.  
 MALTMAN, JOHN SCOTT . . . . .  
                           Room 82, Temple Block.  
 MANSFIELD, JOHN . . . . . Temple Block.  
 MORE, IRA . . . . . Normal School.  
 MORGAN, JOHN COX . . . . . P. O. box 357.  
 NEVIN, JOSEPH C. . . . . 314 S. Hill.  
 NILES, JOHN BARRON . . . . . Office 18 Court st.  
 ORME, HENRY S. . . . . 120 Main street.  
 PECK, GEORGE H. . . . . El Monte.  
 PETROFF, IVAN . . . . . San Francisco.  
 REDWAY, JACQUES W. . . . . Normal School.  
 RUST, HORATIO N. . . . . Pasadena.  
 SEPULVEDA, ADRONICA . . . . .  
 STANLEY, JOHN QUINCY ADAMS . . . . .  
 THOM, CAMERON E. . . . . Office Temple Block.  
 WARNER, JONATHAN J. . . . . P. O. Box  
                           1115, Temple Block.  
 WIDNEY, JOSEPH POMEROY . . . . . Widney  
                           Block ; 32 Hill street.  
 WILSON, CHRISTOPHER NORTH . . . . . P. O.  
                           Box 775.  
 WRIGHT, EDWARD T. . . . . Office Downey  
                           Block.

Inaugural Address of the President, Col. J.  
J. Warner, delivered before the  
Society, Jan. 7, 1884.

Mr. President and members of the Historical Society of Southern California.

At the December meeting of the general committee of your society, I was requested to speak to you on the *origin, aims, and objects* of this society.

Conformably to that request, it is my purpose at this time, to speak very briefly of the origin, and somewhat more at length, of what I conceive to be the aim and object of our organization. That we should, at the commencement, have a definite purpose, and aim at the accomplishment of certain well considered plans, is of the first importance, if we would develop a healthy and vigorous growth. We cannot do better then, than to consider at the outset *what* we would do, and *how* we should do it.

How we came to be, *i. e.* what was our origin, is, doubtless, as familiar to you, as to myself. A few gentlemen, some of whom had been, and still are connected with historical or scientific societies, in other parts of our land, conceived the idea of forming in this city such an organization:—Here is a new and unoccupied field. It has been the home of the white man for more than a century, and now, in the midst of the intruding flood of immigrants, old land marks are rapidly disappearing. Things which are now common, in a few years will be rare; and, after a few years more, they will cease to be.

The origin of a society like ours, grows out of that fundamental conception which is the basis of our constitution,—our laws and the unwritten

common law. That conception is, golden rule. Just as we now prize the records of the early colonial life and growth of our state people, so will our successors prize records which we shall preserve them; and, so far as in us lies, we discharge our debts to our predecessors for the records they have preserved us, by making and preserving for successors, those records which will be of interest and use to them. The underlying principle to which we owe our origin. Imbued with this idea a few gentlemen, John B. Niles, Governor Mansfield, Judge Levering, H. Rust, and the writer met in the normal School building one evening September last, and had an informal talk, and agreed to meet again at the end of one week, in the court room Judge Morgan. Several meetings followed, (the full details of which are on record) in the course of which an organization was effected and officers elected. Thus was the society born, and, it is now our business to re-educate to train it to a vigorous growth, to cultivate it into a hardy, a useful, long-lived and beneficial organization. This society was, in my opinion, formed for work. It was not formed for show,—for the name of the thing, but to do something. What that work is, the society has itself already declared in its organic act,—an act which meets my hearty approval.

The second article of our constitution declares that "the object of this society shall be the collection and preservation of all material which can have a bearing upon the history of the Pacific Coast in general, and of Southern California in particular." To coll

reserve historical matter, is the object of our mission.

have also, in our original concern, laid the foundation yet broader. The records of science, of exact and material knowledge, are also to be kept safe. Aiming chiefly in the historical direction, we should not forget the scientific method, in our

By including scientific, as well as historical matters, we may hope to increase the knowledge of each other; we trust, to extend in a humble way the bounds of human knowledge.

Our first work will probably be fruitful of results, if given largely to the historical side, and expended upon branches, *collection* and *preservation*.

As we consider these two branches of our work: *Collection* of historical material refers to the past, *preservation* to the present and the future.

Our work of collecting must be preceded by ascertaining what there is in existence in the form of books, manuscripts, traditions, monuments, relics, &c.; and, then, of rescuing such material from the danger of loss. If a book has been published on the history of a region, and this book distributed throughout the libraries of the country, the facts, and the fancies too, which it contains, are almost absolute-ly secure of preservation. If, on the other hand a manuscript record exists, the facts contained in it are in immediate danger of loss, from fire, from theft, or from various accidents. Further-  
more, if statements exist, in either books or manuscripts, which are known to be erroneous, such erroneous statements if corrected, will go down as the *veritas* of history. To collect such

material, and to carefully scrutinize it,

should be one distinct line of the work which we lay out for ourselves. This material having been examined, we may then use the memoranda and the memories of men now living, to correct errors—while for those yet earlier historical incidents which go back of the memories of our oldest members, we can apply the canons of historical criticism; and, by comparing conflicting statements and carefully weighing evidence, arrive in the neighborhood of truth. We may thus correct errors in existing historical material; and by publishing and by diffusing these corrections give the future historian the means of steering clear of error.

One of the earliest pieces of work under the head of *collecting* will be a bibliography of the field we propose to occupy, that is to say, alphabetical lists of the authors, and of all books, papers, magazine articles, reviews, pamphlets and manuscripts pertaining to this region. The time may come, when, in lieu of these lists, we may have the things themselves; but meanwhile such lists will prove of the highest service, and I trust some of our members will find the leisure and the inclination to begin them; but, I forewarn you, such a work will not, in the vulgar sense of that word, pay. There is no money in it, and he who undertakes it, will have for his reward, not money; but, what is better,—the consciousness of having done a useful thing for his contemporaries, and for posterity, and this, indeed should be in all the work we undertake, our expected reward,—the consciousness of having done well, that which we wish our predecessors had done for us.

Of all historical material which we

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are likely to collect: information, whether written or oral, is the most important; but, of these two, the written and printed are of most value. But there is also other material which we should not neglect. The various implements which constitute the material for a study of the earlier civilization are to be sought for,—the pottery, the stone implements, the crania, the ornaments, the idols, the hieroglyphics, etc., etc, all should be collected.

I have said that preservation of historical material refers to the present, and to the future. This will be clearer when stated in greater detail.

In this new, busy, bustling town of ours, new enterprises are started, older enterprises are abandoned, or modified, social life is changing; and, all so rapidly that within a short time it will be difficult to trace their beginnings, unless a careful watch is kept of current events by persons interested. Happily the newspaper chronicles much of this for us; but—and here our work begins; the newspaper, which we throw into the waste basket to-day, soon becomes a historical document hard to find. It may be seriously questioned whether it is now possible to secure a complete file of the newspapers or any of the older ones, which have been published in this county. If it be possible to bring together such a file, we should lose no time in beginning the collection; and, should complete it as rapidly as possible. Then our work should in part be, to save these papers, which we value so lightly to-day, but which at the end of only one short decade become possessed of a high value. Various pamphlets, circulars, maps, real estate circulars, current market re-

ports etc. are very cheap as they come from the press. Their very cheapness and abundance leads to their depreciation; and this again reacts to the few remaining ones, the prize of the antiquary and historian. It should be one of our objects to steadily collect and preserve this material. This work illustrates the preservative feature of our work, and shows too, the desirability of doing some things, the importance of which will be, at first, underrated.

We should secure copies, or originals, of all maps of any part of Southern California, since a comparison of them will show the progress of settlement, improvements, and, of our advancing knowledge of the geography of this region. We should take pains to secure as full a series of photographs and views as possible of this city and its surroundings, particularly print all negatives made twenty, or thirty years ago. We should acquire a collection of photographic pictures of all those persons who have been prominently connected with the history of this city and of Southern California.

If there are any meteorological records in existence of the period prior to 1877, when the signal station was established—we should obtain the original records, or copies of them for preservation. We should collect and arrange a complete record of all earthquake phenomena, of which there is any account on this coast, from the earliest date, and then continue this, so as to make the record up to time to time. We should secure a complete list of all observations which have been made in this county, &c

at times for the determination of magnetic declination or variation of the compass. We should prepare a list of things done, the first vessel to arrive on the coast, the first Spanish settler, the first American settler, the white child born, the first steam vessel on the coast, the first steam vessel in San Pedro, the first overland route at Los Angeles, the first telegraph to Los Angeles, the first railroad from Los Angeles, the first train from Los Angeles from San Francisco, first hack in Los Angeles city, the railway in Los Angeles city, the Telephone in Los Angeles city, the first orange trees in Southern California, the first orange trees in Los Angeles city, the first vineyard in California, the first vineyard in Los Angeles, the first cotton raised in Southern California, the first pepper trees, the first eucalyptus trees, the first street laid in this city, the first sewer made in this city, the first reservoir for irrigation, the first gas works, the first water works and water pipes, the first electric light for streets, the first blooded horses, cattle, sheep, fowls and hogs; the first honey bees, the first mines, silver and oil wells, the first hydraulic press, the first public lights in the streets, the first ostrich hatched, the first silk reared, the first camel introduced, the first potato bug to arrive.

These first things are often unnoticed, but when it is too late, the times of their opening are often eagerly sought for. It is our business to look for, and record them before it is too late. You will perceive, gentlemen, that if we do not work, and by working develop a healthy and vigorous growth, it will not be because there is not

abundance of work to do.

One of the essential elements for the healthy growth and life of a society like ours is publication. It is not important to publish much, but it is important to publish that which has a permanent value. Publication is one of the things to which we should look forward, and which should be accomplished as soon as the means within our power shall admit. This publication has a two-fold influence. In the first place, it stimulates members to the preparation of papers, by offering the necessary outlet for these papers after they shall have been prepared, a channel through which contributors may make their work known; and, in the second place by exchanging these publications for like publications by other similar societies we may enlarge our field of knowledge and receive fresh stimulus for further research. Publication, then, should be contemplated; and its accomplishment kept in view whenever our inclination and resources will permit.

It may be doubted whether this time will be hastened by a large membership. In all societies there is always a large percentage of non-active members; and the vigor and usefulness of a society is generally, may almost universally found to be proportional, not to its total membership, but proportional to the number of workers. A society of only ten members, all interested and active workers, might, therefore do more to collect and preserve historical material than a society having ten, or twenty times as many members imbued only with the idea of entertaining each other with reminiscences and historical essays made up of already collected and preserved material. Large membership

is not a good in itself. For many purposes a small membership is better than a large one:—behold our National House of Representatives, with its more than three hundred members; and, behold also, how the small committee of fifteen, with its sub-committee of three, controls legislation. We should not, by any means, repel any seeker after membership, except with the very greatest caution; but, at the same time, we shall not gain much help towards collecting and preserving historical material simply by increasing our membership. Nor should we, in my opinion, confer membership unasked upon any individual, merely to reflect some distinction upon ourselves. There is a temptation for youthful organizations to attract notice to themselves by playing the part of patrons to some distinguished individual. Unless the society shall give more honor in bestowing its membership, than it receives by such bestowal, then, in my opinion, it is better not to bestow its dubiously honorary membership, until such bestowal will be a distinction creditable, in the highest degree, to the society and to the recipients; but, it can not be safely done until we have placed the society at some distance, some years if you please, from the constitution framing epoch incident to early life.

In deciding upon courses of action to be pursued respecting various questions, as they arise, let us keep constantly in view that the object of this society is to collect and to preserve historical material, to carefully pick up, month by month, the material which the printing press turns out, and to winnow from it historical material; and to preserve it by arranging, digesting and publishing:—for,

ly to pile up matter in a by subject to destruction from fire, or robbery, or from mildew, or carelessness, or from neglect, or from preserving historical material. We may preserve historical material the only known way in which is possible to preserve it, and in a cabinet, or library, or even in a newspaper, or in a daily event we sort out the facts, divest these stuffed with their flattery and falsehood as impartially as we may well or Napoleon, and then a cold, clear narrative of events of the world, we preserve history. We publish an article and send it to libraries, that article can probably be lost, except in the destruction of those ten libraries. The great libraries of the world have been guarded with the most care, and the best mode of preserving historical material is, to deposit it in a place where it stands not one chance in a thousand of being lost to the world. It stands so much as one chance in one thousand, of loss, the probability of one thousand to one that it will be lost in one thousand years in one library, or in one hundred thousand years in one hundred libraries, *i. e.* if a printed historical document is to-day deposited in one of the leading libraries, it is probable that one hundred years must elapse before it will have been lost to the world. The ideal historical preservation is other and more interesting than that cold and



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mathematical precision in unde-  
viated straight lines.

historical event, great or small,  
it be an insurrection that is  
born at its birth, or one that de-  
clares its sovereign, changes a dynasty,  
overthrows a government and alters the  
laws and customs of a people, is not  
nothing; it is the fecundation  
of a germ into activity and pow-  
er, which may have been for  
centuries nursed and nurtured in the  
bosom of the people.

one face of the historical col-  
umn which is sketched in twisting  
and turning lines, the trails of events,  
the faces so slight as to be hardly  
discernible, others swelling out broadly,  
and again almost disappearing,  
and again increasing in size, until  
they finally burst forth into notably

the face of the column which at-  
tends the study of the scientist, the  
philosopher and the philanthropist and a  
knowledge of which will be of  
benefit to mankind. The  
past events would be far more  
interesting if we knew the cause which  
brought forth the germs which grew and  
developed into those historical events,  
and the paths of their growth  
until they attained a power greater than  
any of the first ones.

we should therefore strive to go back  
to the historical events along the path  
they have moved, until we find  
the cause and discover the cause that  
brought them, and then trace their  
course, searching for the food  
that nurtured them, as well as the  
times that made them to  
die before their final

Let me illustrate this idea. In the  
Summer of 1846 a small naval force of  
the United States took possession of Cal-  
ifornia north of and including San Diego,  
without any resistance having been made  
by either the people or the government  
of the territory. The heads of the civil  
and of the military government left the  
country, and the supremacy of the Amer-  
ican arms was acquiesced in, if not cheer-  
fully, yet without opposition or com-  
plaint.

Within less than three months from  
the time of the taking of this possession  
and without any aid or encouragement  
from abroad, this submissive people,  
people in nowise trained to arms, mere  
herders of cattle and tillers of vineyards,  
without any present or prospective sup-  
ply of military stores, rose up and re-  
possessed themselves of nearly all the coun-  
try and towns south of Monterey, and  
re-established the Mexican authority and  
government. To know, and to inscribe  
upon the historical column, which it is  
our purpose to erect, the agencies that  
vitalized that insurrectionary germ into  
activity and power under adverse sur-  
roundings, is a subject which in my  
judgment is worthy the study of some  
of the younger members of this society,  
and especially of such ones as are the  
descendants of Spanish Californians.

A carefully prepared historic paper  
upon the rise and fall of the Roman  
Catholic missions of Alta California,  
showing how a few, a mere handful of  
Friars, with comparatively no military  
force, came into a country inhabited by  
so large a number of savages, and in a  
space of time, less than sixty years, re-  
duced them to subjection and chiefly by



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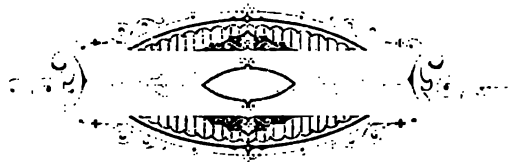
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phytes of the missions were treated by the Friars, and from what forces these great works, and these thousands of neophytes have in the course of the next following sixty years almost entirely disappeared, would be of interest, not only in the distant future, but even now. To digest daily events, to arrange in order, to reject the fanciful and the fictitious, to condense all into a clean record, and then publish and distribute this publication; this, in my opinion, is the way to preserve history.

This society may, very wisely, look forward to the time when it shall have a building and library and archives of its own; but, for this we need not make haste. We may be an energetic and use-

ful society and have none of these may have them all and nothing of the form but not the life of a s If we can catch the right spirit, pe ourselves that we have banded to for accomplishing results benefic the future, when we shall be at res are not working for the entertainn ourselves, or for popular applaus shall then, in my opinion, have m right start; and may count upon ful career, which shall win the la verdict, not of the daily newspap of the future historian, who will us, when we are not here to recee thanks for planning and for execut wisely.

J. J. WAR



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HISTORICAL SOCIETY

OF

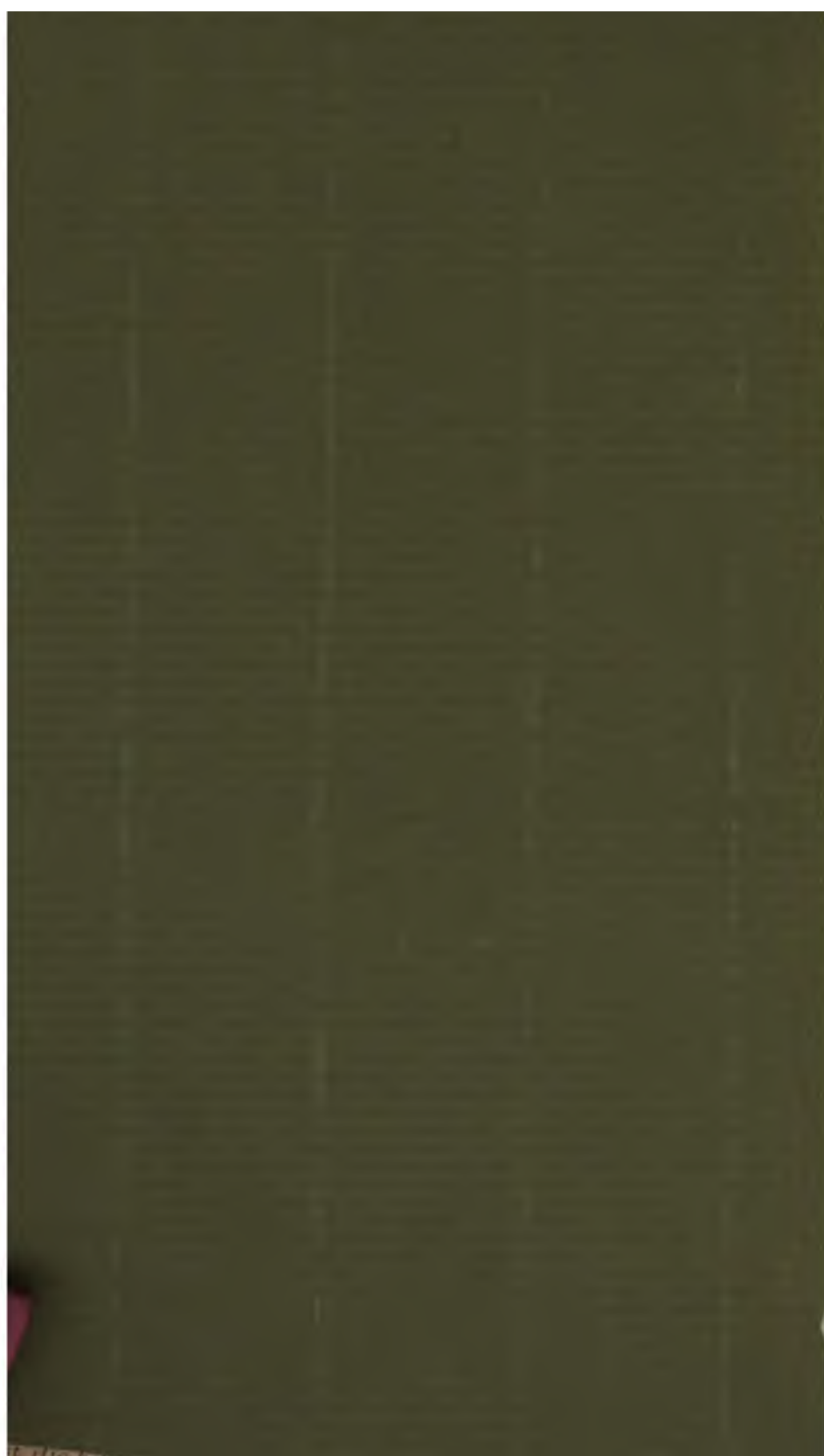
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LOS ANGELES.

JANUARY, 1891.

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HISTORICAL SOCIETY  
OF  
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LOS ANGELES.

JANUARY 1886.





## ORGANIZATION 1885.

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**PRESIDENT:**

JOHN MANSFIELD.

**VICE-PRESIDENTS:**

A. F. CORONEL, IRA MORE, J. J. WARNER, ISAAC KINLEY.

**SECRETARY:**

C. N. WILSON.

**TREASURER:**

J. M. GUINN.

**GENERAL COMMITTEE:**

H. D. BARROWS, E. W. JONES, GEORGE B. GRIFFIN, E. BAXTER,  
J. B. NILES, J. C. OLIVER, MRS. A. F. CORONEL, J. ADAM,  
H. S. ORME, N. LEVERING.

**SECRETARY OF COMMITTEE:**

GEORGE B. GRIFFIN.

**CURATOR:**

PROF. IRA MORE.



## ORGANIZATION 1886.

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ISAAC KINLEY.

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N. LEVERING, W. E. REED.

**SECRETARY OF COMMITTEE:**

C. F. LUMMIS.

**CURATOR:**

PROF. IRA MORE.

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# HISTORICAL SOCIETY

OF

SOUTHERN CALIFORNIA.

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LOS ANGELES, 1886.

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## REMARKS OF PRESIDENT MANSFIELD.

*Gentlemen of the Society* :—Before introducing my successor, I beg to say, that since our last annual meeting, we have labored under many disadvantages.

Our Society is yet without a hall or place of meeting, except by courtesy of the City Council.

Its Cabinet and Library, though well located as to care and safety, is necessarily somewhat remote from our place of meeting; rendering it inconvenient to many for consultation.

The intense personal interest of the public in business matters—including some of our own members—combine to diminish attendance and membership, together with such a degree of uncertainty as to where the next meeting would be, would not, perhaps, justify a charge of being fugitive in character; but one of being somewhat scattered might well be maintained.

Nevertheless, from the reports of our officers as to operations in their several departments, I am justified in taking a hopeful view of the future, and of our ultimate success.

Experience has demonstrated that in all organizations of human society, whether it be the extension of commerce, the intricacies of finance, or the more wonderful development of science and the higher forms of education, calculated to expand and enlighten the mind of man—success does not so much depend upon numbers as upon the zeal of those constituting the body; however small that may be, in accomplishing the work in hand.

Of some of these zealous workers of which our Society is blest, and to their unflagging efforts and perseverance I am enabled to report a healthy progress during my administration.

Our regular monthly meetings have been held—though under some difficulties—during the entire year; at nearly all of which interesting papers have been read, followed by spirited discussions of the subject treated, with great interest and profit.

As an evidence of our standing and the character of your work, it is gratifying to be enabled to state that some of our meetings have been honored by the presence of many distinguished persons, whose names are familiar to the scientific and literary world. Among them may be named that eminent botanist Dr. Asa Gray, of Harvard, and his assistant Professor Harlow, of the same institution. Later on, we had the pleasure of meeting and listening to an able paper by Professor Moses of our own State University.

These incidents are mentioned to impress upon your minds the fact—though in infancy as to time—our character and object is such as to arrest the attention of men of thought and culture, whose encouraging sympathy we have and whose instructions we enjoy. Meanwhile our Library has considerably increased, and our Cabinet enriched by rare specimens of great historical value.

It is to these our attention should be specially directed. Their number and character should be a source of pride as we advance; for we are the book-makers of the past for the benefit of the future.

Every specimen is a volume, and every class a series, unfolding the great events of the past with more eloquence in their rent forms and scarred surfaces, than human language can portray.

That this country is rich in evidences of this character, is too well demonstrated by the collections we have, to leave room for doubt; and nothing should prevent further research in this direction, where results seem so certain and the reward so great, instead of yielding to that indifference to which mankind is so prone.

It was my privilege on assuming the duties of the chair at the commencement of the year, to indicate a method by which this work might be performed.

Unfortunately for us, as I think, the plan which seemed so feasible to me, was not acted upon. Whether this was owing to its want of utility, or that indifference that characterizes so many in all human societies, remains yet an unsolved problem. I venture, however, at the risk of some criticism, to re-state in a general way, the method proposed, in the hope that it may be re-examined, and if found practicable, it may be put in operation under the new administration; if not, to consider some other one in which we may all unite and push on our work.

The plan suggested contemplated a division of the Society into

sections, embracing various branches of scientific research, and history proper; with chiefs of divisions, under whose direction and supervision the work of each section would progress; and from whom a report would be made to the Society as the work advanced, or was concluded. This method I deemed of great practical importance, and regret that it did not meet with a more ready response from our organization.

As another means of growth and increased usefulness, I suggest that the teachers and pupils in our Normal and High Schools be admitted to the reading and discussion of papers and subjects before the Society.

The effect of this will be to awaken a lively interest in historic and scientific work, in persons availing themselves of this privilege; to largely increase our membership, and add to our working force; who will by this means be prepared to take our places as we fall out by time, or other causes. So that with a reasonable effort, and the adoption of wise methods, I indulge the hope that at no distant day we may have a lodgment and place of our own, in the shape of a suitable hall, with Library, Lecture-room and Cabinet; that will be creditable to us as founders and add increased facilities for the further study of history and experimental science, and furnish themes for thought, research and intelligent discussion.

Success, however, is largely in our own hands. It depends upon impressing others with what we believe ourselves. And though many may be lacking in time or studious habits, they nevertheless recognize the value of our work, and being possessed of means may be willing to assist in a financial way to our success, in the establishment of this hall, where themselves and families may for all time reap a substantial intellectual benefit.

By reference to the Treasurer's report, it will be seen that a respectable balance to our credit remains in that officer's hands; and I respectfully ask that a sinking fund be established for lot and building purposes. And I hope you will not let the contrast, great as it is between the amount available for this purpose, and the kind of building we hope to get, deter you from manfully meeting the apparent impracticable problem, with a determination to solve it in our own and the public interest.

This plan you will observe, reaches out into the future—for the benefit of others as well as ourselves—and in my view one of the legitimate and practical purposes of our organization. To maintain that our work is for to-day only—or to gratify a personal ambition in any of the forms our organization might offer—is an unworthy conception of the duty we owe ourselves and the public, and beneath the character and dignity we have assumed.

The study of history has engaged some of the greatest minds in the

annals of time—and to the student and philosopher it has a triple value. It cultivates and disciplines the mind, and enables one to reason from a standpoint of logic and absolute truth, and to determine fact from fiction—truth from error, and romance from reality. It elevates and refines the tone of thought and speech, and begets a love for study and research after the exact truth, and clothes its possessor with a panoply of intellectual manhood, that commands the respect and confidence of all with whom he comes in contact.

Armed with these attributes — supplemented with a store of irrefutable facts, culled by the patient labors of historic research—one can meet and overcome wherever found, the charlatan and quack who bask in the sunshine of simulated truth, and flourishes upon the spoils of the indifferent and thoughtless.

These, like the poor, forever abound. They are found in all professions and callings, and in all organizations of human society. So that from self-preservation from their iniquitous humbugs, and the duty we owe to mankind, another potential reason is furnished why we should energise our work; and if possible increase our labors of the present over the past year.

An eminent writer has said the study of history should be entered upon to ascertain the law upon which the great events of the world depend; and above all, to the young, and citizens of a free State, is its study vitally necessary, that they may familiarize themselves with the principles that have influenced the good or ill fortune of the Nations that have preceded them, or are cotemporaneous with their own.

If these propositions in social and political ethics are true, our duty to ourselves—to society and the State—should inspire us to continue our work in the line indicated, with an unalterable faith in ultimate success; and if not *now*—some time in the future it will be appreciated and acknowledged.

## INAUGURAL ADDRESS OF PRESIDENT KINLEY.

It is in the line of precedent to preface the acceptance of an honorable position, such as that you have assigned me, by a more or less formal inaugural address.

In the first place, permit me to endorse with emphasis the recommendations of the retiring President. Division of labor, whether of intellect or muscle, is essential to eminent success. As our little society is yet in its pupilage, so to speak, we cannot hope to take rank with associations whose members are veterans in scientific research. But, profiting by their example, we may follow their methods until a better has been shown. Hitherto we have been gathering together the laborers and disciplining ourselves for the work. We are now sufficiently numerous to be organized into divisions and subdivisions; and though we cannot put laborers into every field, yet for such as we can occupy, we may reasonably expect better and more thorough work. This subdivision must have the tendency to throw on each worker the responsibility of his department, and from the very fact that work will be expected, work will be done. Some unoccupied fields must lie fallow for the present; but we are in constant accession of new members, taste for scientific research is being developed, and we can reasonably hope soon to have workers in those fields as well. The association being thus organized and equipped, the several sections would be expected to make a monthly report of progress in their respective departments. That this will greatly add to the interest of our meetings, will be sufficiently apparent.

Under the Constitution, historical and scientific investigations and collections come properly within the scope of our work. A liberal construction would include also Art, and other creations of genius and skill—these being only science applied. If you decide, as I hope you will, to divide into sections and subsections, you will not find it difficult, with the examples of similar institutions as a guide, to make the necessary divisions. At first these could be general, making the subdivisions according to the number and ability of the laborers fit for duty. Thus history would form a very general division. But our constitution is somewhat imperative that special attention be given to the history of Southern California. We have those among us who were not only spectators but the makers of this history. Another reason is to be found in the present perishing condition of its records. The old Mission buildings are crumbling into soil, valuable old manuscripts are being gnawed into illegibility by the tooth of time. It would be proper, therefore, to form at once a sub-section embracing this special subject as indicated in our constitution.

Ethnology is not history, but the two sciences are so closely akin that each seems to illustrate the other. Under the general section of this subject, I recommend the formation of a sub-section embracing the ethnology of Southern California. On account of the close relations of this part of the State in its early colonial and pre-colonial history, to the adjacent countries, these two sub-sections will constitute a wide field of labor.

Again, Philology is a large subject, just now by the labors of Max Müller and other distinguished philologists, furnishing rich stores of knowledge. If we should have no member specially qualified or inclined to extract Sanskrit and Prakrit roots, we may have more than one well fitted for the study of the languages of our native tribes. In this case the Indian Languages of the Pacific States and Mexico would form a very interesting sub-section.

A similar course would apply to the Moral and Physical Sciences. There are those, as the physicians, the lawyers, and the ministers, who have made specialties of certain subjects, and it would seem not at all difficult to find workers for their corresponding sections or sub-sections.

Again, there are those among us whose developed taste for science has no reference to their vocations. They study science from the love of it. We have a botanist whose fame reaches across the continent. Another has added to the geological knowledge of this region. Another has written a book, founding his arguments on geological data. Our city has an ornithologist of ability. Very plainly we shall be able to find workers in these sections.

I have said that Art and the products of labor and skill are only science applied. The workers here should be recognized as our fellows and admitted into our ranks. Historical and scientific collections will be at once a necessity, and an evidence of work done. By the kindness of the city authorities we are permitted to occupy this hall. How long this favor may be accorded, we cannot know. Besides the necessary publicity of this room unfits it as a place for our collections. Until we have a secure place for the deposit of the treasures of history and science, we can have no reasonable hope that those having such things in their possession, will readily give them into our keeping. Even our own members will not readily contribute valuable specimens without reasonable assurance of their preservation. Our society is an educator and specimens should be properly classified and labeled, and should be placed in a position accessible to the scientist and to the general public. I recommend therefore that a suitable hall and other apartments be provided at the earliest time practicable.

Knowledge is a treasure not lost by being communicated. The cultivation of a taste for the study of science in a community is a preservative against crime and vicious habits. Indeed, there is not a virtue

that science does not endorse, not a vice it does not condemn. More than this, it demonstrates that a noble act ennoble the actor; a vicious one makes war against the perpetrator himself. Very important, therefore, is it that every one should be able to see the relation between action and its consequences—to see that virtue rewards and vice punishes—although the act be unknown to all save its author. Science is indeed a reinforcement to all the virtues. Let us, therefore, open our doors alike to all. Let all who will, come and hear. It will at once cultivate the public taste and improve the public morals. More than this, in proportion as the public taste for science is developed, will people seek to become members with us, assist in our work, and contribute to our funds. I therefore unhesitatingly recommend that our doors be thrown wide open that all who desire may enter and hear.

All science is knowledge, but all knowledge is not science. Science is knowledge systematized—knowledge of phenomena with relation to causes and consequences. The whole works of man, of whatever kind, form a grand laboratory of scientific experiment, successful or otherwise, according as nature's conditions are followed or disregarded. The great good to be derived from the general diffusion of scientific knowledge and the development of scientific taste and modes of thought, ought to be sufficiently apparent. Every organism—animal or plant—is the creature of its environment, developed or degraded according as this has been favorable or unfavorable to organic growth. Nature knows no excuse, admits no exceptions. Her laws are as unchangeable as the changeless God who is their author. All nature is governed by law. Nature is law. Themis sat on the throne with Jupiter to counsel and advise, and the fates were her daughters. Science is founded on the universality of law. Without this no science could exist. In the system of nature accidents have no place; and all ideas of chance are contraband in scientific investigation. There can be no effect without a cause, and no cause without effect. He to whom this does not come with the force of a self-evident truth, may be a visionary of fantastic illusions, but can be no scientist.

Nature knows no contradictions. The eternal God has made all things to conform. The universality of law as an idea, as a thought, as a philosophy, has come to the human mind in the evolution of the ages. First in mathematics it was discovered that to its laws there are no exceptions. Gradually the mind passed from a belief in a multiplicity of Gods to that of one God. Slowly, through the ages it awakened to the grand conception that this one God in nature and of nature, above and over nature, is a God of law, and that He, and He alone, rules.

Two hundred years ago, as in some countries to-day, comets, eclipses, and shooting stars were ascribed to the malign powers of the universe. Two hundred years ago there were those who believed that



God divided His dominion with the devil, and that storms, cyclones, and earthquakes were special miracles wrought by the genius of evil.

The universe has been said to be the thought of God. The great astronomer Kepler when reasoning out the laws since known by his name, exclaimed in devout enthusiasm, "I am rethinking the thought of God." The same may as well be said of all scientific truth. The spire of grass and the dew-drop are no less than the planets and suns, the creatures of His law. Sir Isaac Newton said, "The undevout astronomer is mad." But he is no more mad than the undevout chemist, the undevout botanist, the undevout geologist, the undevout in every department of science. In all things is the universal law. When Newton discovered gravitation from the fall of an apple, he applied it at once to the solar system, and found there the planets obeying the same law. And now comes the doctrine of the correlation of forces—demonstrating that where light is, there must be gravity—and all systems are obeying the universal law of gravitation. Again, the spectroscope is applied to the sun and the stars and the far off nebulae, those universes beyond our universe, and we find there too a confirmation of the universality of law. The laws of one planet are those of all planets. The laws of one sun are those of all suns; and rising with the grandeur of the thought, the laws of one universe are the laws of all universes. The application of the scientific method to the historical investigation has been fruitful of result. While some new facts have been discovered, many fallacies have been eliminated and remanded to the domain of myth.

Among not the most trifling discoveries is that, here, as in the physical universe, is the reign of law. It is indeed by virtue of this fact that history can be thought of as a science. If we cannot always follow the chain of causation, enough is known to predicate that it exists, and that the facts of history are the necessary consequences of antecedent causes.

It has been further found that there is moral as well as physical law, and that chance is eliminated from nature's whole domain.

It is to this fact—the elimination of the idea of chance, the substitution of effect for accident—that modern education owes its superiority to ancient culture. It is from this that the mind learns to reason and to rely as confidently on legitimate conclusions, as on the principle and phenomena from which these have been deduced.

It is to this fact that modern freedom of thought has taken the place of ancient bigotry, and that persecution for opinion's sake is fast becoming an obsolete idea. So soon as it is thoroughly understood that opinion is the result, not of the will, but the understanding, and that it can only be changed by this being improved or degraded, we shall cease

to regard opinion as a crime, and learn to correct the errors of others by increasing their knowledge and enlarging their understanding.

We have learned, therefore, not to cast into the teeth of denominations and systems of government, the persecutions of the middle ages, but to ascribe them to the ignorance of the times. It was not catholics and protestants and infidels persecuting one another, but the age itself that kindled the flames for the burning.

In this depth of thought, reason excuses the mistakes of reason; and forgiveness of our enemies, love for our fellow beings, and charity for all, as the noblest of sentiments, become also the deepest philosophy. Hence it is that now opinions are not merely tolerated, but conceded as a right.

This, then, the scientific method has done for the world. From confusion of thought it has evoked harmony. From chaos it has brought the Cosmos.

A colaborer with the amiable virtue of charity, it has softened the asperities of bigotry, soothed the passions of opposition, and pointed out the way for the harmonizing of the relations of each to all and all to each. The thoughts of the mind reacting upon the mind itself, have given a broader culture and a greater grasp of comprehension.

To every subject of investigation the rigorous method of the scientist is being applied. Knowing that in all things the truth has the stronger reason, knowing that in all things, fearless and unbiased investigation is the road, and the only road, to truth, the scientist applies the rule, and square, and plummet of inexorable logic to the tests of experiment, and humbly and fearlessly accepts results without stopping to ask whether or not they may consist with previous opinions and prejudices.

Believing that all things are luminous with the light of infinite intelligence—believing that all phenomena are a divine revelation of that intelligence, devoutly, O Nature, I put my face to thy bosom.

## CALIFORNIA IN THE EIGHTEENTH CENTURY.

BY J. ADAM.

*Mr. President, Members of the Historical Society of Southern California:*—On January 15, 1876, I delivered a lecture in Santa Cruz for the benefit of the Public Library, from which I will take to-night those facts which I deem more interesting for our Society.

I will avail myself of a work published at that time under the auspices of the "California Historical Society" of San Francisco. The reproduction of the work was due to the magnificent generosity of JOSEPH A. DONAHUE, who expended, I am informed, several thousand dollars for the printing of one hundred copies. The title of the work in Spanish is, "Notias de le Nueve California," by Rev. Father Francis Palon.

Father Palon was the first missionary who planted the cross at the Mission Dolores, more than one hundred years ago.

The perusal of the fourth volume thereof, will furnish material to entertain you.

Emigrants and visitors are amazed on visiting the Cosmopolitan, Occidental, and Palace hotels, the magnificent churches of the different denominations, the well-paved streets and substantial wharves of our great metropolis; and cannot realize that forty years ago, nothing could be seen there, save a few old shanties or cabins, studded in the immense sand-hills. Explain all this to them and a smile of incredulity will be their only response, for it seems a dream. However, more than forty years ago, south of San Francisco one might have seen here and there, thirty or fifty miles distant, adobe houses, beautiful orchards, and thousands of people busy as ants—some plowing the fields, others mounted on spirited steeds, throwing the lasso to catch wild cattle which were literally covering the plains by thousands: the hammer of the carpenter and the anvil of the blacksmith, were sounding through those corridors, and hundreds of women were at work weaving and spinning.

Was such the condition, you will naturally ask, during the preceding centuries? Let us follow Father Palon step by step, and he will give us a fair idea of California a little more than a century ago.

The principal subject before us to-night is the expedition by land in search of the harbor of Monterey. We must join ourselves to Father Palon at his Mission in Lower California.

The expedition by land resembled Jacob, who fearing an attack from Esau, divided the people that were with him and the flocks, into two companies. They first left Villacata with Captain Rivera and twenty-five soldiers, and Father Crespi and Gomez on Good Friday, March

24, 1769. They describe their way to San Diego as through a sterile and barren country, with no water for their beasts, scarcely enough for their personal use.

On Whit-Sunday, which fell that year on the 14th of May, they safely arrived in San Diego, and their joy was great when they saw anchored at the harbor the packet boats "San Carlos" and "San Antonio." The firing of guns welcomed their arrival, and those surviving from the expedition by water, ran to embrace their companions who came by land, congratulating themselves at meeting for the first time in Upper California.

They waited there till the 2d of July when the second part of the expedition composed of Governor Portola and Father Juniper, president of these Missions, also safely set foot for the first time in this new country.

The land expedition in search of the harbor of Monterey, left San Diego, July 14, 1760. It was composed of Governor Portola, Captain Rivera, with twenty-seven soldiers with leather jackets, with Lieutenant P. Fages with twenty-seven volunteers of Catalonia, besides, engineer Constanzio, and fifteen Christian Indians from Lower California. Father Crespi and Gomez accompanied them for their spiritual consolation, and to keep a diary of their expedition.

I am indebted to Father Crespi's diary for the principal items I now place before you.

We will leave Father Junipero at San Diego, busy with the few soldiers and sailors saved from the scurvy, building a provisional barrack to serve as chapel, store-house and dwelling, and we will follow the expedition by land.

From San Diego to San Francisco they met rancherias or camps of Indians, more or less numerous, amounting from three to five hundred, and sometimes to a thousand souls, as happened near Santa Barbara.

Everywhere, with very few exceptions, they found the Indians friendly at their approach. They went to meet them, sometimes offering them seeds; other times they would throw down on the ground their arrows in sign of peace. Generally they would keep to a great distance, and would not approach the whites till by many signs they would be assured that no harm should be done them. They with the greatest confidence would pass sometimes the whole night near the place where our party were camping, showing great distress next day when they saw them moving their camp to proceed farther, and, as a general rule, they had to promise them that they would see them again and come to live amongst them, which seemed to please them.

Father Crespi gave names to every place where they camped at night, mostly the name of some Saint, principally of the Franciscan order, of which he was a member. The soldiers used to give different

names to the places, taken from some trivial thing which happened to them, or attracted their attention: as for example, passing near San Luis Obispo, they called it "El Buchon," because the captain of the Indians at that place had an immense encysted tumor hanging from his neck, called in Mexican "*buchon*."

To follow them step by step would be useless, and would take more time than is allowed for a lecture: however, as this was the first expedition by land to Upper California of which we have any record, and as the account in full has never been translated, as far as I know, I think it better to occupy your attention following the explorers as closely as we can.

On the 14th of July as I said before, they left San Diego following a route near the sea-shore. They perceived a number of hares and rabbits. After making two leagues and a-half, they halted in a place where there were some wells. The night being well advanced, two Indians came and one of them made a long speech, of which they did not understand one word; and at the end he presented some sardines to the Governor—a magnificent present, no doubt worthy of a king. In return, his Excellency gave him some beads and clothes, and as I mention the beads allow me to make a short digression. Some years ago in a place called "Patrero," near Santa Cruz where the Indians were located, in making some excavations there was found embedded an immense quantity of beads. I cannot account for the manner they came there unless in this way: The padres and officers who came to the conquest, as they used to call it, to attract them, brought mules laden with beads, which they called in Mexican "*abolorios*." They distributed them with great profusion throughout their journeys. Speaking once with the Indians they told me that in the old times, some Indians had great quantities of these beads, and it was their custom to have their ornaments buried with them. Hence, perhaps, the great quantity of them found in their camp.

Last September while at Santa Cruz I saw many bones exhumed, and in some of the Indians' graves we saw pieces of beads, and clay pipes buried with the remains, which proves beyond contradiction that the Indians liked to be buried with their trinkets.

On the 18th of the same month we see them in a lovely valley, where the Indians, naked and painted in different colors, came to welcome them. It seems they used that suit of clothes—I mean a coat of paint—only when they made a ceremonious visit or in time of war. They were all well armed with bows and arrows. The Captain made a speech and then they all let their arms drop down to the ground. The women, says Father Crespi, were modestly covered with deerskins.

They gave to this place the name of San Juan Capistrano—which name it yet retains.

Cabrillo entered Upper Californian waters in September, 1542, and it is believed that he anchored at San Diego Bay—he sailed north in October 3d, and according to some he visited the island of St. Catalina, where he found the inhabitants timid and even hostile at first. On Sunday the Spaniards went ashore in a large bay, which they called "Bahia de los Fumos," or "Firegos," from the smoke of fires seen there. Henshaw makes this Bahia de Fumos—Bahia Ona (or Santa Monica). Santa Monica, as Bancroft observes in his notes, was exactly what the Spaniards would have called an "enseñada;" indeed they did often so call it in later years, as they did also Monterey Bay and San Francisco outside the heads, from Pt. Reyes to Pigeon Point, always the "Enseñada de los Fallones." Bancroft is inclined to believe the port they visited to have been San Pedro.

But, returning to our explorers—we see them on the 28th camping near a river that they called Santa Ana, or Jesus de la Temblores, on account of having terrific earthquakes all that day and night. During the earthquake, says Father Crespi, an Indian, who probably was acting as priest amongst them, got very much alarmed, and raising his hands he turned to the four winds with horrid screams, praying to heaven.

We see them on the 2d of August where Los Angeles city is now situated, near a river which they called "Porziuncula." On that day the Franciscans celebrate the feast of Our Lady of the Angels—hence, probably, the present name of "Los Angeles." From Los Angeles the route lay through the valley of Santa Catalina de los Encinos, now San Fernando, and thence northwest through the mountain's pass to the head streams of the Rio Santa Clara, so called then and now, whose banks the Spaniards followed to the sea again.

On Sunday, 6th August, approaching towards the head of Santa Barbara channel, they were visited by some Indians, who had an idea of sailing vessels—describing the shape of them on the sand—and made signs to them that in other times, white men resembling them had come ashore, wearing armor, as the soldiery, and long beards.

In fact we read in the expedition of Vizcaino, that towards the end of 1602, he passed with his vessels through the channel of Santa Barbara, which I suppose he so named; and when at anchor under one of the islands, was visited by the King of that country, who came with a fleet of boats, and earnestly pressed him to land, offering, as proof of his hospitality, to furnish every one of his seamen with "ten wives."

We would almost be tempted to believe that the Mormons of Salt Lake had their origin in the islands of California.

Cabrillo, a Portuguese, who had explored the western coast of California as early as 1542, tells us that near two large islands he was assured at some distance there was a nation who wore clothes, and had houses. Of the location of this nation, our explorer of 1769 could find no trace.

However, it was observed that the Indians along the channel had larger tents than the others, and that each family lived in a separate hut.

While the explorers were passing by Santa Clara Cañon, where so many families now have splendid farms, the Indians were in great jubilation, celebrating the union of a happy couple. They presented them to the bride and wanted them to wait for the feast, but (as I suppose they had no wedding cake) the whites thanked them and passed on. Father Crespi describes their dwellings as composed of a few poles struck into the ground, forming a semi-circle and brought together in a conical shape, with a few bundles of sage-brush loosely thrown over it, with an opening at the top that seemed to let out the smoke and let in the air and light.

Near St. Buenaventura, they observed the Indians more industrious, the women better clad, and their bodies more agile. They were clever in making their canoes of pine boards, well matched together and well shaped. They used to go out at sea to a great distance. Some fishing boats would hold ten men. All their work was well finished. To work out the timber and stone they did not use other tools than those made of flint, ignoring the use of iron and steel. Nevertheless, says the Father, we found among them pieces of knives and swords, which they used for cutting meat and dressing fish.

For a few trinkets they exchanged with the soldiers highly polished wooden plates. Along the channel of Santa Barbara they were the recipients of very large quantities of excellent fish, which proved one of their principal articles of food for a portion of their journey. The Indians here were kind, staying near the camp all night, playing their flutes, but with such dissonance that the soldiers had but little repose.

We after passing the "Gaviota" Sea Gull, see them on the 20th of the same month of August at "Point Conception"—we don't miss them through the cañon of Los Ozos. After passing San Luis Obispo, they passed near Mono Rock, and at the foot of the Sierra of Santa Lucia, not able to continue their journey near the beach, they were obliged to open a path for themselves amongst the most rugged places.

There the undaunted spirit of Father Crespi seems to have given way to so many hardships—when finding himself at the summit of the Sierras, in every direction he could not see any end to those mountains. "Sad object," says he, "to poor travelers—tired and fainting through fatigue—to have to open our way through a thick forest, with the soldiery sick and unable to work." But he cheers up immediately, considering that their journey served to the glory of God and to extend the dominion of Spain. Good Father Crespi, if you had known that in half a century not one inch of the land you travel could be claimed by your monarch, you would not be so cheerful in the midst of your trials!

After descending the Sierra a certain distance, they camped near a river, which they took for "Rio Carmels," but which was the "Nacimiento," whose course they followed for several days till they finally arrived near the long-sought for sea, where the waters of this river bear the name of "Salinas."

Father Crespi and the commandant ascending a sand-hill, contemplating for the first time, the Bay of Monterey, and recognizing Pimos and New Year's Point, as described by the navigator Cabrera. You will here exclaim, thanks to God that finally they have arrived near the so longed-for harbor of Monterey, and we will be relieved of the tediousness of following them. My friends, if this is the case, you had better leave us at this point, for we are not yet at the end of our journey: but please remain a little longer.

The soldiers explored Point Pimos both sides; but they never recognized the place. It seems that Divine Providence blinded them that in order that they should proceed farther north, and make a more interesting discovery.

On the 4th of October—Feast of St. Francis—I observe Father Crespi, feeling home-sick, and missing his convent; "two of his sons," he says in his diary, "celebrate the feast of Our Father in the New World," and as bewildered, he adds, "and perhaps in a corner of the Old World, without any other church or choir than a desert." But when the Governor proposed to go back, the spirit of Father Crespi and the officers was touched, and at once they said: Let us continue our journey till we find the harbor of Monterey, that is if it is God's will; we will die fulfilling our duty to God and to our country." So saying they moved their tents, and proceeded north. After crossing the "Salinas river," by them called "Sante Delfina," we see them passing near several lagoons, and probably through St. Miguel Cañon, they descended into Pajora Valley; and they camped near the bank of a river which they named "Pajaro," that means "bird." "Near this place," says Father Crespi, we saw a bird which the Indians had killed, and it was stuffed with hay. To some it appeared to be a royal eagle, and from the point of one wing to the other, it measured nine feet and three inches, and on this account the soldiers called it 'rio del pajaro,' and we added to it, 'of St. Ann.'" This river now divides the two counties of Santa Cruz and Monterey.

Not far from this river, the exploring soldiers had seen two days previous, tracks of large animals, which they presumed to be deer. They also met with an encampment of Indians—numbering at least five hundred. As the Indians had no notice of the arrival of strangers in their land, they became alarmed, not knowing what to do; some took to their arms, others running to and fro shouting, while the women were weeping most bitterly. Sargeant Ortega had to alight from his



horse and approach toward them, making signs that no harm would be done to them. Ortega picked up from the ground some arrows and little flags which they had set in, and they clapped their hands as a sign of approbation. On asking them for something to eat, the women hastened to their tents and began to pound some seeds and make a kind of paste.

Next day when the Father and company arrived at this spot, they saw only smoking remains of their camp—the Indians having set fire to it and deserted the place.

They describe the banks of the Pajaro river as thickly covered with trees. It was near where the town of Watsonville now stands that they saw, for the first time redwood trees, and not knowing their name, they called them *palo colorado* (red wood) on account of its color. Father Crespi describes these trees as very high, having a resemblance to the Cedar of Lebanon, though they have not the color; the leaves, too, are different, and the wood very brittle.

They also saw in this valley some very large herds of animals with ears like mules, and with a tail short and wide, which can not be any other than what zoologists call "*cervas macrotis*," or male deer, and it is remarkable for its long mule-like ears and large frame. They saw also there large herds of deer and elk.

They stopped near a lake where there was a great deal of pasture, and they saw there a large number of cranes. They rested near the lake three days on account of the sick; meanwhile the exploring soldiers proceeded north thirty miles, reporting that they could not find the harbor of Monterey. No wonder, for they were receding farther from it every day.

On the 17th they forded the river San Lorenzo, and camped where the lovely town of Santa Cruz is now standing; and on the 23d Potni Cño Nuevo is passed. Their provisions becoming very scarce—vegetables gave out—and they were reduced to five tortillas a day. Eleven men had to be carried in litters—Portole and Rivera were added to the sick-list.

On the 30th they reach a point with detached rocks, or *farallones*. It is named Point Angel Custodio, and Point Almejas, but is now known as San Pedro. On the last day of October, the whole company climbed a hill and gazed on the sea. Before them is a bay or bight, lying between the point on which they stand and one beyond extending into the sea far to the northwest. The travelers recognized these land-marks at once as laid down by Cabrere Bueno. The distant point of land must be Point Reyes, and under it lies the port of San Francisco. They descended and encamped near the beach known to the Spaniards as *Enseñarela de los Farallones*.

Hear what Father Crespi says: "Scarcely had we ascended the hill,

when we perceived a vast bay, formed by a great projection of land, extending out at sea. We see six or seven islands, white and different size. Following the coast towards the north we can perceive a wide deep cut, and northwest we see the opening of a bay, which seems to go inside of the land. At these signs, and of what the pilot Cabrera says in his sea charts, we came to recognize this harbor; it is that of Our Father St. Francis, and that of Monterey, we left behind. From this shore is perceived a point which I believe to be 'Punta Reyes.' Some cannot believe yet that we have left behind us the harbor of Monterey, and that we are in that of San Francisco."

Some soldiers went hunting and returned to camp, saying that, "towards the north they saw an arm of the sea penetrating inland as far as they could see" the actual bay of San Francisco; "that toward the south they had discovered lovely plains covered with trees, while the many columns of smoke rising here and there, left them in no doubt but that the land was occupied by Indians. "This assertion, says Fr. Crespi, "confirms us more in the opinion that we were in the harbor of Our Father St. Francis;" and that what the soldiers saw was the bay of which Cabrera Bueno speaks, and whose mouth we had not observed descending to the harbor through a deep cut." In this Father Crespi was mistaken. The soldiers sent to explore the country discovered by accident the present Bay of San Francisco—which Cabrera Bueno never visited or discovered, according to the prevailing opinion of modern writers.

The description given by that navigator, Cabrera Bueno, and quoted by Fr. Crespi, applies to what we call Sir Francis Drake's Bay, and to no other, as to exclude all doubt that the same is the Bay of San Francisco of the old Spaniards, where the "San Augustine" was lost in 1495, and which Vizcaino visited in 1603.

If such is the case, the present Bay of San Francisco was therefore unknown until discovered by Portola's expedition which we have followed faithfully from San Diego. It is nowadays certain, without a shadow of a doubt, that this was the first time that the present Bay of San Francisco was discovered and visited by land.

The 31st October should be celebrated in the historical annals of San Francisco and Upper California, as a day of remarkable discovery, as three centuries before; October became celebrated for a greater one—that of the American Continent by Christopher Columbus.

Tuthill, in his recent history of California, pretends that Sir Francis Drake was in sight of San Francisco Bay, and that he gave his name to the same. He thinks that the Spaniards in time changed the name of Sir Francis into that of Saint Francis. The thing seems quite easy—only to change one letter and add three others. But it is not so easy to imagine that the Spaniards of old would convert a devoted servant

of Queen Elizabeth into a canonized saint of the Roman Catholic Church. Besides, I rather agree with Randolph, that the actual Bay of San Francisco was never visited by Drake or Vizcaino—such glory being reserved to the Portola expedition, as Galvez said in a kind of prophetic tone, "If St. Francis wishes a Mission let him show his port, and he shall have one." Bancroft, in his excellent volumes on California, removes any doubts on this point, and after reading his chapter on this first expedition by land, we have to conclude with him, that the discovery of the actual Bay of San Francisco is due to Ortega and a few soldiers, who hunting deer climbed the northeastern hills and beheld a great inland sea, stretching northward and southeastward, as far as the eye could reach, and returned to the camp with the news of their discovery. The inner bay was not named during this trip, nor for some years after; while the outer bay had been named for more than half a century.

On the 4th of November they broke camp and set out, at first keeping along the shore, but soon turning inland. They crossed the San Bruno hills from just above Point San Pedro; they camped on a large lagoon on San Mateo Creek. They suffered from hunger and got sick eating acorns. On the 11th November they decide to return to Point Pimos; on the 28th they reach Carmelo Bay; they remained there till the 10th of December; before leaving a large cross was set up on a knoll near the beach, bearing the carved inscription—"Dig at the foot and thou wilt find a writing." After many hardships, finally on the 24th January, 1770, they arrived at San Diego, half dead with hunger, after an absence of six months, to find the soldiery there also short of provisions.

Relief was sent to them soon, and a few months after Monterey was visited and recognized and visited by land and water; so that on the third of June, 1770, they took possession of the land in the name of the King of Spain—hoisting the Spanish flag, pulling out some of the grass and throwing stones here and there, and making formal entry of all their proceedings.

On the same day Father Junipero began his mission by erecting a cross, hanging the bells from a tree and saying mass under the same venerable oak where the Carmelite Friars celebrated in 1602, accompanying Vizcaino.

And here it is time to conclude, not for want of material, but through fear of having already trespassed on your forbearance.

## THE GLACIAL PERIOD.

BY PROF. IRA MORE.

THE leaves of the Earth's history as they are turned one by one and brought under the inquiring eye of the Scientist, present in their sign language many questions to which a full answer is impossible at the present time, and of which a partial answer must be given with many doubts and misgivings—theory blindly striving to piece together a truth out of the disjointed fragments of our knowledge, and producing, in many instances, a distorted image which may be food for mirth to the more fortunate ages which shall succeed us.

Of these problems the Ice Age, out of which we are just emerging, is the most enigmatical. The first life found the earth's surface of even temperature. The Eozoon of the Archæan, the mollusk of the Silurian, and the fish of the Devonian, lived in quiet, even tempered waters; the first great land vegetation of the Carboniferous made coal-beds, presumably at the poles themselves. In the next great age, when huge saurians led their three-fold life of walking, swimming, and flying, neither tropics nor polar circles formed a boundary to their migrations. The Tertiary shows an increasing difference between poles and equator, and this culminates, not suddenly, but by slow degrees, in a frozen earth; the ice gathering about the poles thickening by slow accretions, and advancing by inches in a century toward the equator, reaching in some places in the northern hemisphere to within 37 degrees of the equator, and approaching still nearer in the southern. But the advance is checked; the frozen edge remains stationary for untold ages, then slowly retreats half-way to its starting points, which position it has maintained, with slight variations of advance and retreat, to the present time.

Facts so startling could hardly fail to set the busy brain of man to speculating upon causes for so astonishing an order of events, and to weaving fine spun theories. These theories may be roughly placed in three classes:

1. Change of currents by elevation or depression of connecting lands.
2. Great simultaneous elevation of polar lands.
3. Varying eccentricity and position of the earth's orbit, by which the poles alternately are subjected to enormous changes of temperature.

With regard to the first of these theories, various suppositions have been made; South America has been connected by uplifted lands with Africa; North America with Europe; Behring's Strait has been narrowed or widened to produce the result; and the Isthmus of Panama having formed the bed of the ocean until the close of the Drift period, was uplifted just in time to pour the warm waters of the Gulf Stream into the

Polar Ocean, driving the ice limit back to its present position. The first three of these are mere assumptions without underlying facts; for the ice-incumbered lands of Behring's Strait have not been examined with sufficient minuteness to determine their age; while, of course, the strata forming the Atlantic sea-bed are not likely to yield up their history to the present generation of seekers. With regard to the Gulf Stream, we may speak more definitely; the coast survey sections commenced by Bache in 1845, and continued from time to time to the present, have given much practical knowledge of this celebrated current; the more to be prized from the fact that no other ocean current has ever been surveyed and measured. From this we learn that its Summer velocity of four miles per hour, about double the Winter velocity, is regularly diminished along the coast northward, until opposite Nantucket it is scarcely one mile per hour; opposite Nova Scotia it can with difficulty be made out at all, and off Newfoundland it is impossible to distinguish it from the surrounding Atlantic waters. A simple calculation based on its diminution so far as traced, brings it to a standstill in long. 53 degrees, less than half way across the Atlantic. It helps in some small measure to moderate the temperature of the Northern Atlantic waters, but it is not a factor in the difference of climate between western Europe and eastern America.

Again, geologists tell us the Isthmus was raised during the Pliocene Tertiary, and not late in the Drift period, as would be needed to sustain the theory. And, as if this were not enough, you will notice that the powerful equatorial current entering the Carribean Sea runs not toward, but parallel to, the Isthmus. If a chimney through which a strong current of warm air be passing have its wall pierced, the draft through the hole will be *into* the chimney and not *out* of it; so here, pierce the Isthmus by a canal, and the water will flow from the Pacific into the Atlantic. We shall keep our Gulf Stream spite of De Lesseps and all his shoveling crew. Even the Isthmus itself might be swallowed up in the waters, without involving the loss of our much prized ocean river.

Another consideration bears upon this point. The regular ocean current is a modern invention. It depends, of course, upon the difference of heat between equatorial and polar waters. If the equatorial surface waters were 100° F. instead of 80° as at present, the currents would be greatly increased in volume and in velocity; on the other hand, reduce the equatorial heat to 50° F. and the currents would become feeble, mere ghosts or shadows of their present selves. When permanent ice rested at the ocean level at 40° N. latitude, the present Torrid was a cold temperate zone, whose ocean surfaces could hardly have been of higher temperature than 50° Fahrenheit, and currents must have been feeble, local, and uncertain—due mainly to the uncertain and ever varying winds.

From these considerations we shall, I think, be inclined to agree with Dana, that most conservative of geologists, when he says: "The diversion of the Gulf Stream over the submerged Isthmus of Panama into the Pacific, is an hypothesis without facts or probabilities in its favor."

The theory of the simultaneous elevation of polar lands, is somewhat more hopeful than that of currents, as it might, could it have taken place, account for nearly or quite all the phenomena of the Ice Age. It has the great names of Lyell and Dana, as well as a host of lesser note, in its favor. It supposes a great elevation of 1,000 feet or more, of the vast circle of land bordering the Arctic Ocean; and at the same or nearly the same time, the upheaval of lands toward the South Pole. Certain evidences are adduced as partial proof—the great lakes emptied their waters southward; and the ice grooved the rocks and excavated deep and narrow valleys at the sea-shore, now beneath the waters, and known in northern Europe and elsewhere as fiords. These things are quite true, but are capable of a much simpler explanation: the ice and drift blocked the northeastern outlet of the lakes, raised their waters and sent them southward. Even now a rise of fifteen feet would open an outlet for Lake Michigan through the Des Plaines river into the Mississippi. One may walk over the ground from the lake to the river and his eye can scarcely detect a change of level in the eight miles intervening. The fiord sculpturing is easily accounted for with the land at its present level, when we remember that the ice in those latitudes was more than a mile in thickness, and that where the glacier reached the sea, the pressure on the sea bottom would scarcely diminish perceptibly until a depth of several hundred feet had been reached. Kane and others have described the great Humboldt-Glacier as traveling down a valley of western Greenland, bearing its enormous weight of ice to the sea and far into the waters, until the lifting power of the water and the force of the storm waves break off great icebergs. Should this valley become cleared of ice, a fine fiord, making probably one of the best harbors of western Greenland, will be found at its foot.

Elevation or depression of such vast areas of the earth's crust at the same time, is contrary both to reason and experience. An elevation of one portion, means a depression near at hand. If the coast of Norway be rising, that of Sweden is sinking: the bulging out of such vast areas is a well-nigh unthinkable proposition, as nearly impossible as any physical phenomenon can be; the needs of science are not of a nature to justify such desperate hypotheses, and we may regard this theory as only true by a very remote possibility.

The third or eccentric theory known as Croll's was very attractive when it made its appearance some twenty years since. It swept men off their feet as if by one of its own moving floods, and carried them hither

and thither at will. The eccentric form of the earth's orbit and the changing direction of its axis, would give to one hemisphere a longer Summer than Winter for many thousand of years. Its ice cap would diminish while that of the opposite hemisphere would thicken and approach the equator. Then the hemispheres would change conditions; the large ice cap would retreat, while the former favored hemisphere would become frigid. An increase of eccentricity, which reaches its maximum at very long intervals, would greatly increase these differences and account for the glacial phenomena whose history is written on the rocks of so large a portion of the globe. But sober second thought will follow any period of excitement, and men soon saw there would on this hypothesis, be not *one* Ice Age, but *many*; successive layers of unstratified drift material would be sandwiched in between the stratified rocks from the commencement of the Cretaceous to the present time. But no such formations have been found though eagerly looked for. Croll and Geikie contend for two ice ages in the northern hemisphere, separated by a milder interval, but it seems not to be well made out.

Another and very valid objection to Croll's theory is, that the shorter Summer and longer Winter does not necessarily imply a less average of heat received for the year. The sun is now three million miles nearer the earth during the southern Summer than during the northern. The southern hemisphere receives during its longest Summer day about one-fifteenth more heat than the northern hemisphere receives on the 21st of June; and the average amount received for the entire year is slightly greater south of the equator than north of it. True, the southern hemisphere is colder than the northern, owing, no doubt, to the fact of a great Antarctic continent extending for many degrees in all directions from the pole, while the northern polar area is oceanic. The difference is thus probably a constant one; its rocks certainly show the same difference to have existed in the glacial age, and there is no shadow of proof, other than a purely theoretical one, that it was ever otherwise.

There is still a theory to be considered which accounts for the known phenomena and conditions so exactly, that it may become the belief of the future time, as it would probably have been that of the past, had it not been barred by the authority of one illustrious name. It is based upon the instability of the solar system and the gradual approach to the sun. Nearly a century ago the genius of La Place showed by a long and delicate calculation that the solar system is essentially stable; the planets through mutual attractions are ever changing the forms of their orbits, but in periods of longer or shorter duration, return again to the exact orbital form of the earlier time—and so through endless cyclical changes to the infinite of time. The law of endless change, of birth growth and decay, which we see impressed upon every thing about us, does not reach to the relation of planets to each other and to the sun.

Had this been a mere theory it would have shared the fate of endless others long before this. But it was the result of the sublimest calculation of the world's best mathematician, and the average man stands much in awe of figures. But the century since La Place's time is showing the weakness of this part of his work. There is no flaw in his calculations; still the result is wrong. The instrument which he used probably misled him. The Calculus is a wonderful machine, and has done magnificent work since Newton and Leibnitz; but its results have not the absolute exactness of arithmetic. It neglects infinitesimals, and though in ordinary work no appreciable error can be found in its results, still it is true that in delicate calculations, embracing immense periods of time, the very minute error of the shorter process multiplies until it assumes definite proportions; and when man thinks he has grasped an eternal truth, he has but closed his hand upon a very troublesome error. Croll's calculations showing the form of the earth's orbit two or three millions of years forward or backward from the present time, may not be worth the paper they are written on.

Had La Place known what has since been demonstrated, that the Sun's mass has been constantly increasing through the addition of meteoric and cometic matter, thus continually augmenting the force exerted upon the planets and compelling their approach, he might have been led to doubt the correctness of his own conclusions.

The earth, when the first life appeared upon its surface, was much further out in space than now, perhaps nearly to the present position of Jupiter. Its heat came from within, not from the sun. With slowly thickening crust, and diminishing heat, it passed the earlier geological ages. The Tertiary found it nearly in the position of Mars, with a cool temperate climate, somewhat warmer at the equator than at the poles, owing to the increased heat from the sun. But the heat from within is diminishing faster than the sun's heat is increasing; and now comes the frozen age, the icy fingers holding in their grasp both hemispheres; the feeble rays of the Sun having just power enough to keep clear the equatorial lands. A nearer approach and the ice slowly retreats until the present position is reached, and more than half the earth has been cleared of its cold incumbrance: and we may confidently look forward to the time when Wrangell Land and the newly discovered Jeannette Islands shall be fashionable summer watering places for the over-heated, enervated people of Alaska and Labrador. And every planet shall have its day; Mars shall be redeemed from its present icy thralldom, and Jupiter, now in his earliest Archæan age, shall, with his immense bulk, go through all the changes which have marked the stages of progress and decay of the planets within the sweep of his magnificent but ever narrowing orbit.



## TRAP-DOOR SPIDERS.

BY MISS MONKS.

THE underground life of Southern California is more remarkable than that of the East. The treeless and stoneless character of much of the country, drives many small animals to ingenious expedients to escape from enemies, and reduces them to make-shifts unknown to their more fortunate kindred.

Winged creatures are scarce. One looks in vain for the great variety of bees, butterflies, and birds that enliven the Eastern summer and make every wayside patch of flowers and thistle thicket a living panorama of color, motion and song. Here there are few homes and hiding places. Strong-pinioned hawks and buzzards can wing their way to distant forests; man-loving linnets are secure and happy in orchard and garden, but timid folk must seek homes on, or under the turf, or hide in far off cañons.

To a person used to the common fact that "foxes have holes, and the birds of the air have nests," there is a never-ending interest in squirrel burrows where gopher-snake and rattlesnake and owl and squirrel families blend together promiscuously.

Imagine the loneliness and homesickness and disgust of the first emigrant owl and his family, on these smooth foothills with no hollow tree or friendly stone wall near, when they found they must go down to the dark abode of the squirrel and be a companion of the snakes! Peace and concord and the sweet amenities of polite society may reign over these incongruous troglodytes, but no man knoweth, and the interested parties are becomingly reticent. Imagination alone can furnish another solution of the problem.

Other unfailing curiosities are the two large spiders, the Trap-door and the "Tarantula", and the peculiar nests of the Trap-door spider.

So much confusion prevails about the two species and there are so many wonderful stories told about their instincts and ferocity, that it is perhaps worth while to collect all the authentic information possible on the subject. It is necessary to understand a little about the general structure of spiders to know how these differ from their relatives.

Spiders differ from insects, such as flies, beetles and butterflies, in having four instead of three pairs of legs, the head and chest blended together in one piece called cephalo-thorax; the large rounded abdomen without joints; the breathing organs as pouches and also air tubes, and the end of the body furnished with organs for spinning silk. The air pouches, called pulmonary sacs, are little cavities containing leaf-like plates over which the blood flows and is oxygenized by air that enters

through small openings on the outside, called stigmata. These sacs are on the underside of the abdomen. Not far from them are two tubes called trachea, which resemble the only breathing organs of insects, except that they are much shorter.

The principal nerve mass is in the lower part of the cephalo-thorax and has the stomach and heart above it. The six or eight eyes are on the top and front of the cephalo-thorax and are very good for seeing objects above the animal, but of no use for trifles under foot or at the side.

Spiders are armed with two strong, sharp, curved and perforated fangs, connected with poison glands, and these fangs generally have a lateral motion. The mouth is eminently a sucking organ, provided with powerful muscles, and one use of the fangs is for holding the prey while the spider absorbs its life blood. They also have a short jointed appendage, like a leg, on each side the mouth, called maxillary palpus. The basal joints of these organs are modified into hard jaws which serve for crushing food, while the terminal joint has tactile function.

The Trap-door spider and the Tarantula belong to the same family—Mygalidæ—and differ from other spiders in three important particulars. Their maxillary palpi are very long, so long that they look like a fifth pair of legs; their fangs move up and down, instead of having a side motion, and they have four instead of two pulmonary sacs. The sacs are the yellowish spots seen on the under side of the abdomen. The Mygalidæ embraces the largest spiders.

The large bird-catching spider of South America is first cousin to what is called "Tarantula" in California. Our species is not a tarantula at all, and does not even belong to the same family as the tarantula of south Europe.

Both our species are called tarantulas, and there is considerable popular confusion about the animals and their habits. They are easily told apart. The "Tarantula" (*Mygale Hentzii*) is large—when extended it often covers the space of four or more inches; it is very hairy; black or dark brown in color, with sometimes an ashy tinge; and has long legs, which indicate a wanderer.

The Trap-door spider (*Cteniza California*) is only half as large, is downy, pale brown, and has short legs. There is the greatest possible difference of opinion in regard to the tube-building habit of the two species. I have never found a "Tarantula" in a nest with a trap-door or a Trap-door spider in one with an open mouth. I have put Mygales of both sexes in jars of earth, and they never would attempt to build tubes. They pull bits of earth together and spin a little silk, then stop—seemingly satisfied with the result of their labor. On the other hand, *Ctenizas* invariably go to work the first night and dig a tube and generally add the door the second night.

It is not uncommon to find a *Mygale* in a doorless tube, with the remains of a *Cteniza* scattered outside, which looks suspiciously as though the "Tarantula" had dined off the mistress and taken possession of the house. Still the children here declare that "Tarantulas" live in doored tubes. The children ought to know, for they are in the habit of subjecting the spiders to a species of water cure treatment. They pour water into the holes to drive them out, and then, taking advantage of the spiders' natural ferocity, set them to fighting.

The vertical action of the fangs helps to make a California spider's life worth living, for it gives a wide range of uses to these organs. In their sapper and miner operations the fangs are used as picks to loosen the bits of earth, then the bits of soil are folded against the chest by the fangs, and thus carried out to the mouth of the shaft. In making doors they are used to press the moist earth in position. When the spider comes home late at light, the fangs are used as a jimmy or night key to coax a door that is a little obstinate on its hinges. Like other spiders they use them for defending themselves, and for catching and killing their prey, and holding it while they dine; so that the formidable hooks that fold so neatly under the chest when not in use, serve as pickaxe, hod, trowel, jimmy, cimeter and fork in turn, at the pleasure of the owner.

*Cteniza* uses her fangs freely when disturbed. Upon slightest provocation she puts herself in fighting attitude, and quietly waits her opponent. In this position she throws back the cephalo-thorax, and supporting herself on three pairs of legs, lifts the other legs and the maxillary palpi high in air in a very threatening manner. As the enemy approaches the fangs are suddenly raised and she throws herself forward and plunges the sharp hooks deeply into its body. I have seen drops of clear liquid poison hanging on the fangs of angry spiders, but from the record of others and my own observation, it would seem that it is far less deadly than is popularly supposed. There are many instances where people and lower animals have been bitten by Trap-door spiders, and have suffered no great inconvenience. I only know of one serious sickness resulting from a spider's bite, and that was in the East; and the spider, like most criminals, escaped without identification.

The *Ctenizas* will attack and bury their fangs in each other with a strength and ferocity painful to witness; but when separated they seem to have sustained no injury, and go about their several callings as though such encounters were of ordinary occurrence. That it is not suddenly fatal is shown by the fact that crickets and other prey often move and kick even when partially devoured by spiders. Probably when a spider dies very soon after being bitten by another, the death is not caused by poison, but because the fang has pierced the central nerve

mass. I long ago learned that the quickest and easiest way to kill certain small spiders of the East, was to thrust a needle into the middle of the cephalo-thorax. They would be paralyzed immediately and die very soon. It affects Trap-door spiders the same way but not so suddenly.

The testimony of many writers shows that spider bites are not generally more dangerous than mosquito bites, and sometimes occasion no more inconvenience than the wounds of a needle; and that most insects if they could escape the grasp and sucking jaws of the spider after being struck, would stand a fair chance of recovery.

Enthusiastic naturalists have allowed spiders to bite them repeatedly without serious results; but as far as personal application is concerned I am perfectly willing to depart from scientific methods and take on faith the statement that the poison of a spider is not poisonous. There are noticeable differences between male and female spiders. The male *Cteniza* is smaller, darker colored, has much smaller abdomen, longer legs and his maxillary palpi have one crooked joint, and are armed with spurs or hooks. He is also very much more active.

I have never been able to find the hiding places of males, and in two years have only obtained two specimens. These were caught by some boys soon after a severe rain storm. They probably hide away among mustard stalks and under leaves and have no settled homes. As there are few stones and no beds of matted leaves, the male Trap-door spider must be an adept at hiding, especially in the day season. It is said his shyness is due to the cannibal tendencies of the female, who shows her conjugal thrift by eating a husband whenever the larder is empty, or she happens to be in an ill humor. The females are the solitary dwellers in the tube houses. These holes are dug all over the foothills and often on level ground. It is often said that they prefer a certain exposure, I think northerly, but I have found the nests at all heights and all slopes of the hills, and believe they have no preference. All they need is seclusion. They are found by the dozens on many hills, and frequently there are four or five within a few feet of each other. It looks as though the young of one family located as one colony after leaving the parental cellar, and lived peaceably. This proximity suggests that unconfined they are not such ferocious cannibals as painted, or that food is abundant. I do not know what the food is. Probably the staple articles are crickets and sow bugs. That it is plentiful is shown by the plump condition of the spiders when they are dug from the ground, I never found any remains of food in or around the nests. In confinement they eat flies and crickets and devour each other with great relish, or they will live months without food. It is next to impossible to starve them out of their nests. I have known specimens to shut themselves up by webs and stoically starve to death in nests left on window sills in rooms where they were alone most of the time, and

where they could have caught flies by leaving the tube. There is something almost pathetic about this feminine domesticity were it not so extremely stupid. Possibly, even with this adjunct, it appears to some minds as an eminently suitable and proper way of dying.

On the hills they make the nests from eight to ten inches long. They are rarely straight. For a few inches they are vertical, then they gradually curve, generally up hill, and sometimes there is a double curve. I have one that has a sharp turn near the bottom, almost at right angles to the general direction. On account of these curves no caller is able to tell whether the lady of the house is at home by looking down the hallway. Generally the walls are silken-lined throughout, but some individuals are not particular and leave the lower end bare. Then these mud walls are all scarred and marked with impressions of the spider's claws.

The door is the most curious part of the nest. It is sometimes so well fitted that it is impossible to open it without the aid of pin or blade of penknife, but it can always be opened without injury to hinge. The silk on the hinge part is thick and strong. The hinge line is generally toward the top of the hill, but not always, for I have found nests that open up hill and side wise. Considering the rush with which rain comes here it would be provident always to have the doors open downward, so as not to be swept open by the floods. The hinges are always made so strong that they spring the door to, regardless of inclination of position. The door stands at about an angle of 45 degrees and shuts as soon as the spider has crawled out. The worn hinges of specimens that have been handled do not give a correct idea of the tension of web in inhabited nests.

The spiders are nocturnal or crepuscular. After four o'clock in the afternoon it is not uncommon to see a door gently fall to on the approach of footsteps. Spiders often betray their nests in this way. If an attempt is made to open the door, one finds that the spider is holding it down on the other side with considerable strength. She catches her claws in the silk and braces herself against the walls by means of her many legs, and pulls for dear life.

In every door there are four or five little holes in the silk opposite the middle of the hinge, which might be called inverted door knobs, and in these she inserts her claws to open or shut the door. When she finds her efforts are of no avail and the door slips from her grasp, she hastens to her reception room at the bottom of the tube, and, throwing herself backward with all feet and her cruel fangs upturned to receive anything that descends, she waits patiently for future developments. The spider will move quite large stones that fasten the door open, but if it is pinned back so she can not lift it, she will build a new door. I have tested them many times in this way in the spider towns of the foothills. Not

long after one successful experiment of the kind, I heard of a very rare specimen of a "Tarantula's" nest in one of the stores, for which the dealer would not take any price, because it was such an uncommon thing for spiders to have double doors to their homes!

I removed the door from one of my spider's houses and she built seven doors in succession in a short time; but some are content when the door is torn off to spin a web over the opening. Sometimes the screw seed-vessel of *Alfilaria* worms its way into the top of the door and makes a convenient handle for us to open the portal, or a bit of grass roots there and hides the dwelling; but I have never noticed any attempt on the part of the spider to cover the trap with vegetation as a protection.

The nests are well hidden by burr clover and crane's-bill in the green season, and in the dry season, when most they need concealment, the earth is so baked and cracked that it takes a keen and experienced eye to pick out the trap doors from the multitudinous mud cracks which surround them.

After the young leave the mother they can easily conceal themselves in the cracks and fissures of the dry soil, and their first tiny nests are so small as to escape detection. The smallest I have seen have been in diameter about the width of a pea. They are said to enlarge their tubes from time to time, as they increase in size. The young must leave the nest very early, for I have never found any with the mother except the swarms that are there in April and May, and the little ones then are about the size of a medium pin head. They probably make their tubes in summer, for the floods of the rainy season would sweep them out of temporary resting places and out of existence. It is reported that the mother shuts herself up in the nest and offers herself an unresisting victim to the insatiable appetites of her swarming offspring, and that after the repast they go forth in the world refreshed and ready for the duties of life. I trusted to this cannibalism in an attempt to raise some young. There were hundreds of them—little reddish mites creeping over the mother—and, believing in the survival of the fittest, I left them to devour her and each other, and thus help along my studies. When I examined the nest months afterwards, the mother was alive and had spun a loose web over the mouth of the broken tube and the young had all crept out and died in the crevices of the earth. They had not eaten each other to any appreciable extent, and certainly had not filled the traditional contract to devour their devoted mother.

There is a fact that gives a faint color of truth to this belief. Sometimes the door of a nest is sealed down. A ring of silk, almost a quarter of an inch wide is woven inside, holding the door fast to the tube. This thick white band can be separated from the nest, showing that it was added after the house was completed. At the bottom of the tube is found the shell of a spider, not the shriveled up body. If the young

ate her, how did they get out afterwards? If she found herself wounded unto death, and sealing her door she hid away in the silence and darkness to make her home her tomb—Who ate her? The sides of the tube are smooth and solid, the woven silk is close and compact, the remains are of a victim or eaten subject, not of a mummy, and it is not easy to explain the phenomena.

Nothing is more interesting about these interesting people than the existence of such catacombs. As the door closes, like doors in a ghost story, of its own accord after the spider has left the house, she shows no little ingenuity in getting in when she comes home again. She feels around and gives a pull, and if the door sticks she removes debris that an unkind hand may have placed on the trap. Then, as she cannot see downward, she continues to feel around with her feet for familiar places. She inserts her claws in the roughnesses of the earth and pulls till she finds the hinge side, then bracing her feet outside the tube to use as levers, she catches her fanges in the top opposite the hinge, and pulls upward by lifting her whole body. As soon as the door yields and opens a little she inserts her front feet and pulls it wider, and then sliding over the top when it is half open, disappears—pulling the door to after her.

The *Ctenizas* work readily in confinement. Sometimes they finish the tube before adding the door, and other times soon build the door and thus protected carry on improvements at their leisure. They generally work at night, but will pull down the door and remove obstructions from it in the day. They are so shy that it is difficult to catch them working. They will work in a lighted room if it is quiet, and in this way I have watched them build nests and make doors. They have an interesting way of getting rid of the earth when they are digging. They carry particles of earth by means of the fangs pressed against the body, and when they reach the upper part of the tube by a quick jerk of a leg, they fillip them far from the nest. Thus the bits of soil are scattered far and wide and a heap is never seen at the mouth of a nest. I have seen them repeatedly throw earth in this way, and often heard it at night strike against the top of jars where they were working.

In digging holes they use the fangs, and can burrow in very hard soil. As a test, I put one in a cup of clay, tenacious as brick clay, and in a few nights she had dug a hole larger than a walnut, and she still seems disposed to go farther, although her fangs are coated a third of the length with the yellow clay. It is interesting to watch the building of a door. The spider weaves a good quantity of silk around the upper margin of her door, and often runs fibres far outside to keep the earth from falling in. Then she brings up bits of earth from the inside, moistened in some way, and presses them against the side of the tube. Then turning around with her long spinnerets she spreads silk over the under

side of the part that she has just stuck on. The spinnerets act like fingers and plaster the silk on carefully and dexterously. It seems all to be done by touch, rather than sight. This she repeats slowly and with great pains, adding bit by bit and smoothing the silk on the underside, and testing her work with her many hands, till the door is completed. Sometimes dawn comes before the labor is done, and then a little half door hangs on its hinges all day over the opening.

The strength of the door, the holes for holding it down, the tenacity with which the spider pulls on the inside, and the attitude she takes when she hastens down the tube—all show that she has to contend with shrewd enemies. Probably her most tireless foe is the Tarantula hawk. This is a wasp and there are several species that hunt spiders. The largest one is a gorgeous creature with red wings and bluish or greenish metallic colored body.

Late in the afternoon when the spiders begin cautiously to open their doors these wasps are seen flying low and intently examining every hole and crevice in the ground. They fly into the squirrel burrows and walk all over them, with their bodies jerking in an impertinent and irritating manner, as they peer into the upper stories of these tenement houses. From this it seems that spiders must be added as attic lodgers in these communal dwellings; and surely with this addition, and the wasps as callers, there must be a Box and Cox arrangement as to hours, to prevent unpleasant encounters in the hall ways.

The secret of the wasp's search is not food, but to lay up an inheritance for her young. When she encounters a spider a fight ensues, and, if she is victorious, she paralyzes but does not kill it, and then deposits an egg on or near the spider, and goes her way rejoicing. The spider is limp and helpless, but keeps alive till the wasp is hatched as a soft white grub. Then the baby wasp begins to eat the meat its mother has supplied in abundance to last through its babyhood. This admirable provision of the wasp—not quite so happy for the spider—is excellent in a dry climate where a dead spider would dry up in a short time and become very tough or dusty eating; but where a paralyzed spider keeps fresh and in good condition till needed. Mud wasps have the same way of storing up smaller spiders for their young.

The *Cteniza* resents familiarity and shows her displeasure by a sharp snap of the fangs or by moving off as fast as possible. This makes it difficult to examine live ones. They do not like to be touched. I have found a way, however, of keeping them quiet as long as I please. It is by pressing gently on the cephalo-thorax over the chief nerve mass. The spider stops crawling, ceases struggling and remains perfectly still. This is especially noticeable when they are turned on their backs. At first they fight to get back to their normal position, but a slight pressure stills them, their muscles relax and they can be examined at leisure.



Even so slight a weight as a bit of writing paper will keep them immovable for a long time. These mesmerized spiders are rather ridiculous in this undignified position, lying flat on their backs, with their many heels all up in the air, and a plaster of white paper across the pit of their stomachs; and it cannot be very comfortable either, but they remain motionless for a quarter or half hour at a time, and may be kept from scrambling back on their feet as long as you will by a touch at the first sign of restlessness.

Aside from the curious homes I have not noticed any sign of superior shrewdness or intelligence in these spiders. They seem shy and and slow and rather stupid. Their nocturnal habit keeps them from showing off well in the day time, but even at night they are not alert.

I tried the effect of certain color and odor by putting rose petals in their nests, but they merely carried them out as they would sticks and mud.

I tested their musical ear, as spiders are said to be musically inclined, by singing and whistling my sweetest, but they seemed very phlegmatic about it and the sound produced no impression, not even uneasiness. Perhaps, though, they discriminate.

They are so slow that it requires much time and patience to study their habits, and then, in confinement, the conditions are not natural.

People are ready to believe anything phenomenal about a snake or a spider. Many of the stories of marvelous instinct and characteristics of spiders are woven from the golden tissue of romance and are too cobwebby to be touched without destruction, but it is a sorry wight, human or arachnid, to whom no romance can cling, and it is not strange that the little brown anchoress in her silken cell in the foothills should be credited with more than ordinary intelligence when she shuts her door in the face of the world and retires to solitary meditation.

## NORTH AMERICAN LAKES.

BY ISAAC KINLEY.

IN America, as in the Eastern Continent, the north is the land of lakes. A line from the mouth of the St. Lawrence to the western end of Lake Erie, and thence to the mouth of the Mackenzie, lies through and near a succession of lakes unequaled in number and magnitude by any other like extent on the earth. The great North American depression extends northwestwardly from the Gulf of Mexico to the Arctic Ocean, with a branch at about the fortieth parallel northeastwardly to the Gulf of St. Lawrence. These two lines nearly at right angles to each other, lie in approximate parallelism with the mountain ranges and the shore lines of the Continent.

The forty-second parallel holds to the north of it nearly all the North American lakes, while to the south are numerous lake basins, some of them rivaling even Superior in extent. These have been deprived of their waters by their outflowing rivers, or, as in the arid regions of the Southwest, by evaporation. If we define a lake to be what geologically it is, a *local depression of the surface*, and treat the presence or absence of water as only one of its incidents, we shall find the South, no less than the North, a land of lakes.

Lake basins may be due—

1. To local sinkings of the surface.
2. To excavations, notably by glaciers.
3. To the extinction of volcanoes, their craters filling with water.
4. To the breaking down of the roofs of caves by earthquakes or other causes.

To the first and second of these agents are probably due nearly all the existing North American lakes, in some the one and in some the other acting as principal. In all the large lakes there has been a local sinking of the surface, the glacier being only auxiliary. The numerous small lakes in middle and western New York, lying in the direction of the glacial flow, having frequent groovings on their adjacent walls, have been credited wholly to the glacier. But as nearly the whole of this lake region lies within the Niagara limestone formation, it is not improbable that caves, having their roofs broken down by the overlying ice, may also have acted as important auxiliaries? Many small lakes and ponds, as in Kentucky, Tennessee, and Southern Indiana, are due wholly to the breaking down of the roofs of caves. In Southwestern Missouri and Eastern Arkansas are several lakes and lakelets due to the shaking down of the overlying cave roofs by the earthquake of 1811.

Lakes Borgne and Pontchartrain have been captured from the

Gulf by the delta of the Mississippi; while numerous small lakes, called bayous, are due to changes of the river bed, the deposit of sediment at both their inlets and outlets having left them filled with water.

Crater lakes are not unfrequent. These basins, but containing no water, abound in New Mexico, Arizona, and Southern California; while many of the beautiful lakes of the Italian peninsula are but the filled craters of extinct volcanoes.

Why is the North the land of lakes? In order to answer this question, let us first see what has been going on at the South. Between the Alleghanies and the Blue Ridge is a long narrow valley, extending the whole length of these parallel ranges, and but for the breaks in its walls nearly the whole extent must have been a basin of water. At Harper's Ferry, the Potomac, and near the Natural Bridge, the James river have broken through the Blue Ridge, carrying the waters of the upper half to the Atlantic; farther to the southwest the Kanawha and the Tennessee carry the drainage of the lower half to the tributaries of the Gulf of Mexico.

These last named rivers have also made their way through the Cumberland mountains, draining another considerable valley between these and the Alleghanies. Could these several outlets be closed, as they probably once were, large lakes would again rapidly form. Could the Knobs and the Muldro Hills unite again at the Falls of the Ohio, a large shallow lake would form, covering parts of the States of Indiana, Ohio, and much of the fairest portions of Kentucky. Should the opposite bluffs of the Wabash be united at the mouth of the Salomonias, another large shallow lake would result, whose outlet would probably be the Maumee. Commencing at Richmond, Indiana, itself situated in a small lake basin, and thence northeastwardly half-way across the State of Ohio, is a succession of shallow depressions once filled with water, and through which still flow the streams whose unceasing work has cut through their margins and carried off their waters. In many of these ancient lake beds the work of drainage is not yet completed, the lowest parts still being marshes or ponds of water. The Mohawk and Connecticut flow each through a bead-roll of small lake basins, walled around by solid rock. Through their margins the rivers have for untold ages been deepening their channels, until the lake bottoms have become the homes of men. The great lakes themselves have been much reduced in their dimensions. The evidences are abundant that Erie, Michigan, and Huron are but the relics of what was once a large body of water, covering all the intervening and much of the adjacent lands. The work of depletion is still going on. Not only is Niagara still deepening its channel, and sinking thereby the surface of Lake Erie, but by a gradual recession of the falls a much greater work is prophesied. It is only a question of time when Erie will be robbed of its waters, and the other great

lakes be reduced to but insignificant parts of their present dimensions. Lake Pepin, now but an expansion of the Mississippi, was once a much larger body; and Peoria, a similar expansion of the Illinois, formerly spread out over much of the level lands to the east, making a sheet of water equal in extent to that of Lake Champlain.

The evidence of the former greater extent of these lakes is abundant and apparent: The railroad from Lafayette, Indiana, northward, cuts through several low lake margins, marking the gradual recession of the waters, and within sight of frequent sand hills, similar to those now seen on the lake shore at Michigan City. There is evidence that the Illinois was once the outlet of Lake Michigan, and the Wabash that of Erie—carrying the waters of these lakes to the Gulf of Mexico.

Doubtless, in many of these lake outlets, natural fractures and marginal depressions have not only given direction to the effluent streams, but greatly aided in the work of abrasion.

It is now generally conceded that the whole northern part of the continent, reaching southward in some places to the twenty-ninth parallel, once wore an ice-cap of immense thickness, through which only the mountain peaks projected. I have already alluded to the work of the ice-plow in the excavation of lake basins. I am now about to give to the glacier the credit of the preservation of the lakes when formed.

Although it has been found that the glacier flows like the water of a river, only more slowly, the ice, except when wedged in between two walls, as the *Mer de Glace*, could not have been confined to narrow channels, and cannot, therefore, have grooved out long, tortuous river beds. The abrasion and drainage were indeed going on, but by a slow process, as compared to the work of the released and active waters.

When the ice field began to disappear, it gradually receded northward, first uncovering that part of the drift region in which the lakes have been drained of their waters. The southern half of the continent must have had even larger rivers than now, fed by the melting ice and snow of the retreating glacier. The length of time during which these rivers flowed while the north was still wearing its ice-crown, can only be approximately guessed. It was, however, a long time—a length of time compared with which the historic period dwindles into a few days. During this period the outlets of many of the southern lakes were being sunken by the slow abrasion of the flowing waters. And, doubtless, while the Ice-king still reigned at the north, these "sweet vales of Avoca" had been drained into dry land, and possibly become the homes of men.

The physical geography of the continent is a strong witness to the truth of this theory. To the south of the drift region, where the rivers have been flowing ever since the continent was above the sea, the lake bowls have been drained to the bottom; in the northern part of it they

have only been partially drained; while farther to the north they are still filled with water. This is exactly what the theory supposes.

It has been argued that the southern half of the continent has been longer from under the sea, and, therefore, the rivers have had greater time to deepen their channels. Exactly the converse is the truth; and the Laurentian Hills are not only the oldest land on the continent, but, so far as now known, the oldest on the planet.

It may be admitted without affecting this hypothesis, except it be to re-enforce it, that the great weight of the accumulated ice must have sunk the more northern regions, some parts perhaps below the ocean level, and that in its gradual melting, these rose again, preserving their equilibrium.

The gradual recession of the ice northward, and, therefore, the first uncovering of the southern half of the drift region must have taken place. That this recession was slow, and during a long period of years, must be true. That during these long ages, the rivers must have been deepening their channels and emptying the lake basins, is a fact which needs only to be stated; and hence we have all the facts the hypothesis requires. If we should term that part of the drift region south of forty-one and a-half degrees, *sub-glacial*, we shall find the southern part entirely drained, the middle and northern part only partially, the lakes and lakelets increasing in number and magnitude as we approach its northern boundary.

But the "dry lakes" of the Pacific slope—what of them? Their margins are still intact. True; but it is because they *are* dry lakes, that their margins have not been cut through and no new channels connect them with the sea. Another cause of the destruction of lakes—too important to be left out of the account—is the constant deposit of sediment. While the effluents are continuously deepening their channels and sinking the lake surfaces, their affluents are no less industriously raising up the lake bottoms by deposits from the land. The bottom of Lake Superior, at its deepest part, is about 300 feet below the sea level. It cannot, therefore, be wholly drained by its outlet. The St. Louis river has a large delta, making access to Superior City so difficult as to require annual dredging. It has been estimated that the sediment carried yearly to the Gulf by the Mississippi, is sufficient to raise a square mile two hundred and forty-one feet, or equaling a cubic mile, in a little less than twenty-two years. Where the Rhone enters Lake Geneva its waters are loaded to their capacity with sediment. Where it leaves the lake they are almost crystal clear. This solid matter brought down from the Alps, is being continuously sifted upon the bottom, raising it upward, as the abrasion of the outlet is sinking the surface downward.

In Indiana and Ohio are very numerous shallow lake basins, now dry land, level as a floor, often with their several feet of rich alluvium,

still bearing evidence to the agency of these deposits in depriving them of their waters. The celebrated Walnut Level is but an ancient lake basin, and it is to this deposit of sediment that it owes its far-famed fertility. It is not improbable that by the time the Falls of Niagara shall have broken through the rim of Lake Superior, the sinking surface of the water may meet the rising bottom only a little above the present ocean level.

But why should the lakes begin to increase in size and frequency at about the forty-first parallel? The answer is to be found in the relative amount of snow-fall. More snow falls at the south end of Hudson's Bay than at Boothia Felix; more at Cape Farewell than at Cape Hatherton; more at twenty degrees south of the Arctic circle than at the same distance north of it. The line of greatest snow-fall, like the isothermal line, is irregularly extended, depending greatly on the wind currents. The water of the southern wind currents condenses and falls as they reach the colder latitudes. Allowing the line of greatest present snow-fall to pass through Hudson's Bay, it must have been far to the south of this during the ice period. At or near the forty-second parallel, the glacier probably attained its greatest thickness. Here it entrenched itself to stay; and for a very long time the winter snows must have compensated for the summer thaws. While, therefore, that part of the drift region lying further south was uncovered, and the water courses actively at work digging their beds and draining the lands, the whole country to the north was a field of ice.

Simultaneously, the ice and the line of greatest snow-fall recede northward. As the day's greatest heat is not when the sun is on the meridian, but an hour or two later; as the summer's highest temperature is not when the sun is at its greatest altitude, but a month or two later; so it is probable that the greatest average heat has not yet been reached, and that the line of the greatest snow-fall is yet receding towards the poles. This fact, if it be one, must presage for Arctic explorers wider and more open fields a thousand years hence than to-day.

The cause of the saltiness of some American lakes, is too patent to require many words of explanation. Chloride of sodium is a component of sea water, as well as an ingredient of the soils and the rocks. It is probable that when the continents were being slowly raised from the deep, most of its great lake basins had been already formed. They came up, therefore, filled to the brim with sea water. In localities, as in the northern and eastern part of the continent, where the supply from rain and snow exceeds the evaporation, the salt, being continuously carried away, has become so diluted as to be an imperceptible quantity. In arid regions—as the Pacific slope and the country about the Caspian—where the evaporation was in excess of the supply, the water levels of the lakes continuously sunk, until on account of the diminished surface,

the equilibrium of loss and gain was attained. Hence the exceeding saltiness of Great Salt Lake, the Dead Sea, etc. For a like reason the water of the Mediterranean is more saline than that of the ocean. Evaporation exceeds the supply, requiring a constant current through the Strait of Gibraltar to meet the deficiency. The same is true of the Red Sea, causing a like current through the Strait of Babelmandeb.

Other salt or brackish lakes and ponds probably owe their saltiness to the supplies from the land. Water is the most general of all solvents. The rains gather up the chloride of sodium from the soil and disintegrating rock, and, where streams flow into lakes whose only outlet is evaporation, they must be a constant source of saline supply, and the waters must become more and more salt, until their capacity as a solvent has been reached.

The Utah basin must once have been filled to its brim with ocean water. The outlet has been evaporation. The lake, receding to its present level, has left many evidences of its former extent.

To the drying up of salt lakes is due the presence of rock salt, often found in great quantities in regions of little rainfall.

I come lastly to the *trends* of the North American lakes. A good map, and especially one on the Mercator projection, will show that lakes are not dotted promiscuously here and there with no regard to system. They have with each other a trend of direction, often as well defined as that of mountain ranges, or the coast lines of continents. As already stated, the great American depression bifurcates at about the fortieth parallel, and nearly at right angles, into northeastern and northwestern branches, whose lines of trend respectively lie in approximate parallelism with the far-off Appalachian and Rocky Mountain ranges, and with the still farther-off Atlantic and Pacific shore lines.

Geologists and physical geographers have noted the fact that the mountain ranges, the shore lines of continents, and the islands with each other, have lines of trend mostly northeastward or the northwestward. The lakes of North America have similar trends of direction, and therefore form an integral part of the system on which the planet itself has been built. This is as should be inferred. That the line of depression should have an approximate parallelism with that of the adjacent upheaval, is but a physical necessity.

Not only is this true of a system of lakes, but of each lake as well. Athabasca and Great Slave lake lie exactly in line from western Lake Erie to the mouth of the Mackenzie; while individually their lines of greatest length are at right angles to this. But if my theory be true, there should be found near these lakes local land swells with corresponding direction.

Many thousands—perhaps millions—of years before man was on the earth, the Laurentian Hills were raised above the dark waters.

They reach back to the very dawn of life on our planet. Both the primordial continent and the primordial life were the prophets—this of the higher organic life, and that of the continents and islands which were yet to be.

This original continent has held its own. It was the initial in the building up of North America. It had the form of a right angle, one limb pointing northeastward and the other northwestward. This is the normal plan. It is the structural arrangement, not of this continent only, but of all continents; and our lake depressions conforming to the general system, are an additional witness to the common underlying laws and forces of which the earth itself is a grand phenomenon.





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HISTORICAL SOCIETY  
OF  
SOUTHERN CALIFORNIA,  
LOS ANGELES. *P. 990*

1887.

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SAN FRANCISCO:  
CUBBY & COMPANY, ELECTRIC POWER PRINTERS,  
415 Market Street, just below First.  
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CONSTITUTION AND BY-LAWS  
OF THE  
HISTORICAL SOCIETY  
OF  
SOUTHERN CALIFORNIA.

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CONSTITUTION.

ARTICLE I.

The name of this Society shall be THE HISTORICAL SOCIETY OF SOUTHERN CALIFORNIA.

ARTICLE II.

The objects of this Society shall be the collection and preservation of all material which can have any bearing upon the history of the Pacific Coast in general and of Southern California in particular; the discussion of historical, literary or scientific subjects; and the reading of papers thereon; and the trial of such scientific experiments as shall be determined by the Society.

ARTICLE III.

The officers of this Society shall be a President, two Vice-Presidents, a Treasurer, a Secretary, and a Curator, who shall be elected annually by ballot, and who shall hold office until their successors are elected and installed.

ARTICLE IV.

Amendments to this Constitution may be made at any regular meeting of the Society by vote of three-fourths of the members then present, one month's notice of intention to make such amendments having been first given.

## BY-LAWS.

### ARTICLE I.

SECTION 1.—Every application for membership to this Society shall be in writing, which shall be presented at a stated meeting; the applicant shall be recommended by at least three members of the Society who shall vouch for his character and fitness for membership. Every application shall lie over four weeks before it can be balloted on.

SEC. 2.—Every application must be accompanied by an admission fee of two dollars.

SEC. 3.—New members shall be elected by ballot, a majority vote electing.

### ARTICLE II.

SECTION 1.—The stated meetings of the Society shall be held on the first Monday evening of each calendar month at 7:30 P. M.

SEC. 2.—Seven members shall constitute a quorum.

SEC. 3.—Notice of the times and places of meetings shall be sent to each member by the Secretary of the Society. Special meetings may be called by the President, or in his absence by the Vice-Presidents, in their order, acting as President.

SEC. 4.—The annual election of officers shall take place at the stated meeting in January.

SEC. 5.—All meetings of the Society shall be public. Stated meetings, with the exception of the annual meeting, shall be devoted to the consideration and discussion of historical and scientific subjects.

### ARTICLE III.

#### DUTIES OF OFFICERS.

SECTION 1.—It shall be the duty of the President to preside at all meetings of the Society; to enforce a strict observance of the rules and By-Laws of the Society; to see that all other officers perform the duties of their respective positions; and to appoint all committees, unless otherwise directed by vote of the Society.

SEC. 2.—In the absence of the President the Vice-Presidents shall take his place in the order of their rank, and shall perform his duties.

SEC. 3.—It shall be the duty of the Secretary to attend all meetings of the Society, keep a record of its proceedings, give notice of its meetings and such other notices as may be ordered by the Society, and to conduct the correspondence.

SEC. 4.—It shall be the duty of the Treasurer to collect all dues, to

receive and safely keep all moneys belonging to the Society, and disburse the same as ordered by the Society, taking receipts therefor; he shall keep an account with each member and notify all in arrears; he shall render a quarterly report in writing to the Society of its finances. At the annual meeting he shall make a detailed report of the receipts and expenditures, which shall be referred to an auditing committee appointed by the Society. At the close of his term of office he shall transfer to his successor all books, papers, moneys, and other property belonging to the Society.

SEC. 5.—It shall be the duty of the Curator to receive and safely keep all papers read before the Society, and all papers, books, pamphlets, maps, curios, specimens, or other property, donated or purchased by it. As far as practicable such collections shall be kept open for inspection and examination to all members of the Society. At the annual meeting he shall make a full and complete report of all articles presented, and the names of the donors. It shall also be his duty to properly label, classify and catalogue curios received or purchased by the Society.

#### ARTICLE IV.

##### STANDING COMMITTEES.

SECTION 1.—There shall be three Standing Committees, the members of which shall hold office one year, or until their successors are appointed: an Executive Committee, a Finance Committee, and a Publication Committee.

SEC. 2.—The Executive Committee shall be composed of five members, who shall exercise a general supervision over the interests of the Society.

SEC. 3.—There shall be a Committee on Finance composed of three members, whose duty it shall be to order all supplies, audit the accounts of the various officers, pass upon all bills presented, and if approved draw a warrant on the Treasurer for payment of the same.

SEC. 4.—The Committee on Publication shall be composed of three members, whose duty shall be to examine and report upon all papers to be read before the Society, and select such as shall be thought proper to publish in its annual pamphlet or other publication.

#### ARTICLE V.

##### DUES.

SECTION 1.—The annual dues of the Society shall be three dollars, payable quarterly. The dues of new members shall begin with the date of their election to membership.



SEC. 2.—No member whose dues are unpaid shall vote at the annual meeting for the election of officers, or be entitled to a copy of the publications of the Society.

SEC. 3.—The names of those two years in arrears shall be dropped from the list of members.

SEC. 4.—Notice of resignation of membership shall be given in writing to the President of the Society, but no action can be taken on such notice until the member has paid his dues in full.

SEC. 5.—The fiscal year shall terminate with the annual meeting.

## ARTICLE VI.

### AMENDMENTS.

SECTION 1.—The By-Laws of the Society may be amended by a two-third's vote of the members present at any stated meeting of the Society; notice of such amendment having been given in writing at a meeting at least one month previous to such vote.

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## ORDER OF BUSINESS.

### MONTHLY MEETINGS.

1. Call to order.
2. Reading Minutes previous meeting.
3. Reading Communications.
4. Report of Publication Committee on papers to be read.
5. Reading of Scientific and Historical papers.
6. Discussion.
7. Proposals for membership.
8. Reports of Standing Committees.
9. Reports of Special Committees.
10. Election of members.
11. Unfinished Business.
12. New Business.
13. Adjournment.

### ANNUAL MEETING.

1. Call to order.
2. Reading Minutes.
3. The President's Annual Address.
4. Annual Report of the Secretary.

5. Annual Report of the Treasurer.
6. Annual Report of the Curator.
7. Annual Report of the Executive Committee.
8. Annual Report of the Finance Committee.
9. Annual Report of the Publication Committee.
10. Announcement by the Treasurer of the names of those who have paid their dues in full and are entitled to vote.
11. Election of President.
12. Election of two Vice-Presidents.
13. Election of Secretary.
14. Election of Treasurer.
15. Election of Curator.
16. Adjournment.

# ORGANIZATION

January, 1887.

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## OFFICERS.

President—IRA MORE.

Vice-Presidents—H. D. BARROWS, E. W. JONES.

Secretary—E. BAXTER.

Treasurer—J. M. GUINN.

Curator—IRA MORE.

## COMMITTEES :

Executive—E. W. Jones, C. N. Wilson, E. Baxter,  
J. C. Oliver, E. Schreiber.

Finance—John Mansfield, J. M. Guinn,  
A. F. Coronel.

Publication—Isaac Kinley, H. D. Barrows,  
H. S. Orme.

## DEPARTMENTS :

History of California—Geo. B. Griffin, Chairman.  
Col. J. S. Warner, A. F. Coronel.

Geology and Mineralogy—E. W. Jones, Chairman.  
N. Levering.

Meteorology—H. D. Barrows, Chairman.  
E. Baxter.

Botany—C. N. Wilson, Chairman.  
J. C. Oliver. J. C. Nevins.

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# HISTORICAL SOCIETY

OF

SOUTHERN CALIFORNIA.

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LOS ANGELES, 1887.

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## PRESIDENT MORE'S ADDRESS.

To know what man can do, we must first know what he has done. The possibilities of the race are only read by the light of the past. The knowledge of history is thus a factor of progress, and we are hardly in danger of over-estimating its value. But it must be studied judiciously; he who looks for startling things, as great battles, powerful kings, and brilliant combinations of talent; and he whose capacious maw swallows every fact, great or small, are alike on the wrong track and profiting little by the study of the great retrospective science. We study the citizen of the past, his food, his dwelling, his social relations and political affinities; the slow growth of institutions fitted to his needs, the failures that he made, the gems he unearthed that sparkle on the stretched forefinger of old Time forever; and those he valued, but which perished with the using.

All this brings us to the question: what can *we* add to the historical knowledge of the race that shall round to more completeness the lives of those who may follow us? And, first, our field has been pretty thoroughly harvested; this modern Israelite, Bancroft, has made no provision for gleaners, neither fence corner nor loose handful of ears. He has gathered the corn and left but the empty husks to satisfy the hollowness of his disconsolate followers. In plain English, Bancroft's volumes are immense storehouses of facts, not always well digested nor happily presented, but full and complete. The ponderous volumes of the "Native Races" are so minute that the dust of the district library lies on them undisturbed. The Mission days are

equally full, and we may do little except to see by the memories of early settlers some scanty facts in slightly altered light.

Let it be granted for argument's sake, that we could add materially to the history of the Spanish occupation; where is its value? Is it not rather food for the antiquarian than for the student of history? The delight of the "Snapper-up of unconsidered trifles" rather than the aliment of him who strengthens himself for life's battle? Had these Mission institutions grown into the California of to-day, every shred of that history would have its value; every speck of life its survival in our modern government. But the Lord planted the gold, and the gold brought the Yankees from Maine, Kentucky, and Texas; and the Yankees brought their laws, customs and nasal twang bodily; old things were swept away, and behold all things became new. A score or two of names, a few crumbling adobes, and all is told. Our civilization developed along the lines of early England, and still earlier Angeln, and Saxony; from the tribe and its chosen leader, not by the transmission from a superior to an inferior race.

But does this state of things render our Society useless, or our labors void? Not in the least degree. We are in the midst of a history-making period. California is just realizing that the true sources of wealth and prosperity are not in her quartz veins, but in her matchless soil and sunlight; and the cry goes up for some system of distributing her waters which shall bring the greatest good to the greatest number. The problem has never been viewed from this stand-point before, and consequently there is not, and never has been a system of laws at all answering to our wants. We must make them for ourselves. And we shall make them, and the new code will be tested and settled within the next decade. There is fame in store for the man who carefully records the growth, agitation, and settlement, of this question.

The history of the introduction of useful plants and animals is not beyond our reach, for the period is not by any means closed. There is not now a reliable and connected account of where our favorite grapes, oranges, lemons, olives and apricots, came from, and every year diminishes the possibility of making such a record.

Even a dry statement of events in this stirring age of experiment and invention, a skeleton which the future historian should clothe with flesh and breathe the life into, would be of far more interest than the Saxon Chronicle.

But we take Natural History also to be our province. Here is work enough. There are unnamed plants in our mountain gorges. Our minerals, always excepting gold and silver ores, lie neglected. Our geological strata are unknown leaves in Nature's book; and who

knows why our geological volume consists mainly of two covers, with the leaves nearly all gone? From azoic to cretaceous, whose rude hand hath rent and scattered the Silurian, the Devonian, the Carboniferous, and the Triassic, and left not a trace behind? Or were these strata always missing, and why?

Our climate also is worthy of all study. The west coast of the Americas has a climate not only differing from, but almost totally unlike, all others. It must be studied *here*. Eastern signal service men cannot even work up its data intelligently. They are still trying to make Atlantic cyclones fit our shores.

But we are busy men in a busy community. We have little leisure from our bread and butter getting to attend to these matters. We may not expect to fill our monthly meetings with the record of original work. But next in value to work of our own is the power of using fittingly the work of others. Let us read to understand, and bring in the thought which strikes us as best in each section of our work, and it may stimulate and guide us to brighter, better and more successful efforts of our own.

While I would not undervalue the business tendencies of men, nor sneer at commercial prosperity, still it would seem that we are made for something nobler than just that. The intensely selfish man entirely wrapt up in his own affairs, and the man who makes a business of philanthropy, are both undesirable members of society. Better is he, who while attending strictly to his business affairs, devotes the shreds and patches of his time to studies which broaden his views and elevate his thoughts, and make him, while still he lives among us and treads the earth, to touch the stars.

## RAIN, HAIL AND SNOW.

BY HENRY D. BARROWS.

Some time ago there were published in the public press extracts from a paper by Lieut. Powell, of the Geological Survey, in which that officer discussed the question of Atmospheric pressure, etc., as connected with rainfall. Also Dr. J. P. Widney of this city, in a local journal, cited some of the minor causes affecting the *amount* of rainfall in a given section. But neither gentleman gave prominence to, or, so far as I saw, even touched upon, the prime factor in the causation of aqueous precipitation the world over, whether it be in the form of rain, hail or snow.

It may seem presumptuous for a layman or non-expert to criticise experts. Nevertheless, I take that liberty. I can at least set up a row of interrogation points, which they, or any other man, may "bowl over," if they can.

Of what avail are "pressure" and "cyclonic currents," etc., as rain-producers, if the moisture-laden currents of air move from a *cold* region to a *warm* one? Is not the effect of such relative transition—*i. e.*, from *cold* to *warm*—everywhere and always, to rarify the air, and to attenuate and dissipate—and *not* condense—the moisture, or vapor or clouds, in the air? And is not the effect of the transition of a moisture-bearing current of air, from a warm—no matter how warm—locality to a relatively colder one—as illustrated artificially in "the worm of the Still," in the distillation of Spirits—to chill, to retard and condense, and, if the change of temperature, from warm to cold, is great enough, to precipitate, in visible drops, the water carried in attenuated solution in the air current? Or, to state the matter in a nut-shell, does not *cold* serve as the grand condenser, and sifter and precipitator, of the aqueous particles that always float in air currents?

Is not, then, any attempted exposition of the theory of rain defective, that does not take into account *relative heat and cold* (through which wind currents move), and the effect of each, on both the air itself and the vapor it carries? Is it not a fact, universally recognized, that the *heat* rarifies, attenuates and makes lighter, the atmosphere? and does not every body also know that it has the same effect on water in its vaporous state—though it has a contrary effect on the latter in a frozen state, or when its temperature falls below 40 degrees, centigrade? And is it not evident without saying, that the converse of this statement *must* be true, namely that cold condenses air, and water also, when in a state of vapor?

Furthermore, is not this true in each case when the heat and cold are only relative? Is not moisture as readily precipitated in the tropics, where air currents of 100° Fahr. and upwards are forced in the direction of a relatively colder temperature, as it is in the temperate or arctic zones, although the *warm* region of the latter (*from* which the currents come) may be many degrees *colder* than the *cold* region of the former (*towards* which they are driven)? And is not a discussion of atmospheric pressure or of air currents, cyclonic or other, in connection with the causation of rain, without reference to relative heat and cold, as incomplete and unsatisfactory as would be the play of *Hamlet* with the part of Hamlet left out?

If the temperature of the great ocean of air which envelopes the earth were uniform or unchangeable, if such a state were supposable, *i. e.*, if air currents always moved in an even unvarying temperature, the phenomenon of rain would probably be unknown. The watery particles that are constantly rising by evaporation would, of course, after the air had become surcharged with them, seek the earth again, perhaps in the form of mist, but *not* in the form of rainfall—*i. e.*, of visible drops of water in mid-air. Much less would this happen with currents moving from a cold to a relatively warmer region. Indeed, in this latter case, would not the precipitation of visible drops of water be an impossibility? Spirit-vapor in a still-worm ending in a heated furnace *will not* materialize in visible drops. Every body in cold countries is familiar with the phenomenon of the formation of visible moisture on the window-pane from one's breath. But if the glass be in close proximity to a hot fire, no moisture will distil on it from the relatively cooler human breath. It would be contrary to a simple natural law. Therefore I repeat: *Relative Cold* is the grand condenser, in connection with air currents, without which, these latter would be utterly inefficient as rain-producers. There is one other very important point that I have not mentioned, that has vastly more to do in the causation of rain than is generally supposed. It is known that frost is perpetual in the Polar regions at the surface of the earth; whilst at say 50° North or South latitude, the perpetual snow line is only a little over a mile high, and at the Equator it is only about three miles high. What the intensity of the cold is, at the height of ten or twenty or fifty miles, we know not. The sun's rays only heat by refraction from the earth's surface the lower strata of air, on which the higher and immensely colder strata are constantly impending or pressing. When there is a general lateral movement of the air near the earth's surface, from the Equatorial towards the Polar regions, the cold that the air currents naturally meet tends to condense the moisture they bear; but the super-incumbent cold air above, ever pressing down-



wards, conduces powerfully—we know not how powerfully—to increase the condensation : and thus we have the phenomenon, which has always seemed to me a sort of miracle, to wit, the formation of large drops of water from vapor in mid-air !

When all the various causes that produce rain, co-operate, and the temperature into which the condensed vapors are driven falls below the freezing point, they are precipitated in the form of snow or sleet or hail.

Again : The mere local and minor causes affecting the *amount* of rain-fall, etc., of which our townsman, Dr. Widney, speaks are only operative in connection with the major and vastly more important causes of rain, to wit : a grand movement of the atmosphere extending over a large area ; and 2nd, this movement must be in the right direction, that is to say, it must be *from a warm to a relatively colder* region. When these conditions prevail, and the pressure is considerable, of course, the obstructions of high mountains, especially if their tops are covered with snow ; and of extensive forests, will tend to increase the local precipitation ; and the earth in a given locality, will, as a rule, absorb and retain the rain-fall more effectually if it is cultivated, than if not. But all these local causes, however useful under certain conditions, are of no avail without the presence of the major or larger causes ; and their influence in inducing the latter, to wit, a general movement of the lower strata of the atmosphere over an extended area, towards the Polar regions, must be infinitesimal : in my opinion, it is absolutely *nil*.

I do not know if it be worth while, or if it is at all necessary to further illustrate the position I assume, namely, that *relative cold* is absolutely indispensable in connection with atmospheric currents to produce rain-fall ; and that *relative heat* as certainly tends to dissipate moisture. Our own wet and dry seasons aptly illustrate both these principles. Whenever the sun is north of the Equator it heats and rarifies the air over the immense desert region east of us, causing the air to rush in to fill the vacuum. The suction of this inverted maelstrom is so strong that it overcomes all the ordinary or normal processes by which rain is produced elsewhere, and would be here except for this powerful disturbing cause. It even extends, as "Old Salts" tell us, several hundred miles out to sea, and diverts inland each day the trade-winds, that otherwise would blow towards the south-west during six months in the year. As the sun rises and heats up with tremendous power the sands of the desert, the wind rises, and continues till the sun goes down, when the wind goes down. Then, at nightfall, as the desert cools quickly, and the water of the ocean, having been heated to a considerable depth, cools slowly, a wind from the land springs up and blows towards the ocean. Thus, when the

sun is north of the Equator, we have, each day with invariable regularity, a "sea-breeze," and each night, though with much less regularity, a "land-breeze." When the sun goes south in winter and ceases to heat up the desert, it becomes possible for southerly winds to prevail; and then rain-fall here, as in other parts of the world, becomes possible.

Our position between an ocean and a desert makes our climate unique. We have that exceedingly rare thing, a tropical climate without tropical heats, thus enabling people of the Caucasian race and of northern countries to live in comfort, in a country where the orange grows. If, however, a continent instead of an ocean were west of us, our daily summer winds would be hot instead of cool—as our summer "northers" are—and as a consequence our summers would be intolerable for northern people. Or, on the other hand, if the Colorado Desert east of us were, as it once was, an arm of the sea, we would no longer have dry summers.

I will close with one more illustration of the effect of heat and cold on vapor-laden air currents.

Several years ago I had occasion to cross the arm of the Mojave Desert, between the Soledad and Tehachapi mountains, on the present line of the Southern Pacific Railway. It was in the month of January, and a snow and sleet storm was prevailing at the time on those mountains, but *not* on the desert between them. It was an interesting sight to witness what appeared to be the parting of the clouds as they came over the desert, but which was in fact their sudden dissolution and dissipation. Dense masses of them in rapid succession melted away and disappeared before my eyes in a twinkling! Whilst the storm continued to rage on both mountain ranges, as we could see, the sudden warmth of the desert caused the clouds between to disappear as if by magic. I had often before watched the slow process of dissolving clouds after a storm, till the gradually attenuating vapor finally became invisible. But in this case, the transition from *cold* to *warm* was so sudden, that the storm-clouds that had just been discharging their burden on the cold mountain ranges, all at once, as they came to the desert, dissolved into thin air. And thus, within a space of twenty or thirty miles, I saw the strange spectacle of a snow-storm on two mountain ranges, and blue sky over the desert between! The temperature changed so suddenly from the mountains to the valley, that expansion, rarification and extreme attenuation set in at once, and dense vapor became invisible by a process, extremely rapid, but analagous to that which we see exemplified every day in summer, by the licking up of the moisture in the atmosphere around us—whether invisible or in the form of clouds or of fogs from the ocean—and carrying the same inland and depositing it in the great all-consuming vortex created by the abnormal heat of the desert.

## AESTIVATION OF CALIFORNIAN MASON SPIDERS

BY MISS SARAH P. MONKS.

Æstivation is the peculiar habit that some animals of tropical climates have of retiring to dens, or nests, and remaining torpid, or semi-torpid, during the dry season. It is a state, closely allied to hibernation of animals of colder countries. The Germans call one winter, and the other, summer sleep. Late in autumn many animals—as, some bears, weasels, marmots, rats and hedghogs—creep away into hollow trees, or caves, or burrows, or hollows in the earth, and remain in a state of suspended animation till the warm weather of spring; and snakes, turtles, toads and fishes, insects, and mollusks, hide under leaves, among rocks, or burrow in the mud, and stay dormant all the cold weather.

The sleep may be broken or continuous. In perfect hibernation, or æstivation, normal functions, such as respiration, digestion, and voluntary action of muscle, are entirely, or almost, suspended. It is said to be possible to keep a hibernating animal for a long time unharmed in gas that would soon destroy its life under ordinary conditions. The summer sleep closely resembles the winter sleep, and by some is thought to be due to the deathless memory of a boreal ancestry. Some fishes and mollusks are known to remain alive in mud burrows when all the water is evaporated from shallow ponds. Fish have even stayed for years in the mud of drained lakes and appeared as good as new when the water was again supplied. Hibernation and æstivation do not seem to depend upon heat or cold, although these are important factors. They seem rather provident arrangements incident to an empty, or much depleted, larder, and are habits that it might be well for some Anti-Poverty philanthropist to introduce into the human family. The dreamy stupor, the trance, the sleep of the Seven Sleepers, Rip Van Winkle's nap, and the slumber of the Sleeping Beauty, have been favorite fancies of the imaginative for ages, but they are repeated among lower animals with all the romance, beauty and sentimental or humorous fascination swept away. They are reduced to a food basis. If worms go down to the depths of the earth, and insects swing in cocoons, or lie motionless in pupal wrappings, or hidden in wooden cradles, then small mammalian people with insect-feeding tendencies must fold their little paws, and sleep their dreamless sleep, taking no note of time till crickets shrill and grasshoppers

whirr among the grasses of the sweet-scented eastern Spring or our tropical green December.

When the waters dry away, or freeze, then the food of water dwellers dries, or freezes also, or dies, and there is nothing for the eaters to do but to die, or sleep off the effects of nothing to eat. So also the gastric nerves of toad and reptile are more affected by minimum food than maximum cold; and scarcity of food, or difficulty in obtaining it, is the primary cause of hibernation of some species of bears.

The summer lifelessness of Californian foot-hills leads one to think that many animals here take long *siestas* even if they do not properly aestivate during the dusty dry season. A little patient investigation in this line would no doubt reveal some interesting facts.

The Mason spider is one of the best examples of persistent summering. It is eminently proper for the whole family to shut up doors in May, or June, and not open them till November, or later, if continuous rains do not come. At this time the adobe is cracked and fissured, vegetation is dry as hay, and mustard stalks and dry grass have been burned in many places, leaving the earth brown- and charcoal-stained. In fact, finding nests in these burned-over patches, with doors clogged with ashes and singed vegetation from the early summer fires, showing that they had not been opened since the burning, was one of the things that led me to suspect these spiders of summer sleeping. In some nests are females and young; in others single males or females; never two grown ones in one nest. The females shut themselves up to lay their eggs. In the tubes the young are hatched and moult once or twice. All the doors of small or medium sized tubes are securely fastened on the inside. If one is found unfastened, it is large and never contains a male or young. These open ones are probably occupied by misanthropic and independent old maiden or matron spiders that are utterly regardless of the "sweet observances" of spider high life, and perfectly able to protect themselves, come what may, in summer or winter. But comfort-loving males, mothers with very young children, and demure and decorous maidens and matrons, securely close the doors, pull down the blinds, let the dust gather on the door-steps and are severely not at home during the out-of-town season of the long, hot, dry and foodless summer months.

The closing of the nests is as complete as the other work of the little brown spinners. At the upper end of the inside of the tube they spin a stout white silk band, about a quarter of an inch wide, connecting the door with the sides of the nest. This silk ring is so strong that it requires considerable prying and force to tear it free. Large spiders are content with this protection. Small and medium sized

ones, whose doors swing easily off their hinges, build an inside storm door by bringing up earth from the bottom of the tube and pressing it up against the door, completely plugging up the place within the silken ring. Then, when the outer door is pried open instead of a tube, a patch of *adobe* is found that might lead some deluded Tarantula hawk, or spider-affinity creature into thinking there never had been a nest there, and tempt him to the conclusion of the olden time anti-geologists in regard to fossil shells, that the hinged door was merely a freak of nature.

It has been possible to examine a great number of nests and contents in a short time by means of a neat device suggested by a friend. The nests are filled with water and soaked a short time, then the silk lining can be loosened and twisted and pulled out entire. The *Cteniza* does not mind a ducking as much as does its relative the Tarantula (*Mygale*). The latter comes to the surface and tries to crawl away when water is poured in her nest; the mason spiders come up, but retire to the water on slightest alarm. When the spiders feel the walls and foundation of their homes sliding up, they place their feet against the sides and hold on with all their strength, and sometimes the silk breaks midway and leaves them in triumphant possession of their inundated houses. When they are pulled out the spider is half way up the tube, and on reaching the surface is so spread out with her efforts of resistance that the tube is nearly flat. By this soaking process the contents of the nests were easily examined, and a number of males found living singly in tubes. They generally had them shut with both silk and mud. I had the satisfaction of seeing males dig and shut up tubes, so that it is certain that sometimes, if not always, they make the tubes, instead of inheriting them from maternal ancestors. Finding a male in a silk- or mud-sealed nest did not prove that he had made the nest—only that he had spun the silk and fastened the door. He might have hidden there as in any hole or crevice. So I put a male in a jar of earth and watched him with a great deal of interest. He went to work like a gentleman and did what was expected of him. He built a nest. He worked industriously, but awkwardly, for his long legs seemed constantly in his way. When females are making a home they bring up the earth pressed under their fangs and dexterously fling the bits out of the mouth of the tube, so that they fall several inches away. The males carry the dirt in the same way, but none that I saw work had learned the trick of tossing it away. Consequently, scraps of earth that he laboriously brought up would often fall back into the tube, because he did not push them far enough away from its mouth. He used his spinneret the same as females do. When the nest was completed he

did not build a hinged door, but was content to pull together grains of *adobe* and bits of dead weeds and stick them fast with silk to cover over the tube. These granulated doors serve excellently in broken soil, as they are as difficult to see as the better doors. The females make the same kind in summer. They never will work if they can help it, and if the nests are broken during the dry season, or the doors torn off, they spin silk over the openings. It was a satisfaction to learn that at least one male lived in a tube and could dig, spin and make a home for himself, but it was not proof that it is a masculine characteristic. He might have been an exception, a genius, or have taken after his mother, and not till I had seen several males do the same was I convinced that it was the regular order of business, and house work and home decoration were as proper for males as for females of this division of spiderdom. Much depends upon the soil given them. Sometimes in coarse grained earth they hollow out a cavity and line it with silk and back into the place, and sometimes they scratch up the small lumps of earth and pull together bits of straw and weave them together with silk and make caverns large enough in which to hide part of the body, but when they have adhesive *adobe* they prefer a good sized tube with a silken door. Only in a few instances have the males wasted their time in aimless and tiresome efforts to climb up the sides of a glass jar. The pains taken to secure their summer homes against intrusion, indicates wily and persistent foes. One of the invaders was found in a trap-door nest. In several tubes bits of yellow silk had been found. Trap-door spider's silk is white, or only dirty white when very old; never yellow. In one nest there was a dead wasp, wrapped in yellow silk, suspended across the tube. It had eaten the spider, finished its own larval life, spun its yellow silk across the nest, and hung its pupa case from a central point; then, when the time for it to break through the chrysalis and come forth a full grown wasp, it died, perhaps from the closeness of the air or from indigestion caused by eating too much spider. The facts on which I base the belief in aestivation are as follows: the doors of nests in the field show that they are not opened for months; in dug out tubes, broken places and broken doors are covered or replaced with continuous silk; the great majority of doors of field nests are held down with silk or silk and mud. Enough have been examined to lead to this conclusion. The numbers, examined three times, are as follows: Sept. 13, nineteen sealed with silk, six with mud and silk, four unsealed; again, Sept. 15, twenty-one with mud, twenty-seven silk, four unsealed; again, Sept. 17, thirty silk, thirty-six mud, six unsealed. About the same ratio was kept up in all examinations. They are so securely hidden in their nests, that their summer condi-

tion cannot be known. Whether they sleep all the time and satisfy the cravings of hunger by dreams of food to come, or sleep a while, then waken to hearken for the splash of rain, the klepsydra that times their resurrection, no one can tell; but this is certain: the voluntary prisonment is long. When disturbed they are loth to labor, and soon after the first rains the silken rings are broken, the doors are opened, and the young disappear from the nests—the summer sleep of the old is over, and the young go forth to struggle for existence and to experience the joys and sorrows of a spider's life among the foot-hills.

## SOME WONDERS OF IDAHO.

BY E. W. JONES.

A few miles north of the town of Malad, in Idaho, and close to the northern line of Utah, stands the northern rim of the vast basin which once held the inland sea, now universally called Lake Bonneville. This ridge looks down to the north upon a broad green valley, sweeping away to the east and west, and from it winds down steeply the old stage-road from the "Great Basin" to Montana. The valley slopes gently from east to west. Its upper end is the point where the waters of the great lake broke over their barriers and began their journey to the ocean, and down this broad valley they swept, a mighty river no doubt. At present the valley shows no striking indications of having once been the channel of a great river. The adjacent mountains for the most part slope smoothly to it, and the broad bottom, through which a pretty creek meanders, is rich pasturage and hay land throughout its whole extent. It is called Marsh Valley and the creek Marsh Creek. At its upper end are two small lakes and a small extent of marsh land, from which probably the valley derives its name.

At the lower end it bends to the north, and four or five miles further on a great black vomit of lava has poured out from a canyon, rugged with rocks of basalt, on the right, down which tumbles a mountain torrent, the Portneuf River. This stream of lava poured down the valley, mostly filling it, northerly and westerly for thirty miles or more till it merged into the sea of fire which then filled the valley of the Snake River. Other streams followed the first, and not all reached its destination. The last flow was plainly less fluid, and about ten miles down terminates abruptly in a bluff several hundred feet high. The sides of these lava flows are high cliffs of clean black basalt. On either side of the lava, which occupies about the center of the valley, run the two creeks, Marsh Creek and the Portneuf, to blend into the Portneuf only at a point below the bluff. The stream of lava is a half mile or more wide, and, if my memory serves me, covered with a dense growth of sage-brush and other shrubs. The other streams crop out lower down the valley, showing benches along the sides and tables in the bottom. With edges broken squarely off and abrupt sides from a few to perhaps fifty feet high, their almost coal black faces are in contrast strangely with the verdure which in the spring-time covers up-land and low-land, for the pasturage afforded by their slopes is



rich. Where these lower streams enter the valley of the Snake River they disappear beneath the soil and do not show themselves again for many miles. The plain of the Snake, from the mouth of the Portneuf canyon, spreads before the eye seemingly almost as boundless as the ocean. To the north a fringe of snow-covered peaks may show themselves above the haze. They are the tops of the Sawtooth Range, a hundred and fifty miles away. Nearer, apparently in the midst of the plain, three lonely buttes lift their heads above it and add to the impression of the great distance of the mountains beyond. The real width of the valley at this point is not far from sixty miles, as the spurs of the Sawtooth and Salmon River ranges on the north reach down to and over its edges and show their points badly scorched by its fires. The great river which gives its name to the region runs here for a long distance along the eastern and southern edge of the great lava field. It has cut its channel through the field in places, almost as squarely, as if done with the tools and skill of the engineer. At Eagle Rock, where the Utah and Northern R. R. crosses it at about the center of eastern Idaho, it has cut two channels and left a tall pillar in the centre, as if intentionally, for a pier for the bridge. The water here in the deepest channel is, if I mistake not, a hundred or more feet deep. Here the edge of the field breaks abruptly away from the river, and, in a northwesterly direction, fifty miles of travel takes one, over a fairly good road, across it. Midway on the road is a stream stocked with trout. Of many streams which lose themselves in this lava, most contain fish—some trout, some other kinds. How did they get there? There is scarcely one of them nearer than twenty-five miles to other fish-stocked water.

The Utah and Northern R. R., after leaving Eagle Rock, runs northerly along the Snake River for a few miles and then strikes across the lava near its northeastern edge, over a sandy, dreary region almost without a redeeming feature, till it begins to climb the divide to Montana, eighty miles or more.

At Blackfoot, twenty-two miles south of the R. R. bridge, is another for wagons and stock, and from this point one road now leads across the lava beds for a distance of forty-two miles without water, except what is hauled from the river in barrels to a point about half-way. This is the present stage-road to the Lost River and the Salmon River country, laid out and opened with much expense and trouble. At its half-way point an attempt has been made, by sinking hundreds of feet into the basalt, to find water, but though it is heard running below, it has, I believe, eluded the search. After the removal of a few inches of soil from the surface, the work of sinking requires the use of powder and drill. No inch of depth can be attained without

them, and so far, in the desert, the work is carried on at a great disadvantage. During the winter season, and sometime into spring, pools of water fit for use of man and beast may be found in the hollow places along the roads; but these dry up later on. From the river bottom the ground rises up by steps, abrupt and black on their fronts, for a short distance, whence it rolls away in undulations like vast billows, with crests a quarter to half amile apart, occasionally spreading out into plains and frequently sinking into rounded hollows, which are ponds when the snows melt.

Nearly everywhere the sage-brush flourishes, and a few cedars are scattered over the country. At a distance of ten miles, looking across from the south-east, the lava country seems to be covered by a dense forest of timber—the clearness of the atmosphere magnifies objects so largely.

Tufts of bunch grass, so minute as scarcely to be noticed, frequent the shelter of the bushes, and patches of rye grass the hollows, and white sage, a dwarf a few inches high, covering flats and slopes where the winds have the freest sweep, all together afford considerable sustenance to gramnivoruous and herbivoruous beast. The prickly pear, whose succulent heart is food and drink to the starving plains-man, is common, but low and small. It is a variety which bears no fruit; that is, its seed-pod reaches no magnitude. The sage-brush attains a height of six feet, and its trunk, of a diameter of upwards of six inches, in nooks low and protected, on the banks of little gulches, under shelter of cliffs and where much soil has drifted under stress of wind and weather. Better if the banks front northward; there they reach the greater stature, for these children of dreariness and drought take kindly to a little moisture properly administered. Who that has seen something of life upon the plains and shared the benefits of that aromatic shrub does not render it a blessing. Its fibrous bark affords material for cords and ropes, and almost holds it out to the hand to take and use, and furnishes tinder always dry underneath for the indispensable camp fire. Its sprigs make the grand blaze which warms the sojourner to the marrow in the chill of the evening or the morning. Its trunk sustains the fire and yields the coals for the broiling of the bacon, sage-hen, hare or trout. Its foliage charges all the air with the odor and balm of health. Made into a tippie or a lotion, it drives disease from the system. Many forms of vegetation adorn or relieve the the otherwise barren aspect of this region, and most are useful to man in their several ways. The prevailing winds, which are vigorous and frequent, have brought and laid about their roots the sand and soil, the product of erosive agencies at work clear to the Pacific Coast. They have enabled this mass of blackness and deso-

lation to clothe itself with verdure in many places and with some forms of vegetation almost everywhere. Only in small areas does the basalt flood crop out in nakedness. In many of these the surface looks like a mass of great bubbles, a small portion only of whose upper surfaces show, and they are seamed and sutured, showing crystallization on cooling, after the nature of basalt. These great bubbles are not always, but sometimes, hollow, and have been known to furnish good shelter to good men at times, and once in a while to men of the other sort. There is no game of either feather or fur upon these plains, except along their borders. There, in marshy places, about springs and at the sinks of the creeks coming from the mountains, ducks and geese are often abundant, and grouse also, in the adjacent shrubbery. Animal life in the interior is mostly confined to the lizard and the ant. Occasionally, high in the air, water-fowl or buzzards, ravens or hawks, may be seen making their way across from one oasis to another.

The writer once witnessed a scene in this region, of which the following account will give a faint idea. In a little green basin, such as are sometimes found here, a short distance from water, and about half an hour before sunset, my friend and self drove up upon a conclave of hawks. There were certainly one hundred of them, and may have been two. They stood upon the short grass in a very regular circle of about a hundred yards in diameter, and very evenly abreast. In the centre, on a stone about eight or ten inches high, stood a solitary bird of the same species, and a few yards within the circle stood three or four others irregularly placed, a few feet apart. Every member of the conclave had his head toward the centre and evidently his attention also. We halted within, I think, not more than one hundred yards from the nearest of them. My companion, if I remember correctly, began to get his gun out, then stopped and said, "What's going on here?" The birds apparently paid no attention to us. Those nearest may have turned and looked at us and moved a little forward, but nothing more. The fellow on the rock made no sign of even deigning a look at us. It was a lonely evening and silence absolute covered the plain. We watched them at least twenty minutes. Only an occasional croak was heard, calm and deliberate, something like an amen or "so mote it be." A slight change of position on the part of some of the birds perhaps took place, and a solemn glance around by the leader. The sound of the croak was not at all like the usual cry of a hawk, and yet the birds were hawks unquestionably, but of what species I am unable to decide at this late day. I incline to the belief, however, that the birds were really buzzards; that, in common parlance, all the birds of their character are termed hawks. At the end of

twenty minutes or so after our arrival the convention broke up, and its members flew away without excitement and very little more noise from their tongues than when in the midst of their deliberations. I claim in the above to have told the cold facts and without any shadow of exaggeration. I have always considered it a scene such as it rarely falls to the lot of man to witness, and one of significance almost beyond the ability of the ordinary mind to realize. A digression into that field of speculation, however, is outside the province of this paper. Permit me to say that my companion regarded it as a court of justice and said, I believe, that the group of birds inside that part of the ring nearest to us held their heads down and were no doubt culprits. However that may be, no punishment was inflicted under our observation. The birds rose together and flew directly away from us, then scattered in different directions, and whether any of them led off victims or not I could not determine.

There is a route across the lava sea which begins at a point about opposite the mouth of the Portneuf, and which is the old stage-road to Boise, the Idaho capital. This road has had to wind about, seeking passable places in the low cliffs of lava, which rise up frequently to bar its progress across the country. It is, like Jordan, a hard road to travel, as one poor traveler once found to his cost. He started out bravely in the early morning, without his breakfast, on foot, from a house near the river, to walk across to the Big Butte, to catch a bull-train which had gone on to that point, and breakfast with it. The Butte looked about four miles off in that clear atmosphere. That evening, late, he dragged himself into camp at the Butte, nearly dead. He had walked 35 miles under a blistering sun, over an exceptionally rough road, and without water to slake his thirst or food to stay his hunger. The train waited for him, or he might have perished.

A line of extinct volcanoes almost parallels the road for a distance of four or five miles. There are seven of them within a few hundred yards of the road, besides the large volcano, the Big Butte, which stands at the north end of the line and looks like the father of the rest. They grow smaller as they extend away into the plain from the Big Butte, so that the farther one is not more than fifty feet high, with a crater fifteen or twenty feet across. The rim of this crater on one side is broken down or melted away to its bottom, a depth of twelve or fifteen feet. Its interior looks as fresh as if its fires raged but a year or two ago. About its jagged edges and down its outer slopes the red slag lies, and looks at a little distance as if it might still be hot. But all must have been extinct for ages, otherwise the traditions of the Indians would certainly mention their activity. In general appearance the volcanoes are all alike. Those farthest out indi-

cate latest action. There are three Great Buttes, of which the locally termed "Big" one is the largest, which lie in a line almost east and west, the nearer one about ten, and the farther one about seventeen miles from Big Butte, and in a line nearly at right angles to that of the smaller buttes.

The age of these larger buttes must be vastly greater than that of the smaller ones, as most all traces of their craters have been worn away. There seem to be no lava streams leading away from any of their craters. A ridge or high swell of lava connects the three last named and is covered with soil and abundant herbage. A few miles from its foot, on the north, lies a lake of considerable extent. On close examination it proves to be so shallow that one must wade some yards from shore in deep mud before he reaches water deep enough to dip up a clean drink. This lake covers many square miles during the high water of spring, but contracts to perhaps one-third of its size at that season before the next rise of the streams. It is the "sink" of Lost River, and the line of cotton-woods which marks the river's banks as it winds down from the distant mountains to its "sink," is a pleasant sight to the traveler as he looks down from the top of the ridge or the side of the Big Butte, after his dry and dreary journey across the lava country. This stream has cut its way through a low ridge of lava for nearly ten miles after leaving the mountains, and then sweeps out for ten more upon a great smooth basin, which it probably once filled to the brim. Its waters now, no doubt, percolate through the soil and find their way through the porous lava to deep channels, which take them finally to the Snake River. Well authenticated statements make it safe to assert that in many places, from below the American Falls down the river, bodies of water, of greater or less volume, and in some instances so great as to deserve to be called rivers, gush out from the high basaltic walls which there line the main stream and fall into it, though the writer has never witnessed the phenomena. It is fair proof that the numerous streams which make out into the lava region from the mountains and then disappear, find their way in channels which are sufficiently clear, though they may be devious, at once to the Snake River. It is also evident that these waters sink through the porous lava to an impervious stratum of different character along whose surface they have made their channels, and I believe the walls of the Snake River Canyon show such to be the fact.

I have here given a few facts of more or less interest, recalled entirely from memory, with regard to the second largest lava field in the world. This field reaches from Central California into British America on the north and to the borders of Montana and Wyoming on the

east, and covers an area of 150,000 square miles. It is said to have but twelve craters throughout its whole extent, and of these the majority have been described in this paper. This field is only exceeded in extent by that of the Deccan, in India, which covers an area of 200,000 square miles; but I doubt if that great field equals in interest our own, with its vast canyons of the Snake and Columbia Rivers, its intricate and impassable Modoc region, its vast streams of basalt, black and frozen in the channels down which their floods advanced, and the varied character of the region which encloses and trenches upon it.

A SKETCH OF SOME OF THE EARLIEST  
KENTUCKY PIONEERS OF  
LOS ANGELES.

BY STEPHEN C. FOSTER.

[NOTE TO THE HISTORICAL SOCIETY OF LOS ANGELES.—I present to your Society an old beaver trap, that belonged to N. M. Pryor, and was used by him in trapping on the Gila and Colorado rivers, the winter of 1827-8, and brought by him to Los Angeles. It was given to me by Pryor in 1848, and has been in my possession ever since. I was intimately acquainted with Pryor, from March, 1847, until he died, May, 1850, and from my recollection of conversations had with him, I have written the accompanying sketch of the "Kentucky Pioneers of Los Angeles." Capt. Paty's party, of whom Pryor was one, was the first party who ever came to California by the Gila route, and the first that ever came to California overland from the Mississippi River who settled here. Capt. Jedediah Smith's party trapped the Sacramento and San Joaquin rivers, and visited Los Angeles in 1827, coming by way of the South Pass, but none of them remained here.]

Nathaniel M. Pryor was born at the Falls of the Ohio, now the city of Louisville, Ky., about 1798, and removed to Missouri about 1820, and from there came to New Mexico, in 1824. In 1827, in company with the Patys, father and son, Richard Laughlin, James Kirker (the famous Apache fighter, who afterwards, with his motley force of Delaware and Shawnee Indians, Americans and Mexicans, made more good Apaches than the combined forces of Mexico and the United States have for the last fifty years) and others denounced, according to Mexican law, the Santa Rita copper mines, situated in the Southern part of New Mexico, which had not been worked for some years by the first owners. They were ousted from the possession by Robert McKnight, who came to New Mexico in 1811, just after Hidalgo had been captured and shot at Chihuahua. He and his companions were kept prisoners until the final establishment of Mexican Independence, in 1821. After losing the mine, Pryor and his comrades joined a party of trappers under Capt. Youtz, who were on their way to trap the Gila River. Some French Creole trappers from St. Louis, Mo., had trapped the Gila in 1826, and found plenty of beaver, but they were treacherously attacked by the Maricopas at Gila Bend, and leaving the river, they struck South into the desert, and after great suffering reached Tucson, with the loss of nearly their whole outfit. Capt. Youtz's party were very successful, and on the Gila, the two Patys, N. M. Pryor, Richard Laughlin and Jesse

Ferguson concluded to leave Youtz, who returned to Santa Fe, and come to California with their beaver. They had heard that there were American vessels trading on the coast, and they reasoned that if their beaver could bear a land carriage to the Atlantic coast for a market, they could realize more by selling to American traders in California than they could by selling in Santa Fe. So they made an amicable division of their traps and peltries, traded off their horses to Youtz, and soon made two canoes out of the largest cottonwoods they could find, and embarked, determined to follow the river as far as they could, and then bury their beaver and traps, and reach California afoot, and procure animals to transport their effects. They did not know where the Gila River would lead them, but they had heard that California was not far off to the West, and they trapped leisurely down the Gila to its junction with the Colorado, and down the Colorado, setting their traps and remaining at each place as long as they could catch beaver, and then moving on after fresh sign. One afternoon, they tied their canoes to the bank, some six feet high, and camped for the night. They found the ground wet, and wondered what caused it. They took their supper, and went to sleep. About midnight, a loud roaring noise from the South aroused them, and every man started up, rifle in hand, ready to repel any danger that might threaten them. The noise came nearer, and suddenly their canoes were thrown out on the bank, and they found themselves waist-deep in water. Dick Laughlin happened to get a taste of the water, and found it brackish, and sang out, "No more beaver, boys, we have struck salt water." It was the *bore*; the flood-tide, setting up the Gulf and meeting the current of the river, caused a wave from six to ten feet high. The next day, they began to make preparations to leave the river and to try and reach California. They carried their peltries and traps to the highest ground they could find, dug a hole—a *cache* in trapper phraseology—and buried them, and carrying with them only their rifles, blankets, and two days' supply of beaver meat. They struck out across the desert for the nearest mountains, in a S.W. direction. They did not find water until the third day, and suffered terribly from thirst, but finally reached the old Mission of Santa Catalina, near the head of the Gulf of California. There they found Indians, who gave them provisions, and a guide who led them to the summit of the mountains, where they first caught sight of the Pacific Ocean, which they struck at the Ensenada, where they were hospitably entertained by old Sergeant Gastelun. After resting some days, they started for San Diego, and on the way were met by a party of Mexican soldiers, who escorted them to San Diego.

About March 1st, 1828, there was great excitement in the little town



of San Diego on the arrival of the strangers; every man, woman and child was on the street to view their entry. In front and rear rode the lancers, and between them, dressed in their buckskin suits, with their heavy rifles on their shoulders, foot-sore and weary came the sons of the "dark and bloody ground." Among the spectators were some sailors from an American vessel, then in the harbor, and they gazed on their countrymen with as much curiosity as did the natives of the land. On reaching the barracks they were required to give up their arms, and were committed to the guard house, pending an investigation. They had no passports for California, but Pryor had his naturalization papers as a Mexican citizen, and Capt. Paty had a copy of Capt. Youtz's permit from the New Mexican Authorities to trap on the Gila River.

Their detention was but for a few days, and they fared sumptuously, for Mexican hospitality to strangers is great. Among their first visitors was Friar Antonio Peyri, the founder of the Mission of San Luis Rey, who rode forty miles to tender his good services to secure their release. After the usual routine of red tape, taking depositions, etc., was ended, Father Peyri enquired if there was any silversmith among them, as some of his Church vessels needed repairs, and Pryor offered his services, as he had learned the trade. The good Friar also offered to furnish animals to bring their effects, and a captain of a Boston vessel offered to buy their beaver at a much better price than they could have got in Santa Fe.

Capt. Paty was the oldest man of the party, and he was sick from the fatigue of the march from the mouth of the Colorado to San Diego. So they concluded to wait until Paty's recovery, and Pryor accompanied Father Peyri to San Luis Rey. He was treated with the utmost kindness, and was well paid for his work. When he finished, a message came for him to come to San Juan Capistrano, as his services were needed there. So he went, and then came a call to San Gabriel, where he found Joseph Chapman—the first "American in Los Angeles," who had been captured in 1818 at the Ortega Ranch—married, and with several children. Soon came a message calling him to San Fernando, and he bid fair to visit all the twenty-two Missions of California, but as the time was drawing near when they were to start for the river, he returned to San Diego. There he found Paty much worse, and they were forced to delay their departure. Paty was most kindly attended by the people, both men and women, and one day he called his comrades to his bedside, and said, "Boys, your old captain is dying, he never will see old Kaintuck again. The women here have been urging me to become a Catholic. I don't know much about it, and I have little time to learn, but it will do me no harm, where I am going,

and it must be a good religion that makes these women care for a poor old man like me; not my own old wife and daughters could have waited on me better than they. So, I wish you to be present at my baptism, to-day." The ceremony was duly performed. Don Pio Pico, then a young man of 27 years, and Doña Victoria Dominguez de Estudillo, sister of the late Don Manuel Dominguez, stood sponsors for the grey-haired convert, old enough to be their father. The end soon came, and there was the grandest funeral San Diego had ever seen. At the head of the procession came the old Franciscan friar, with his white-robed acolytes, next came the bier, borne on the shoulders of four Californians, followed by the son and his companions, and as many of the crew as could attend from a Boston vessel in port, and after them, the whole population of San Diego. He was buried with the solemn ritual of the ancient church, and when the last words were uttered: "Dust to dust, and ashes to ashes," around could be seen the kneeling women, offering up their prayers for the response of the soul of the poor old stranger. And thus they buried the old trapper in consecrated ground, the first American buried in California soil.

After the funeral, Pryor and his party proceeded to the Colorado, where they found that the annual flood of the river had reached their *cache*, and all their beaver was spoiled; so, with sad hearts, they returned to San Luis Rey, bringing their rusty traps. Los Angeles then was the largest town in California, so they concluded to go there, and Father Peyri gave them a letter to Antonio Rocha, a Portuguese mason, who had worked for many years on the buildings of San Luis, and had now married and settled there. So, in August, 1828, the four survivors arrived in this place, and presented their letter to Rocha, who lived on Spring street, in the *adobe* house, where the old county jail stands. The county bought it of Rocha's heirs, in 1853. Rocha, on reading the letter, said that they were welcome, as foreigners, for he, too, was a foreigner as well as they, and they were doubly welcome for the good friar's sake, and to make his house their home as long as they wished. So they took up their quarters with the hospitable Portuguese, and the younger Paty soon left and started back to Kentucky by sea, where he published an account of his adventures, most of which is false, and has the same relation to the true narrative that Robinson Crusoe has to the journal of Alexander Selkirk. Pryor began working at his trade, and Laughlin and Ferguson got a whip-saw, and went to sawing lumber in the mountains.

On Christmas eve, 1828, the brig *Danube*, of New York, with a crew of 28 men, dragged her anchors in San Pedro Bay in a "south-easter," and went ashore, a total wreck, and the crew started for town.

There was a friendly contest between Don Antonio Maria Lugo, who brought the first American to Los Angeles, and Rocha, as to who should entertain them. Rocha claimed the right as his, for they were foreigners and so was he; and if Lugo was the richer man, he, Rocha, had the biggest house in town, and the little Portuguese's heart was bigger than his house, and he carried his point. Carts were sent to meet them, the fattest beef was killed, the huge bee-hive-head oven was soon lighted, and servants were busy in the kitchen getting ready to entertain the Christmas guests. Three carts, drawn by long-horned oxen yoked by the horns, arrived in front of the house, loaded with the ship-wrecked sailors, and Rocha, with his old guests, stood there to welcome the new arrivals, who were soon seated at an abundant repast. And never was there a happier Christmas party in Los Angeles than that, where the trappers and sailors ate and drank their entertainer's health in bumpers of old Lugo's wine.

Of the crew of the *Danube*, two remained and settled here—Samuel Prentice, native of Connecticut, and Johann Groningen, native of Hanover, the first German in Los Angeles. The latter lived and died here under the name of Juan Domingo, (Anglice) John Sunday, (German) Johann Sonntag; but his true name his nephew gave me. His German name was one no Spanish tongue could pronounce, and so they called him Domingo, but from a slight limp he was most commonly known as "Juan Cojo" (*Lame John*).

The next John that turned up here was Col. J. J. Warner, and they named him Juan Largo (*Long John*). Pryor, from his trade, was known as "Miguel, el Platero" (Michael, the Silversmith), and Laughlin, the Irish Kentuckian, the most popular of them all, whose quick *repartee* and lively wit was the life of every circle, one for whom every man had a friendly word, and every woman a smile, was named "Ricardo, el Buen Mozo" (Handsome Richard). Pryor, Domingo and Laughlin all married, and left children; Ferguson also married, but had no children. He went to Lower California, and died about 1843. Prentice never married, and died some 25 years since on Santa Catalina Island, where he was buried. Laughlin, Pryor and Domingo all owned vineyards. That of Domingo, since known as "Domingo Block," and bounded N. by Aliso, and W. by Alameda streets, is now covered with houses, and not a vestige of the house, vines or trees remains. That of Pryor was W. of Alameda street, extending from Aliso to First streets. The house still stands, and there I ate my first meal in Los Angeles, for there were no hotels here till 1849. Under its hospitable roof have slept Gen. Kearney, Cols. Fremont, Mason, Cook and Stevenson; and Dr. J. S. Griffin could tell of many a pleasant meeting of Capt. A. J. Smith, Lieut. (now Gov.) Stoneman,

Lieut. J. B. Davidson, Capts. Taylor and Stevenson, himself and the writer, at Pryor's hospitable board, in 1847-8. Laughlin's place was on the E. side of Alameda street, and his sons still live upon it.

When the Pioneers came to own vineyards they found a use for their beaver traps. The steel springs had just the right shape to be forged into pruning knives, and the iron was of the right shape for the heavy spurs and bridle bits then used; and to these uses they were all put, except the one presented to your Society, thus fulfilling the words of the Scripture: "They shall beat their swords into plough shares, and their spears into pruning hooks."

Laughlin died in 1846, Domingo, 1858, and, together with Pryor, are buried in the Roman Catholic cemetery of this city.

Believing, that amid the bustle and progress now seen in the metropolis of Southern California, this sketch of the earliest Pioneers of Los Angeles would prove interesting, I dedicate this to your Honorable Society, only adding, that among those of the past generation still living, both Spanish and American, there are none but pleasant memories of "Michael, the Silversmith," "Handsome Dick," "Lame John, the Dutchman," and "Old Sam, the Fisherman."

A BRIEF BIBLIOGRAPHICAL SKETCH  
Of the "*Recopilacion de Indias*"—or *Spanish India Code*—and  
other Collections of Spanish Laws relating to the Indies,  
compiled during the Sixteenth, Seventeenth  
and Eighteenth Centuries.

BY GEO. BUTLER GRIFFIN, L.L.B.

The great discovery of Christopher Columbus coincided in point of time with the overthrow of Moorish power in Spain, and, as a natural consequence, the extinction of the last hope of the Moors for Moslem conquest in Western Europe. Owing to this unwonted state of peace, thousands of brave men, descended from a race of warriors which for seven long centuries had waged ceaseless war against foemen equally brave and equally stubborn and themselves inured to a life beset with peril and hardship, found their occupation gone. When, therefore, to the hereditary craving for deeds of daring were added the two other great incentives to action characterizing the Spaniard of that epoch—a thirst for gold and religious fervor—it can not be wondered at that every ship sailing from Seville bore westward a throng of eager adventurers.

At first, the laws of Spain, based on and growing out of the wonderful code of a monarch justly called "the Wise," were all-sufficient for the guidance of those of the king's subjects who went beyond seas, but the unexampled rapidity with which these men conquered a new world never dreamed of by Alfonso *el Sabio*, and greater in extent than all Europe, soon made it evident to the most extraordinary man of his time, the Emperor Charles V., that his new dominions required laws framed to meet circumstances which did not and could not exist in the mother country, and that the proper framing of these laws called for the appointment of a body of trained advisers. When, as the natural result of the marriage of the Emperor's illustrious grandparents, the political entity known to us as Spain—or, as the united kingdoms were then called, *the Spains*—came into being, each of the countries of which it was composed was governed through a special council. As Castile was the more important of the two kingdoms, the *Consejo de Castilla*, or Council of Castile, became, as of right, the more prominent of these advisory bodies, and to it the monarch entrusted all that related to the government of the Indies. But it was found, as I have mentioned, that the quick and vast ex-

pansion of transatlantic affairs entailed care and attention greater than could be given to them by councilors not only burdened with the care of the kingdom but enmeshed already in that web of European politics wherein their master played the spider's part. Therefore, as a preliminary measure of relief, and for the purpose of managing all that related to mere matters of trade with the colonies, the famous *Casa de Contratacion*, or India House, was established at Seville—the only port of Spain open to commerce with the Indies. Later, the *Consejo de Indias*, or India Council, relieved that of Castile of the burden of all Indian affairs in both hemispheres, and, until the downfall of Spanish power in the two Americas, remained the medium through which the will of the monarch was made known to the inhabitants of these distant provinces of the empire. With rare exceptions, the decree issued through the medium of the India Council applied with equal force throughout greater Spain, and, for a period of nearly three hundred years, the same law was received and obeyed wherever the flag of the castle and the lion was given to the breeze—in La Plata and in Manilla, on the Mississippi and on the Magdalena, in Mexico and in Peru, alike. Most of the laws embodied in the *Recopilacion de Indias*, or Code for the Indies, were of equal force in all Spanish colonies; but, in the following pages I shall consider, in addition, as far as the same are known to me, such collections of laws, general or partial, as applied particularly to Spanish America.

According to that eminent bibliographer, de Leon Pinelo, the earliest collection of printed laws relating solely to the Indies was that of the *ordenanzas* for the government of the *audiencia* of Mexico. This book was printed at the city of Mexico in 1545, in the first press that came to the continental portion of the new world. This press had been brought across the sea in 1532 by Don Juan de Zumárraga, first archbishop of Mexico and one of the most marked characters of an epoch fecund of such as he—for, if with one hand he conferred upon America the great engine of modern freedom, in the other he bore the scourge with which he, and spiritual successors like him in this, for three centuries flayed the souls of myriads of unhappy fellow-beings. On this press, also, was printed the first American book—the *Doctrina Cristiana*, published in 1532, years before the birth of the grandparents of those who landed at the rock of Plymouth.

De Leon Pinelo says also that, in 1552, a collection of laws similar to the one I have mentioned was made, by order of Don Antonio de Mendoza, viceroy of Peru, for the government of the *audiencia* of Lima. I can not find any evidence that these *ordenanzas* were printed. Probably the collection remained in manuscript, as the

work is not mentioned in any other of the several bibliographies examined by me.

Later, the *fiscal* of the *audiencia* of Mexico, the *licenciado* Don Antonio Maldonado, began a compilation, to which he gave the name of *repertorio de las cédulas, provisiones, y ordenanzas reales*, but it does not appear that he completed his task, although, in 1556, a royal *cédula* authorized him to do so.

It had now become evident in Spain as well as in America, that the time had come for the publication of a complete collection of the various *cédulas, cartas, provisiones, ordenanzas, instrucciones*, and the like, dispatched by the crown for the government of the Indies—for these were now very many in number and some conflicting with others, so that both beyond seas and at home ignorance of the law, while it excused no man, was unavoidable, even in those who in the name of the King administered that law. Therefore, Don Francisco Hernandez de Liébana, *fiscal* of the India Council, in 1552 made to that body an official representation of the necessity for such a publication, but it was only after the lapse of several years that the work was entered upon in earnest, though no good reason for the delay appears.

Meanwhile, by a *cédula* dated 4th September, 1560—in its provisions simply a repetition of that of 1552—Don Luis de Velasco, viceroy of New Spain, was ordered to cause to be printed a compilation of such documents as were of force within the jurisdiction of the *audiencia* of Mexico. The task was entrusted to Dr. Vasco de Puga, an *oidor* of the *audiencia*, by an order of the viceroy dated 3rd March, 1563. With such expedition did de Puga proceed that the work was printed at Mexico—"a horra y gloria de nuestro Señor Jesu Christo"—by Pedro Ocharte, and was finished, as the colophon informs us, 23rd November, 1563. It is probable that de Puga, being a magistrate, had compiled for his own use the necessary collection of these laws, and that thus his labor was lightened considerably. The book is a small folio, containing two hundred and thirteen leaves and an index of thirteen more, printed in the German type of the period—Ocharte probably having learned his trade from the German printers, who were the pioneers of the art in Spain, and who were brought thither by Charles V.—with quaint initial letters of various sizes, the largest being adorned with representations of incidents in the lives of Noah, David, Joab and other worthies of the old testament. In general, the proof-reading of Spanish books, even the earliest, was very well done, but the proofs of this book were read carelessly; the general appearance of the work, however, is highly creditable to the period and the country. In fulsome Latin, as was then customary, the book is dedicated to the viceroy, and contains the *cédulas* and

other laws, relating to New Spain, which had issued from 1525 to the date of the compilation, but not arranged in chronological order. The collection is preceded by Alexander's bull of concession to the Catholic Kings and the celebrated clause of the will of Isabel the Catholic which relates to the treatment of Indians.

The position of viceroy of Peru was always looked upon as the highest American honor to which a Spanish gentleman could aspire, and to it that of New Spain was considered merely a stepping-stone, although in one instance, for certain political reasons, a viceroy of New Spain who had been promoted to the viceroyalty of Lima, returned to his former post. Why, then, the *audiencia* of New Spain was favored thus is not clear—unless it be because it was of earlier creation than that of Lima. When, however, in 1569, Don Francisco de Toledo was sent as viceroy to Peru, he was ordered to cause a similar compilation to be made for use within the limits of his jurisdiction.

But the work was not undertaken—or, if undertaken, not completed—for, in the course of the following year, Philip II. ordered that a general compilation of laws and provisions for the government of the Indies should be made. It was intended that this work should meet fully the long-felt want and that it should be a perfected code—as far as possible—for old laws no longer binding were to be excluded and those in conflict one with another reconciled, while new ones were to be provided in order to meet circumstances otherwise unprovided for. Of this work the whole of the first book was compiled, yet only the first title—that which related to the India Council and its ordinances—was printed, and even this not until 1593. De Leon Pinelo, while unable to give the compiler's name, conjectures that the publication of the work was suspended because of his death. This, however, was the beginning of the Code for Indies; many years were to pass before the completion of the work.

In 1587 the *ordenanzas* of 25th September of that year, relating solely to the powers and duties of judges of the India House, were printed, and four years later, the *ordenanzas* of 1552, for the better regulation of that establishment, issued from the press at Madrid. An edition of the latter book, with considerable new matter added thereto, was published in 1647. In 1585 the *leyes y ordenanzas* for the government of the Indies, and the *ordenanzas* of 20th January, 1582, concerning the dispatch of the fleets for New Spain and Tierra Firme, were published at Madrid, and the *ordenanzas* of 14th July, 1556, regulating the *Universidad de los mercaderes de Sevilla*, or what may be termed the board of trade of Seville, were printed in Guatemala.



In 1594 the Marques de Cañete, viceroy of Peru, caused to be printed, at Lima, a small volume of *ordenanzas* bearing upon the subject of the good treatment of Indians.

But, with the lapse of time, the absolute necessity for the publication of a general compilation had become yearly more urgent, and—precisely when, however, I have been unable to discover, though it must have been at some time during the years 1594–6—Diego de Encinas, a clerk employed in the office of the King's Secretary, was ordered to make a copy of all *provisiones, cartas, cédulas*, and the like, dispatched prior to the year 1596. De Leon Pinelo gives this date as 1599, but in doing so he is clearly in error—he, or the printer possibly, since the error may be typographical—as is shown by the date of publication, for the compilation, in four volumes folio, issued from the royal press at Madrid in 1596. Mr. Harisse asserts that these volumes “were suppressed by the Council of the Indies, as Encinas had prepared them without being previously authorized so to do”; but, although de Leon Pinelo—on whose statement undoubtedly Mr. Harisse founds his assertion—states that Encinas went on printing his four volumes without any *licencia, censura, or aprobacion*, I find myself obliged to differ on this point with the eminent scholar and bibliographer whose name I permit myself to use in this connection. With all due deference, I venture to submit that for once Mr. Harisse is in error. In the law of 16th May, 1680, declaratory of the authority of the *recopilacion* published in that year, this law being embodied in the work itself, it is very clearly mentioned, not only that Philip ordered de Encinas to do this work, but that, owing to their faulty arrangement, these volumes “*aun no han satisfecho el intento de recopilar en forma conveniente*”—even yet have not satisfied the intention of codifying in proper form. To my mind it is clear, not only that the compilation of De Encinas was published—without the usual pre-requisites of formal censure and approbation it may be—but that it was in use, for want of something better, for nearly a century. Consequently it was not “suppressed.” It was, at length, superseded—and this after having been so long in use, because it did not satisfy the intention of the King in that its arrangement was not what that of a code should be.

Shortly after this, Alvar Gomez de Abaunza, *alcalde del crimen* of the *audiencia* of Mexico, and later an *oidor* of that of Guatemala, compiled, in two large volumes, a *repertorio de cédulas reales*; but this was not printed. And in Spain, about the same time, Diego de Zorrilla, with or without the royal sanction—I cannot discover which—began to codify the laws relating to the Indies. Making copious extracts from the bulky and ill-arranged tomes of de Encinas, he

added a selection of *cédulas*, and the like, of more recent date; but, having received an appointment as *oidor* of the *audiencia* of Quito, he left the work incomplete and in manuscript.

In 1603 there was published at Valladolid a folio entitled *Ordenanzas reales del Concejo de Indias*, and another thin folio of fourteen leaves, bearing the title of *Leyes y Ordenanzas nuevamente hechas por Su Majestad para la gobernacion de las Indias*, was printed at Madrid. In 1604 a folio with the vague yet comprehensive title of *Ordenanzas reales para la Casa de Contratacion de Sevilla y para otras cosas de las Indias*, and another entitled *Ordenanzas Reales para el Gobierno de los Tribunales de Contaduría Mayor en los Reynos de las Indias*, issued from the press of the capital.

In 1606 Dr. Hernando de Villagomez, a member of the India Council, began to compile—for his own use, I am led to conjecture—*cédulas* and other laws relating to the Indies, and, two years later, the famous and energetic Conde de Lémus being president of the India Council, Villagomez and Don Rodrigo de Aguilar y Acuña, one of his colleagues, were appointed a committee to attend to the formation of a complete collection. But the absorbing duties of their high office entirely engrossed their attention, so that nothing was accomplished by them—nor by Don Fernando Carrillo, who attempted to finish the task. About the same time, Don Juan de Solórzano y Pereyra, an *oidor* of the *audiencia* of Lima, began to make a collection of *cédulas*, and sent to the India Council the first book complete, as well as the titles of the additional five books which it was his intention to compile. In a *carta real* he received the thanks of the King for what he had done, was charged to continue his labors and was instructed to send to the council each book as soon as it should be completed. I do not find, however, that he ever compiled more than that portion of the work which I have mentioned.

In 1619 there was printed at Madrid a folio entitled *ordenanzas para el remedio de los daños é inconvenientes que se siguen de los descaminos y arribadas maliciosas de los navios que navegan á las Indias Occidentales*. At this time smuggling had become a fine art, and the tribunals were busy with crown cases. Soon afterwards, Don Antonio de Leon Pinelo, to whom I have had occasion to refer so frequently, at the time one of the judges of the India House at Seville, presented to the India Council the first and second books, nearly complete, of his *discurso sobre la importancia, forma y disposicion de la recopilacion de leyes de Indias*, and the work was printed, in one volume folio, in 1623. De Leon Pinelo acknowledges frankly that he extracted freely from de Encinas' four tomes, adding merely some *cédulas* of which he had obtained knowledge while in the colonies,

where, it appears, he had served the crown in some capacity, and at Madrid. On receiving the work the council, by a decree of 19th April, 1624, instructed its author to enter into relations with the person who for several years had been the "custodian" of the *recopilacion*, and authorized him to examine at will the books and papers in the archives. For two years de Leon Pinelo employed himself assiduously in the examination of some five hundred books, in manuscript, of *cédulas* and the like, containing more than three hundred thousand decrees. In the law authorizing the publication of the *recopilacion* of 1680—a law to which I have referred previously—it is stated that, in 1622, a similar task had been confided to Don Rodrigo de Aguilar y Acuña, already mentioned, and undoubtedly he was the "custodian" referred to anonymously by de Leon Pinelo. The only information on this point which I have been able to obtain comes from de Leon Pinelo, and his way of writing about the matter, taken in connection with the little that he does say, leads me to believe that the jealousy so common among literary men, and in a form so exaggerated when these are Spaniards, dwelt in the soul of one, or both, of the worthy gentlemen. As de Aguilar y Acuña was the superior in station, and as he was at work already when the appointment of de Leon Pinelo was made, we may infer that the latter was forced to take the inferior position of assistant. He acknowledges that the two were instructed to act in unison, but, in the *sumario*, gives us to understand that each labored on a separate compilation. However, whether they labored together or separately it is not absolutely essential for us to know. In 1628, so well had the work progressed, it was considered advisable to print for the use of the Council an epitome of that portion which had been completed. Accordingly the *sumario de la recopilacion general de las leyes* issued from the press. This work, it may be said here, was reprinted at Mexico in 1677. Shortly after the publication of the work in Spain de Aguilar y Acuña died, and no one being appointed immediately in his place, his collaborateur, unaided, went on with the task until 1634. On the 20th October of that year the Council formally approved the work that had been done, but, for some reason to me unknown, it was not until exactly one year from this date that the manuscript of the *recopilacion* was presented to that body. It was referred for examination to Dr. Juan de Solórzano Pereyra, who had been recalled from Lima in order to take a seat in the India Council, and, on the 30th May, 1636, he gave his formal *aprobacion* to the work upon which the compilers had bestowed several years of close attention, involving the examination and classification of more than half a million of *cédulas* and the like.

But even this work did not answer fully the purpose for which it

was intended, and many years were to elapse before the appearance of a complete *recopilacion*. Meanwhile many partial compilations of the laws were made, both in Spain and in different provinces of the Indies, and of these several were published. In order to carry out more fully the purposes of this sketch I make some mention of them here.

In 1634 the *ordenanzas de la junta de guerra de Indias* had been published. In 1646 Don Juan Diaz de la Calle compiled and published, for the use of the India Council, a small quarto, entitled modestly a *memorial*, containing some of the *cédulas* of the *recopilacion*. Possibly it was a little earlier than this that Don Francisco de Párraga y Rojas had presented to the secretary of the department of New Spain in the Indian Council an *inventario* of the *cédulas* relating to that province which had issued from 1567 to 1620—this being a continuation of the work of de Puga. According to de Leon Pinelo—in the *sumario*—this manuscript afterwards found an abiding-place in the collection of Barcia. In 1647 the *ordenanzas reales para la casa de contratacion de Sevilla y para otras cosas de las Indias* were published at Seville. In 1668 the indefatigable de Leon Pinelo published, at Madrid, the *autos, acuerdos y decretos de gobierno del real y supremo consejo de las Indias*. At Seville, in 1672, the *norte de la contratacion de las Indias Occidentales* of Don José de Veitia Linage issued from the press. As its name implies, this work contains the regulations under which trade with the Spanish West Indies was carried on. At the time of its publication the book was of no use at all to any but Spaniards, since they alone were allowed to participate in the West India trade; but, after many years, when Spain was no longer able to keep the Carribean and the Mexican Gulf a *mare clausum*, it was done into English by Captain J. Stevens and published, in a thin octavo volume, at London in 1700.

During this period the publication of a complete *recopilacion* was still retarded. In 1660 the condition of the work was considered to be such that, the King having been consulted, it was referred to successive committees, consisting each of several members of the India Council, in order that all points requiring deliberation should be fully considered and finally resolved. Under the supervision of successive presidents of the Council these final proceedings went slowly on to completion, and at length, on the 18th May, 1680, by a royal decree it was ordered that the laws contained in this compilation should be binding thenceforth and all those conflicting with them of no force whatever. It was ordered, moreover, that two carefully compared and duly authenticated copies of the manuscript should be kept, one in the archives of the India Council, the other at Simancas,

for reference and the final settlement of mooted points. It was apparent, almost immediately, that this arrangement was of but little practical utility either at home or beyond seas, and, the King having ordered, 1st November, 1681, that the compilation should be printed under the superintendence of the India Council, the long wished for *recopilacion de las leyes de los reynos de las Indias* issued at once from the royal press at Madrid, in four volumes quarto.

By a provision of the *recopilacion* it was ordered that questions not fully met by the laws therein contained, or not provided for by some subsequent *cédula*, *ordenanza* or *provision*, should be decided in accordance with the general laws of Spain. And, as the laws were modified or abrogated, new editions of the *recopilacion* were issued. Brunet states that the second edition was issued in 1754, but I have been unable to verify the statement. The third edition, however, was published in 1774, and a fourth in 1791. During the earlier years of the present century several editions of the *recopilacion* have been published.

In conclusion, I shall notice briefly such other publications of laws relating to the Spanish West Indies as have come to my knowledge. In 1675 Don Gaspar de Escalona Agüero published at Madrid his *gazophilacium regium perubicum*. At the end of the work he inserted the *ordenanzas* of 3rd July, 1573, regulating the administration of the royal treasury in the Indies, as well as the *ordenanzas* called *primeras*, of 24th August, 1619, concerning the regulation of the *tribunales de cuentas* of Peru, Mexico, and the Nuevo Reyno de Granada—the whole accompanied by valuable notes and comments of his own. Even after the *recopilacion* was printed, and partial collections of laws were no longer of urgent necessity, these were published from time to time, both in the mother country and in America. Ternaux-Campans (No. 964; p. 163) states that, in 1681, there were published at Madrid the *ordenanzas del concejo real de las Indias y por el rey D. Felipe IV., por su gobierno establecidas año de 1636*. I have never seen the work, but it would seem, unless a second edition were published, that Rich is in error in assigning its publication to the year 1747. At Lima, in 1685, Don Tomas de Ballesteros compiled and published the *ordenanzas del Perú*; and, in the same year, the *ordenanzas de cruzada*, for the guidance of the *subdelegados* of the viceroyalty of Peru, were printed at the same place. In 1778 the very important *reglamento y aranceles reales para el comercio libre de España á Indias de 12º de Octubre de 1778*, issued from the press in Spain. And, a parting gift as it were from Spain to her continental American colonies, in 1791–8 Don Antonio Xavier Perez y Lopez published at Madrid, in twenty-eight volumes quarto, a com-

prehensive work entitled *teatro de la legislacion universal de España Indias*.

De Leon Pinelo, in his celebrated biography of Spanish books, alludes to many collections of *cédulas*, and the like, in his day existing in manuscript in different archives of Spain, public as well as private, but he does not give the titles of any or notice them more in detail. Concerning these it is not necessary, even were it possible, to write—for undoubtedly the same laws are to be found in the printed collections of which mention has been made.

Nor, of course, is it any part of my present purpose to venture upon a bibliographic notice of the voluminous collections of the laws of the several independent states formerly integral parts of the cis-atlantic Spanish empire. Such an undertaking would prove almost endless, while the result obtained would be of very little value.

The sketch I now present will be, I venture to hope, of some slight service to him who may wish to make a careful study of the history of those portions of the United States which were once subject to the crown of Spain, and especially to my brethren of the legal fraternity of that region who desire—as they should desire—to become acquainted with laws which affected to a certain extent the legislation of our own times. To lawyers of Florida, Louisiana and Texas, and, though not to so great an extent, to those of California, New Mexico and Arizona, the investigation will be both interesting and profitable.

REMINISCENCES: MY FIRST PROCESSION IN  
LOS ANGELES, MARCH 16, 1847.

BY STEPHEN C. FOSTER.

The writer has witnessed forty celebrations of the 4th of July in this city, commencing with 1847, when he read the Declaration of Independence on Fort Hill, in Spanish, for the information of our newly-made fellow-citizens, who spoke only the Castilian tongue. As I marched in the procession the other day (July 4, 1887), I recalled the appearance of the city when I first knew it, so widely different from the present.

The outbreak of the Mexican War (May, 1846) found the writer at Oposura, Sonora, which place he reached December, 1845, on his way to California, by the way of Santa Fe and El Paso, from Missouri. The first news we had of the war was of the capture of Capt. Thornton's command of U. S. Dragoons by the Mexican cavalry, on the Rio Grande, and the people rang the bells for joy. But shortly after, we got the news of the battles of Palo Alto and Resaca de la Palma, and they did not ring the bells then.

In June, 1846, arrived at Oposura a small party of Americans headed by James Kennedy, a machinist from Lowell, Mass., who with his wife had come around Cape Horn, three years before, to the cotton manufactory at Horcasitas, Sonora: the husband to superintend the machinery, and the wife to teach the Mexican girls the management of the looms and spindles. As there was no chance to leave by sea, Kennedy had made up a party to see him safe through the Apache range to Santa Fe, where he expected to secure passage in the traders' wagons across the plains to Missouri, and I accompanied him; and after a hard, hot trip, we reached Santa Fe safely in July.

August 18, 1846, I witnessed the entry of the American army, under Gen. Kearney, into Santa Fe.

In 1845, the Mormons were driven out of Nauvoo, Ill., and, under the leadership of Brigham Young, took up their march westwardly. Their first intention was to reach California, then occupied by a sparse Mexican population and a few hundred American emigrants. They stopped one season at Council Bluffs, to raise a crop and procure means for their further progress. When the call was made for volunteers in Missouri, for service in New Mexico and California, none

were willing to enlist as infantry, to make such long marches afoot, and Capt. James Allen, of the 1st U. S. Dragoons, was sent to Council Bluffs to try and raise a battalion of infantry, enlisted for twelve months, to be discharged in California. The order was given by Brigham, and within forty-eight hours five full companies (500 men) were raised and on their march to Fort Leavenworth. The conditions were, that they were to choose their company officers, but were to be commanded by an officer of the regular army, and were to receive army clothing at Fort Leavenworth. The Missouri troops furnished their own clothing, for which the Government paid each man \$29.50 a year.

So, they started on their long march with their poorest clothing. When they reached the Fort they learned that the steamboat bringing their clothing and percussion muskets had been snagged in the Missouri, and every thing was lost. Their commander, Capt. Allen, was taken sick and died. He had their confidence, and they objected to serving under another commander, and to start for California without the promised clothing; but the order was imperative to march, and the clothing could not be replaced in less than a month. So they sent to Brigham for advice, and he ordered them to push on, even if they had to reach California barefooted and in their shirt-tails. So, flint-lock muskets, of the pattern of 1820, were furnished them, and they reached Santa Fe under the command of Lieut. A. J. Smith, of the 1st Dragoons—the Maj. Gen. A. J. Smith of our Civil War. On their arrival at Santa Fe, Gen. Kearney ordered Capt. Cooke, of the 1st Dragoons, to command them, and Lieut. Smith went with them to California, to rejoin his company which had started a month before with Gen. Kearney. Lieut. (now Gov.) Stoneman, who had just graduated at West Point, also went with them.

Gen. Kearney had started with six companies of dragoons, but on the Rio Grande he met Kit Carson with dispatches for Washington, from Com. Stockton, announcing that California had been taken possession of, without resistance. So Kearney only took two companies, mounted on mules, with pack mules to convey their provisions, by way of the Gila River. At Santa Fe mules were scarce, and money scarcer with the quartermaster, who also had to provide transportation for the 1st Missouri Cavalry, under Col. Doniphan, then starting on their famous march through Northern Mexico to Camargo, where their period of enlistment expired. But seventeen 6-mule teams, hauling sixty days' rations, could be spared for Cooke's command, and no wagons had ever crossed from the Rio Grande to California; so, a road had to be found and made as they went, after leaving the Rio Grande.



Kit Carson had accompanied Kearney as guide, and Pauline Weaver, the pioneer of Arizona, who had come with Carson from California, awaited Cooke. Five New Mexican guides were hired, all under command of Joaquin Leroux, an old trapper, who had trapped on every stream from the Yellowstone to the Gila.

I was then clerking in a store, waiting for something to turn up, when I was informed that an interpreter was wanted to accompany Cooke to California, and I went to Capt. McCusick, the quartermaster, with my recommendations. Enoch Barnes, who was killed in a drunken brawl at the Ballona, in this county, some twenty years ago, who drove a wagon across the plains in 1845, in the same caravan as myself, was also an applicant. McCusick was a prompt, stern man, and the competitive examination of the Yale graduate and the Missouri mule-whacker was short, and turned on transportation and money. I had a good mule, rifle and blanket, and as to money, I could wait until Uncle Sam was able to pay me, as long as my wages were running on and I got my rations. Barnes was just off a spree, in which he had drank and gambled off all his money, and pawned his rifle, and it would have cost \$100 to fit him out. So I won the appointment, and the contract was quickly drawn, that for \$75 a month and rations I was to serve as interpreter to California, furnishing my own animal, clothing and arms. The contract was made October, 1846, and I served under it until May 17th, 1849, when the people of Los Angeles elected their Ayuntamiento, and the garrison evacuated the place, and the last seventeen months of my term I also acted as 1st Alcalde of the district of Los Angeles, without any extra compensation. On leaving the Rio Grande, I volunteered to join the guides, as there was nothing for me to do in camp, and we did not expect to pass through any Mexican settlements until we reached the Pima villages, on the Gila. Leroux's party, ten in number, started ahead, with six days' rations, on our riding animals, to find a practicable route for wagons, and wood, and water, at such intervals as infantry could march—fifteen to twenty miles a day, in one case forty miles, between camps; one man to be sent back from each watering place to guide the command until our rations were expended, and then all to return to the command. We thus found our way by the Guadalupe Canyon and San Pedro River to Tucson, from which place there was a trail to the Pima villages, and from there to California. Weaver had just come over the road, and there was no difficulty in finding our way. We ate our last flour, bacon, sugar and coffee by January 14th, 1847, on the desert, between the Colorado and Warner's Pass. A supply of beef cattle met us at Carrizo Creek, on the west side of the desert, and we lived on beef alone until April, 1847, when supplies, brought

from New York on the ships that brought Col. Stevenson's regiment, reached us at Los Angeles. At Gila Bend, we met two Mexicans, who told us of the outbreak that took place in Los Angeles, September, 1846; and at Indian Wells, on the desert, we met Leroux, who, with most of the guides, had been sent ahead from Gila Bend, to get assistance from the San Luis Indians, who had declared for the Americans, and held all the *ranchos* on the frontier; and he brought the news that Stockton and Kearney had marched from San Diego to retake Los Angeles. We pushed on by forced marches towards Los Angeles, and at Temecula received a letter, stating that Los Angeles was taken, that Kearney and Stockton had quarrelled about who was to command, and that Kearney had returned with his dragoons to San Diego, to which place we were ordered to proceed. Arriving there, together with the dragoons, we were ordered to San Luis Rey, where, from the Rancho of Santa Margarita, we procured beef, soap and candles, the only articles of rations the country could furnish. In a few days, fifty of the men were attacked with dysentery, and the surgeon said breadstuff of any kind would be of more use to check the disease than all his medicine. So the commissary and myself were ordered to Los Angeles, to try and get some flour. We found the town garrisoned by Fremont's Battalion, about 400 strong. They, too, had nothing but beef served out to them, but as the people had corn and beans for their own use, and by happening around at the houses about meal-time, they could occasionally get a square meal of *tortillas y frijoles*. Here we met Louis Roubideau, of the Jurupa Ranch, who said he could spare us some 2,000 or 3,000 lbs. of wheat, which he could grind at a little mill he had on the Santa Ana River. So, on our return, two wagons were sent to Jurupa, and they brought 1,700 lbs. of unbolted wheat flour and two sacks of beans—a small supply for 400 men. I then messed with one of the captains, and we all agreed that it was the sweetest bread we ever tasted.

March 12th, 1847, we received important news in six weeks from Washington, overland. Stockton and Kearney had been relieved, and ordered East, and Com. Shubrick and Col. R. B. Mason were to take their places, and the military to command on land, and, what was of far more interest to us, that Stevenson's ships were daily expected at San Francisco, and that we should soon have bread, sugar and coffee again, and we were ordered to Los Angeles to relieve Fremont's Battalion. So, with beautiful weather, and in the best of spirits, we began our march to the city of the Angels. Our last day's march was only ten miles, and we camped on the San Gabriel, at the Pico crossing, early, and all hands were soon busy preparing for the grand *entree* on the morrow. Those who had a shirt—and they were a

minority—could be seen washing them, some bathing, some mending their ragged clothes, and as there was plenty of sand, all scouring their muskets till they shone again. We made an early start the next morning, and when we forded the Los Angeles River, at Old Aliso, now Macey street, there was not a single straggler behind. The order of march was, the dragoons in front. They had left Missouri before receiving their annual supply of clothing, and they presented a most dilapidated appearance, but their tattered caps and jackets gave them a somewhat soldierly appearance. They had burned their saddles and bridles after the fight at San Pascual, but a full supply of horses to remount them had been purchased of the late Don Juan Forster, and all the Mexican saddlers and blacksmiths in the country had been kept busy making saddles, bridles and spurs for them. Their officers were Capt. A. J. Smith, 1st Lieut. J. B. Davidson, 2nd Lieut. George Stoneman; then came four companies of the Iowa Infantry, Company B having been left to garrison San Diego. In all we numbered 300 muskets and 80 sabres. The line of march was by Aliso and Arcadia streets, to Main, and down Main to the Government House, where the St. Charles now stands, where the dragoons dismounted and took up their quarters. The infantry turned out of Main street past the house of John Temple, now Downey Block, and pitched their tents in the rear, where they remained until they were mustered out, June, 1847.

I have described the appearance of the dragoons, but cannot do justice to the infantry, only by saying it was Falstaff's ragged company multiplied by ten. The officers had managed to have each a decent suit of clothes, but they brought out in stronger contrast the rags of the rank and file. On Los Angeles street were some 300 or 400 Indians, the laborers in the vineyard, who had taken a holiday to witness our entry, while a group of about 100 women, with their heads covered by their *rebosos*, who had met at the funeral of the mother of the late Don Tomas Sanchez, ex-Sheriff of the county, stood looking at the ragged *Gringos* as they marched by. On Main street were some thirty or forty Californians, well dressed in their short jackets and breeches with silver buttons, open at the sides, showing the snow-white linen beneath. I noticed they looked with most interest at the dragoons, so many of whose comrades had fallen before their lances at San Pascual that cold December morning, and lay buried in that long grave, or lay groaning in the hospital at San Diego. We had no waving flags, but waving rags, and many a one; nor brass bands, only a solitary snare drum and fife, played by a tall Vermont fifer and a stout, rosy-cheeked English drummer; and they struck up the "Star Spangled Banner" as we passed the Government House, and kept it

up until orders were given to break ranks and stack arms. And then came a loud hurrah from all that ragged soldiery. Their long and weary march over mountain, plain and desert, of 2,200 miles, was over.

I will now describe two individuals who marched in that procession. One is the writer. 'Tis nearly forty years ago, and I was a younger and a better-looking man than I am now. I had left Santa Fe with only the clothes on my back, and a single change of under-clothing. I had been paid off at San Luis Rey, and had \$200 in my pocket, and I tried to find some clothing in Los Angeles on my first visit, but could find none. So, I rode to San Diego, and through the kindness of a friendly man-of-war's man I got a sailor's blue blouse, a pair of marine's pants and brogans, for which I paid \$20. My place in the column, as interpreter, was with the colonel, at the head, and I rode with my rifle slung across the saddle, powder-horn and bullet-pouch slung about my shoulders. My beard rivaled in length that of the old colonel by whose side I rode, but mine was as black as the raven's wing, and his was as grey as mine is now. But if I was not the best-looking, nor the best-dressed man, I was the best-mounted man on Main street that day. When the horses were delivered for the dragoons, a young man named Ortega, a nephew of Don Pio Pico, rode an iron grey horse, with flowing mane and tail, and splendid action. I tried to buy him for the colonel, but he would not sell him. The day we left San Luis, I had mounted my mule, and was chatting with Ortega, admiring his horse, when he offered to sell him, and I could fix the price. I gave him \$25. The dragoon horses cost \$20 each. A few days after my arrival in this city, Lieut. Stoneman was ordered to scout with a party of dragoons towards San Bernardino, to look out for Indian horse thieves, and I sold the horse to him; and well the Governor remembers the gallant grey that bore him on many a long and weary scout.

I have thus described my appearance at my first public entry into this city, from no spirit of egotism, but only to give my fellow-citizens some idea of the appearance of the former Alcalde, Prefect, Mayor and Senator of Los Angeles.

But the most conspicuous man on Main street that day was of a different type. On our march, Dec. 1846, we were moving from the Black Water, just S. of the present Mexican line, towards the San Pedro River. The snow was falling steadily, but it was not very cold. Our order of march was, with an advance guard of twenty men, and twenty pioneers with pick-axe and shovel, commanded by Capt. A. J. Smith, to remove any obstruction to our wagons. I was riding that day, with the colonel and surgeon, when we overtook the advance

guard. The pioneers had been cutting down some *mesquite* trees that obstructed our way, and had just finished as we overtook them. Their officer gave the order "fall in, shoulder arms," and they formed in ranks of four, so that for about fifty yards we could not turn out to pass them. The right-hand man in the rear rank was at least  $6\frac{1}{2}$  feet tall. The crown of his hat was gone, and a shock of sandy hair, powdered by the falling snow, stuck out above the dilapidated rim, while a huge beard of the same color swept his breast. His upper garment had been a citizen's swallow-tailed coat, buttoned by a single button over his naked chest, but one of the tails had been cut off and stitched to his waistband, where it would do the most good, for decency's sake, and an old pair of No. 12 brogans, encased with rawhide, protected his feet. The right sleeve of the coat was gone, and his arm was bare from wrist to elbow, and, by way of uniform, the left leg of the pants was gone, leaving the leg bare from knee to ankle. His underclothing had long since disappeared. But the way he marched and shouldered his musket, showed the drilled and veteran soldier. That ragged scarecrow had seen fifteen years' service in the British army, from the snows of Canada to the jungles of Burmah. The contrast between the soldierly bearing of the man and his dilapidated dress brought a smile to every face. After we had passed, the colonel pulled his long grey mustache, and said, "I never thought, when I left West Point, that I should ever command such a set of ragamuffins as these. But, poor fellows, it is not their fault; and better material for soldiers I never commanded." And that day, when I sat on my horse, where Ducommun's Block now rears its tall front, to see my old comrades march by, in the front rank of Company A, with cadenced step and martial mien, as he had marched in his younger days to the martial music of the regimental band, dressed in the scarlet uniform of a British grenadier, strode the old ragged veteran.

## APPENDIX.

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### CURATOR'S REPORT.

#### HISTORICAL SOCIETY OF SOUTHERN CALIFORNIA:

*Gentlemen:* The following list of books and curios form the present collection of the Society, so far as it has come into my charge:

#### BOUND BOOKS.

United States.	President's Message and Documents, 3 vols., 1880-81.	
" "	Agricultural Reports, 1875-76-79-80	- 4 vols.
" "	Commercial Relations, 1878	- - - 1 vol.
" "	Commerce and Navigation, 1879	- - - 1 vol.
" "	Gold and Silver Production, 1880	- - - 1 vol.
" "	Exp. for R. R. from Mississippi River to Pacific Ocean, 1854-57	- - - - - 5 vols.
Cyclopedia of Anecdotes	- - - - -	1 vol.
American Newspaper Directory	- - - - -	1 vol.
Centennial History of Charlestown, S. C.	- - - - -	1 vol.
Eine Blume aus dem Goldenen Lande, by Archduke Salvator of Austria	- - - - -	1 vol.
California Business Directory, 1877	- - - - -	1 vol.
Directory of Northern California Counties, 1883	- - - - -	1 vol.
Life of Padre Junipero Serra	- - - - -	1 vol.
Reminiscences of a Ranger. Bell	- - - - -	1 vol.
Addresses on Death of Z. Chandler, 1886	- - - - -	1 vol.
" " " Matt. H. Carpenter	- - - - -	1 vol.
Niles's Pacific Coast Poultry and Stock Book	- - - - -	1 vol.
Report of California Board of Horticulture	- - - - -	1 vol.
Evening Bulletin, San Francisco	- - - - -	2 vols.
Los Angeles Directory, 1883	- - - - -	1 vol.
Morning Call, San Francisco, Summer of 1857	- - - - -	1 vol.

Weekly Southern Vineyard, 1858-59	- - - -	1 vol.
1 set Br. Nor. Sch. Catalogues to date	- - - -	4 vols.
Titles of Books—Boston Pub. Library	- - - -	1 vol.
Laws of the Colony of New York, 1710	- - - -	1 vol.

## PAMPHLETS.

Registers of the University of California, 1881-83-85	- - - -	3 vols.
Standing Rules and Regulations of Historical Society	- - - -	50 copies
Quarterly Iowa Historical Record	- - - -	2 vols.
Historical Fallacies. D. Campbell	- - - -	1 vol.
Historical Paper on Santa Cruz, California, 1876	- - - -	1 vol.
California of the Padres. Hughes	- - - -	1 vol.
Hillocks and Mound Formations. Barnes	- - - -	1 vol.
Early California. Kelly	- - - -	1 vol.
University of Michigan. Calendar	- - - -	1 vol.
Report of President of University of California, 1882-84	- - - -	1 vol.
Bulletin of Phil. Society, 1884	- - - -	1 vol.
Warm and Cold Ages of the Earth. Warner	- - - -	2 vols.
Semi-Tropic California, 1882	- - - -	1 vol.
Rural Californian, 1884	- - - -	1 vol.
Apiculturist, Oakland, California	- - - -	10 copies
U. S. President's Message and Documents, vol. 4, 1883	- - - -	1 vol.
Great Registers for 1882: Alameda, Amador, Sacramento, Nevada, Monterey, Mendocino, Mariposa, Sonoma, Shasta, Sierra, San Mateo, San Benito, Butte, Cala- veras, Contra Costa, Del Norte, Solano, Sutter, Yolo, San Bernardino, Santa Barbara, San Luis Obispo, Ventura, Lassen, Inyo.		
Great Registers of Los Angeles Co. for 1875-76-79-80-82-84		
Consular Reports of Commerce and Manufactures	- - - -	17 vols.
Los Angeles Co. Guide Book	- - - -	1 vol.
Obsequies of Red Jacket, Buffalo, 1884	- - - -	1 vol.
Defender. Z. Montgomery	- - - -	8 nos.
Magazine of American History, 1884, 1886	- - - -	2 nos.
Labor Rhymes. Isaac Kinley	- - - -	1 vol.
Argonaut, 1886	- - - -	1 copy
Map of California, 1866	- - - -	1 copy
Photographs of members of Society.		
Papers Read before the Society.		
Clippings from Newspapers.		
Miscellaneous Catalogues of Instruments, etc.		
Photograph of Breast-bone of Goose, with Arrowhead.		

## CURIOS.

Pottery from the Caves of the Cliff-Dwellers. Lummis.

Beaver Trap from the Gila, 1828. S. C. Foster.

Indian Pottery and Utensils. J. C. Oliver.

Very respectfully submitted,

IRA MORE,

Los Angeles, Feb. 7th, 1887.

Curator.

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## TREASURER'S REPORT

For the Year Ending Dec. 31st, 1886.

### RECEIPTS.

Balance on hand at close of last year,	- - - -	\$134 10
Admission Fees (new members)	} - - - -	58 25
Membership Dues Collected, etc.		
		<u>\$192 35</u>

### DISBURSEMENTS.

As per Vouchers on file,	- - - -	\$ 85 30
Balance, Cash on hand,	- - - -	107 05
		<u>\$192 35</u>

J. M. GUINN,

Treasurer.

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## SECRETARY'S REPORT

For the Year Ending Dec. 31st, 1886.

Number of Meetings held by the Society,	- - - -	11
Number of Papers read before the Society on General Subjects,		3
Number of Papers read on Scientific Subjects,	- - - -	5
Number of Papers read on Historical Subjects,	- - - -	6

Respectfully submitted,

J. C. OLIVER,

Secretary.



IN DATUM LINDI. HUIUS MENSIS. ILLUSTRE MANSION

*Mr. [unclear] Compliment of [unclear]*  
*see article on pgs. 15 & 49*

ANNUAL PUBLICATION

—OF THE—

HISTORICAL SOCIETY

—OF—

SOUTHERN CALIFORNIA.

1888-9.

LOS ANGELES, CAL.  
FRANK COBLEY, "THE PLAIN PRINTER."  
1889.



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—OF—

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1888-9.

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LOS ANGELES, CAL.  
FRANK COBLER, "THE PLAIN PRINTER."  
1889.



## PRESIDENTS AND YEARS OF SERVICE.

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<b>JONATHAN TRUMBULL WARNER</b> .....	<b>1883-4</b>
<b>JOHN MANSFIELD</b> .....	<b>1885</b>
<b>ISAAC KINLEY</b> .....	<b>1886</b>
<b>IRA MORE</b> .....	<b>1887</b>
<b>HENRY D. BARROWS</b> .....	<b>1888</b>
<b>EDWARD W. JONES</b> .....	<b>1889</b>

## OFFICERS FOR 1889.

PRESIDENT.....	EDWARD W. JONES
FIRST VICE-PRESIDENT.....	C. N. WILSON
SECOND VICE-PRESIDENT.....	EDWIN BAXTER
SECRETARY.....	B. A. STEPHENS
TREASURER.....	J. M. GUINN
CURATOR.....	IRA MORE

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## STANDING COMMITTEES FOR 1889.

EXECUTIVE.—Major C. N. Wilson, J. M. Guinn, B. A. Stephens, Don Antonio F. Coronel and Judge E. Baxter.  
FINANCE.—General John Mansfield, N. Levering and Dr. H. S. Orme.  
PUBLICATION.—B. A. Stephens, H. D. Barrows and Professor Ira More.  
HISTORY.—H. D. Barrows, Rev. J. Adam and General John Mansfield.  
GEOLOGY.—N. Levering and Professor Ira More.  
METEOROLOGY.—J. M. Guinn and Dr. Walter Lindley.  
BOTANY.—Major C. N. Wilson and Dr. W. F. Edgar.  
GENEALOGY AND HERALDRY.—Col. G. B. Griffin and B. A. Stephens.

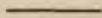
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## HONORARY MEMBERS.

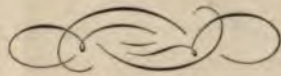
HON. JONATHAN TRUMBULL WARNER,  
HON. STEPHEN C. FOSTER,  
IVAN PETROF,  
COL. JONATHAN D. STEVENSON,  
GENERAL JOHN C. FREMONT,  
MRS. JESSIE B. FREMONT,  
COL. LYMAN C. DRAPER.  
REV. J. D. CRUEA.



Deceased Members.



DR. V. GELCICH.  
COL. J. F. GODFREY.  
CAPT. J. Q. A. STANLEY.  
JUDGE A. KOHLER.







**Retiring Address of ex-President, H. D. Barrows, Delivered, January 14th, 1889.**

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**A**NOTHER twelve months have passed and our young society meets again at the beginning of a new year under favorable auspices. By patiently working on the lines we have adopted, and by gradually, and as we are able, enlarging the sphere of our labors, we hope our society, in time, will have accumulated historical data relating to our section and country, that will have real value to those who come after us.

The history of one's own locality is always interesting and instructive. Especially is this true to those whose home is in California. There is a sort of romance attaching to our annals which run back—and not so very far, either—to a different race and to a different civilization from our own Anglo-Saxon. Indeed there are still many living, who have witnessed the gradual blending, here in our own sunny valleys of manners and customs and traditions, which were brought from Spain by the conquistadores long ago, with those that were brought from England, at a somewhat later period, by the Puritians and by the Cavaliers. And, going back still farther, the Spaniard himself was preceded here by a primitive race, the Indian, whom he strove to civilize or christianize, and who gave a certain coloring to the Spaniards, isolated pastoral civilization.

One of the distinctive charms of the story of "Ramona," aside from the subtle art of the gifted authoress, which, to the cultured is always charming, is the picturing, so true to life, of a Spanish type of civilization that flourished right here in Southern California, where we Anglo-Americans are building our homes. That Southern California is a rich and attractive field for the historical student is evidenced by the fact that two history companies—the Bancroft Company from San Francisco and the Lewis Company from Chicago—at the present time have bureaus established here, for the exploration of our historical wealth. Our society has two aims in view in its history lines, namely, to gather and preserve whatever it can from the past of our locality; and second, to give to the future, so far as we may, pictures, of our own times as we see them. The daily press affords one class of pictures of an epoch. The recorded opinions and recollections of the actors of a given period help to furnish another class of pictures of that period. Photographs of persons and scenes and episodes, etc., constitute another class of exact pictures, that may have great value in after years.

During the past year, as is shown by the curator's report, we have preserved nearly complete files of the four daily papers of this city and of the San Francisco Evening Bulletin. Many other current local publications of the year, of greater or less value, have been received and filed; besides documents received from societies and contributors located elsewhere. I think our society would be doing good work which would be appreciated by our successors, if it would make an effort to secure and preserve copies of photographs of as many of the (present or past) residents of our section as possible. The modern art of photography may be made a valuable aid to the annals of our times, which ancient history did not possess. Doubtless there are many families in Southern California which have extra copies of photos of their members, living or dead, that they would send to this society, if invited to do so.

The suggestion has heretofore been made, and it ought to be carried out, that our society should secure monographs from members or others, giving reliable information as to the first introduction here, and subsequent history, of railroads, telegraphs, banks, churches, schools, public and private, grape vines, citrus and deciduous fruits, and hundreds of other things that might be called land-marks in the progress of our civilization. The Cha-tauquan method of making a special and separate study of each of these subjects, and then recording the substantial net results of such studies and investigations, might be adopted with good results by our society. Perhaps the advanced pupils of our normal and high schools and colleges might be stimulated to undertake the study of some of these subjects, and furnish papers thereon to this society for preservation, or, whenever sufficiently meritorious for publication. At any rate a series of succinct and carefully written monographs of this character, would be of inestimable value to our society and to our posterity.

It is to be hoped that we may secure from our older citizens, still living, further records of their recollections of the early times here in which they were actors. The sketches of our co-member, Mr. S. C. Foster, printed in the society's publication for 1887, were exceedingly interesting and valuable.

The reports of the secretary and treasurer and curator will furnish further information as to the present condition of the society, and of the work it has done during the past year.



Inaugural Address of President E. W. Jones, Delivered  
February 4, 1889.

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MEMBERS OF THE HISTORICAL SOCIETY OF SOUTHERN CALIFORNIA—  
LADIES AND GENTLEMEN: First, let me take occasion to thank the society for the honor which it has seen fit to confer upon me. It is the custom, and perhaps a duty, for your president on taking his seat to deliver such an address as he deems best for the welfare of the society. In conformity to that custom, I have prepared and now ask your attention to the following brief remarks.

This society was formed in the latter part of 1883. At first it seemed to have promise of large membership. The idea had the approval of most, if not all, of the more important of the founders and builders of the social and political fabric of Southern California, who still survived, but though many signified their approval, the active membership was always meager in numbers. In January, 1884, the first inaugural address was delivered by Col. J. J. Warner. In it he said "to collect and preserve historical matter is the main object of our mission." "Old land marks are rapidly disappearing; things which are now common in a few years will be rare and after a few years will cease to be," and so he goes on through a most suggestive discourse advising the prosecution of historical research and collation.

In all subsequent inaugural addresses the same idea is the prevailing one—that to history and that the history of this region, should our principal attention be paid. Our actual accomplishments in this line have hardly been what they should be, but we have collected many valuable historical data in both printed and written form. We have kept alive the society through a period most unpropitious for its usefulness or even its existence. The little band of the faithful, who recognized its importance, has held together for the most part, and my faith in its material is so great, my assurance of its devotion is so strong, that I predict that most of the few, who so steadily attend our meetings, will live to see the day when this society is established in its own halls and equipped with a rich array of historical and scientific treasures. We have apparently lost the aid of some of our members most capable in the line of historical information and research. I believe we suffered the loss of but one member, Capt. Stanley, by death. But we miss, perhaps more than any other, the vigorous intellect and impressive presence of the man who first presided over this body. We miss the historical association that attend the name, the weight and authority which accompany the discourse of Col. J. J. Warner, who compelled by the bodily not mental

infirmities, which accompany great age, to lay aside active duties, comes no more among us. I trust we may still avail ourselves of his services by visiting him, and preserve much of the store of knowledge of the history of this region not yet on record by having it taken down at his dictation. Others also we may hope to enlist in the work of the society as the lighter demands of business permit. Material has been accumulating in the hands of the curator all these years until now we have a considerable mass.

Our funds have always been so carefully handled that we are in a sound financial condition. Our correspondence has been constantly increasing. We have verified and recorded the discovery of a tusk of large proportions. The fragment found being six feet long and six inches in diameter, in a well at a depth of 30 feet, some 20 miles east of this city; of the skeleton of a whale on the summit of the Santa Monica mountains; an interesting specimen of aboriginal cryptograph writing on the rocks of the San Gabriel cañon and the Mojave valley region. These are only some salient features of our scientific work. I will not take time to go further into details.

On the whole, the society has made as great progress as is usual in the beginning of such enterprises, and perhaps its progress may be regarded as remarkable and indicative of its having struck its roots deep and into good soil, considering the nature of the times through which it has survived. Although it is not formed exclusively for work in the field of history, yet such work is mainly its object and in that field have its most valuable results been accomplished.

Not that it is well to discourage further labor in the domain of science that has already furnished us with interesting and instructive matter for consideration, and without it we would hardly succeed in inducing a wide spread interest in the work of the society. Without it some of our most valuable members would drop away and stagnation threaten us.

From the realm of the sciences we expect to exact in the future as in the past rich tribute, yet I repeat the most important field of effort for this organization is to-day that of local history. Our own and its tributary region has large historical resources which even the systematic and indefatigable research of Bancroft and his able assistants has failed to discover. Those machine made volumes of the San Francisco historian, vast and varied as is their scope, and minute and accurate as their data may be, are still very far short of exhibiting all the inner and more vital facts and events in the life of the people of this region since their history began. The record of these facts and events should be made by loving hands, and the members of this society, to most of whom this land is permanently home, should largely devote their efforts to the task.

The brief history of Los Angeles county, compiled for the Centennial, reveals the wealth of event which this region has accumulated since the advent of the white man, but it touches little more than salient points. The amount of suggestion which it affords to the searcher, however, is invaluable. Day by day, too, the data which ought to be gathered and recorded in an enduring form—many of which, as has already been said, now seem so

common place and trivial, but which will hereafter be regarded as gems of price—are becoming deeper buried in the rubbish of time or lost altogether. The blending of races here is a theme of great significance. It seems at first sight as if the pioneer race, who brought the arts of civilization to these shores, is being extinguished by the flood of immigration which has prevailed for the last few years, but the blood of those adventurous people, strong in body and mind, still coursing in the veins of thousands among us, will not fail to tell powerfully upon the final homogeneous race which is to occupy this region.

That race will be one whose origin will arrest the attention and excite the inquiry of people of science and culture.

Descended from the Spaniard who conquered and civilized the greater part of the new world, from the race of the Montezumas, whose palaces, temples and viaducts, whose intelligence, bravery and patriotism challenged not only the admiration of the invaders, but that of all brave peoples to this day—from the fearless and strong brained pioneers of Saxon, Gallic and Teutonic blood of the second quarter of the century; from the Argonauts of the "days of gold" and from the educated and enterprising people from the northern and southern States and across the Atlantic, who have been thronging to this region in late years, the final assimilation is likely to produce something unique and admirable—something superior in the way of a people. The peculiarly favorable conditions under which existence is sustained here, add to the probability of such a result.

The novelist who is also a historian—who finds the richest food for his fancy in the realm of fact—who makes a very large proportion of the best history that is written, will find inexhaustible material for his weaving in this field which is generally deemed so barren. The story of Ramona does not exhaust the treasures of romance which this land of sunshine and beauty holds in store. It but serves to guide some rays of light down into the depths where the gems still lie buried in darkness.

The poet, too, will show that this is naturally the land of song, and will find here no lack of themes on which to plume the wing of his fancy.

But for both, the plodding chronicler, the jotter down "of unconsidered trifles," the delver in folk and other lore, the recorder of the private and home history of the people, must furnish the staple for the weaving. I dare to predict that this land where, it has been said that "it is always afternoon," this region of constant sunshine—where the mocking bird sings his sweet songs at midnight and where Nature's heart-beats in slumberous music are audible all night long to the attentive ear, where the life current in one's veins, escaping the languor of the oppressive tropics or the chill of ice and snow, courses with unchanged vigor all the year—this favored land will prove prolific in sons of song and story, and will become one of the centers of art and culture of the western continent.

As for the work of the current year, I have made no attempt to map it out and confine it within rigid lines. The usual committees will, of course, be expected to do whatever time and opportunity offers in their several

fields, and it lies in the power of the society to appoint such new committees as its work requires; but with the subsidence of the swollen tide of speculation we may hope for some valuable additions to our membership and better general results to our labors. It would be well to look up the people who are interested in historical, literary and scientific work and induce them to co-operate with us. They would be more likely to do so now than at any other time in our history.

We have reason for asking and expecting some endowments from the people of this community in due season, and we ought, eventually at least, to be provided by the city government with suitable quarters and a site for a building which we hope finally to erect.

If we take hold of the work with the enthusiasm which its character deserves, we shall entitle the society to the benefits it expects. A little warmth of heart in our efforts will work wonders for us. There is no question but a little stagnation had begun to be felt.

Our fields have been invaded by pot-hunters—historical searchers and gatherers of relics and documents—for the money that can be made out of them. We should not wait till all these treasures have been captured by the invaders. I ask of the members hearty and harmonious co-operation in this and all other of the society's fields of labor for the coming year.



### A Letter of Sebastian Viscaïno.

[A translation of a photo-lithograph of the original on file at Madrid, made for Adolph Sutro, Esq., and presented to the society by Rev. J. Adam, January 7, 1889.]

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BY GEORGE BUTLER GRIFFIN.

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THIS is this the letter which General Sebastian Viscaïno sent from the harbor of Monterey, where his vessels lay at anchor for several days. In this letter he says that two vessels were furnished for the expedition, but in point of fact he had three when he left Acapulco, and entered Monterey bay with that number. One of these he dispatched for Acapulco for the purpose of reporting progress, and continued on his voyage after a rest of eighteen days in port. He arrived at Monterey bay on the 16th of December, 1602; and this letter bears date the 28th of that month. On sailing to the northward the flag-ship reached a point somewhere beyond the bay of San Francisco. The vessels parted company and the smaller one, sailing northward still, went as far, probably, as the Columbia river. Owing to stress of weather the flag-ship put back and went into port for repairs and to await the return of her consort. In his subsequent report to the Viceroy of New Spain, Don Gaspar de Zúñiga, Conde de Monterey, in whose honor Viscaïno named the bay, the latter says he put into the port of Francisco. Hence it is supposed by many persons that he sailed through the Golden Gate. In my opinion, it is more than probable that he sought shelter in Sir Francis Drake's bay, or Bodega bay. Had he discovered the great harbor, Viscaïno, who describes so enthusiastically the harbor of San Diego, and even Monterey bay, assuredly would have mentioned it with all due praise. Moreover, one of the objects of Viscaïno's search being the strait of Anian, then and for long years afterwards believed to connect the waters of the two great oceans, had he entered the bay of San Francisco he would have explored it thoroughly and would have ascended one of the two rivers emptying into it, if not both of them, until the cessation of tidal influence had convinced him that they were not arms of the sea. I think that the General, deceived by the trend of the coast in the immediate neighborhood of the Golden Gate, which at the time he sailed by it was, quite probably, concealed in a fog bank, or frightened, perhaps, by a near approach in bad weather to the Farallones, went on his way not even dreaming of the existence of San Francisco bay—just as, a few years before that time, Francis Drake went by unknowing. In his booty-laden ship Drake had no stomach for his usual pastime of a fight against odds, for at home in England was not Elizabeth awaiting greedily her share of the spoils of the subjects of



a king with whom she was ostensibly at peace? Fearing to attempt the homeward passage around Cape Horn, where, probably, his enemies lay in wait against his return, Sir Francis sailed northward in search of that same strait of Anian. Had Drake entered the bay of San Francisco can it be doubted that he would have examined it thoroughly, and that he would have ascended one or both of the two rivers? I do not think there can be any doubt on the subject. The last great viking careened his ship where afterward Viscaino's ship lay awaiting the return of its consort, either in Bodega bay or that which to-day bears the rover's name. There he saw the animals like conies, of which his merry chaplain—in those brave days of old Englishman as well as Spaniard put on the cloak of religion when he became a murderer and a thief—has left us an account, and there, in the name of his royal mistress and co-partner in piracy, he took possession of "New Albion" with a delightfully cool and utterly English disregard of others' rights—which, moreover, did not die out when Sir Francis Drake found his grave under the waters of the Caribbean. Not finding the sought-for strait, and just then preferring ingots of gold and pieces of eight to fighting, the freebooter took the only alternative left to him and, boldly launching westward, completed a voyage around the world.

Viscaino's letter is addressed, if I remember aright—for I have not the authorities by me—to the regent of Spain. The spelling of the letter is not more peculiar than that of almost all the Spanish MSS. of the 16th century—for in 1602 the General was somewhat advanced in years, and had learned his rudiments long before then. It has always seemed strange to me that bad spelling could occur in writing Spanish, a language in which every letter is pronounced and always has the same sound, but our General was not a man of letters, and misplaces his "c," and his "s," and his "z," impartially; while, as to his "h," he uses it after the manner of a cockney. To be sure, the sound of that letter in Spanish is a mere breathing, less than the aspirate of the Greeks, a mere suspicion of sound. Viscaino was a bluff sailor, who loved not clerkish ways; he did not even take the trouble to read what he had written, for not infrequently he has omitted a necessary word or two, and once has repeated his words. All Spanish writing of Viscaino's time is full of words abbreviated in the most extraordinary manner, and the abbreviations, even of the same writer in the same MS., are rarely twice alike. One of these astonishing chirographic "tours-de-force" is noticeable in the veritable anagram with which the last line of the letter ends. And those rare old penmen had a pleasing way of writing two, or three, or six of these contorted words as though they all made one single word. Nor is there any attempt at punctuation in this letter. Comparatively speaking, it is easy to decipher the handwriting of Visciano, but some Spanish MSS. of the period involve a great deal of study in the reading thereof. On the whole, I have thought it better to prefix to the translation of the letter a paraphrase, as literally as can be gramatically written, for the use of those not having time or patience to master the original.

A word, in conclusion, about Viscaino's ships. I can not indicate in

single English words just what they were. The larger of the two was a "barcoluengo," or "barcolongo," a vessel having a flush-deck, only one mast, and a very round prow—probably behaving very badly in going about in a head sea or in working to windward. The "lancha" was smaller and had but one mast, while sweeps aided in the propulsion of the vessel, which was a tender to the flag-ship, and very useful in the exploration of shoal waters and narrow passages.

## THE LETTER.

Ya Vuestra Alteza habrá tenido noticia como el conde de Monterey, Virey de la Nueva España, en conformidad de las órdenes que de Su Magestad tiene, me encargó el descubrimiento de los puertos i paisés de la costa de la mar del sur, desde el puerto de Acapulco al cabo Mendocino, dandome para ello dos navíos—una lanca i un barcolongo—con gente de mar i guerra, armas i municiones, con bastimentos para once meses; que, en conformidad de las órdenes que para ello me dió, salí de Acapulco á cinco de Mayo del año; que he venido haciendo el dicho descubrimiento, aunque con mucha dificultad i trabajo por no ser sabido la navegacion i habiendo siempre los vientos contrarios, mal ayudado de dios i del buen deseo que siempre los vientos contrarios, mal ayudado de dios i del buen deseo que siempre he tenido de servir á Su Magestad. He descubierto muchos puertos, bahías é islas hasta el puerto de Monterey, puerto en altura de treinta i siete grados, demarcando todo i sondando, con su derrotero como lo pide el arte de la mar, sin dejar cosa sustancial que de ello i de lo que muestra prometer la tierra i la mucha gente que en ella hay. Envío copia al dicho conde para que la envíe á Su Magestad i á Vuestra Alteza. Lo que es este puerto de Monterey—demás de estar en tan buena altura para lo que Su Magestad pretende para amparo i seguridad de los naos que vienen de Filipinas, en el pueden redimir la necesidad que trujeren, porque tiene gran suma de pinales para árboles i entenas, aunque sea navío de mil toneladas, encinos i robles muy grandes para fabricar navíos, i esto junto á la marina aguadela (sic) en cantidad. I el puerto es muy seguro de todos los vientos. La tierra está toda poblada de Indios i es muy fértil i es del temple i terruño de Castilla, i se dará en ella cualquier semilla que se sembrara. Hay grandes dehesas i muchos géneros de animales i aves—como en la dicha relacion se contiene.

Yo aviso á Su Magestad del grandor de este reyno, i lo gran poblado está, i lo mucho que promete, i lo que los Indios me han dado á entender hay en la tierra adentro de poblaciones, i como la gente es mansa i afable que con facilidad entiendo recibiran el santo evangelio i se reduciran á la corona real—i pues Su Magestad es señor i dueño de todo, que provee en ello lo que mas convenga; que lo que fuere de mi parte le serviré con fidelidad hasta morir.

Respecto de haberme detenido mas tiempo del que se entendió para hacer este descubrimiento: Por las dificultades que tengo dichas se me ha gastado la mayor parte de los bastimentos i municiones que se me caeron, i con el mucho trabajo que la gente ha tenido ha enfermado alguna cantidad

i muertose algunos; de manera que, para hacer el dicho descubrimiento de una vez, así del cabo Mendocino como de la ensenada de Californias, que es la órden que traigo—se me ofreció dificultad para poder de ello hacer todo sin mucho socorro de bastimentos, gente i municiones, i así despacho para ello. Que al almirante dé aviso el dicho conde, pidiendole lo necesario i advirtiendole en que parage i á que tiempo me lo ha de enviar, con la relacion, demarcacion i derroteros, i todo lo que he hecho an el dicho descubrimiento hasta hoy, para que la envíe Vuestra Alteza me lo enviare. Espero en dios de hacer un gran servicio á Su Magestad i llevaré descubierto grandes reynos i riqueza. De todo lo que se fuere haciendo en las ocasiones que se ofrecieren avisaré de ello á Vuestra Alteza con verdad i fidelidad. Guarde nuestro señor á Vuestra Alteza, como el cristian ha menester, i yo soy criado de Vuestra Alteza.

Puerto de Monterey, á 28 de Diciembre de 1602.

(Signed)

SEBASTIAN VISCAINO.

(flourish)

[Translation of the above—which I have made as literal as possible, but always endeavoring to retain the manly, straightforward style of the original.]

Your Highness will have had notice already of how the Count of Monterey, Viceroy of New Spain,\* in conformity with the orders which he has from His Majesty, charged me with the exploration of the harbors and countries of the coast of the south sea from the port of Acapulco to Cape Mendocino, giving me for that purpose two vessels, a lancha and a barcolongo, together with seamen and soldiers, arms and ammunition, and provisions for eleven months; that, in accordance with the orders given to me for that end, I sailed from Acapulco on the 5th day of May of this year; that I have prosecuted said exploration, although with great difficulty and labor, because the navigation was unknown and head-winds were constant, while the aid of providence and the good desire I have ever felt for serving His Majesty availed me little. I have discovered many ports, bays and islands, as far as the port of Monterey, a port which is in thirty-seven degrees of latitude, surveying all and sounding and noting the sailing directions, according to the art of navigation, without neglecting any substantial thing concerning the same, and what the land and the numerous peoples dwelling therein seemingly promise. I send a copy to the said Count, in order that he may transmit the information to His Majesty and Your Highness.† As to what this port of Monterey is, in addition to being so well situated in point of latitude, for that which His Majesty intends to

\* New Spain was the viceroyalty of which the city of Mexico was capital, and included the territory to the northward of the viceroyalty which ultimately became that of Guatemala. Between these two viceroyalties disputes about jurisdiction over the border districts were fierce and frequent. These disputes became national hair-locks, and I do not know whether it has been yet settled definitely whether the district of Soconusco is Mexican or Guatemalan.

† According to Spanish custom, Viscaino sent copies of his report, etc., to the Imperial authorities as well as to the viceroy under whose immediate orders he acted.

do for the protection and security of ships coming from the Phillipines.\* In it they may repair the damages which they may have sustained, for there is a great extent of pine forest from which to obtain masts and yards, even though the vessel be of a thousand tons burthen, live oaks† and white oaks for ship-building, and this close to the seaside‡ in great quantities. And the harbor is very secure against all winds. The land is thickly peopled by Indians and is very fertile, in its climate and the quality of the soil resembling Castile, and any seed sown there will give fruit. There are extensive lands fit for pasturage, and many kinds of beasts and birds—as is set forth in the report referred to.

I call his Majesty's attention to the great extent of this land and its numerous population, and what promise it holds forth, and what the Indians have given me to understand concerning the population of the interior, and how gentle and affable the people is, so that they will receive readily the holy gospel and will come into subjection to the royal crown; and, since His Majesty is lord and master of all, let him provide as may seem best to him. As to what it behooves me to do on my part, I will serve him till death.

With regard to my having delayed longer than the time which was thought necessary for this exploration: Because of the many difficulties of which I have spoken, the greater part of the provisions and ammunition which were furnished to me has been expended; while, owing to the great labors which my crews have gone through, a number of the men have fallen ill and some have died; so that for making farther exploration at once, as well of the region of Cape Mendocino as of the entire littoral¶ of the Californias, as is called for by my orders, I have met with obstacles to the completion of the work without considerable succor in the way of provisions, people and ammunition, and speedy dispatch of these. Let the Admiral be advised by the said Count of this, he asking him for what is necessary, and letting him know to what place and at what time he must dispatch these things to me, sending to him also the map, report and sailing directions concerning all that I have done in said exploration to the present time, so that Your Highness may order that the same may be sent to me. I trust in

\* There was but one ship a year between the American and the Asian Indies of Spain, the vessel plying between Acapulco and Manila. On her home passage from the latter port the galeon ran across the Pacific with the trade-wind and made a landfall on our coast about the latitude of Monterey. The chief pilot of Viscaino's ship had been wrecked, only a few years before the time of the voyage I am considering, in the galeon which was cast away on this coast a little to the northward of San Francisco. According to well founded tradition, a boat from another of these packets, which foundered at sea, conveyed a woman, a priest and several other Spaniards to one of the Sandwich islands, where they were kindly received and intermarried among the Islanders.

† In all Spanish-American countries the "encino" is the "live-oak; in Mexico the Spanish word "roble" is applied to the "white oak" especially, though the word is applied to all oaks other than the "encino."

‡ Viscaino's words are: "La marina aguada." There is no word "aguadela" in the Spanish language. "Aguadero" is a deposit of water. There is a tendency in the provincialisms of Spain to interchange the "l" and the "r"—just as there is also among our own children, among Chinese speaking English and among Sandwich Islanders using their own tongue. By "la marina aguada" Viscaino may have meant to say, literally, "the marine watering-place," but I have thought it as well to render the phrase by our word "sea-side."

¶ The word in the text is "enseñada," and our word having the same meaning is "bight." Evidently the word can not be literally translated here, and, to express the idea of the whole coast from Cape San Lucas to Cape Mendocino, I select the word I use.

God that I may render a great service to His Majesty and that I may discover great kingdoms and riches. Of all that may be done I shall advise Your Highness, as opportunity may serve, with truth and faithfully. May our Lord guide Your Highness—which is a ward so necessary to the Christian\* and I remain the servant of Your Highness.

Port of Monterey, 28th December, 1602.

[Signed]: SEBASTIAN VISCAINO.  
(flourish)

Translated by me at Los Angeles, this 7th day of February, 1889—the paraphrase of the original, and the historical introduction and notes also being by me.

GEO. BUTLER GRIFFIN.

\* Viscaino says: "Como la cristian ha menester." If the regent were a woman, then only the final "a" of "cristiana" has been dropped; otherwise the sentence is such as no Spaniard, however careless or illiterate, would write. However it be, "necessary to the Christian" answers to any possible reading of the original, whether the regent were man or woman. In the history of Spain, by the way, that a regent acted for the sovereign does not imply, as it might in those of other countries, the minority or incapacity of that sovereign. During the reigns of the Emperor and of Philip II, Spain was not infrequently directly governed by a regent, the monarch being absent. Both Charles and his son were fond of putting this power in the hands of female relatives. The Queen of Hungary represented Charles at different times; and his sister, the Duchess of Parma, as regent for the Low Countries, was not so bad a ruler as Philip himself.



**A Historical Sketch of the Movement for a Political Separation of the two Californias, Northern and Southern, under both the Spanish and American Regimes.**

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DR. J. P. WIDNEY.

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[Read February 4, 1889.]

THE tendency to a separation of California into two distinct political divisions is not new. It dates back into the old Mexican era of the Pacific Coast. During the Mexican regime, in the years before the country came under the American flag, the contest for supremacy between Northern and Southern California rarely ceased, varying in intensity and bitterness with the varying exigencies and fortunes of the various administrations of the colonial government.

The last capitol of the two Californias before the American occupation, was Los Angeles. The discovery of gold in the northern sierra, which came almost with the date of the American occupation, and the sudden rush of population to the mines, gave to Northern California an advantage in the struggle which long continued through the start thus given, and through the superior facilities offered by San Francisco harbor as a commercial point.

The southern portion of this territory, however, at the time of the admission of California into the Union as a state in 1850, went into the civil compact reluctantly, and only because the isolation of the new people upon a distant coast, and the possibilities of foreign dangers rendered an intimate union of the whole coast for the time being, desirable for purposes of common defense. Southern California was, however, restive under the newer order of things, feeling that its best development could only come with the stimulus and freedom of a separate political life. Animated by this feeling, a movement for the division of the state was made ten years later. In 1859 an act was passed by the state legislature entitled "An act granting the consent of the legislature to the formation of a different government for the southern counties of this state." The line of division, as specified in the act, embraced the counties of San Luis Obispo, Santa Barbara, Los Angeles, San Diego, San Bernardino and a portion of Buena Vista. The act, by order of the Legislature, was put to vote by the people of the counties in question; it was carried by an overwhelming vote. The returns, together with the act, were certified to by Governor Latham, and forwarded by him officially to the United States government at Washington. The intense

national excitement over the questions which led to the civil war delayed action, and with the breaking out of hostilities further action for the completion of the division was postponed. In the turmoil of war, and in the settlement of great national questions which agitated the country in the years that followed, the subject of further action in the matter remained in abeyance. Occasional allusions in the public print showed, however, that it was only slumbering. In 1880 Governor J. G. Downey republished, over his own signature, in the Los Angeles Evening Express of May 8th, the original act, together with a statement that he believed the act to remain valid despite the lapse of years, and that only the consent of Congress was needed to make the action final.

In the February number of the Californian, 1881, a monthly periodical printed in San Francisco, now the Overland Monthly, I published an article upon the division of the state, in which I discussed at length the geographical, topographical, climatic and commercial laws which lie back of and which produce this tendency to a separation, and stated that the natural working of these laws would in the end lead to a separation of the state into two distinct civil organizations, and that while it might be delayed, this division of the state was in the end inevitable. The publication of that article brought down upon the head of the writer a storm of personal abuse and vituperation from the papers of Northern California, notably from those of San Francisco, which was new to the discussion. It might reasonably be inferred, from the storm which it raised, that the reasons given in the article had in them somewhat of truth, and that the force of the article was felt, as men do not ordinarily devote so much energy to refute what they deem idle fallacies.

Several weeks later, at a citizens' mass meeting held in Los Angeles, February 1, 1881, upon the subject of Wilmington harbor improvement, in the course of a speech upon that topic, I proposed that the subject of state division should also be taken up. The suggestion was at once acted upon, and after a number of speeches from various gentlemen strongly favoring the movement, an executive committee, consisting of Messrs. E. F. Spence, J. P. Widney, J. G. Downey, A. B. Moffitt, J. G. Estudillo and W. H. Perry, were selected to take charge of the work.

This executive committee selected a legal committee to which they referred the following questions in order that the legal status of the movement might be made clear.

First. Is the legislative act of 1859, as voted upon by the people, and forwarded to Congress, with the certificate of the governor of California, still in force?

Second. If that act is still in force, what legal steps are necessary to complete the division, and establish the new state of Southern California?

Third. If that act is no longer in force, what other course will become necessary to effect a division?

The answer was as follows:

First. The act of the legislature of the State of California entitled "An act granting the consent of the legislature to the formation of a different government for the southern counties of this state," approved April 18th, 1859, page 310, is in full force and effect.

Second. Under article IV, section 3, of the constitution of the United States, it only remains for Congress to admit the new state with a republican form of government.

Third. To secure this last action no legal forms are required.

Fourth. The mode most nearly conforming to precedent would be to secure the united action of a representation from each of the counties in the proposed new state, calling an election to elect delegates to a constitutional convention to be held at some designated time and place. Such a constitutional convention would then prepare a form of constitution for the new state and submit the same to a vote of the people, and upon its adoption and presentation to Congress, and the act of Congress admitting the new state, the work would be complete.

Fifth. The election should be held as nearly as possible in accordance with the forms of our present election laws.

(Signed:) THOM & STEPHENS.  
 H. T. HAZARD.  
 C. E. THOM.  
 R. M. WIDNEY.  
 A. BRUNSON.  
 S. C. HUBBELL.  
 GEORGE H. SMITH.  
 H. A. BARCLAY.

A circular letter was thereupon sent by the executive committee to the Democratic and Republican county committees of San Diego, San Bernardino, Los Angeles, Ventura, Santa Barbara San Luis Obispo, Kern and Inyo, requesting the appointment of delegates to a convention to be held in Los Angeles, September 8, 1881, to consider the advisability of taking further action in the matter.

The convention met, many of the delegates being present, and the question was thoroughly discussed. The prevailing sentiment was that the division of the state was a necessity; that only by the establishment of a separate state could the full development and growth of Southern California be brought about; but the feeling seemed to be that the time had as yet hardly arrived to take the step. With this understanding, and with the further understanding that when a favorable time should occur a united movement would be made to the accomplishment of that end, the convention adjourned.

From this time on the subject never remained quiescent, but became a topic of constant discussion, in the public press, and among the people.

Early in the present session of Congress (1888-9) General William Van-



dever, representative in Congress for this district, introduced a bill in the House providing for the taking of steps anew for the division of the state. That bill is now on file awaiting its turn for consideration in the order of business.

A few days afterward, a public meeting was called in the city of Los Angeles to take up the work. At that meeting a committee was appointed to elect an executive committee to take charge of the movement. That committee has not yet made public its action.



## History of the Movements for the Division of Los Angeles County.

BY PROFESSOR J. M. GUINN.

[Read February 4, 1889.]

**H**ISTORIANS, generally speaking, are not partial to failures. The movement be what it may that fails, fills but a small space in history, and the actors in it are usually relegated to oblivion, or if commemorated, it is by the briefest of notices.

The movement to divide the county of Los Angeles and create a new county out of the southeastern portion, forms no exception to this rule. It is one of the unwritten chapters of our local history. It began twenty years ago and almost succeeded, yet there exists no written record of it except, perhaps, a few brief paragraphs in the legislative proceedings—session of 1869-70.

The most active movers in the scheme are dead and almost forgotten. Success might have given them fame, at least it would have given their names a place in the annals of our county. The success of their scheme would have wrought a great change in the history of our county for the two decades past, but whether for better or worse your historian will not attempt to decide.

To the late Major Max Strobel of Anaheim, belongs the credit (or odium) of inaugurating the movement. Whether his fertile brain originated it, I know not. He was its most earnest advocate and a most active worker for its success.

Twenty years ago there were numerous reasons for a division that do not exist to-day. A trip to the county seat and return required two days, and from the more distant parts of the area included in the proposed county, four days travel over hot and dusty roads in the summer time—through mud and mire in the winter time. Bridges there were none, and often during the rainy season, the rivers swollen to raging torrents, cut off all communication with the metropolis for weeks at a time. A lumbering old stage coach three times a week carried the mail, and at the compensation of ten cents a mile banged and battered the unfortunate passenger onward to his destination at the reckless speed of five miles an hour. Six dollars in coin of the realm was the fare from Anaheim to Los Angeles and return. One dollar and five cents is all that a soulless corporation exacts from you now. There were other and more grievous causes of complaint. The denizens of Los Angeles city monopolized all the county offices. The dwellers in the bucolic districts were taxed without representation, and this

was too grievous to be borne without protest; for, had not our revolutionary fathers fought, bled and died for office?

These and other grievances were set forth as causes for division, and petitions were circulated and numerous signed by the denizens dwelling within the limits of the proposed new county.

A bill creating the county of Anaheim and making the town of Anaheim its county seat was drawn up. The dividing line between the old and the new county began at a point in the Pacific ocean three nautical miles southwestward from the mouth of the old San Gabriel river, thence running northeasterly, following the channel of that river to an intersection with the San Bernardino base line, thence east on that line to the division line between the counties of San Bernardino and Los Angeles. The new county included within its limits the Los Nietos, San José and Santa Ana valleys, the richest and at that time the most populous valleys of Los Angeles county. Strobel had enlisted in his scheme the active co-operation of some of the wealthiest pioneers of the county, William Workman of Puente, Temple, Rubottom, Fryer, Don Juan Foster, Ben Dryfus and others favored his scheme. Armed with numerous petitions and abundantly supplied with coin, Strobel appeared in Sacramento at the opening of the legislature. Early in the session his bill passed the Assembly with but little opposition. The hopes of the divisionists beat high. Anaheim became a political Mecca for office-seeking pilgrims. Statesmen of Los Nietos and place hunters from San Juan counselled with the patriots of Anaheim and parcelled out the prospective offices among them.

Then came a long delay. Strobel was hopeful, but opposition had shown itself. Gold would win, and gold he must have or all would be lost. The envious and uncharitable said that Strobel had been fighting the tiger in the jungles of Sacramento, and that the tiger had had the best of it. But the faithful gathered together their hard-earned shekels and the proceeds of many a gallon of wine, the price of many a broncho and many a bullock, were sent to Strobel that he might convince the honest legislators of the richness and resources of the new county. Another long delay—the waiting statesmen on the banks of the Santa Ana grew wild-eyed and haggard—hope deferred was wearing them to a shadow. One day in the ides of March the lumbering old stage coach, with its tri-weekly mail, rolled into the embryo capital of the new county. The statesmen gathered around eager for the latest from Sacramento. It came in a letter from Strobel. The bill had been defeated in the Senate, but he was working for a reconsideration and would be sure of success if more money could be sent him. By the defeat of that bill the county lost a large crop of statesmen—nipped in the bud. To Strobel's last appeal even the most faithful were dumb. A few weeks later the old coach brought Strobel himself. He told the story of his defeat in pathetic tones. Railroad machinations and a corruption fund freely used by that soulless corporation had defeated his measure. A rumor, true or false I know not, attributed his failure to a different cause. Strobel,

finding opposition to his measure increasing, and his coin decreasing, had determined upon a grand "coup d'etat." The legislature of '69 was one of those known in the history of the state as the "legislature of a thousand drinks."

Strobel's scheme was to give a champagne supper the night before a vote was to be taken on his bill, to which the members of the Senate, and particularly those known to be opposed to his bill, were to be invited. At that feast of reason and flow of soul he would give special attention to the opponents and drink them under the table. Then on the morrow, whilst they calmly slept beneath the banquet table, he would rally his friends and the bill would be passed.

Strobel prided himself on his bacchanalian achievements, and doubtless he could have drunk Bacchus himself under the table, and have staggered Thor or a Jotund of the Norseland in a drinking bout, but he had never before matched himself against an old time bourbon California Legislature.

When the morning sun looked in on that banquet hall, Strobel quietly slept beneath the table, but the legislators had gone to their favorite saloons to seek their matutinal glass of whisky straight. When the all-important moment arrived the general was not there to rally his forces. The bill was defeated by a small majority.

Major Max Strobel, who figured quite prominently in what might be called the mediæval history of our county, deserves more than a passing notice. A soldier of fortune and a Machiavel in politics, he was always on the losing side. A man of versatile genius and varied resources, a lawyer, an editor, an engineer, an accomplished linguist and a man of education, his exchequer was always in a state of collapse and the brightest efforts of his genius were wasted in staving off his creditors. He was a German by birth and reputed to be of aristocratic lineage. He was a compatriot of Carl Schurtz and Sigel in the German revolution of '48, and on the failure of that movement, with Sigel his intimate friend, fled to this country. He drifted down to Nicaragua and filibustered with Walker. He finally located in Anaheim where he bought a vineyard and engaged in wine making.

But the life of a vineyardist was too narrow and contracted for his genius, and he was constantly branching out into new projects. He was one of the pioneer prospectors for oil in this county. He sunk a great hole in Brea cañon where, if he did not strike oil, he did strike the bottom of the purses of those whom he enlisted in his scheme.

After his failure to divide the county he started a newspaper in Anaheim. It was to be the organ of county division. It succeeded in dividing the divisionists into two factions—the Strobel and the anti-Strobel—who waged war against each other through the columns of their respective organs, the Advocate and the Gazette. Strobel's organ, the People's Advocate, starved to death for want of patronage and was buried in the grave of journalistic failures. How transitory is fame! The mighty questions that perturbed the quiet of Anaheim in those days are forgotten. I doubt whether

there is a citizen of that town to-day who could give you the name of Strobel's organ, and it is doubtful whether there is a copy of it in existence.

Strobel's next venture and his last, was the sale of Santa Catalina Island to European capitalists. Supplied with funds by the owners, and a number of rich mineral specimens from some source, he sailed for England and located in London. He succeeded in convincing a syndicate of English capitalists of the inexhaustible mineral wealth of the island, and negotiated a sale for a million dollars. A contract was drawn up and an hour set for the next day, when the parties were to sign and the money to be paid.

When the hour arrived for closing the transaction, Strobel did not appear. Search was made for him. He was found in his room dead—dead on the very eve of success, for the sale of the island would have made him wealthy. "Unmerciful disaster followed him fast and followed him faster," to the verge of the grave. Negotiations for the island were broken off by the death of Strobel. Nearly twenty years after, the island was sold for less than one quarter of what he was to receive for it.

After the death of Strobel the management of the county division scheme fell into the hands of a committee. The name was changed from the county of Anaheim to the county of Orange, and the eastern boundary contracted so as to leave out the San José valley—the people of that valley electing to remain in the old county. A bill creating the county of Orange was introduced in the legislature of 1871-72, but never reached a vote. In 1873 the division question drifted into politics. A county division convention was held in Anaheim, and a man by the name of Bush, from Santa Ana, was nominated for the legislature.

The policy of the divisionists was to force one or the other of the political parties to place Bush on their ticket to secure the division vote. In their conventions, neither the Democratic nor the Republican parties took any notice of Bush's candidacy. Ignored by both parties, he took the stump and made a county division campaign on the one issue that he was the only honest man before the people. He received a few votes, and then this Diogenes wonder—an honest man—passed out of the political arena forever.

In the next legislature, Wiseman, nicknamed the "Broad axe," from the vigorous manner in which he hewed to pieces the Queen's English, appeared as the champion of county division. Neither his pathetic appeals for the oppressed people of Orange nor his superlative denunciations of their oppressors, convinced the lawmakers at Sacramento that the people were suffering for the want of a new county.

Another change in boundaries and name. A bill to create the county of Santa Ana, and to make Anaheim the county seat, was drafted. The name was a concession to Santa Ana, a concession, however, that failed to conciliate. Santa Ana, Orange and Tustin opposed the scheme, and the missionaries sent from Anaheim to convert them met a cold reception, and

their arguments for county division were turned to ridicule. Santa Ana wanted the county seat and would not be comforted without it. Jealousies and bickerings, local prejudices and local ambitions defeated the measure. The question of division for a time fell into innocuous desuetude, Anaheim making her last effort in 1880. Santa Ana now appears as the champion of the scheme she formerly opposed. The boundaries of the new county have been so contracted as to leave her hated rival, Anaheim, only three miles from its northern boundary. Anaheim now as vigorously opposes as she once advocated the measure.



The U. S. Coast and Geodetic Survey Magnetic Observatory at Los Angeles, California.

BY PROFESSOR R. E. HALTER.

Assistant U. S. Coast and Geodetic Survey.

[Read November 12, 1888.]

TRADITION tells us the magnetic needle was known to the Chinese as early as the year 2,600 B. C., and from well authenticated information we learn that they had magnetic carriages, on which the moveable arm of the figure of a man continually pointed to the south, as a guide by which to find their way across the boundless plains of Tartary; that was in the obscure age of Codrus, more than a thousand years before the christian era.

About the year 300 A. D., Chinese vessels navigated the Indian ocean under the direction of magnetic needles, and about 800 years later the mariner's compass was used in European waters.

The time of the first knowledge of the declination or variation of the needles by Europeans is very obscure, but the variation is found on a chart of 1436.

Christopher Columbus, on his first voyage across the ocean, discovered a line of no variation, and by his discovery gave a new impetus to the study of terrestrial magnetism. Its vital importance to the mariner and also to the surveyor, was more fully recognized, and gradually better instruments were devised for magnetic observations, and different governments interested themselves in developing a matter of such general interest.

In connection with our survey the first public attention was given to the subject by F. R. Hassler, the first superintendent of the survey in 1825. But the work was only fairly begun by A. D. Bache the next Superintendent in 1843, in making observations for declination, dip, and intensity, with improved instruments, and they have been prosecuted uninterruptedly by the survey up to the present time.

In May, 1882, J. S. Lawson, Assistant U. S. Coast and Geodetic Survey, was instructed by the superintendent to select a site for a permanent magnetic observatory near the coast of Southern California. After carefully investigating several sites in San Diego and vicinity, and also in the vicinity of this city, the present site was selected as combining the greatest number of advantages. Its freedom from local disturbing influences, its secluded position, a good water supply, and its being in a city where nearly all the supplies required could be obtained, recommended it further.

Permission to occupy the Normal School grounds for the purpose in view, was obtained from Gov. Geo. E. Perkins of California, representing the

Board of Trustees of the State Normal School as its president ex-officio, and the building was erected and the latitude and longitude of its site determined by assistant A. F. Rodgers; the latitude being  $34^{\circ} 3' 10''$  N., and the longitude  $118^{\circ} 14' 40''$  W. from Greenwich. This was accomplished in July, 1882; the building was then turned over to Mr. Werner Suess, mechanic and magnetic expert, of the survey, who placed the instruments in position and made the principal adjustments. The final adjustments were made with the co-operation of Mr. Marcus Baker, acting assistant of the survey, who then took charge of the observatory; and the continuous photographic record was begun in October of the same year. Mr. Baker continued in charge of the work until August, 1884, when he was relieved by the late Mr. Carlisle Terry, Sub-Assistant Coast and Geodetic Survey, and I succeeded Mr. Terry in February, 1887.

This observatory is supplied with a superior self-recording magnetic apparatus, called the Adie magnetograph. It consists of a unifilar, or declination magnetograph, a bifilar, or horizontal force magnetograph, and a vertical force or dip magnetograph; and they record the movement of the magnets photographically. This class of instruments was mainly devised by Welsh, and made by Adie of London, under the auspices of the British Association for the Advancement of Science; and were first operated at the Kew observatory of the British Association in 1857. Magnetic observatories have been established at many places, as at Toronto, Canada; Bombay, India; Parc St. Maur, near Paris, and successively, under the direction of the U. S. Coast Survey at Key West, Florida; Madison, Wisconsin, and Los Angeles, California. The observatory at Kew is still in active operation. There are also "permanent" magnetic observatories in Austria, Russia, Spain and China; but just at this writing I am unable to say if they use the self-recording apparatus.

This observatory has been particularly well adapted for the observations made, on account of the equable temperature in which it is located. To guard against the changes of temperature as much as possible, the building was made double, really two buildings, one inside the other. There is a space of about three feet between the two, and each building has walls and ceilings eighteen inches thick, packed with adobe soil. These precautions reduced the changes of temperature very materially, even though naturally so small. Taking a single year for illustration, the maximum temperature in the magnet room was  $87.8^{\circ}$  F., and the minimum,  $52.5^{\circ}$ ; the greatest change for any one day was  $5.2^{\circ}$ , and the mean maximum and mean minimum temperature for the year were respectively  $74.3^{\circ}$  and  $72.3^{\circ}$ , giving a mean daily change of only  $2^{\circ}$ . The records obtained by the magnetographs at this observatory are of a differential character. On the 14th, 15th and 16th of every month several sets of absolute measures for the declination, dip and intensity are made at another small observatory in the immediate vicinity, but sufficiently removed from the main building to prevent local influence. These observations are combined with the differential records,



and the results thus obtained furnish the material for the discussion and the investigation of the laws which govern the movements of the magnets.

This discussion and investigation is made mainly by Chas. A. Schott, assistant in charge of the computing division of the survey, who has devoted much time and labor to the subject, both practically and theoretically, and is probably the best magnetic authority in this country. His isogonic, isoclinic and isodynamic maps of the United States, which appear in the coast and geodetic survey yearly reports, from time to time, and the discussions which accompany them, are well worth the examination of any one interested in terrestrial magnetism. Although our "permanent" observatories are comparatively few, the survey has made hundreds of temporary magnetic stations throughout the country, and much information has been gained; and yet terrestrial magnetism remains one of the most intricate and mysterious problems of the age, and the cause of this mysterious agency is entirely unknown. Up to the present time no instruments has been devised for making reliable observations at sea, consequently our charts must depend upon land observations for the magnetic information they contain; but our coast observations, combined with the inland observations, give very clear and close directions for the isogonic curves; and thus the mariner is furnished the practical information needed.

The importance of a knowledge of the declination of the magnetic needle to the general public on shore, is testified to by the number of letters received by the office in Washington, asking for information on the subject. In the early history of our country, all, or nearly all, of the surveys were made with the surveyors' compass, and frequently no record was made of variation of the needle, if indeed any allowance was made. To be able to tell what this variation was in the locality and at the time the survey was made, is one of the results of our observations; and thus many portions of our country have boundary disputes settled, and the people spared much litigation.

The instruments now in use here will probably be moved to San Antonio, Texas, next year, where a similar observatory will be built for their reception. The usual life of a "permanent" observatory in one place is variable, depending on the directors, or governments controlling them. Six or seven years, or about the half of a sun-spot cycle, is the least period it is considered profitable to keep up the observations in any one place. The reason for moving in this instance is to investigate the laws of terrestrial magnetism where our knowledge is less complete than in this state.

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## Comparison of Rain Gauges in Los Angeles.

BY SERGEANT GEORGE E. FRANKLIN.

[Read June 4, 1888.]

TO THE HISTORICAL SOCIETY OF SOUTHERN CALIFORNIA — LADIES AND GENTLEMEN: Referring to a recent visit of your committee to this office, and conversation upon the subject of the rainfall for the past season, and the doubt cast upon the accuracy of the signal service record, I beg leave to address you upon the subject.

The impression entertained by many persons that a defect exists either in the exposure or the construction of the signal service gauge, is not borne out by the facts in the case, as will be shown presently by a comparative statement of the rainfall for the past season as recorded by a number of observers in this locality, and while this data is not as comprehensive as I desire, it will answer the purpose sufficiently to refute the idea of inaccuracy of the signal service record. Another impression that has general credence, through the popular reliance on the recollection of past occurrences, instead of actual facts, is that more than the average number of rainy days occurred with an attendant large rainfall. This impression will also be shown to be erroneous, by a table compiled for a period of ten years from the signal service records, giving the number of days rain fell each season, the seasonal rainfall and averages.

An examination of the following statement of the rainfall in this vicinity, as recorded by a number of observers, will show that the signal service record is not defective, nor that more than the usual amount of rain has fallen, except in the case of Mr. Ducommun's gauge, which records a precipitation greatly in excess of any of the others.

RAINFALL, SEASON OF 1887-8.

Signal Service Record.	Record at M. VanNuy's ranch San Fernando.	Record at the Raymond Hotel, Pasadena.	S. P. R. R. Co.'s Record.	Mr. Ducommun's Record.
13.96	13.13	16.95	18.96	26.38

It will be observed from the above table that the record of all the observers, excepting Mr. Ducommun, have a certain correspondence, and show neither an excess nor deficiency greater than is to be expected from the location of the gauges.

The table below will show that the facts do not support the impression that more than the average number of rainy days occurred, or that the rain-

fall was unusually heavy, but on the contrary, the past season was deficient both in the number of days on which rain fell and the amount of rainfall, as will be observed by comparing the season with the averages.

NUMBER OF DAYS RAIN FELL EACH SEASON, AND SEASONAL RAINFALL.

Season .....	1878-9	1879-80	1880-1	1881-2	1882-3	1883-4	1884-5	1885-6	1886-7	1887-8
No. of days rain fell,	35	49	35	37	34	64	27	28	30	37
Rainfall, inches. ...	11.35	20.34	13.13	10.40	12.11	38.22	9.25	22.58	13.76	11.98

Average number of days rain fell .....38.6

Average seasonal rainfall.....16.51 inches.

The rains, with the exception of those falling during the latter part of December and the first portion of January, were comparatively light and beneficial, the water being absorbed by the dry earth and not running off in torrents as is usual when heavy rainfall occurs. The difference between the gauge of this station and others in this vicinity, is due no doubt largely to the exposure, being affected by wind currents and the topographical features of the country; this difference is not more than is to be anticipated, as I mentioned before, except in the case of Mr. Ducommon's gauge. There are several causes that seem to account for this difference, but are not entirely satisfactory in explaining why so great a difference should exist in so limited an area.

It is probable that the topographical features of the section of the city where Mr. Ducommon has his gauge exposed, have an important influence in giving an increased precipitation, as the high hills on either side of the city, sloping to the river, form a trough through which the rain currents, in passing, are contracted and made more dense than in the open country, tending to give an increased precipitation; and also that here the wind is less liable to currents and eddies. Another factor in explaining this difference, may be that the amount of water collected by the signal service gauge is affected by the rain currents impinging upon the sides of the tower on which the gauge is located, producing a deflection that affects the amount of water received by the collector.

Admitting this to be a fact, the difference should not be so material as is noted between the gauges, amounting this season to nearly one hundred per cent. Another cause may be a difference in the reading of the gauges, which can only be determined by a careful comparison of the instruments. It seems scarcely possible that nearly twice as much rain should fall in a radius of less than one-fourth of a mile under nearly similar circumstances, and in order to determine whether this increased precipitation is due to natural causes or other effects, I desire to locate a standard gauge in that vicinity to ascertain if similar results will occur. I also desire to locate

gauges at several other points in the city, and would be pleased to have your co-operation and that of the members of the Historical Society who feel an interest in the matter.

I desire to give you a description of the gauge adopted as the standard instrument of the Signal Service, and the location to select for exposing gauges in order to obtain the best results. The signal service gauge consists of three parts, the collector, a funnel-shaped receptacle 8 inches in diameter at the top, fitting into a brass receiver of uniform calibre, 2.53 inches in diameter and 20 inches deep; these parts securely fit an overflow by a collar attached to the collector; the overflow vessel is to receive the surplus water when the receiver has become filled during heavy rains. The amount of rainfall is measured by inserting vertically into the receiver a graduated rod until it touches the bottom, where it is allowed to remain a moment and then withdrawn, the number of inches or fractions of an inch the water has wetted being recorded. The sectional areas of the receiver and collector are as one to ten, the depth of water being ten times as much as should be recorded; hence ten inches of water in the receiver are equal to one inch of rainfall and one inch of water to one-tenth of rainfall.

The best exposure for a gauge is upon reasonably level ground, with its supports so arranged that the instrument will be vertical, with the top of the collector in the same horizontal plane and 12 inches above the ground. The location selected should be at such a distance from neighboring objects that their tops will not have an angle of more than  $45^{\circ}$  elevation above the gauge, and should be protected from interference by unauthorized persons or animals.

A ground exposure is the best from the fact that elevated gauges are more or less subjected to wind currents and eddies, and these influences have a minimum effect at the earth's surface. It is not always practicable to locate gauges upon the ground, as in closely built cities, where of necessity they must be exposed upon the roofs of buildings, as free as possible from extraneous circumstances that would impair the accuracy of the record. As rainfall is not a constant quantity, varying with locality and causes that produce precipitation of the vapor of the atmosphere, a gauge measures only the amount of water that falls into it, and is analagous to a barometer which measures the weight of a column of air immediately above it, from which we infer that the neighboring columns of air are similarly affected, and conclude it furnishes an average for the vicinity.

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## A Biographical Sketch of L. J. F. Jaeger.

BY B. A. STEPHENS.

[Read December 3d, 1888.]

THE pioneers of the Pacific Coast are rapidly passing away. Each one's life is a history of travel, adventure and pioneering. Each one was a witness of remarkable events, which compare favorably with any recorded in the world's history. With them perishes their knowledge, unless written. Many valuable accounts are thus disappearing. A few here and there are being saved. H. H. Bancroft, more than any other man, has gone systematically to work, and, by throwing an army of canvassers into the field, has saved a great many of these personal sketches. Many he does not get, and more are lost. There is plenty of room for all in this line of historical work in Southern California.

It was in this spirit that old "Don Diego," the pioneer ferryman of Yuma, was persuaded to have his photograph taken, and this biographical sketch made, and both deposited in the archives of the Historical Society of Southern California. "Don Diego," as he is affectionately known by the natives of Yuma, has lived since the year 1850 at the place of "historic hotness." He is of German descent. His full and true name is Louis John Frederick Jaeger. The German form is Jäger, a hunter. Cousins of his at San Bernardino \* spell it Yager, which form of the word is a reminder of an old-fashioned gun. The nearest the Indians could come to pronouncing Jaeger was "Diego," so as "Don Diego" has he been known all up and down the length and breadth of the Pacific Coast for the past forty years. For twenty-seven years he pursued uninterruptedly the occupation of a ferryman at Yuma. Hundreds of thousands of people crossed and re-crossed the broad Colorado river upon his boats during those twenty-seven years. For all of them, high and low, rich or poor, Don Diego had a kind word. No poor man was ever refused a passage; no rich man was ever overcharged. Travelers, soldiers, statesmen, philosophers, historians, journalists, lawyers and poets found hospitality in his hacienda; and by none was he immortalized more than by J. Ross Browne.

Of all who came his way he kept a brief record; the number of persons in the party, number of wagons, animals, home, destination, etc. An idea may be gathered of the magnitude of this work when it is known

\* George Yager died February 8, 1889. Hardin Yager, the latter's brother, died about a week before. For 26 years he was treasurer of San Bernardino county. Isaac Yager, a third cousin, still lives there.

that in 1850-1, his first year at Yuma, over forty thousand people crossed the Colorado river at that point, coming into California. In 1857 there was a large emigration from Southern California into Texas, and Don Diego reaped its benefits. The railroad came in 1877 and built a big bridge across the river, and, like Othello, his occupation was gone. Business of national importance had frequently called him to Washington, and his counsel was heeded on grave matters. Few heads contained more information than his on questions pertaining to Indians Mexicans, the frontier or the government domain. The doors of the White House were always open to him, and cabinet officers and congressmen were equally attentive. His form now is rounded and his locks are grizzled, but at the advanced age of sixty-four years his eyes are not dim nor are his natural forces abated. He is about 5 feet 10 inches high, and weighs about 150 pounds. His hair is slightly gray, and his full gray beard is trimmed short. Clear blue eyes look out on either side of an aquiline nose from under a high forehead which retreats slowly back to thin locks. Genial, warm hearted and communicative, he is a prince among pioneers for reminiscences. His home is now at Agua Mansa, a romantic Mexican village on the south side of Slover mountain, on the other side from the practical American town of Colton.

Don Diego was born October 8, 1824, in Greenwich township, seven miles east of the town of Hamburg, in Berks county, Pennsylvania. He is proud of his German lineage. His great-great-grandfather, and great grand grandfather, grandfather and father were all Lutheran preachers. His father was the Rev. Gottlieb F. I. Jaeger, and was born in Illingen, Wurtemberg, Germany, in 1797. In 1817, when he was 19 years old, he left the Fatherland, and coming across the Atlantic in a sailing vessel, settled in Berks. He married Miss Mary Audenreid, by whom he had eleven children: 1 Charles; 2, William (now of McDowell county, West Virginia); 3, Lewis John Frederick (now of Agua Mansa, and the subject of this sketch); 4, Thomas; 5, Katie; 6, Mrs. Louis Levan (of Hamburg, Pa.); 7, George; 8, Mrs. Amanda Berger (of Langhorne, Pa.); 9, John; 10, Samuel; 11, Mrs. Emma S. Sallade (of Tamoqua, Pa.).

At 16 years of age he was apprenticed to a machinist to learn the trade, and served till he was of age. He was working in the Baldwin machine shops, in Philadelphia when the California gold excitement broke out. He accepted an uncle's offer to fit him out for the gold mines, and spent Christmas, 1848, with his mother, whom he did not see again for twenty-nine years. He purchased clothing sufficient to wear a year, and sailed from Philadelphia February 22, 1849, on the ship Mason, Captain Mason, bound for San Francisco. The voyage was eventless enough for the 150 passengers. They stopped twenty-two days at Rio de Janeiro, where they found 12,000 Americans like themselves en route to California. They made a similar halt at Valparaiso, where there was an equal number of Americans. At the latter place forty-five American vessels arrived on one Sunday.

San Francisco was reached October 6, 1849, and Don Diego is, therefore,

a pioneer. He did not go to the mines, but remained in the lively town of Yerba Buena, as San Francisco was then called, and hauled sand to build a brick block, the Montgomery bank, and also did some carpenter work. He joined a company which was organized to operate a ferry at Yuma. The members of that company, as he now recollects them, were Captain George A. Johnson (now of San Diego), — Tough, William Blake (married at Santa Barbara, now dead), B. M. Hartshorne (now living at Highlands, Monmouth county, N. J.), Dr. — Minton (a nephew of ex-Senator Charles Minton), — Moses (a Jew), Captain — Ogden, — Henzelwood, Joseph Anderson (now living at Cucamonga), Captain — Ankrim, — Potter, and L. J. F. Iaeger. Besides the twelve members of the company there were seven employés. The company chartered a sailing vessel, which conveyed them, in June, 1850, from San Francisco to San Diego, where they purchased teams to convey them across the desert. They bought horses of Cave J. Coutts and Don Juan Bandini. Don Diego bought one good mule of Don Juan Warner, now living in West Los Angeles, for the price of \$75.

Their trip across the jornada del muerte (journey of death, as the Spaniards called long, waterless strips of desert) was fraught with danger. They nearly perished with thirst. They saved their lives by digging wells at points where water happened to be found. The company arrived at the junction of the Colorado and Gila rivers July 10, 1850, and immediately commenced the construction of a ferry-boat. They had no iron, and only such small tools as axes, wedges, augurs and what else they could afford to carry. The Indians were numerous and bothersome. They became so saucy that the company was compelled to divide, some standing guard while others worked, while even those who labored kept revolvers buckled to their waists ready when needed.

They chopped down the algodones (cottonwood trees), and sawed out by hand the necessary ship timbers. The ferry-boat was put and held together by wooden pins and pegs. The first boat built was a common scow 35 feet long and 12 feet wide, and was two feet deep. There was a six-foot flare at each end. It was completed August 10, 1850, which shows that no time was lost, and that all hands had worked hard. It was immediately put to use. With large sweeps it was rowed across the Colorado river. The swift current carried it down the stream nearly two miles, and when the men got ashore on the New Mexican (now Arizona) side, they towed the boat up the river to a point opposite the one from which they started. This starting point, where scow No. 1 was launched, was the mouth of the slough on the California side, in the thickly wooded bottom, about half a mile from the site of the old fort.

The ferry charges were remarkably moderate considering the importance of the place and its remoteness from civilization. A team was charged \$10; a single animal, as a horse or cow, 50 cents. San Diego, the nearest American town, was 150 miles to the west, beyond a desert where so many thousands afterwards perished. Southward was the unknown Sea of Cortéz

bordered with desert shores. Northward was a great American desert, lying between the Sierra Nevada and the Rocky mountains, whose general characteristic is an arid, sandy waste. The nearest settlement to the east were the Pima villages, just above the great bend of the Gila river, and distant a hundred and fifty miles. Tucson was the nearest town to the east, while Santa Fé was over 500 miles away as the crow flies. The whole country was inhabited by savage Indians.

The general line of California immigration then, by the Southern route, was southward along the Rio Grande from Santa Fé, thence westward through Guadalupe cañon to the town of Santa Cruz in the Mexican State of Sonora, thence to Tucson, where a few week's rest was usually taken. Then followed a ninety mile desert northward to the Pima villages on the Gila river, where plenty of wheat corn and pumpkins were always to be found. The Gila river was then followed to its junction with the Colorado, where Don Diego ushered them into California. The present line of the railroad was closely followed to the San Gorgonio pass. This was a piece of the route where the greatest physical dangers were met, which overcame so many. Between Santa Fé and Yuma the principal dangers were from the Apache Indians, but here it was a pitiless and often hopeless struggle against fate. From Yuma to San Gorgonio pass is considerably over 200 miles. This part of the desert includes the Cahuilla valley, the greater part of which is over 300 feet below sea-level, and lies between the San Bernardino and San Jacinto Mountains. The soil is a sandy, gravelly waste that grows little else than cactus. The heat from May till September often ranges as high as 140°f. Then there was no water-supply except at brackish wells. The fatal mirage, that ocular phenomenon peculiar to the desert, still continues to lead astray the traveler crazed by thirst. Then it turned aside whole trains, one of which was found when the railroad was a building.

“ Ringed around in circle white,  
 Holding to each other tight  
 Bleaching skeletons lay there  
 With their empty sockets glare,  
 Vacant staring, westward turned  
 Still as when the eyeballs burned,  
 With that last despairing look  
 When life's quivering pulse forsook.  
 Not a ravening beast or bird  
 Fleshless limb or trunk had stirred;  
 Not a hungry wolf might dare  
 Thus to brave the desert's glare  
 In that waste of terror wide  
 Thus they lay as thus they died. —Kercheval.

The Chino ranch was the next resting place before reaching Los Ange-



les. Isaac Williams of the Chino ranch, like Don Diego, kept a register \* of all persons enjoying his hospitality. These registers and records are priceless beyond gold or silver. They contain the names of hundreds who came seeking gold in the placer fields and found fame in the press, pulpit, exchange, politics, college, and upon the battle field. It will be interesting to discover from these records a chapter in the early history of their lives.

The company soon built a second ferry-boat. This one was sixty feet long and twelve feet wide. While changes occurred in the ferry business, Don Diego continued in it till the arrival of the Southern Pacific in 1877. During those twenty-seven years he witnessed and participated in many remarkable historical events. He came into a howling wilderness; he ferried thousands of Argonauts into California; he saw General Heintzleman subdue the Yuma, Mojave and Cocopa Indians; he saw Fort Yuma built and its historic graveyard filled; he saw Olive Oatman rescued from her long captivity among the Mojaves; he saw the Crabbe party marching to its fate; he saw the great Arizona mining boom; he saw the railroad come, and the Blythe colony rise and fall, all fertile themes for the industrious historian.

Don Diego was married, and a son and daughter are past their majority. And now in his old age he has chosen a home at Agua Mansa (gentle waters). There he purchased five acres a little over a year ago, and has settled down to quietly pass the remainder of his days under his own vine and fig-tree.

\* Now in the possession of Richard Gird, Esq., of the Chino ranch.



## What a Member of the Society Saw in Egypt--Alessandria Antiquities--The Pyramids--The Canal, Etc.

BY VERY REV. JOSE ADAM.

[Read January 7, 1889.]

ON the 18th day of January of last year, 1888, descending by a cable car from Mount Vesuvius, I met four Spanish priests, who were going to sail for Alessandria the day after. They were glad to hear that a brother of mine, a gentleman from Chile, and I were going to sail also by the same steamer.

The bay of Naples is romantic by day and charming at night. The thousands of lights in the streets and park look, at a distance, like a torch-light procession. Once in a while Mount Vesuvius emits a glaring light that illumines the country around and the still waters of the bay.

Next day we passed in front of Lipari, and we saw a volcano puffing smoke. At 4 p. m. we left Messina, and toward dark we perceived Mount *Ætna*, covered with snow and emitting a great deal of smoke. Soon the sea got a little rough and continued so the whole night. Nearly every one was sea-sick next day, and it was very late before I could venture to go up on deck. On the 22d we saw for many hours the island of Candia, or Crete, and on the 24th, about 6 o'clock in the morning, we entered the harbor of Alessandria, the entrance to which is somewhat difficult, and requires a good and practical pilot to steer you safely. In a moment the steamer was surrounded by dozens of boats, and the Arabs wanted by force to take charge of our valises. The best thing is to keep cool, but determined, and not to allow any one to touch your baggage until after agreeing about the price. We had the good fortune to fall into the hands of a European, who acted as dragoman or guide, and who took charge of our baggage and current expenses. At the custom house the priests were allowed to pass without showing their passports; the other members of our party had to show theirs. The same happened with our valises; they were allowed to go in without being examined. We were a little surprised to find such deference from a Turkish government. Our stay in the East showed us that the officers in general have a great respect for the clergy. Driven at once to the Franciscan convent, we heard along the streets: "Ja sidi, maa salám, salám, salami." That means "Sir, I salute you," or our "how do you do." You must take care not to give them any money for their politeness, otherwise you will find yourself surrounded by hundreds of beggars, unable to go a step further.

The principal fruits you notice in the market are pickled figs, dates that are delicious, and fine bananas.

The common style of dress is that of the Arabs, who form the bulk of the population. They wear a long shirt or loose gown, commonly white, though some have it red, others yellow or marked with lines of various colors, or flowers. This gown has an opening before the breast in the shape of a reversed triangle. The breast, however, is covered by some other stuff.

Their heads are covered by a red cap surrounded with a long, white band of cloth, folded many times upon itself and twisted around. This they call a turban. Those from India have the scarf of black silk, lined with white and interwoven with gold.

This kind of cap is called by them "leffi," and not every one is allowed to wear it, only the heads of families, or those who have made a pilgrimage to Mecca, or have acquired some merit before the public; for example, if they have killed some Christian for the cause, which they call holy.

Other people wear the simple red cap with a black tassel, which is called "tarbúse," and Christians also wear it, but never the leffi or turban.

The rich, having to appear in public, put over their tunic a black jacket or cloak that reaches to their feet. Their shoes are low and mostly red, pointed with a high curve, so they can shake them off their feet very easily when they enter their mosques, or while sitting in their divans. The middle classes sometimes use only a sole tied with strings, and many go bare-footed. The servants, whom we might call slaves, are poorly clad, many almost naked.

The costume of the Arabs of our day is similar to those who lived in a remote antiquity, as can be seen from the Egyptian monuments, where the lowest of slaves are represented without tunics and almost nude, to distinguish them from the fortunate ones called free.

Women wear a cloak or veil over the head, reaching to the ground, and under it their dress or garment. The forehead is covered with the hem of the veil. From the middle of the forehead hangs over the nose a tube of wood or metal, as thick as your finger and three or four inches long. Within it runs a string to hold the veil, which is also tied to the hinder part of the head. This veil covers the face from the eyes down to the waist, and sometimes reaches down to the knees. Ladies are dressed in black silk; other women can wear any color.

The European part of Alessandria is new and very pretty, and looks much the same as one of our modern cities. The quarters of the Arabs are dirty and the streets very narrow.

The inhabitants work very hard to repair the damage caused by the shells of the English when they bombarded the city several years ago. It will take a long time to efface the traces of the damage caused to the buildings.

The finest churches are in the hands of the Greek schismatics. I visited the one called "Evangelistria," where images of the Blessed Virgin

Mary, and one of St. George, beautifully enameled in gold and silver, are venerated. That church stands close by the Franciscan Convent. The Catholics have the church of St. Catherine; it is very large and fine. Every Sunday there are sermons in Arabic, in Italian and sometimes in English. As the Franciscans had no accommodations for us all, my brother, the gentleman of Chile, and I, took our quarters in the Hotel of Europe, well known by readers of novels, as that of "Mr. Potter of Texas" begins with "the deserted Hotel of Europe, in Alessandria."

In the afternoon we visited the column of Pompeii and a cemetery adjoining. I noticed that every grave had a head stone and another equally as high at the foot. We passed through the market place and drove for at least an hour along one of the canals of the Nile. We visited Villa "Anton-iades," with its extensive gardens; it belongs to a Greek millionaire. We saw in these gardens catacombs discovered some years ago, which must be very ancient. We had to approach them in a boat, as very deep water fills up the place. We noticed a serpent carved in the stone, and we were told that there stood a little temple dedicated to the serpent. We met several women with their faces covered, and we noticed the great profusion of red, yellow and black in man's dress. You would almost imagine you were at a masquerade ball, or in Venice during carnival time. We passed in front of the Kedi's gardens. Going to the light house we had to pass through the soldiers' garrison, and I noticed at the entrance two sentinels, one English and the other Egyptian, as much as to say: "We will divide with you the money, provided you let us remain in your country to dictate to you and accustom you to live under English rule." We saw the fortification of the harbor reduced to a heap of ruins by the British navy. We saw from four to five hundred cylindrical bombs, stored there in one of the half dilapidated rooms, as reminders to the poor Egyptians of the havoc they worked on them, and to caution them not to try to shake off the protecting hand of England from their shoulders. Going home we noticed in a street flags hanging across and heard a band of music playing. We were told that they were celebrating the wedding of a happy couple, and that the feast used to last a week.

Next day at 9:30 we left for Cairo, where we arrived at one o'clock. We saw along the road many camels going towards Alessandria. As the cars run along the channel, I noticed the different ways they have to draw the water to irrigate their lands. In some places you will see two poor Egyptians, half naked, drawing the water with baskets and letting it run in a ditch. In other places it was drawn by horse power; and finally in others more modernized, by steam. What a contrast between the old slow way, to draw water by the force of human arms, and the modern invention by steam. There you had along that channel the Egyptian of the days of Pharaoh extending his hand to the civilized Egyptian of the nineteenth century. No doubt the first one reminds us more forcibly of the words of the book of Genesis: "In the sweat of thy face thou shalt eat bread."

Unfortunately our driver or cabman did not know any other language except Arabic, and, as we did not know one word of it, for nearly two hours he drove us from one convent to another, but never could guess the right place. Annoyed and disappointed we made him stop in the middle of one of the principal streets, when we were accosted very politely by a servant, who invited us to the Hotel du Nil, where you could hear every European tongue, but the English prevailed over the others. I had a chance to speak Italian with the guest at my right, French to that at my left, English to the gentleman opposite me at the table, and, of course, plenty of Spanish to my companions. The table was furnished with the best of the market; the rooms were very simple. We were told that we should have to pay only 16 francs a day, but as we had some extras, it came to 20 and 25 francs. Who was to blame? Not the proprietor.

What I had to admire most was the court or yard, with its beautiful palm trees and shrubbery. However, as we were out the whole time we did not care for flowers or plants, which we could see at home, but we were anxious to see the mosques, and above all the pyramids.

We had a very late lunch that afternoon, so we started immediately after for the celebrated Museum Balac, and as it closes at four, we had only a very short time to examine the great antiquities it possesses. I cannot refrain from mentioning some of the principal ones, as it would take a large volume to enumerate all the mummies, statutes and other objects of curiosity. It is with interest that I looked at the the coffin that held the mortal spoils of Rameses Seson Ba, the great Sesortris, who is in the 67th year of his reign became conspicuous for his military and civil achievements.

You scarcely can find a monument in Egypt that was not restored in his time. For public works he used the captives, and he oppressed most cruelly the Hebrews. The emblems in the inner part of the cover of his coffin are very appropriate, namely, a rod and a whip—true emblems of his life.

The richest things in the museum are jewels of gold and enamel, of exquisite workmanship, appertaining to Queen Aahotep. She belonged to the 18th dynasty, and lived a long time before the Hebrews left Egypt. We have not to wonder, then, if the Hebrews worked such exquisite things in the desert as described by Moses.

We know that some have used this fact to deny the antiquity of the Pentateuch. To such opponents we could answer by inviting them to visit the museum of Balac in Cairo, and admire there the bracelets, collars, earrings, poignards and knives of Queen Aab Notep, far more ancient than Moses, and as well finished and enameled as that of the best jewelry shops of our times. We passed from room to room filled with mummies thousands of years old, and in every shape, some entirely bandaged, others uncovered on the breast. From some mummies have been removed, with great patience, the bandages impregnated with perfumes. These bands are of the finest linen, and so tightly applied around the corpses that one was found

by Marriette Bey more than than three miles long. It had been unloosed from the mummy of a rich man.

We saw, under glass, food, raw and cooked, more than three thousand years old, and it is well preserved. No doubt the dry climate of Egypt helps a great deal to its preservation. They have tried several times to sow wheat found in the cases of the mummies—it grows up but it never bears. After examining chains, vessels, combs, wigs and other curiosities which brought us back to the times of the Pharaohs, we hastened out as the doors were closing after us.

From the terrace outside we contemplated for a long time the Nile, so celebrated in sacred and profane history. I imagined I saw the babe Moses floating down in a well bituminated basket, and then afar the same Moses becoming the terror of Pharaoh and changing the water of the same river into blood. The Persian kings at heavy expense would have water from the Nile for their table. Ptolomey Philadelphius took care to provide of said water for his daughter married to the King of Syria. Pescenius Nero rebuked his soldiers for drinking wine in preference to the water of the river Nile.

We visited an old Mosque 700 years old. We had to put over our shoes slippers which porters have at the door by dozens. It would be a great crime if you would dare to contaminate their sacred soil with your profane feet.

At the time of our visit there were only two worshippers inside one laying down soundly asleep, no doubt to avoid distraction in his prayers; the other in great earnest kissing the flowers and raising his hands to heaven in humble supplication. From this very ancient mosque we passed to the fortress of Cairo.

It is placed in such prominence that from it, you can command a view of whole city, having 400,000 inhabitants and its 400 Mosques, seeing far off the pyramids of Gizeh and Saggmarch. From the loop-holes stands out the mouths of English cannons, as the best means to cool down the fanaticism of the Musselmans. From a very high place, protected by a breast work, Mehemet Ali forced all the Mammalúechi to jump down a precipice. Each horseman leaped with his horse the fatal somerset; few remained alive and these so injured that they soon died. Mehemet finding himself free from this kind of pretorian guard, a race of slaves that had domineered in Egypt for a long time. At this rock he built a mosque worthy of the name. The mosques resembles a Christian church—it has three navies. It is embellished with gold and precious marbles. Rich chandeliers hang from every side. There is only a large inscription on the principal nave that reads as follows: "La illah olla! llah, muhaméd rescinl allah," and it means, "There is only one God, who is the true God and Mahomet is his prophet."

From there we passed to Bio Jusef, or well of Joseph. It is a deep well bored in the rock, which tradition attributes to Joseph Boz of Egypt.

One of the most interesting visits in Egypt is that of the pyramids.

After two hours drive along a public road, sheltered with lofty trees, meeting hundreds of came's going to the great market of Cairo, we arrived at the foot of the great pyramid of Kheops. My brother and the children had preceded me by half an hour, so that when I arrived there I observed that my brother, helped by two robust Arabs, was climbing to the top of the great pyramid. It was built by order of Kheops or Khovu in a time, when history had not yet been written, and after so many thousands of years stands domineering the sands of the desert, and casting at sunset its gloomy shadow for miles over the sandy plains of Gizeh. No words can describe the immensity of that monument. You feel almost oppressed under its weight, and thousands of men at its base would look as ants moving around at the feet of a giant.

The way the pyramid was built is recorded by Herodotus, who learned it from the lips of Egyptian priests. That tyrant Kheops ordered all the temples to be closed, and obliged all the Egyptians to work for him. He employed some to drag stones from the quarries of the Arabic mountains to the Nile; other Egyptians were condemned to transport them to the mountains of Lybia; 100,000 at a time were working, and were relieved by others every three months. It took ten years to construct the basis of the pyramid, and twenty years more to finish it. Each block measures thirty feet. My brother and others had the courage through a little hole to go to the inner part of it, the fatigue and the danger is so great that any one who goes in is sorry to have attempted it.

The second pyramid, called of Chefrene, is a great deal smaller, and that of Mencheré seems a pigmy compared to the first one. I satisfied myself by passing close by these pyramids, bothered to death by dozens of half naked Arabs, anxious to give me the history of those monuments for the sake of a few cents. We were accompanied by a Turkish soldier. We had to appeal to him to get rid of the Arabs, and we succeeded in being followed only by half a dozen of them. We visited also the celebrated Sphinx, called by the Arabs *Abril-bhof*—Father of Terror. A few steps farther we entered into the ruins of a temple of red granite, half buried in the sand. I never saw in my life such enormous stones.

We noticed along the road some poor prisoners, chained two by two, laboring in public works.

Slavery is not abolished in Egypt except than in name. I was assured that in Cairo, alone, there are at least thirty slave merchants. Many of those who serve in private houses, especially in the quarters of the Arabs, seem merchants while they are really slaves. You can see in public and private buildings laborers treated worse than beasts.

How many young men are compelled to carry on their shoulders an enormous heap of stones or bricks within a net of cords, so that they can hardly walk, and so bended that their heads reach below their knees. The greater part, I think, were slaves. I am told that in proportion as you

travel into the Upper Egypt, the horrors of slavery appeared more manifest, and this in spite of civil laws that forbid Mahometans to keep slaves.

It is a fact proved by history that where Christianity has not entered slavery exists with all its horrors, and that Christianity only is able to eradicate slavery. We saw some servants called "cavvas," condemned to run on foot ahead of the carriage of their master crying: "look out, look out—to the right, to the left," etc. You can see them sometimes out of breath and with their tongues protruding out as dogs, and still they are bound to run in order not to be caught or trampled under their master's horses, that are running at a great speed.

Next morning early we went to Matarich, to the north of Cairo, six or eight miles distant, to venerate the ancient sycamore tree which, according to tradition, gave shelter to the Sacred Family in their flight into Egypt. The present tree, although very old is, according to some one, an offshoot of the old tree. It is very much appreciated by Christians and Turks. A beautiful garden of chosen flowers embellishes the place, and jessamines white as snow were hanging from the railing that encloses the sacred tree.

At a very short distance stood once the great city of Heliopolis. The sands of the desert have covered the ruins of that once famous City of the Sun, and a few feet of an obelisk raises its head through the sands, as to say to the passer by, here stood once Heliopolis. The Persian Cambyses destroyed the temples of Heliopolis; the Arab Amru burned its famous libraries.

With sweet and sad memories of the past we returned in haste to the hotel to take a hearty breakfast. Our appetites had been well sharpened by the long drive and cool morning breeze.

At noon we took the cars for Ismailia after leaving a large city called Zagazigh, we entered unto the desert, that is the ancient land of Goshen and I recited the psalm "In Exitu Israel de a Egypto." We had to close the windows of the cars, as a very thin sand dust was almost suffocating us. I observed passing close to a channel of the Nile that the country is very verdant, and so it was when all the desert was irrigated by the Nile.

About four o'clock we arrived at Ismailia, a modern city built after the opening of the Suez canal. Here reside the officers of the society of the canal. I saw in the public garden broken statues discovered not long ago in the ruins of Ramese. The city is surrounded by a horrid desert, but where the waters of the Nile reach tall palms and flower gardens bloom luxuriously.

At five, in a small steamboat, we crossed the salt lake and began to descend toward Port Said. The night was bright as are all the nights in Egypt and a full moon reflected in the water of the canal made it appear as a silvery snake. We passed those four hours on deck, now looking to the desert that extended on both sides of the canal in Asia and Africa, and contemplating two Mahomedans saying their evening prayers with many prostrations, regardless of those who were noticing them. I was told by a pas-



senger connected with the company, that in the month of January of last year 290 vessels had passed through the canal leaving a profit of 5,303,909 francs, the expenses he said, were 100,000 francs per day, that an average of 16 ships passed daily, paying 9.50 francs per ton and 10 francs for each passenger. Coming down the canal we met a large steamer sailing towards Suez and we overtook another steamer called "sidney," whose electric light illuminated us ahead for miles. Port Said with its frame buildings looks very much as one of our cities of the far west. Next day by an Austrian steamer we sailed for Jaffa to visit Palestine, and here I must leave you for want of time, and fear to abuse your forbearance, forbids me to proceed any further. Palestine alone is worth more than a lecture, besides Asia. I had previously visited Mexico and Havana on my way to Spain, and Italy before and after my visit to the East, assisting in Rome at the great festivities in honor of Leo XIII. To speak even in general terms of all these places requires more than the time allowed for a lecture. The few items I give you to night on Egypt were written in moments I tried to steal from my priestly duties and from the late hours of night; this will account for the uncouth way in which these lines are presented to you. Accept them as a sincere proof of the interest I take for the welfare of our historical society.



## Some Observations on the Words "Gachupin" and "Criollo."

BY GEORGE BUTLER GRIFFIN.

[Read November 1, 1886.]

WHILE employed as one of a corps of writers of the historical works of which Mr. H. H. Bancroft may be termed "managing editor," I had occasion to read many books and manuscripts printed and written in Spain and in America. As I read I took note of various matters which seemed to me curious, and I gave considerable attention to the origin and use of what may be termed Spanish-American words—i. e., those used by Spaniards but not originating in Spain. Among these words are "gachupin," as it is now written, though more properly it is "cachupin," and "criollo."

In the dictionary of the Spanish Academy (Madrid, 1869) a "cachupin" is defined to be "el Español que pasa á la America septentrional, y se establece en ella"—the Spaniard who emigrates to North America and establishes himself there.

Don Vicente Salvá (Nuevo Diccionario &c., Paris, 1879) says that "gachupin" is the Mexican for "cachupin." Salvá always goes out of his way to differ with the Academy.

I myself have met with the word as far to the southward as Ybarra, in Ecuador; but as the definition of the Academy expresses, the word was applied only to the Spaniard settling in North America. In South America the word in use to express the same meaning is "chapeton." "Gapuchin" probably went southward, together with other words of Mexican origin, such as "chocolate" (Aztec "chocolatl"), though this word has gone the world over; "metate" (Aztec "metatl"), "petate" (Aztec "petatl," etc., etc. In Colombia, during the war for independence, some of the Spanish soldiers under Morillo—"el pacificador"—frequently sewed prisoners up in jackets of green raw-hide and exposed them to the sun. The torture, until death put an end to it, was extreme, and these jackets were called "gachupines."

In his "Milicia Indiana," (Madrid, 1599) Captain Bernardino de Várgas Machuca says that "cachupin" is the same as "chapeton," viz: a man new in the land, i. e., America. Várgas Machuca gives definitions of other words having their origin, or their special applications, in America. Thus: "Mestizo" is the offspring of a Spaniard and an Indian; "bachiano" ("baquiano") a person familiar with a country, a guide; "chino," an Indian servant; "criollo," one born in the Indies of European parents. The word "chino," I will say here, properly is applied to a person who has such an ad-

mixture of negro blood that his hair is very slightly kinky. Here, in California, a "chino" is any person with curly hair. Some of our local historians are strangely mistaken as to the meaning of the word. In the "padron," or list, of the founders of Los Angeles, the men and their wives are qualified according to race. Two only are written down as white men, and one of the ten is termed a "chino." Commenting on this fact, one of the writers in the Rev. Mr. Farnsworth's "A Southern California Paradise," remarks that "one of the founders of our city was a native of China!"

In the "Biblioteca Hispana" of Nicolas Antonio there is mention of a writer named Cachupin, and there was a governor of New Mexico of the same name. It may be that some early emigrant from Spain, arriving in Mexico, gave his name to all Spaniards as a class. A similar usage is met with in all countries and among all peoples. On our own northern coast, where the medium of intercourse between whites and Indians is the Chinook jargon, an American of the United States is, or was, a "Boston man," an Englishman a "King George's man."

Torquemada, in the "Monarquia Indiana," (I, 301) in his description of the City of Mexico, mentions a hospital "donde acuden los cachupines i gente pobre, etc.," where "cachupines" and the poor are cared for. Poverty and illness were, it seems, the lot of some Spanish immigrants, even though they were of the privileged caste.

In the "libro de gobierno" of the Marques de Guadalcázar, Viceroy of Mexico, (año 1620) there is an order prohibiting "gapuchines" and others from entering into commerce at the mines, on the ground that they concealed and removed silver without paying the "quintos," or king's fifth. This document is very long. In two places a "gachupin" is qualified as a merchant coming in the annual fleet from Spain.

A brief of Urban VIII, dated 12th November, 1625, established a "ternativa" between "cachupines," "criollos" and "hijos de provincia" in the election of prelates of the regular orders of friars. "Ternativa,"—alternativa—is option, choice.

In the "Anales Mexicanos" of Tecamachalco, I find:

10 Tepatl. Ynipa chicueyve marzo yni yoac vualatzhuic jueves omic Franco García cachopin gan patzmic miercolestica teotlachuel otlacua yhna huelotitlin. . . . In the tenth year of Tecpatl (1580), at daylight on March 8th, Francisco García, cachupin, died in great agony, caused by having eaten so heartily on the evening of the day previous. . . . An Aztec epitaph for a glutton. From its orthography the word "cachupin" does not appear to be Aztec. It may have come—though this is not probable—from some one of the other tongues spoken in what is to-day the republic of Mexico, or from some country to the southward and north of Darien, possibly from Panamá.

Manuel Orozco i Berra, in the "Noticia histórica de la conjuracion del Marques del Valle" (Mexico, 1853), in a foot note, pp. 42-4, quotes Várgas Machuca, already mentioned.

Fernando Ramirez, in the "Noticias Históricas i Estadísticas de Durango," in a foot note, opines that as originally used the word "gachupin" had not the meaning given to it later by passion.

If Spaniards did not invent the word, they adopted it at a comparatively early date. In the first part of "Don Quixote," chap. XIII, we read: "Aunque el mio" [linage] "es de los cachupines de Laredo respondió el caminante." On this Clemencin comments and says that, in the second book of the "Diana" of Montemayor, Fabio, the page of Don Félix says to Felismona, at the time disguised as a man, "yo os prometo á fe de hidalgo, porque lo soy, que mi padre es de los cachopines de Laredo, etc." It may be that Cervantes borrowed the phrase; yet, in his comedy of "la entretenida," a certain "fregona linajuda" (a duchess disguised as a kitchen-wench) queries: "No soy de los Capoches de Oviedo? Hay mas que mostrar?" Cervantes was constantly poking fun at the prejudices of the Asturians and the "montañeses," who in respect of ancient lineage, are to the other provinces of Spain what the Welsh are to the rest of Great Britain. From the northern provinces of Spain many persons who had not much "calidad" went to America, acquired wealth, and returned to found "casas solariegas." These were the Cachopines and Capoches of Cervantes; and in Spain the word was applied to a "parvenu," a "nouvcau riche"—an upstart as our English tongue has it.

Orozco i Berra, already cited, thinks that "chino," "criollo," "gachupin" and possibly "mestizo," were words invented in the new world by Spaniards, because it was impossible to convey their meaning by existing Spanish words, and that at first they were not meant as injurious epithets, although later a perverted use gave to them a new meaning. This opinion seems to be well founded.

Antonio de Robles, who may be called the Pepys of the vice-regal court of Mexico, in the "Diario de Sucesos Notables," under date of 18th December, 1672, jots down the following: "Monja peregrina." En esta ciudad estuvo una monja gachupina, natural de Italia, etc.\* Hence it appears that the word was sometimes applied to foreigners not Spaniards. This is not uncommon. To this day, in some country districts of England, all foreigners are regarded as Frenchmen. In Colombia all foreigners are spoken of and to as "Ingleses"—Englishmen. While U. S. consul at Medellin, in that country, I was requested by the alcalde of Nare, a town on the river Magdalena—the great highway of the country—to take care of a countryman, who turned out to be a Cornishman. The nun spoken of may have been a native of Sicily and by birth a Spanish subject.

Father Leiva, in the "Vida de Fray Sebastian de Aparicio," lib: III, cap. VIII, says that this religious, who had been a carter, gave names to his oxen, calling one "gachupin." Fray Sebastian began to labor as a carter in 1576. It may have been that the ox called "gachupin," especially when this date is taken into consideration, was an imported animal.

\* A pilgrim nun. In this city there was a nun, a gachupina—a native of Italy, etc.

Throughout Spanish America it is customary to speak of animals, and even plants, as "criollos" or as "de castilla"—native or from Spain, and by extension, from abroad.

In the work of Fray Don Juan Diaz de Arce, Archbishop of Mexico, entitled "Próximo Evangelio," lib. I and II; also in the "vida del Venerable Bernardino Alvarez"—Mexico, 1651-52—at the end of cap. 41 of book I, and at the end of book 4 are two verses which are translations of songs of the Indians sung on certain occasions. The verses, however, do not appear in the edition of 1672. They are as follows:

1°.

Cien mulas tenia,  
Tambien un mochil;  
Con que trae de plata  
Todo cachupin.

4°.

Venga toda España,  
Que á hombre gachupin;  
Su requa i moradas  
Se han de prevenir.\*

This is a mild poetic vengeance, as it were, on the part of descendants of the Aztec traders whose places were filled by foreigners.

And in lib. II, cap. III of the last mentioned work, there is quoted an order of Don Pedro Moya i Contreras, Archbishop of Mexico and Governor of New Spain, in which reference is made to certain negroes and negresses who were inmates of the hospital of Vera Cruz as \* \* \* "Juan criollo i Juan chichimeco. \* \* \* hijo de Catalina criolla. \* \* \* Dominga criolla." So it appears that the term "criollo" was applied to blacks also who were born in New Spain.

Bernardino Várgas Machuca, already quoted, says—as we have seen—that a criollo was the child of Spanish parents who was born in America. Várgas Machuca, at the time of writing the "Milicia Indiana," resided in South America. But the Dominicans who established convents in Chiapas and Yucatan gave a more extended meaning to the word "criollo." In an ordinance of a provincial chapter of the order, celebrated in 1570, is the following: "Item ordenamos i mandamos que ninguno se recibe al hábito de los que llaman "criollos," i tambien llamamos "criollo" á aquel que desde los primeros diez años de su edad se ha criado en estas partes de las Indias

\* (Trans.) 1st.

A hundred mules he had,  
Likewise a little sack;  
For a "gachupin" of money  
Never yet had lack.

4th.

So, let us give a welcome  
To all who come from Spain;  
To every coming "gachupin"  
Give lodgings and a train.

—G. B. G.

aunque haya nacido en España."\* This quotation is from "Remesal, Historia de Chiapa," lib. IX, cap. XV, notes 2 and, especially, 4. Thus, it will be seen, those who buried themselves in the cloister still longed for the exclusive possession of the flesh-pots of Egypt.

In the "coloquios espirituales i sacramentales, etc.," of Fernando Gonzalez de Eslava, Mexico, 1610, at folio 167, there are some verses entitled "Ensalada de Cachapin," beginning:—

Maravilla, maravilla,  
Dense gracias á Dios sin fin,  
Que ha venido un Gachupin  
De la celestial Castilla!  
Contadle una tonadilla  
Aquí porque se entretenga;  
Norabuena venga  
El Gachupin á la tierra.  
Norabuena venga, etc.†

Undoubtedly the poet was a "criollo." In the succeeding verses of the poem the dress, etc., of a new comer is described.

From the time that there were "criollos" the strife for place and pre-ferment between them and the "gachupines" went on with ever-increasing violence and virulence.

In 1703 the Jesuit Father Pedro Avendaño wrote a labored clerical satire entitled, "Fée de erratas . . . del sermon, etc., que medio predicó i despues imprimió del todo el Doctor Don Diego Zuaso i Cascajales, etc."‡ Father Pedro says that the "aprobacion" of the sermon was given by "dos frailes i gachupines i no dos clérigos i criollos, ó á lo menos uno i uno." † Avendaño was a native of Pueblo and Zuazo i Cascajales was born in Spain.

Valbuera, who in 1603 wrote a work entitled "Grandeza Mexicana," in Cap. I, enumerating the different classes of society in the capital, says: "Arrieros, oficiales, contratantes, cachopines, soldados, mercaderes, galanes, caballeros, pleitantes, etc."||

Solórzano, in the "Política Indiana," (Madrid, 1776) lib. II, cap. XXX, says: "Criollo," born in Indies of Spanish parents. "Mestizo," the offspring of Spaniard and Indian. "Mulato," the offspring of Spaniard and

\*Item: We decree and command that none of the caste called "criollo" shall take the habit of the order, and by "criollo" we mean him who, though born in Spain, has lived from his tenth year upward in Indies.

TRANSLATION.

‡A marvel, a marvel!  
Give endless thanks to God!  
Here comes another "gachupin"  
From Spain's celestial sod!  
Chant a song of welcome  
Our guest to entertain;  
Mexico gives greeting  
To the "gachupin" of Spain.  
—G. B. G.

§ Table of errata contained in the sermon of which Dr. Don Diego Zuaso i Cascajales preached a part, though he afterwards published the whole, etc.

† Two officers and "gachupines," and not two clergymen and "criollos"—or, at best, one of each.

|| Muleteers, officials, contractors, "cachopines," soldiers, traders, beaux, gentlemen, litigants, etc.

Negro. The chapter treats of the quality and conditions of these castes, and it is argued whether or not they should be considered as Spaniards.

Tomas Gage, a Jesuit, traveled in Spanish America and about 1650, wrote a book entitled "Nueva Relacion, etc." A new edition was printed at Paris in 1838. A translation was published in London in 1677, under the title of "a new survey of the W. Indies." In book I, at p. 16, of the Paris reprint, Gage says: "Los que nacen allí de padres españoles, i que los Europeos llaman criollos para distinguirlos de su clase, etc."\*

In his "Teatro Mexicano," (Mexico, 1698) Fray Agustin de Vetancurt, himself a Mexican, in book I, p. 12, says: "Gracias á Dios, que su Magestad i el Real Consejo de las Indias no consientan que los nacidos en las Indias de padres españoles (que ya se llaman criollos porque se crian en ellas) sean, etc."† The word "criollo" probably is a derivative of "criarse."

The Ynca, Garcilaso de la Vega, son of a Spanish "conquistador" and a lady of the royal blood of Perú, who was born in Cuzco and became a captain in the Spanish army, in the "Comentarios Reales," (Madrid, 1723), lib. IX, cap. 31, says: "á los hijos de Español i de Española nacidos allá, dicen, criollo ó criolla, por decir que son nacidos en Indias."‡

Title 5 of book VIII of the "Recopilacion de Indias" treats of "mulatos," "negros," etc., but says nothing of "gachupines" or "criollos."

There grew up a hatred between "Gachupin" and "Criollo," and during the war for independence there circulated in Mexico many poems directed against the former. One of these, furnished to me by Judge Ygnacio Sepúlveda, runs as follows:

O, Virgen Guadalupana  
Rodeada de serafines,  
Que viva la independenciam  
Y mueran los gachupines!||

We may conclude, then: "Criollo" at first meant only a child of Spanish parents who was born in Indies; "gachupin" at first signified a Spaniard who emigrated to the North American Spanish Indies with the intention of becoming a permanent resident. Later a "criollo" was a person born in the Indies of any descent other than from indigenes—in whole or in part; a "gachupin" came to signify any foreigner in North American Spanish Indies. Ultimately the word "gachupin" acquired a meaning very like to that given to the word "tory" in this country during the revolution, while the "gachupin," in turn, spoke contemptuously of the "criollo."

\* Those who are born here of Spanish parents and whom the Europeans call "criollos," to distinguish them from their own caste, etc.

† God be thanked that His Majesty and the Royal Council of Indies do not consent that those born in Indies of Spanish parents (and who are called "criollos," because they are bred in those parts) be, etc.

‡ The children of a Spanish man and a Spanish woman born there they call "criollo" and "criolla," as tantamount to saying they were born in Indies.

TRANSLATION.

||Oh, virgin of Guadalupe,  
Surrounded by seraphim,  
Hurrah for independence  
And death to the "gachupin!"

—G. B. G.

### **Officers' Reports for 1888.**

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Treasurer J. M. Guinn reports for 1888: Receipts, \$227.55; expenditures, \$101.00; balance on hand January 7, 1889, \$126.55.

Secretary E. Baxter reports: Nine meetings in 1888; four original papers read; one pamphlet (the annual of 1887) published; two regular and four honorary members elected; and publications received from eleven other historical societies.

Curator Ira Moore reports donations for 1888 to be: 24 bound books, 92 pamphlets, 4 folders, 1 photograph, 1 wood engraving, 3 lithographs, a lot of maps, a cannon ball, and some minor curios.





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OF  
SOUTHERN CALIFORNIA  
LOS ANGELES.

1890.

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PUBLISHED BY THE SOCIETY.

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# ORGANIZATION

1890-1891.

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# HISTORICAL SOCIETY

OF

## SOUTHERN CALIFORNIA.

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LOS ANGELES, 1890.

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RETIRING ADDRESS OF PRESIDENT E. W. JONES.

DELIVERED JANUARY 6, 1890.

*Ladies and Gentlemen of the Historical Society of Southern California:*

In taking leave of the chair of this society, I desire to express my thanks to its members for the kindly consideration which they have exercised toward me during my incumbency as president, and to congratulate them on the growth in membership and maintenance of the good character of the organization. I congratulate them on the evidence of permanent life and usefulness which the society now exhibits, and on a prospective growth which will give us an important position in this community and among similar institutions throughout the land. I refuse to believe that I am too sanguine, when I predict that the Historical Society of Southern California, founded and struggling through the first few years of its existence under all those discouraging distractions that attend a scramble for wealth on the part of the community that should support it, will, from this time on, rapidly advance to a high and distinguished place among bodies of this character.

The material is abundant among our people. We can gather in many members of high literary attainments and special fitness in historical and many lines of scientific research and exposition by making known to them the character of the mission we are attempting to fulfill. The society deserves success; it is worthy of a final grand triumph as an important factor in the education of our people.

History, experience, the lessons of the past, are the great educators of the world. "There is nothing new under the sun."

This is a historical society, and though our field of labor includes the sciences, it is, science and all, practically, a historical field. We base the most of our theories and speculations on the recorded or remembered discoveries of the past. From the records, original and collected, which the society shall make, those who come after us will



learn some of the most valuable lessons of their lives. Their influence will affect both the community and the individual, not often, perhaps, with vivid demonstration upon the surface, but down deep, at the very base of character and disposition.

The records of ancestors and their times, like the blood that flows in the veins of descendants, guide and inspire the conduct of men. Those records should be accurate. It is our duty to make them so, though not dry and devoid of revelation of everything but material fact, otherwise they will be unhealthful like the impure mixture sold for good wine. We should awake to the awful fact that the people of this coast occupy to-day the most critical position of all the enlightened people of the globe. We are set here utterly defenceless, over against shores teeming with hordes we delight to call barbarous, with but the Pacific ocean, an insignificant obstacle in view of man's present power to subdue the seas, to separate us from the most populous of nations, abounding in wealth, having vast control of power, devoted to the homeland; a nation of fatalists, rapidly acquiring the arts of our civilization; being armed and drilled like the armies of Europe, accumulating great stores of munitions of war, and a powerful navy; a people whom we are doing all in our power to make our enemies, and of a character with which we must clash and can never blend; who must swarm to other lands for room for existence; whose most natural course of attempted conquest when their power permits and population demands, is by our own route across the continent—how can we avoid the conflict, or come out victorious from it? It will depend upon the manhood, patriotism and ability of the mixed and fraternized races which then constitute our countrymen.

The convulsions in the enlightened world which the circumstances mentioned are eventually certain to bring about, will have no parallel in history, as the powers put in operation will have never been equaled. The history of these times, and the events and circumstances which are now hastening them, will be a work of surpassing interest, but it will be without the value it should possess if lacking the accurate data of every kind which may now be gathered, from which the nature of the people of this region who meet the shock, and the influences and progress of their development, shall be known.

It is said that the social history of a nation is the only one worth recording. The salient events only in the life of a nation, the brilliant achievements of an epoch, or an era, or of an individual, an army, a court, or a congress, do not give insight into the character of a people like a familiar introduction to their every-day intercourse with their friends and neighbors, and their habits and customs in business and at leisure.

It is necessary also to know the races from whence they spring, their family history, their occupations, recreations, sports and dissipations. In many a sense the most vital, the life of the citizen is the life of the nation. So is the character. Intimate detail and truthful description are most valuable, as the truth in the long run is always better than a lie. Adulation may be glittering, but it is seldom gold. Abuse may be grand, but it may be unjust. The immaculate hero never existed, nor did the monster without a redeeming trait.

The story of soul-stirring achievements spurs many another soul to similar deeds, and is of glorious utility, but the deeds performed are oftener those of impetuous youth than of riper years, and motives and results are faulty and crude.

I am far from belittling heroic deeds. God, country, home, friend and virtue are many times served and saved by them. But I claim, with due respect to the hero, that his lesson to humanity is not so fruitful of the finest results as that of the individual and community life of the people, nor do the hero's deeds tell the story of the race. The hero may be the thunder and rending bolts of the storm, but the full power is shown only when the torrents descend.

I would see this society gathering, in every possible detail, the facts with regard to the origin, the rise and progress of the people of Southern California.

This is to be a separate State at no distant day. It is to be a State peculiar in regard to its people, as it is in regard to its climate, soil, fruit, its ocean frontage and its dry interior basins. It is a region especially adapted to a people of independence, culture and refinement. It will be characteristic of its inhabitants that they will endeavor to bring happiness to all with whom they come in contact. Poetry, painting, sculpture and music will flourish here, and literature win praise from a critical but delighted world. The enjoyment of the pleasure of dwelling here becomes so much a matter of course that we fail to appreciate the fullness of its blessings, though we are apt to give it lip service till we tire our own ears. This side of paradise we know we can hope for no better home. With the strong races that constitute our population, we shall build up a strong State. We shall form commercial relations with Spanish America, Asia and the islands of the South Sea. We shall have argosies sweeping into our harbors from the richest ports, and we shall see them again disappearing below the horizon laden with our own "corn, wine and oil."

And this society, in its own temple, a model of architectural beauty and taste, and equipped with all that modern art and genius can devise to further and perfect labors which it shall faithfully and intelligently pursue, shall sit and write the lessons of the ages.

## INAUGURAL ADDRESS OF PRESIDENT GUINN.

DELIVERED FEBRUARY 3, 1890.

Upon taking the chair as presiding officer, allow me to congratulate the Historical Society of Southern California upon the advancement made during the past year. The year 1889 has been one of the most successful years of the society, not only in the increase of membership, but also in the number of papers read, and in valuable historical and scientific material accumulated.

Now at the beginning of a new year, encouraged by what has been done, let us resolve with renewed energy to push forward the work of the society.

The work of our society, as outlined in its constitution, is dual in its nature. Our organization is at the same time a historical society and an academy of science.

"The collection and preservation of all material which can have any bearing upon the history of the Pacific coast in general, and of Southern California in particular," while stated as one of the chief objects of our organization, yet the discussion of scientific subjects, and the trial of scientific experiments are recognized by its founders as objects equally important. The objects of the society as outlined in its Constitution are indeed comprehensive and far reaching. To accomplish these we must enlist in our ranks workers in the different departments of historical and scientific research.

In the department of history more has been done than in any other, but there is still much to be done in that. There may not be many valuable historic facts of the period of Spanish and Mexican occupation that have escaped the keen researches of Bancroft and other historians, but of the mediæval or middle period of California history, the time from the American conquest to the advent of the first trans-continental railroad, there is much of value and instruction that ought to be collected and preserved.

We have among us men who were actors in the stirring events of that time, men who helped to make the history of that period, who could, if they would, give us valuable historical contributions. The era of gold hunting is the heroic age of California history, and the stories of the Argonauts are always listened to with an absorbing interest.

Biography is a most important adjunct of history. We should have in our archives a biography of every pioneer of any prominence, and, if possible, a photograph or likeness of each.

While the field of sociologic history has been measurably well tilled, that of natural history has been almost entirely neglected.

Scientifically considered Southern California is almost a *terra incognita*. Of the geological formation of our part of the State we know but little. There has been but little done towards classifying the rocks of our hills and mountains, or analyzing the soil of our valleys.

Its mineralogy, too, has been neglected. Although gold was discovered and successfully mined in the cañons of the Sierra Madres forty years before Marshall found nuggets in the mill race at Coloma, and although there are rich mines of the precious metals and vast deposits of copper, iron, tin and other minerals in our part of the State, yet there is not, to my knowledge, a museum or cabinet of Southern California ores in existence. Our society should begin at once collecting for such a museum, which not only would have an intrinsic value in itself, but it would have its effect in encouraging and promoting the development of our mineral resources. At present our facilities for displaying specimens are meagre, but when we move into our new quarters, it is to be hoped that we will have ample room to exhibit our collections.

The meteorology of our coast is worthy of scientific study. The majority of the treatises on the climatology of the Pacific Coast are glittering generalities, largely based upon guess-work, or upon theories that have no scientific foundation. Our society ought to keep a record of atmospheric phenomena. It is only from records running through a series of years that any general climatic law can be deduced.

There is one important division of natural history for which we have no committee, that of entomology. In a country like ours, largely devoted to fruit raising, the study of insect life, and particularly of insect pests and the means of exterminating them, is one of vital importance. I would recommend that a committee on entomology be added to the list of our standing committees.

It may be objected that these recommendations partake of the utilitarian, and tend to lower the tone of the society. I answer this is a utilitarian age; utility is the measure of values. Our society will be valued by the amount of useful work it does. In the language of our first president, Col. J. J. Warner: "This society was formed for work. It was not formed for show, for the name of the thing, but to do something."

## THE STORY OF ST. VEDALIA.

BY ALBERT F. KERCHEVAL.

[Contributed July, 1890.]

Perhaps within the memory of the present generation, since the discovery of gold, few events have proved of such surpassing interest and importance to California as the discovery and introduction of the *Vedalia Cardinalis*, popularly known as the Australian lady-bird, or lady-bug, and the history of the miracle wrought by her in the extermination of the countless hosts of the terrible *Icerya purchasi*, or cottony cushion scale, may well be worthy of a place in the archives of the Historical Society of Southern California. Some time, about the year 1876, the white scale was introduced into Los Angeles on some orange trees imported from Australia by Mr. T. A. Garey, but none at that time dreamed of the baleful significance of those snowy flecks appearing here and there, and stealthily stealing from tree to tree. But the "cloud no bigger than the hand" at first, grew until it overspread the whole horticultural horizon. Then when men realized the terrible character of the scourge that was upon the land, desperate and frantic efforts were made to stay it, but without avail. Relentless in its march as the ruthless hosts of Attila, it ravaged the richest and fairest vales upon which the sun looks down, and left but ruin, desolation and despair in its path. All kinds of trees in addition to the citrus family, vineyards, shrubbery, flowers, weeds, alfalfa, everything in the shape of vegetation, was in turn being attacked by the loathsome destroyer, and settled gloom and foreboding reigned over all. During all this period numberless and costly experiments were being conducted all over the coast with sprays, mixtures and emulsions, comprising everything deadly known to chemistry and science, but no material benefit was ever derived from their use, although some check was in places for the time being, made to the onward march of the victorious *Icerya*, and oftentimes the destruction of orchards hastened considerably thereby. Treatment by the gas process proved equally ineffectual, and probably half a million of dollars would be a very conservative estimate as the cost of labor and material thus vainly expended. Many horticulturists, who had been deriving princely incomes from the citrus fruits at the rate of from five hundred to one thousand dollars per annum net per acre, found themselves suddenly deprived of the same, and no words can adequately portray the despair and hopelessness of their situation. Probably five millions of dollars would be altogether an inadequate

compensation for all the losses and damage caused by the cottony cushion scale from the time of its first appearance in Southern California to the present, and it will require many years for the trees not absolutely ruined to regain their old-time healthfulness and vigor.

It was at this juncture, in the year 1888, that it was decided to send Mr. Albert Koebele to Australia on a mission for the discovery, if possible, of some parasite or predaceous enemy of the *Icerya*, it being a theory with many that Nature always provides an antidote for every poison, and a remedy for every evil, if we but know how to avail ourselves of the beneficent provision. Much acrimonious and unseemly discussion has been indulged in as to whom belongs the merit of the suggestion, and the measures taken to render it a success, but as Mr. Koebele was under pay, and acting under instructions from the Entomological Division of the Department of Agriculture, to Prof. Riley and his subordinates undoubtedly belongs much of the credit originally of the great discovery. Although during several years preceding Mr. Koebele's arrival in Australia, the white scale had almost ceased to exist there, no one could assign the true cause, but it did not take Mr. Koebele long to make the discovery, although owing to the scarcity of the *Icerya*, and consequent scarcity of the *Vedalia*, it was with great difficulty he succeeded in obtaining and forwarding to Prof. D. W. Coquillett, of Los Angeles, two or three small colonies in December, 1888, and January, 1889. Proceeding afterward to New Zealand he discovered them there in much greater numbers, and from thence sent in the spring several larger colonies, the first being placed in the orchard of J. W. Wolfskill, Esq., on Alameda street, Los Angeles, and the later consignments colonized in the orchards of Col. Dobbins and A. B. Chapman, Esq., of San Gabriel. About the middle of April, 1889, from the first small colonies established in the orchard of Mr. Wolfskill, that gentleman, Prof. Coquillett and Mr. Alex. Craw commenced the work of distribution, and to their untiring zeal, faith, energy and public spirit, the State is greatly indebted for freeing us from the deadliest menace that ever threatened the horticultural interests of this or any other community. From the orchards of Messrs. Chapman and Dobbins also, many colonies were distributed to surrounding groves, and in June the Los Angeles County Horticultural Commission established a central propagating station at the orchard of Mr. William Niles, on Washington street, from whence hundreds of colonies were sent out all over the county, and even to distant portions of the State. Thenceforward the work of annihilation of the hosts of *Icerya* was rapid and complete. As silent, as deadly, as mysterious, as came the Angel of Death to smite the countless hosts of Sennacherib,—

“The sheen of whose spears shone like stars on the sea,  
When the blue waves roll nightly on deep Gallilee,”

so silently and almost in a night, smote our beneficent angel, *St. Vedalia*, the white and ghastly hosts of terror that encompassed us round about, and they passed away and were not. Ere November's rains, naught remained to remind us of our deadly enemies save their white and filmy shrouds that may be seen to this day, fluttering in the breeze in every orchard, like flags of truce of vanquished armies that have passed away forever.

With the disappearance of the white scale, also disappeared the *Vedalia*, as that appears to be their natural and only food, and being cannibalistic in nature, the larvæ attack and devour each other with all the voracity and nonchalance of the denizens of "Darkest Africa." Yet the germs of both the *Icerya* and *Vedalia* appear to have survived during the winter in some mysterious and hidden manner, and both have reappeared during the present summer in many places, but in very limited numbers.

Recently the writer received a communication (and remittance) from Mr. Albert Jaeger, of Honolulu, Sandwich Islands, stating that the white scale had made its appearance there about one year ago, and was already causing great damage and consternation, and begging that a consignment of *Vedalia* should be immediately sent to them, which was done by last steamer. It is safe to say that never again will the pallid hosts of the *Icerya* be permitted to terrorize and devastate other lands as they once did our own, for the *Vedalia* being "fittest," will survive and conquer. Then let us, like Miriam going forth before the hosts of Israel, sing songs of triumph and thankfulness for our deliverance, and forevermore keep in holy veneration the memory of our gracious lady, *St. Vedalia*.

## THE GREAT REAL ESTATE BOOM OF 1887.

BY J. M. GUINN.

[Read December, 1889.]

The history of the paper cities and towns of Southern California may not be very interesting reading just now to their founders nor to the hosts of dupes who put their faith in the profuse promises of real estate agents, and their money in those paper cities; but years hence when the deceivers and the dupes have passed away, some Macaulay will weave into history a story of our Southern California real estate bubble that will read like a romance.

On the western side of our continent the word "boom" to express a sudden rise or inflation of values has superseded the older used and more expressive word—bubble. Boom—"to rush with violence," is better suited to express the dash, the impetuosity and the recklessness of Western speculators than the more effeminate term—bubble. Boom has come into our literature to stay, however unstable it may be in other places. I use it in this paper in its Western sense—an abnormal activity—a reckless rush into speculations that promise large returns from small outlays.

It is scarcely two years since our great real estate boom bursted, yet its serio-comic and its tragic features, as well, are already half forgotten. A few years hence and even the actors in that comedy of errors will have forgotten all of it except the financial depression that followed the wild excesses of the booming days of '87. The little white stakes that marked the corners of the innumerable lots in the numerous paper cities and towns will have been buried by the plowshare, and the sites of the cities themselves forgotten. Lost to sight will be the cities, but to memory—expensive.

In the archives of the County Recorder's office may be found the outlines of the history of the boom. It is a "true, full and correct" record of the plats of cities and towns—the record of subdivisions and re-subdivisions of lots, blocks and tracts in and additions to cities and towns—filling twenty large map books—the records of a single year—1887. These are the merest skeletons of its history—the bony corpses of the boom so to speak. The embellishments are wanting—the literature dispensed broadcast by the founders of these cities and towns and their agents, the literature that described in well-rounded phrase, the advantages of these cities as future commercial emporiums and health resorts—that told of railroads, transcontinental and local,



that were building for the especial benefit of these commercial centers—that lauded their beauty of scenery and their mildness of climate, all these are wanting—and those triumphs of the lithographer's art that embellished the literature of the boom are wanting too—the princely hotels, the massive business blocks, the avenues lined with tropical plants, and streets shaded with evergreens—all these are wanting in the records. The literature of the boom perished with the boom—buried in waste baskets and cremated in kitchen stoves.

Communities and nations as well, are subject at times to financial booms—periods when the mania for money-making seems to become epidemic. The South-Sea bubble, the Darien colonization schemes, the Mississippi scheme of John Law, the Northern Pacific Railroad Bubble of Jay Cooke, have each been followed by financial panics and "Black Fridays," but the experience of one generation is lost on the succeeding. Experience as a school-master is too often a failure.

The depression that followed the boom of 1874-76 continued until 1881. The bursting of that boom was followed by several disastrous occurrences that served to prolong our financial miseries, to-wit: Commercial and bank failures, and a succession of dry years that ruined the sheep industry and reduced the grain producers to the verge of bankruptcy. The building of the Southern Pacific Railroad eastward gave us a new and better market for our products in the mining regions of Arizona and New Mexico. The completion of this road gave us a new transcontinental route, and emigrants began to arrive. The price of land advanced steadily, and gradually we recovered from our financial depression. Up till 1886 the growth of our cities and towns had kept pace with the growth and development of the surrounding country, the crying need for new cities and towns had not been heard. The merits of the country had been well advertised in the East. Excursion agents, real estate dealers, and the newspapers of Southern California, had depicted in glowing colors the salubrity of our climate, the variety of productions, the fertility of our soil, and the immense profits to be made from the cultivation of semi-tropical fruits. The last link of the Santa Fé Railroad system was approaching completion. In the spring of 1886 a rate war was precipitated between the two transcontinental lines. Tickets from Missouri River points to Los Angeles were sold all the way from \$1 to \$15. Visitors and immigrants poured in by thousands. The country was looking its loveliest. Leaving the ice and snows of Iowa and Kansas in three days they found themselves in a land of orange groves, green fields and flower-covered hills. In the new land they found everybody prosperous and happy, and these visitors returned to sell their possessions and come to the promised land.

The more immediate causes that precipitated our great real estate boom of 1887 may be briefly enumerated as follows :

First—The completion of a new transcontinental railroad line, and an era of railroad building and railroad projecting in Southern California.

Second—High prices for all our products, an easy money market, and employment at high wages for all who wished employment.

Third—An immense immigration, largely attracted by reports of large profits made by speculating in real estate.

Lastly—The arrival among us of a horde of boomers from western cities and towns—patriots, many of them, who left their country for their country's good, fellows who left their consciences—that is if they had any to leave, on the other side of the Rockies. These professionals had learned their trade in the boom cities of the West and were adepts in the tricks of real estate booming. They came here, not to build up the country, but to make money, honestly if they could not make it any other way. It is needless to say they made it the other way.

During 1884-5-6 a number of tracts had been put upon the market, but these were mostly subdivisions of acreage within, or additions immediately adjoining the older and established cities and towns. Very few new townsites had been laid off previous to 1887. As the last link of the Santa Fé Railway system approached completion the creation of new towns began, and the rapidity with which they were created was truly astonishing. During the months of March, April and May, 1887, no less than thirteen townsites were platted on the line of the L. A. & S. B. R. R. alone, and the lots thrown upon the market. Before the close of 1887 between the eastern limits of Los Angeles city and the San Bernardino County line, a distance of thirty-six miles by the Santa Fé road, there were twenty-five cities and towns, an average of one to each mile and a half of the road. Paralleling the Santa Fé on the line of the Southern Pacific, eight more towns claimed the attention of lot buyers, with three more thrown in between the roads, making a grand total of thirty-six cities and towns in the San Gabriel Valley. The area of some of these was extensive. "No pent up Utica contracted the powers" of their founders. The only limit to the greatness of a city was the boundary lines of the adjoining city. The corporate limits of the city of Monrovia was eight square miles, Pasadena with its additions the same, Lordsburg spread over eight hundred acres, Chicago Park numbered nearly three thousand lots, located in the wash of the San Gabriel River. The city of Azusa with its villa lots and suburban farm lots, covered an area of four thousand acres.

The founding of the city of Azusa was intended to satisfy a long felt

want. The rich valley of the Azusa de Duarte had no commercial metropolis. Azusa was recognized by real estate speculators as the commercial center of trade for the valley, and they saw, or at least thought they saw, money in the first pick of lots. The lots were to be put on sale on a certain day. Through the long hours of the night previous, and until nine o'clock of the day of sale, a line of hungry and weary lot buyers stood in front of the office where the lots were to be sold. Number two was offered a thousand dollars for his place in the line, number five claimed to have sold out for five hundred dollars, number one was deaf to all offers, and through the weary hours of the night clung to the "handle of the big front door," securing at last the coveted prize—the first choice. Two hundred and eighty thousand dollars worth of lots were sold the first day. The sale continued uninterruptedly for three days. Not one in a hundred of the purchasers had seen the townsite, and not one in a thousand expected to occupy the land.

Even this performance was surpassed later on in the boom. The sale of lots in a certain town was to begin Wednesday morning. On Sunday evening a line began to form, the agent discerning that if it continued to lengthen through the intervening days, before the day of sale it would reach the Pacific Ocean, and some of the would-be investors might perish in the waves. With an eye to business he hired a hall for his customers. At stated intervals the line formed, the roll was called and woe to the unfortunate who failed to answer to his number; his place in the line was forfeited and each one below moved up one space. The speculation proved a failure, the crowd was made up principally of impecunious speculators and tramps who hoped to realize by selling out their places in the line.

An enterprising newspaper man found a piece of unoccupied land on the line of the Santa Fé Road—that is a piece not occupied by a townsite, and founded on it the city of Gladstone. An advertisement, prolific in promises of the future greatness of the city, and tropical in its luxuriance of descriptive adjectives proclaimed among other attractions that a lot had been deeded to the Premier of all England, and it was inferred if not implied that the "grand old man" would build a princely residence on his lot, and lend himself as one of the attractions to draw dwellers to the new city. In olden times, when a conqueror wished to destroy a rival city, he razed it to the ground, caused the plowshare to pass over its ruins, and sowed the site with salt. The city of Gladstone was destroyed by the criticisms of a rival newspaper man, the plowshare passed over its ruins and the site was sown in barley. The enterprising newspaper man lost his land, (he held it by contract only),

the surveyor who platted the town lost his pay, and Gladstone lost his lot.

The fate of La Verne was equally tragic. It was located on the slope of the San Jose hills and boasted of a beautiful view. At one time it possessed a hotel, a business block, and several dwellings, its future was promising, but with the waning of the boom adversity struck it. Its founder was unable to pay out for the land on which it was built, a suit of foreclosure was threatened and the houses would revert with the land. The citizens of Pomona were aroused one Sabbath morning by the harsh grating of many heavy wheels; peeping through their shutters they beheld the city of La Verne moving down upon them—fleeing before the wrath of an outwitted creditor.

The city of Carlton was one of the mighty cities of the boom. Its rise and fall, while not as great an event in the world's history as the rise and fall of the Roman Empire, yet, nevertheless, its fall brought financial disaster to many a descendant of the Roman, the Saxon, and the Gaul. Its site is described as commanding a beautiful view of the valley of the Santa Ana, with the Pacific Ocean in the distance. View was its only resource, the chief support and income of its inhabitants; and the prolific promises of its projectors its chief attraction. Railroads were to center there, manufactories were to rear their lofty chimneys, and the ever-present hotel in the course of erection was to be a palace of luxury for the tourist and a health restoring sanitarium to the one-lunged consumptive. Promises were cheap and plentiful, and so were the lots. They were started at \$25 each for a lot twenty-five feet front, rose to \$35, jumped to \$50, and choice corners changed hands at from \$100 to \$500. One enterprising agent sold three thousand and many others did their best to supply a long felt want—cheap lots. Capitalists, speculators, mechanics, day laborers, clerks and servant girls, crowded and jostled one another in their eagerness to secure choice lots in the coming metropolis. Business blocks, hotels, restaurants, saloons and dwelling houses lined the principal streets. A bank building with a costly vault was constructed, a railroad line was surveyed through the city and a few ties and rails scattered at intervals along the line. A population of three or four hundred congregated there at the height of the boom, and for a time managed to subsist in a semi-cannibalistic way on the dupes who came there to buy lots. The site of the city was on a barren foot-hill of the Santa Ana Mountains—even that very necessary article—water, had to be packed up the hill from the zanja. The productive land lay far below in the valley, and the cities of the plain absorbed all the trade. When the excursionist and the lot buyer ceased to come, "picturesque Carlton," "Nature's rendezvous" as its poetic founder styled it, was abandoned, and now the jack rabbit nib-

bles the grass in its deserted streets, and the howl of the coyote and the hoot of the boding owl wake echoes in its tenantless houses.

Of purely paper cities, Border City and Manchester are the best illustrations. An unprincipled speculator by the name of Simon Homberg secured two quarter sections of railroad land situated respectively forty and forty-three miles in an air line north-east of Los Angeles city. These were the sites of Homberg's famous, or rather infamous twin cities. Border City was very appropriately named. It was located on the border of the Mojave desert on the north-eastern slope of the Sierra Madre Mountains. It was accessible only by means of a balloon, and was as secure from hostile invasion as the homes of the cliff-dwellers. Its principal resource, like Carlton, was view—a view of the Mojave desert. The founder did not go to the expense of having the site surveyed and the lots staked off. He platted it by blocks and recorded his map. The streets were forty feet wide and the lots twenty-five feet front by one hundred deep; the quarter section made nineteen hundred and twenty lots, an average of twelve to the acre. This Homberg discovered to be a waste of valuable land, and in laying out the city of Manchester he was more economical. Out of the quarter section on which that city was founded, he carved two thousand three hundred and four lots, about fourteen to the acre. All streets running east and west were 27 2-13 feet wide, and all streets running north and south were 34 2-7 feet wide—the lots were twenty-five feet front by ninety-five deep. Manchester was a city of greater resources than Border City—being located higher up the mountain, it had a more extended view of the desert. Homberg bought the land from the Railroad Company on contract, making a first payment of twenty-five cents per acre. His lots cost him about two cents each. These lots were not offered for sale in Southern California, but were extensively advertised in San Francisco, Northern California, Oregon and in the Eastern States.

Judging from the records he must have sold about all of his four thousand lots, and his profits must have footed up very nearly one hundred thousand dollars. So many of his deeds were filed for record that the County Recorder had a book of deeds containing three hundred and sixty pages, prepared with printed forms of Homberg's deed, so that when one was filed for record all that was necessary to engross it was to fill in the name of the purchaser and the number of the lot and block. These lots were sold at all prices—from one dollar to two hundred and fifty dollars each, the price varying according to the means or the gullibility of the purchaser. One buyer would pay \$250 for a single lot, the very next investor would get ten or a dozen for that sum. One enthusiast in San José invested a thousand dollars in forty-eight lots, evidently he was a believer in Mrs. Means' maxim: "While

you are a gitten, git a plenty." Nearly every State in the Union was represented in the city of Manchester, and England, Germany, Holland, Denmark and Sweden furnished Homberg dupes.

The magnitude of the boom can be measured more accurately by a money standard than by any other. The total of the considerations named in the instruments filed for record during the year 1887 reached the enormous sum of \$98,084,162. But even this does not tell half the story. By far the larger number of lots and blocks in the various tracts and townsites that were thrown on the market were sold on contract—the terms of payment being part cash, balance in six, twelve or eighteen months; a deed to be given when final payment was made. But few of the agreements were recorded. Frequently property bought on agreement to convey was re-sold from one to half a dozen times, and each time at an advance, yet the consideration named in the deed when given would be the sum named in the original agreement. Deeds to the great bulk of property sold on contract in 1887 did not go on record until the year following. Thousands of the contracts have been or will be forfeited, and never will appear on the records. It is safe to estimate that the considerations in the real estate transactions during 1887, in Los Angeles County alone, reached \$200,000,000. Estimating the total amount of considerations in transfers in the counties of San Diego, San Bernardino, Ventura and Santa Barbara at the same amount, the real estate transactions of 1887 in Southern California reached \$400,000,000. Could we have kept the boom running for another year, we would have made enough to pay off the national debt.

So sudden an inflation of land values was, perhaps, never equaled in the world's history. When unimproved land in John Law's Mississippi Colony sold for 30,000 livres ( \$5,550 ) a square league, all Europe was amazed, and historians still quote the Mississippi bubble as a marvel of inflation. To have bought a square league of land in the neighborhood of some of our cities in the booming days of 1887 would have taken an amount of money equal to the capital of the national bank of France in the days of John Law. Unimproved lands adjoining the city of Los Angeles sold as high as \$2,500 per acre, or at the rate of \$14,400,000 a square league. Land that was sold at \$100 an acre in 1886, changed hands in 1887 at \$1,500 per acre, and city lots bought in 1886 at \$500 each, a year later were rated at \$5,000. Within the memory of not the oldest inhabitant, the San Pasqual rancho, containing 13,000 acres, sold at fifty cents an acre. Pasadena and its numerous suburbs are within the limits of that rancho. The price of a single lot in the business centre of Pasadena in 1887 would have bought ten such ranchos at fifty cents an acre.

The great booms of former times, measured by a money standard, dwarf into insignificance when compared with ours. The capital stock

of John Law's National Bank of France, with his Mississippi grants thrown in, figured up less than \$15,000,000 at the period of its greatest inflation, an amount about equal to our real estate transfers for one month, yet the bursting of John Law's bubble very nearly bankrupted the French Empire.

The relative proportions of the South Sea bubble of 1720 to our real estate boom are as a soap bubble is to La Mountain's mammoth balloon, America. The amount of capital invested in the Darien colonization scheme, a scheme which bankrupted Scotland and came near plunging all Europe into war, was only 220,000 pounds sterling, a sum about equal to our real estate transfers for one day.

From a report compiled for the Los Angeles County Board of Equalization in July, 1889, I find the area included in sixty towns, all of which were laid out since January 1st, 1887, estimated at 79,350 acres. The total population of the sixty towns was at that time estimated at 3,350. Some of the largest of these on paper had the smallest population. Chicago Park, containing 2,289 lots, had one inhabitant, the watchman who takes care of its leading hotel; Sunset, 2,014 lots, one inhabitant, watchman of an expensive hotel; Carlton, 4,060 lots, no inhabitants; Manchester, 2,304 lots, no inhabitants; Nadeau, 4,470 lots, no inhabitants; Santiago, 2,110 lots, a deserted village; St. James, 1,161 lots, one livery stable, its proprietor and hostler; Rosecrans, Minneapolis, Studebaker City, La Verne, Broadacres, Walteria and Gladstone, fallen from their high estate. The plowshare has passed over their ruins, and barley grows in their deserted streets.

Estimating five lots to the acre, the area included in these sixty cities and towns would make 400,000 lots of fifty feet front by one hundred and fifty feet deep. As many of these lots were but twenty and twenty-five feet front, the actual number of lots laid off in these towns was nearer 500,000. Allowing five inhabitants to the lot, there was room in these, without crowding, for a population of 2,000,000. The room is still there. Dividing the area included in the older cities and towns, with their numerous additions, into lots of the same size, and allowing the same number of inhabitants to the lot, we have town lots enough in this county already platted to supply a population of 5,000,000, the population of London, and give each inhabitant 1,500 square feet of breathing space. Applications are pending before the Board of Supervisors from the owners of six of these towns, asking the Board to order the streets vacated, and the town sites returned to acreage. A quarter of a century hence the exact location of many of these boom towns will be as entirely unknown to the people of that day as are the sites of Agua Mansa, Queen City, Santa Maria and Savana, buried cities of a quarter of a century ago, to the newcomers of our day.

The methods of advertising the attractions of the various tracts and

subdivisions thrown on the market, and the devices resorted to to inveigle purchasers into investing, were various, often ingenious and sometimes infamous. Brass bands, street processions, free excursions and free lunches, columns of advertisements, rich in description and profuse in promises that were never intended to be fulfilled, pictures of massive hotels in the course of erection, and lithographs of colleges of applied science — these were a few of the many devices and expedients resorted to to attract the attention of the credulous, and induce them to invest their coin.

Few if any of the inhabitants to the manor born, or those of permanent residence and reputable character, engaged in these doubtful practices and disreputable methods of booming. The men who blew the bubble to greatest inflation were new importations, fellows of the baser sort, who knew little or nothing about the resources or characteristics of the country, and cared less. They were here to make money. When the bubble burst they disappeared — those who got away with their gains, chuckling over their illgotten wealth; those who lost, abusing the country and villifying the people they had duped. Retributive justice overtook a few of the most unprincipled boomers, and they have since done some service to the country in striped uniforms. The collapse of our boom was not the sudden bursting of a financial bubble like the South Sea bubble, or John Law's Mississippi bubble, nor did it end in a financial crash like the panics of 1837 and 1857, or like Black Friday in Wall street. Its collapse was more like the steady contraction of a balloon from the compression of the heavier atmosphere outside. It gradually shriveled up. The considerations named in the transfers for the first three months of 1888 exceeded \$20,000,000. After that they decreased rapidly. In a less fruitful country, and with a less hopeful and self-reliant people, the collapse of such a boom would have resulted in complete financial ruin and untold suffering.

When the boom had become a thing of the past, those who had kept aloof from wild speculation, pursued the even tenor of their ways, building up the real cities and improving the country. Those who had invested recklessly in paper cities plowed up the sites of prospective palace hotels and massive business blocks, and sowed them in grain, or planted them with trees, or they sought some other employment by which they could earn their bread and butter, sadder, and it is to be hoped, wiser men. There was for a time a stringency in the money market, but even this proved a blessing in disguise. It compelled to more economic methods of living, and impelled the people to greater efforts to develop the resources of the country. On the whole, with all its faults and failures, with all its reckless waste and wild extravagance, our boom was more productive of good than of evil to Southern California.



## HISTORY OF THE CATHOLIC CHURCH IN LOS ANGELES COUNTY.

BY REV. JOSE ADAM, VICAR GENERAL.

The name of Los Angeles is probably derived from the fact that the expedition by land, in search of the harbor of Monterey, passed through this place on the 2nd of August, 1769, a day when the Franciscan missionaries celebrate the feast of *Nuestra Senora de Los Angeles*—"Our Lady of the Angels."

This expedition by land, left San Diego July 14, 1769, and reached here on the first of August, when they killed for the first time some berrendos or antelope. On the 2nd they saw a large stream with much good land, which they called Porziuñcula, on account of commencing on that day the jubilee called Porziuñcula granted by the Lord to St. Francis, while praying in the little church of Our Lady of the Angels near Assisi, in Italy, commonly called Della Porziunculla from a hamlet of that name near by.

January of next year saw this expedition on their return to San Diego, which place they reached on the 21st of April of that year, 1770. Governor Portolà with Father Crespi, and some soldiers were seen again by the Indians that inhabited these plains and mountains. As Los Angeles owes its existence to the establishment of San Gabriel Mission, in giving the religious history of Los Angeles, we cannot omit San Gabriel.

On the 6th of August 1771, Fathers Pedro Cambon and Angel Tomére, accompanied by ten soldiers and some muleteers, left the port of San Diego, and proceeded north to establish the Mission of San Gabriel. After traveling for forty leagues, they halted near the river of Los Temblores, so-called by the first expedition, on account of the severe earthquakes they experienced passing through this place. The river was afterwards called River San Gabriel, which name it still retains.

The site selected for the establishment of the mission was about three miles from the present one, and is now included in the ranch of Mr. Richard Garvey. The ruins of the former buildings can yet be seen. The first mass was celebrated there under green bowers on the 8th of September, 1771, being the feast of the nativity of the Virgin Mary.

A temporary chapel and huts for the padres and soldiers were erected the whole protected by a stockade, the gentiles (Indians) having cut the lumber and made themselves generally useful.

While the best harmony was prevailing between gentiles and Christians, an event took place, which nearly destroyed that good beginning. A soldier having insulted the wife of one of the captains, this man conceived the idea of avenging himself and his wife of the insult received. He invited all the Indians around to join him. When the two guards saw such a crowd of armed Indians coming toward them, they buckled on in a hurry their leathern jackets, and prepared themselves for defense. The offender shot dead the leader, who happened to be the outraged captain, and all the others fled in terror.

A few days after, the commanding officer with two priests reached this place on their way to establish the Mission of San Buenaventura ; and fearing another attack from the Indians, he left sixteen soldiers here, and brought with him to Monterey the guilty soldier to take him out of the sight of the Indians. On this account the establishment of the Mission of San Buenaventura was frustrated for the time being, and four missionaries remained at San Gabriel, the former two however, retiring soon to Mexico on account of poor health.

The Fathers tried with some success to conciliate the Indians; and within two years seventy-three children were baptized; and at the death of Father Junípero-Serra, they numbered 1019.

Father Serra after having founded the missions of San Diego, Carmelo, San Antonio, and San Luis Obispo, in September, 1772, visited that of San Gabriel, the only one which he had not established personally, and he was delighted to find there already so many converts.

In 1776, after having rebuilt the Mission of San Diego, which had been destroyed by the insurgent tribes, Father Junípero Serra once more visited the Mission of San Gabriel, after having established that of San Juan Capistrano, eighteen leagues distant from the latter.

It was on this occasion that Father Junipero had a very narrow escape. On his way from San Gabriel to San Juan, accompanied only by an Indian, who served as interpreter, and by a soldier, he encountered a band of Indians all painted and well armed. The interpreter told them in their language that many soldiers were coming behind, who would kill them if they committed any hostile acts. Father Junípero made them some presents and thus pacified them.

The General Commander of California, Don Teodoro Croix, anxious to comply with the wishes of the Viceroy, concerning the foundation of some missions, and a presidio on the channel of Santa Barbara, sent Captain Fernando Rivera to recruit seventy-five soldiers in Arispe, and at the same time to procure families in order to form a pueblo or town to be

named after "Nuestra Señora de Los Angeles," near the bank of the River Porziuncula, now the Los Angeles River.

At the same time the Commander asked for some missionaries to establish two missions on the river "Colorado" for the conversion of the Indians of that region, and to secure the pass newly discovered through Colorado to these missions of Alta California,

The Captain began to get recruits in Sinaloa and Sonora. Those from Sonora he brought with him by way of the Colorado River. On his arrival there, as he found the missions already established, and observed that his horses and mules were very poor, and fearing they would die before reaching San Gabriel, eighty leagues distant, he remained there with six soldiers, and sent the recruits with their officers and soldiers and others to San Gabriel.

The Governor had arrived at the Mission of San Gabriel a long time before to receive the troops that were coming up from Lower California, and there he received this last portion that came from the Colorado River. He sent back the Lieutenant with the nine veterans belonging to Soñora, who arriving at the Colorado river, were told the father and soldiers had been killed by the Indians. They could scarcely believe it, till with their own eyes they saw the mission buildings reduced to ashes and the corpses lying here and there unburied. He lost two soldiers, and with another wounded he hastened back to San Gabriel and informed the Governor what had happened.

The Governor, fearing that the Indians between here and the Colorado river would rise against the new settlers, remained with his troops at San Gabriel, meanwhile arranging to lay the foundation of a town, (Pueblo de Españoles) near the river Porziuncula, so named by the first expedition. He called together all the new settlers, that had come to establish themselves here, assigning to each of them a place and lands near the river distant four leagues from the Mission of San Gabriel. These new settlers were accompanied by a corporal and three soldiers, and in this way was founded the town of Los Angeles towards the end of 1781. They lived off their own crops, observes Father Palou, and were subjected to the inconvenience of traveling four leagues to attend mass.

A few months later, March 15th, the Very Rev. Father Junípero, after having made thirteen leagues on foot, arrived very late at this new pueblo of Los Angeles, where he slept that night. The next morning he left for San Gabriel, where he arrived fasting and tired, but in spite of this he ordered the bells to be rung, and sang the mass in honor of St. Joseph, whose feast the church celebrates on that day.

Some days after, the new settlers of Los Angeles were agreeably surprised when they saw a brilliant expedition of soldiers and people

going to lay the foundations of San Buenaventura and Santa Barbara. The expedition was composed of seventy soldiers, with the officers and the Governor ; also ten more soldiers, with their families, and some Christian Indians ; of priests, only two accompanied them, Father Junipero and Father Cambon.

The next year, 1783, the venerable Father Junipero, for the last time, visited the missions of the south, and passed through Los Angeles towards the end of the year on his way to Monterey, making the one hundred and seventy leagues from San Diego to Monterey on foot at the age of seventy years.

Where Buena Vista street is now open north on the hill, there stood a chapel from the year 1784 until 1812, where a Franciscan friar from San Gabriel said mass every Sunday and on holy days, for the accommodation of the settlers and their families.

The present church which stands on the plaza was built between the years 1812 and 1815, and was enlarged and restored as it is seen at the present in the year 1862, under the pastorate of Father Blas Raho.

The missions were under the control of the Franciscan fathers till the year 1833, when by a decree of the Mexican Congress they were secularized. The Mission of San Gabriel, as well as the other missions, dwindled from over a thousand Indians to a few hundred. A like diminution was observed in the cattle and general products of the country.

San Gabriel Mission counted as many as three thousand Indians, one hundred and five thousand cattle, twenty thousand horses and more than forty thousand sheep, together with harvest returns of twenty thousand fanegas\* ( over 30,000 bushels ) of different species of grain, and five hundred barrels of wine and brandy. During the civil administration the Indians were reduced to five hundred, the cattle to seven hundred, horses to five hundred, and so on. Attached to this mission, and formed for the benefit of the natives, were seventeen extensive ranches. Two hundred pairs of bullocks and several hundred Indians were constantly employed in tilling the land. Under the paternal tutelage of the fathers, the Indians felt happy and prosperous.

In the treasury of the San Gabriel Mission, at the time of confiscation were one hundred thousand piasters,† and in the warehouses, for the use of the natives, as much as two hundred thousand francs' worth of European merchandise, which all fell into the hands of the administration, and was appropriated by them.

In 1835 the Congress of the Mexican Republic, of which Santa Ana became President, restored to the Roman Catholic Church, by a formal

\* A fanega is a Spanish measure equal to 1.599 of an English bushel.

† A piaster is a franc, or 19.3 cents.

act of the national legislature, the property belonging to the missions, of which it had been deprived in 1832.

The same well-disposed Congress determined to put Upper and Lower California under the care of a resident bishop, and Don Garcia Diego was appointed to the position by His Holiness, Gregory XVI. He was the first Bishop of California, a man of great talent, a Mexican by birth, and well acquainted with these missions, as he was Commissary Prefect of Upper California at the time of his appointment. On the 11th of January, 1842, he landed at Santa Barbara, where he was received with great enthusiasm. He died there in 1846, and the Very Rev. Father Gonzalez was appointed to administer the estate until 1850, when Dr. Alemany was nominated as Bishop of Monterey. He brought with him the Dominican religious orders of both sexes.

As California increased in population very rapidly on account of the discovery of gold, the Holy See raised Dr. Alemany to the dignity of Archbishop of San Francisco, and selected Dr. Amat as Bishop of Monterey. Right. Rev. Thaddeus Amat was born in Barcelona, Spain, in 1810. He was rector of the Seminary of the Lazarists in Cape Girardeau, and afterwards of the Seminary of Philadelphia. He was consecrated as bishop in the Church of the Propaganda in Rome in 1854. He resided in Santa Barbara for some time, but foreseeing that the city of Los Angeles had a great future, he petitioned the Holy See for permission to make this place his permanent residence, and to be called Bishop of Los Angeles. Rome granted the petition, but with the condition that he should retain also the title of Monterey, and thereafter he was known as Bishop of Monterey and Los Angeles.

With his energetic zeal he had the consolation of seeing finished the new cathedral of St. Vibiana, in 1876. Perceiving that his health was failing, he asked for a coadjutor to be appointed, and selected for that important position his vicar general, the Very Rev. Francis Mora. Dr. Mora was consecrated in 1873, with great jubilation on the part of the clergy and laity, being highly revered by all. Under his administration many schools, colleges and academies have been established.

From a small chapel in the last year of the last century, Los Angeles can boast now of a Roman Catholic cathedral, the old church of Our Lady of the Angels, the new church of St. Vincent, the German Church and that of the Sacred Heart in course of erection in East Los Angeles.

## FROM ST. LOUIS TO SAN FRANCISCO IN 1850.

BY J. E. CLARK.

[Read September, 1889.]

Walking down Fourth street, St. Louis, December 10th, 1849, I saw several posters which read :

### WANTED.

One thousand able-bodied men to work on the Panama Railroad. Fare paid to the Isthmus, and an excellent chance to go to California, and arrive with money in your pockets.

J. C. CARDWELL, Agent.

Signed, COL. ED. BAKER.

Deeming that a golden opportunity in a double sense, I made application as an able-bodied man, was accepted as such, and put my name to the contract "to work one hundred days on the railroad, actual service," the company not allowing for any loss of time for sickness or other disability in that deadly climate. In remuneration we were to receive each twenty dollars in gold coin, a pair of good all-wool blankets, and a steerage fare to San Francisco.

It is to me a mournful remembrance to realize that but very few of those "able-bodied" men lived to work out their hundred days.

As nearly as I can recollect, on the morning of December 17th, we were called to rally our forces by that good old tune which inspires the heart of every true American, "Yankee Doodle," played only as it can be on fife and snare drum. Our company being formed in single file, as each man passed the office door, the secretary took his name and number, and put his check to the roll, and then gave to the recruit his accoutrements, consisting of a leather strap, tin plate, cup, knife, fork and spoon, regimentals that would have been more serviceable had our commissary been amply supplied with even the old miner's famous slap-jacks and good pork and beans. But to the eternal disgrace of the firm of Aspinwall & Co., such was not the case, as will appear further on.

After all preliminaries were over, we formed double file, and under a temporary captain, keeping time with the slow tap of the drum, we marched to the deck of an old cotton barge, and at 4 P. M. took a last view of St. Louis, and slowly steamed our way down the river. Nothing occurred on the trip to mar the excitement of the journey, more than a few fights among the roughs, and two of the worst of the gang being arrested for chicken stealing at the notorious place called "Natchez, under the Hills."

Arriving at New Orleans on the morning of the 23d, we were marched to the Third Municipality, and in a large zinc warehouse were quartered under guard, there to await orders from New York, which arrived the night of the 29th. One of the guards being my traveling companion, I was permitted to go outside of the gates, under the pretence of wanting to procure a few necessaries for my sojourn upon the Isthmus, which was only a ruse to desert from as reckless a gang of men as ever walked in line or rolled a blanket. During the night I put on two suits of clothes, rolled up a good-sized bundle over a few keepsakes, then under pretence of going to a laundry, induced the guard to let me pass, and when outside the line, I mentally said, "Adieu." But on the day of the ship's sailing, by the entreaties of Dr. Baker, brother of the colonel, I entered into a new contract with the company, specifying that I was to hold an official position, namely: For a stated salary for one year or more, to act as surgeon's assistant, and superintend the drug department and general hospital, which required a number of assistants to do the work.

On the morning of January 1st, 1850, when snow was one inch deep on the wharves of New Orleans, our men were called to march to the ocean steamer, under an escort of city police, to keep the recruits from deserting. "All aboard," we crossed the bar about 4 o'clock, P. M. After a rough voyage of five days, we cast anchor in the mouth of Chagres River, in five fathoms of green slime and debris. Awaiting the next flood tide and the arrival of the natives with their canoes, we were landed on the mud flats by 10 o'clock at night. Owing to the dampness of the ground we could not spread our blankets, but found them very useful to shield our standing bodies from the dense fog. At early daybreak, about a hundred men under the command of Mr. King, the superintendent, who met us at the embarcadero, we took to the champans, or native boats of the New Granadians, and slowly wended our way up the crooked river, camping on the banks one night, and landing at our destination, Bogiosoldado, in time for a late breakfast, comprising one round of dishes, with bill of fare to please a king, had he been in our condition, for we had not enjoyed half a square meal since leaving New Orleans.

In the language of Jack the Sailor, old hardtack, roasted yams, half-cooked salt horse and coffee were quite enough to keep a man from starving, even if the coffee was flavored with the green water of the Chagres, and minus milk or sugar. After this frugal repast all hands were piped into line by a blast on a dinner horn. Colonel Baker and assistant called the roll and entered name, nativity and residence of the whole company upon the time-book. Then each man had his choice of the squad to which he would belong, either woods-

men, pickmen, shovelmen or barrowmen. Then Colonel Baker selected from each squad a captain to act as time-keeper and foreman of his gang.

After addressing the regiment, imploring all to obey their officers, to be industrious, sober, orderly, and do all in their power to advance the mutual interests of employer and employee, orders were given to spend the rest of the day in recreation. During that afternoon and evening the camp was made joyful by song and story, and music upon violin, flute and banjo to the tunes of "Dan Tucker," "Arkansaw Traveler," "Home, Sweet Home," and "Yankee Doodle," with variations.

The next day, which I think was January 10th, ground was cleared, tents pitched and the cook-house erected. Within ten days the officers quarters and hospital were built. In fact our camp was all in good order for grading the railroad from Gatun Station to Gorgona. Another steamer had arrived with more provisions and an ample supply of drugs; also a quota of hospital supplies, branded "Cognac," etc., articles deemed essential for all officers acting under military orders.

Our commissary also received two tons of flour, but how to bake it to bread for four to five hundred men was a question that puzzled our best philosopher, we having no bricks to construct an oven. This difficulty, however, was overcome by a Western pioneer, who constructed three large ovens out of mud brought from Chagres, laid on a pile of brush, and then burning out the brush, a crust or shell being formed, and then more mud being put on and the whole being burnt to a solid brick oven.

Our men had not worked over two weeks in that scorching sun until many of those apparently the most able bodied were falling sick with the Isthmus fever, those possessing the least vitality seeming to be the fittest to survive the malarial poison. In a few weeks fifty to one hundred were in the hospital, out of a camp numbering less than five hundred men. By the first of April we were burying from five to ten per day. Our supply of lumber giving out, the bodies were laid in pits, three or more side by side, like soldiers after battle. Reading the abridged burial service of the English Church was abolished, as the officer (myself) appointed to that duty was unable to withstand the excessive heat.

Many of the laborers wore no clothing, nothing but blue overalls and striped cotton shirts, for which they paid the railroad company an exorbitant price in extra work. The perpendicular rays of the torrid sun penetrated deep into the flesh, burning worse than fire. The men were so anxious to put in their time, many of them did not succumb to their torture until their scalded backs were full of the pupa deposited by the green fly.



After the poor fellows came to the hospital for relief, we could only add pain to misery by a copious application of spirits of camphor or turpentine to destroy the pupa. In many cases gangrene relieved the sufferer by death. Another great annoyance to our men was the jiggers, another pupa evolved from the eggs of a small fly deposited under the toe nails. This little intruder must be ousted upon the point of a lance, or he will get up an irritation that will cause the limbs to swell, and if the blood is in an abnormal condition, be likely to put the man on crutches, if not in care of a doctor.

The numerous death-bed scenes we witnessed proved to us the truths implied in the sayings: "Early impressions are permanent." "The ruling passion is strong in death." Our company represented various nations, tongues and creeds. During the last moments of life the Jew talked in Hebrew to his Messiah, and died with his Talmud under his pillow. The Mohammedan prayed to Allah, and the Spirit of Mohammed. The Christian begged his God for mercy, and asked for the intercession of Christ and the Blessed Virgin. Young men died, some calling on Christ, some on a loving mother, some asking to see a dear sister, others seeing in imagination their distant loved one. Many died saying in their last moments they had no knowledge or anxiety as to the future, this life being their only care, and mildly asking us to inform their friends of their death. We did so to the best of our ability.

The atmosphere at early sunrise being very sultry, many of the officers found a retreat underneath a large projecting rock on the bank of the river, where we put in the time awaiting breakfast by throwing pebbles at the saw-back alligators.

Dr. Baker, who was a man of jovial heart and a late riser, would often amuse the crowd by walking out to the edge of the rock, and calling out to us, "Boys, boys, quinine, quinine!" which signified the meal was ready, when all "the boys" were to pour out the usual dose of the bitter drug into the palm of their hands, and thus taking it, wash it down with a swallow of brandy. Any deviation from this established rule was an offence against the law, worthy the penalty of a fine to swell the treasury for purchasing dainties from the natives.

Passengers going to and from California often camped with us over night, which added much to the few pleasures we enjoyed. The incidents related of ladies crossing the mountains astride a lazy donkey were often ridiculously amusing. So was the voyage in a champan with a black, naked pilot and bowsman.

The writer having many leisure hours, spent much time viewing the beautiful scenery, rambling among the palm, plantain, banana, date, cocoanut and rubber trees. Many hours were whiled away in study-

ing the habits and wonderful intelligence of the parrots, paroquets, monkeys and the soldier ants. No one was permitted to molest these pets. The birds and monkeys soon learned that we were not their enemies. The sound of the dinner horn brought numbers of them to our camp to gather up the refuse from tables, and often stray knives, forks, or spoons, were seen leaving the camp in possession of those little rogues.

If we desired a fresh cocoanut, we threw small stones at the monkeys, and they, in spiteful imitation, threw down cocoanuts at us. Strange as it may seem, the inventive genius of these creatures was proven by seeing them place a rock by the foot of a tree, and throwing a cocoanut from the branches upon the rock, break the shell, and thus give food to their mates, who, in return, will show more love and gratitude than some bipeds, by keeping back the best half for their wives. We often saw a ring-tail sharpen a stick and drill a hole in the edge of a nut, and give it to her young to drink the milk, and a good cuffing was the consequence of any careless waste.

We found the soldier ant, so called by our company, a very interesting study; one that impressed us with the philosophy of the Scriptural injunction, "Go to the ant, thou sluggard," etc. These little red insects, no larger than the common black house ant of the North, exhibit a knowledge of military tactics equal to a trained battalion of broom-rangers. They have a chief officer and subordinates, their sappers and miners, their carpenters and their masons. Each department is ably superintended by a captain or foreman.

I class these knowing little creatures with the *Myrmica rubra*, of Gould, in color, and with the *Termesma bellicocus*, of Huber, in habit.

A long article could be written describing these wonderful little workers.

The king ant, the general of the colony, is much larger than the others. He marches at the head of the battalion, or stations himself on a prominence to overlook the passing columns. When he throws up his antennæ, the whole army stops as by magic, he calls his subordinates and they obey his orders. The sappers and miners grade the roads which are about six inches wide, removing every obstruction, making it as smooth as a paved walk, avoiding short curves and filling the cavities. When the workers take to the road those going for burdens take the right of the trail, and those loaded return on the other side. Thus like good teamsters, they never come in collision.

If we obstructed their trail with a stone, the officer ordered a halt and made an examination. Then the workers began to undermine the stone and sink it below the grade, then smooth the road, and then join the ranks, and after orders resume the march. The carpenters (or woodsmen) remained in the trees from sunrise to sunset, trimming the

leaf, and dropping the pulpy part, for the packers to take to the store-room. The masons work under a boss mechanic. They mix the clay and sand, and lay up the walls of the house, and thatch the roofs. I have often seen the foreman stop the work when the walls were caving at the tops, then the hands would tear down the work and rebuild it with a more perpendicular angle.

These ants also can compute time; for if the road of one colony crosses that of another, they very seldom come in contact, one train passing before the other arrives. But if they do meet, war is declared, the dead are buried, and the spoils are confiscated.

During the summer months, and part of the rainy season, our men were dying so fast, it was impossible to keep up the squads to a requisite number of hands. White races could not stand the climate. Jamaica and Carthage were the only sections wherein to get recruits, and they would not work during the middle of the day. We were burying seventeen per day at each station, Gatun and Navy Bay. The unwholesome food furnished by Aspinwall & Co. had much to do with the loss of life. The poor laborers were forced to subsist upon musty sea-biscuits or heavy bread made of poor flour. The only meat was bad corned beef, or rusty pork, that was condemned as food unfit for sailors use, bought of the ship chandlers in New York. Most of the time the only vegetable diet was the dry, insipid yams raised by the natives. Usually the commissary was out of vinegar. A few men had a little money to buy green oranges, which they ate freely to ward off the scurvy, but in fact only acted as a promotive of a worse disease—the deadly fever.

Out of one thousand men who left the eastern shores under the one-hundred-day contract, nine-tenths left their bones on the Isthmus, as buried mementoes of "Man's inhumanity to man" in order that he may acquire the almighty dollar.

All honor to that noble man with whom I messed for months, Col. Ed. Baker. These acts do not tarnish his name.

Had Aspinwall & Co., fulfilled their contract with him, many noble hearts would now be living to throb in kind remembrance over the grave of the gallant General who died a martyr for his country.

Our contract being fulfilled we were in waiting for a steamer from Panama to San Francisco. About the 15th of April we boarded the old steamship "Northerner," bound for the Golden Gate, with twelve hundred passengers.

We arrived on the memorable morning of May 4, 1851, and found San Francisco enveloped in flame and smoke with all her main streets in ashes. Yet with all that unpleasant reception we were full of joy to know we again stood upon a land over which wave the stars and stripes.

## EXCEPTIONAL YEARS.

A HISTORY OF CALIFORNIA FLOODS AND DROUGHT.

BY J. M. GUINN.

[Read March 4, 1889.]

If there is one characteristic of his State, of which the true Californian is prouder than another, it is its climate. With his tables of mean temperature and records of cloudless days and gentle sunshine, he is prepared to prove that California has the most glorious climate in the world. Should the rains descend and the floods prevail, or should the heavens become as brass, and neither the former nor the latter rains fall, these climatic extremes, he excuses on the plea of exceptional years. It is with the record that these exceptional years have made that I propose to deal in this paper. Equable conditions, whether climatic or social, have nothing of the tragic in them, and history delights in the tragic. While Central and Southern California have been about equally affected by floods and droughts, my record of their effects applies principally to Southern California.

For the first fifty years after the settlement of California the weather reports are very meagre. The padres had no Signal Service Bureau and compiled no meteorological tables of atmospheric phenomena, although the state of the weather was undoubtedly a topic of deep interest to the pastoral people of California. To the dons and the padres, with their cattle on a thousand hills, and their flocks and herds spread over the plains, an abundant rainfall meant prosperity; a dry season death to their flocks and consequent poverty. We can imagine with what anxiety they scanned the heavens for rain signs as the waning months of the rainy season passed away, leaving but a scanty supply of moisture. The weather prophet, with his portents and omens, was without honor at such times. A flood might be a temporary evil, but like the overflow of the Nile, a year of plenty always followed; whilst the dreaded dry year was an evil unmixed with good.

The earliest record of a flood that I have been able to find is a brief mention of one that occurred in 1811. In 1815 occurred a great flood that materially changed the course of the Los Angeles River within the city limits. The river abandoned its former channel and flowed west of the *suertes* or planting fields of the first settler, its new channel followed very nearly the present line of Alameda Street. The old fields were washed away or covered with sand, and new fields were located in what is now the neighborhood of San Pedro Street. In 1825

it again left its bed and drifted to the eastward, forming its present channel. In 1822 occurred a flood, when the waters covered the lowlands entirely and rose to a greater height than ever before known. The intervening years between 1822 and 1825 were in all probability years of abundant rainfall. In 1825 occurred a memorable flood which effected a great change in the physical contour of the country west of Los Angeles City. Col. J. J. Warner, in his historical sketch of Los Angeles County, says: "In 1825 the rivers of this county were so swollen that their beds, their banks and the adjoining lands were greatly changed. At the date of the settlement of Los Angeles City a large portion of the country from the central part of the city to the tide water of the sea, through and over which the Los Angeles River now finds its way to the ocean, was largely covered with a forest, interspersed with tracts of marsh. From that time until 1825 it was seldom, if in any year, that the river discharged, even during the rainy season, its waters into the sea. Instead of having a river-way to the sea the waters spread over the country, filling the depressions in the surface and forming lakes, ponds and marshes. The river water, if any, that reached the ocean, drained off from the land at so many places, and in such small volumes, that no channel existed until the flood of 1825, which, by cutting a river-way to tide water, drained the marsh land and caused the forests to disappear."

The flood of 1825 changed the course of the Santa Ana River also. Previous to that year the Santa Ana entered the ocean several miles to the northwest of its present channel. These floods were followed, in 1827-28-29, by a terrible drought. During the preceding years of abundant rainfall and consequent luxuriant pasturage, the cattle ranges had become overstocked. When the drought set in the cattle died by thousands on the plains, and ship-loads of their hides were shipped in the "hide-droghers" from San Pedro.

The flood of 1832, although the waters did not rise as high as in the floods of 1822 and 1825, effected considerable change in the contour of the country south of the city. Col. Warner says: "The flood of 1832 so changed the drainage in the neighborhood of Compton and the northeastern portion of the San Pedro ranch that a number of lakes and ponds, covering a large area of the latter ranch, lying north and northwesterly from Wilmington, which to that date had been permanent, became dry in a few years thereafter." The drainage of these ponds and lakes completed the destruction of the forests that Col. Warner says covered a large portion of the south and west of the city. These forests were in all probability willow thickets or copse, the same as were found, until quite recently, on the low grounds near the mouth of the Santa Ana and in the swampy lands of the San Gabriel River. In

1842 occurred another flood, similar to that of 1832. This was followed by the drought of 1844-45-46, with its usual accompaniment of starving cattle and horses.

In January, 1850, the "Argonauts of '49" had their first experience of a California flood. The valley of the Sacramento was like an inland sea, and the city of Sacramento became a second Venice. But, instead of gondolas, the honest miners navigated the submerged streets in wagon-boxes, bakers' troughs, crockery crates, and on rafts made of whisky-kegs. Whisky in hogsheads, whisky in barrels and whisky in kegs floated on the angry waters, and the gay gondolier, as he paddled through the streets, drew inspiration for his song from the bung-hole of his gondola.

The flood of 1851 and 1852 brought disaster to many a mining camp, and financial ruin to many an honest miner. A warm rain melted the deep snows on the Sierras, and every mountain creek became a river and every river a lake. "Each gorge and gulch was transformed into a tumultuous water-course that descended the hillsides, tearing down giant trees, and scattering its drift and debris along the plain." The wing dams and the coffer dams that the miners had spent months in constructing were swept away, and floated off toward China, followed by the vigorous damns of the disappointed gold hunters. In Southern California the flood was equally severe, although the damage was less than in the mining districts. This flood was characterized by an unprecedented rainfall in the mountains. At old Fort Miller, near the head waters of the San Joaquin River, according to a record kept by Dr. W. F. Edgar, surgeon of the post (now of Los Angeles), 46 inches of water fell during the months of January and February, 1852.

The year 1856 might be said to be an exception, even to exceptional years. A severe drought, intense summer heat, earthquake shocks, thunder and lightning, and severe sand storms, made a variety of climate, that, if not pleasing, was varied enough. It was considered the driest and most unhealthful season the country had known for twenty years. During the summer of that year and the ensuing winter the loss of cattle in the county of Los Angeles alone by starvation was estimated at one hundred thousand.

The year 1859 was another exceptional year. In October the thermometer registered 110° in the shade, and in December occurred the most remarkable precipitation of rain ever known in the county. It was estimated that one foot of water fell within twenty-four hours. The rivers overflowed the lowlands, doing considerable damage. The starving cattle and sheep, unsheltered from the pitiless rain, chilled through, died by thousands during the storm. Large tracts of the bottom lands were covered with sand and sediment.

The great flood of 1861-62 was the Noachain deluge of California floods. During the months of December, 1861, and January, 1862, according to a record kept at San Francisco, 35 inches of rain fell, and the fall for the season footed up nearly 50 inches. As in Noah's days, the windows of heaven were opened, and the waters prevailed exceedingly on the face of the earth. The valley of the Sacramento was a vast inland sea; the city of Sacramento was submerged and almost ruined. Relief boats on their errands of mercy, leaving the channels of the rivers, sailed over inundated ranches, past floating houses, and wrecks of barns, through vast flotsams, made up of farm products and farming implements, and the carcasses of horses, sheep and cattle, all drifting out to sea. In our county, on account of the smaller area of the valleys, there was but little loss of property. The rivers spread over the lowlands, but stock found safety from the flood on the hills. The Santa Ana, for a time, rivaled the "Father of Waters" in magnitude. In the town of Anaheim, four miles from the river, the water ran four feet deep and spread in an unbroken sheet to the Coyote hills, three miles beyond. The inhabitants sought safety in the second stories of their houses, and those who were not fortunate enough to have an upper story quartered themselves upon those who had. One unfortunate was carried down by the current and drowned. Some of the vineyards on the southern side of the colony were covered with debris and almost ruined. The Ranchos Las Balsos, La Bolsa Chica, the lower portions of the Santiago de Santa Ana and Las Alamitos were covered with water. To the affrighted vaqueros, who had sought safety on the hills, it did seem as if the fountains of the great deep had really been broken up, and that the freshet had filled the Pacific Ocean to overflowing. The Arroyo Seco, swollen to a mighty river, brought down from the mountains and cañons great rafts of drift-wood that, lodging here and there in the channel of the Los Angeles, formed dams that turned the current hither and thither, tearing away the low banks and spreading the waters still further over the valley, then breaking away, the drift was carried down and spread over the plains below the city. The drift-wood brought down by that flood, furnished fuel to the poor people of the city for several years. It began raining on December 24, 1861, and continued for thirty days, with but two slight interruptions. The *Star* published the following local: "A Phenomenon—On Tuesday last the sun made its appearance. The phenomenon lasted several minutes and was witnessed by a great number of persons." For nearly three weeks there was no mail; some wag labeled the post-office, "To Let."

After the deluge, what? The drought. It began in the fall of 1862, and lasted to the winter of 1864-65. The rainfall for the season of

1862-63 did not exceed four inches, and that of 1863-64 was even less. In the fall of 1863 a few showers fell, but not enough to start the grass. No more fell until March. The cattle were dying of starvation. Herds of gaunt, skeleton-like forms, moved slowly over the plains in search of food. Here and there, singly or in small groups, poor brutes, too weak to move on, stood motionless with drooping heads slowly dying of starvation. It was a pitiful sight. In the long stretch of arid plain between San Gabriel and the Santa Ana there was one oasis of luxuriant green. It was the vineyards of the Anaheim colonists kept green by irrigation. The colony lands were surrounded by a close willow-hedge, and the streets closed by gates. The starving cattle, frenzied by the sight of something green, would gather around the inclosure and make desperate attempts to break through. A mounted guard patrolled the outside of the barricade day and night to protect the vineyards from incursion by the starving herds.

The loss of cattle was fearful. The plains were strewn with their carcasses. In marshy places and around the cienegas, where there was a vestige of green, the ground was covered with their skeletons, and the traveler for years afterward was often startled by coming suddenly on a veritable Golgotha—a place of skulls—the long horns standing out in defiant attitude, as if protecting the fleshless bones. It is said that 30,000 head of cattle died on the Stearns Ranchos alone. The great drought of 1863-64 put an end to cattle raising as the distinctive industry of Southern California.

The flood of 1867-68 left a lasting impress on the physical contour of the county by the creation of a new river, or rather a new channel for an old river, the San Gabriel. Several thousand acres of land were washed away by the San Gabriel cutting a new channel to the sea, but the damage was more than offset by the increased facilities for irrigation, afforded by having two rivers instead of one. The Los Angeles overflowed its banks and carried away acres of valuable orchard and vineyard.

The floods of 1884 and 1886 caused considerable damage to the lower portions of the city. The flood of 1884 swept away about fifty houses, and carried away portions of several orange orchards and vineyards. One life was lost, that of a milkman, who attempted to cross the Arroyo Seco. The flood of 1886 was very similar to that of 1884; the same portion of the city was flooded—that between Alameda Street and the river. Several houses were washed away, and two lives lost. During the flood of 1884 the Santa Ana River cut a new channel to the sea. Beginning at a point below where the Santiago Creek enters the Santa Ana, the new river passes through the fertile lands east of the old river, leaving a strip between the two rivers, varying in width from one to



three miles, and discharging its waters (where it has any to discharge) into the ocean about three miles southeast of the mouth of the old river. Within a period of seventy years we find that the three principal rivers of our county have all created new channels for themselves, and have materially changed their courses: the Los Angeles, from westerly to southeasterly; the San Gabriel, cutting a new channel from three to six miles southeasterly of its old one; and the Santa Ana, drifting in the same direction twice since 1822. At no very distant day, but probably not since the settlement of the country by the Spaniards, the Santa Ana flowed north of the present site of Anaheim and entered the ocean through Alamitos Bay. Leaving the present channel near Burriel Point and running westerly, there is a well defined dry river-bed that can be traced for many miles. Twice within the past twenty years, during high waters, the Santa Ana has broken into the old channel, and for a time threatened to return to its old bed. The course of the Santa Ana, in former times, like that of the Los Angeles, was nearly due west. The change of channel in the lower course of our rivers is due to the formation of deltas or bars across the outlets. The river-beds being shallow, in high water, the overflow spreads out over the plains and deposits the detritus brought down from the hills and mountains on the land instead of carrying it into the ocean. In course of time the river-way is built up above the surrounding land and the river seeks a new outfall.

In looking over the record of floods we find, as a rather remarkable coincidence, that for a period of fifty years, a flood has occurred every tenth year. Beginning with the season of 1811 and 1812 we find floods occurred in 1822-32-42-52 and 62. To establish a theory of decadal floods there should have been one in 1872 and in 1882, but both these were dry years—floods occurring in 1873-74 and 1883-84. Possibly the great flood of 1868 so confused Jupiter Pluvius that he lost his reckoning. The change of direction in the lower course of our rivers has been uniformly to the southeastward, thus in a measure paralleling the trend of the coast line. This change has contributed greatly to the forming of new land along the coast. Within the memory of persons now living the shore line, at several points, has been advanced into the ocean a considerable distance. At the Ballona harbor the peninsula between the harbor or slough and the ocean has all been formed since 1850. Before that time the ocean waves washed what is now the inner shore of the harbor. At Anaheim Landing, in 1869, a lumber vessel ran up the slough past the warehouse and unloaded her cargo. The channel of the slough is now filled up and has become dry land except during very high tides. At the mouth of the San Juan and Santa Ana rivers, at the Alamitos Bay and Rattlesnake Island and various other

points along the coast of Southern California the land has encroached on the ocean. This is partly due to the silt brought down by the rivers during floods and partly to the absence of a littoral current south of Point Concepcion. This record of California floods, I confess, appears rather formidable and might even be considered damaging to the good name of our State, were it not that our floods, like everything else in our State, can not be measured by the standard of other countries. We are exceptional even in the matter of floods. While floods in other lands are wholly evil in their effects, ours, although causing temporary damage, are greatly beneficial to the country. They fill up the springs and mountain lakes and reservoirs that feed our creeks and rivers, and supply water for irrigation during the long dry season. A flood year is always followed by a fruitful year. The disastrous effects of drought disappeared with the decadence of the cattle and sheep industries. Increased facilities for irrigation, the development of water by tunneling into the hills, artesian wells, the building of reservoirs for water storage, and the more economic use of water, have done much to counteract the evil effects of the dreaded dry year.

## "THE TWIN RELICS OF BARBARISM."

BY JOHN A. WILLS.

[From a letter to the Society, dated March 27, 1890.]

The facts about my connection with the Republican Convention which sat in Philadelphia, in June 1856, about which you inquire, are simply these :

In the spring of 1856, I was residing in the city of San Francisco, practicing law, and had been so residing since the latter part of November, 1853. When I settled there, I had not brought my family with me, and, after an absence of two years and a half, I resolved to make a visit home to my family in Western Pennsylvania, in the month of May. My political status as an anti-slavery man and this intended visit home being well known among my political friends—without any solicitation on my part—I was, through their agency, I presume, appointed by the Republican convention which assembled in Sacramento shortly before that time, as one of the delegates from California to attend the approaching Republican convention to be held in Philadelphia in June, 1856. In order to reach there in time, it was necessary for the delegates from California to leave San Francisco about the middle of May, and to go by steamship by way of Panama. At the time we left, the city was in the hands of the Vigilance Committee. We sailed on Thursday, I remember, because the execution of Yankee Sullivan and others, by order of the Vigilance Committee, was to take place on Friday, the day following. On the steamer I met and made the acquaintance of the other delegates from California to that convention, and during the voyage we exchanged views and talked about the principles and policy of the new party, and of the candidates for President and Vice-President, to be nominated at Philadelphia. As Californians we were mostly, if not all, in favor of the nomination of Col. John C. Fremont, of California—"The Pathfinder,"—for the office of President of the United States. For the office of Vice-President we were less unanimous in our choice of a candidate.

When we arrived in Philadelphia and assembled in convention, June 17, 1856, I found that I had been selected by my associates as the chairman of the California delegation in that body. I acted, as such, during the sittings of the convention. By virtue of that selection, I presume, I was also placed on the general platform committee, as the representative of California. After that committee organized for business, it appointed a sub-committee on which I was placed, together

with the Hon. Joshua R. Giddings, of Ohio, the Hon. Francis P. Blair, Sr., of Maryland, and other distinguished gentlemen from other States of the Union. In assigning the work to be done by the several members of this sub-committee, the duty of drafting the resolutions in favor of the Pacific Railroad, and against slavery in the territories of the United States, was assigned to me, because those were the two subjects in which California was supposed to be more particularly interested. No special instruction was given to me on the subject of polygamy in the territories. But as polygamy was already odious in the public mind and a growing evil, and as both those social institutions rested precisely on the same constitutional basis, in order to make war upon polygamy, and at the same time strengthen the case against slavery as much as possible, by associating the two together, I determined to couple them together in one and the same resolution. Accordingly I drew up the two resolutions on those subjects, as they afterwards appeared in the platform, and I reported them to the sub-committee, which considered them and reported them, without amendment, to the committee, as a whole. They were approved by that committee, and were afterward adopted by the convention, as reported.

I find the resolution, which is the special subject of your inquiry, in the work which is most accessible to me at this moment—in the biography of Abraham Lincoln by John G. Nicolay and John Hay, as published by them in the May number of the Century Magazine for the year 1887, on page 107. It is in these words :

*“Resolved, That the Constitution confers upon Congress sovereign power over the territories of the United States for their government, and that in the exercise of this power it is both the right and the duty of Congress to prohibit in the Territories those twin relics of barbarism—polygamy and slavery.”*

In regard to this resolution and more particularly in regard to what you term the “famous phrase,” at the close of it—besides the question of its authorship—there is a piece of political history, not generally known, which I think ought to be preserved.

When I reported that resolution in its present form to the sub-committee for its approval—strange to say—the Hon. Joshua R. Giddings, of Ohio, either moved or suggested, that the so-called “famous phrase” should be stricken out, on two grounds—1st. Because it was not wise to use epithets; 2d. Because it was unnecessary to specify “polygamy,” as it was already virtually included in the term “slavery.” To this, of course, I was strongly opposed, but as the youngest and the least distinguished member of the committee, I would have fared badly in a contest with a man so distinguished as Mr. Giddings. Fortunately for me, at this juncture, the Hon. Francis P. Blair, Sr., of Maryland, came

to my relief. He had been the editor of *The Globe* newspaper—the official organ of the administration of Gen. Jackson, in Washington City—and as an old and experienced politician, he knew the value of political phrases, as instrumentalities in political warfare. He therefore agreed with me, and opposed the suggestion of Mr. Giddings. After argument, and at his instance mainly, it was determined to report the resolution as originally drawn. For that reason, I have always felt, that whatever merit may be due to me, as the author of the resolution in its present form, it was to Mr. Blair, of Maryland, that the Republican party and the country were chiefly indebted for the use of that “famous phrase” in the Republican platform of 1856, and in the political history of the country since that time. The rapturous enthusiasm with which the resolution was received by the convention, was the first convincing evidence that the committee had acted wisely in determining to preserve it in its original form.

To conclude these reminiscences of my personal connection with the Republican convention of 1856, I may add—that after the nomination of Fremont as the Republican candidate for President, I was called upon, as the chairman of the California delegation, to respond in behalf of that State for the honor of that nomination—which I did, by running a parallel between Col. Fremont, as the “Pathfinder,” and the early career of Gen. Washington. In that parallel, the convention saw—what, no doubt, it wished to see—an augury of victory; and of course, the speech was received with great applause. In this connection, and, as an illustration of the old saying, “Times change, and men change with them,” I am reminded of the fact, that at the close of my speech Judge Hoadley, of Ohio, (afterward a Democratic Governor of that State), who stood near me on the platform, congratulated me very warmly on the success of my speech—saying, among other things, by way of commendation that “with that speech,” he “could carry the State of Ohio for Fremont.”

I may also add, that at the close of the convention, I was also appointed a member of the committee, of which Judge Hoar, of Massachusetts, was chairman, to visit Col. Fremont in New York City, and in order to present to him the resolutions of the convention, and to inform him officially, of his nomination, as the Republican candidate for the Presidency in the election of 1856, upon them as its political platform—which duty we performed a few days after the adjournment of the convention.

For all these fleeting honors, I then knew and felt, that I was indebted solely to the fact that, at the time, I was the representative of the young and rising State of California. Such being the fact, I think it eminently proper, that the Historical Society of Southern California,

in this city, should investigate the claims of one of her citizens to such political honor as may be justly due to him as a representative of that State, more especially when that honor is claimed for a citizen of another State. For that reason I have cheerfully responded to the call made upon me by your society to aid it in its investigation of the matter in question.

Ever since June, 1856, I have always claimed and believed myself to be the *sole author* of the resolution to which you refer and of *every part of it*—now, for a period of nearly thirty-four years. In fact I was not aware until within the last year that there was any dispute about it, or of any counter-claim made in behalf of any other person. *I have always regarded it as one of the few things which certainly belong to me.* Within the last year, however, I have heard from my friend and college classmate, the Rev. John M. Faris, of Anna, Illinois, that its authorship has been claimed by some newspaper in Chicago (whose name I forget), and that upon repeated applications to it by him for its authority for the claim, made by it, in behalf of the Hon. — Walton, a former member of Congress from Vermont, he had wholly failed to obtain any satisfaction or any authority for that claim.

What claims Mr. Walton may have to the authorship of the "famous phrase," to which you refer, I do not know, but this I do know, full well, that I never borrowed it from him, or from anybody else; for I remember the time and almost the very place where the phraseology of that resolution first came into my mind. It was whilst walking down Eleventh Street in Philadelphia, toward Independence Hall, during the session of the Republican convention in that city, and after it had been made my duty to report a resolution on the subject of slavery in the territories, and the constitutional power of Congress to prohibit it therein.

Fortunately, the question and the controversy, is mostly, if not entirely a question of dates, and on that basis it can be easily settled. If it can be shown that the phrase in question was used by Mr. Walton in Congress or elsewhere, *before the 18th day of June, 1856*, and consequently before its use in the Republican platform of that date, then he may have some claims to a *concurrent authorship* of the phrase; but if not, then he has none whatever; unless it can be shown by him, or by me (as the exigency of the case may require), to be one of those cases of parallelism in thought and expression, which sometimes occur, and of which there are many examples in literary history, when the idea of plagiarism cannot reasonably be supposed. I am aware that the same idea in different minds may be independently expressed by them in the same words, and sometimes, from the very necessity of language—just as we know, by

way of analogy, that the same inventions and discoveries are sometimes made, simultaneously or nearly so, by different men, in different countries, each acting independently—because they are compelled by the laws of being which are the same everywhere, to arrive at the same conclusions from the same premises, in their efforts to meet the demands of public want in society.

Whether the case in question is an example of that kind, on his part or on mine, I shall not now inquire. For the present, I leave Mr. Walton or the claimants in his behalf, to show first, if they can, his use of the "famous phrase" before the 18th day of June, 1856, before I shall feel called upon, in my turn, to explain in the manner just suggested, its use by me in the resolution in question. Until that necessity shall arise, I shall content myself with submitting the question in this case, to the judgment of history, upon the facts and circumstances now presented by me to your society for its consideration, and for the final determination of history therein, if indeed, so small a matter shall be deemed worthy of its serious consideration.

## REPORT OF THE COMMITTEE ON METEOROLOGY.

BY J. M. GUINN.

[Read January 13, 1890.]

The science of meteorology is in its formative stages. It has not advanced to the plane of an exact science. While prognostications of the weather and signs and portents to foretell climatic changes are as old as the race itself, the great mass of these have no scientific base for a foundation, and many of them are merely old-time traditions and superstitions.

The organization of the signal service bureau has done much toward the formation of a science of meteorology. The data gathered by that bureau will in the course of time be crystallized into a science.

The year 1889 may be classed among the flood years. It has been characterized by an excessive precipitation throughout the central belt of the northern hemisphere. Floods have occurred in the United States, in Europe and Asia. In this report we shall confine ourselves to observations on atmospheric phenomena of Southern California.

The year 1889 was an exceptional one in several respects. First, rain fell every month except June and September; second, a very small precipitation during the usually rainy months of January and February (precipitation for January, .25 in., February, .92 in.); third, a heavy rainfall in March (precipitation, 6.48 in.); fourth, unusually heavy rain storms in October and December, the rainfall for October and December being in excess of any recorded rainfall for those months since a record has been kept.

The record shows that the maximum mean temperature was reached in August, the minimum in January. Number of days in which rain fell, 62; clear, 258.

A marked feature of the October storm, and to a certain extent of the storms of the season so far, was the unequal distribution of the rainfall. The report of the signal service division of the Pacific gives the following at different stations in Southern California:

PLACE.	RAINFALL, OCTOBER, 1889.	NORMAL OR AVERAGE SEASON RAINFALL FOR OCTOBER.
Santa Barbara,	10.57 inches.	0.47 inches.
Los Angeles,	7.00 "	0.46 "
Anaheim,	2.31 "	0.36 "
Santa Ana,	1.91 "	not given.
San Diego,	2.10 "	0.41 "
Colton,	1.59 "	0.28 "



Thus we find that while the average season rainfall for October throughout a period of ten years, from 1878 to 1888, in Santa Barbara and Los Angeles varies only 1-100 of an inch, the variation in the October storm was 3.57 inches. The difference between San Diego and Los Angeles was 4.90 inches; between San Diego and Santa Barbara, 8.47 inches; difference in the average October rainfall of San Diego and these points is 5-100 and 6-100, respectively. Santa Ana, in an air line thirty miles southeasterly of Los Angeles, reports 5.09 inches less rain; Colton, fifty miles east, 5.41 inches less.

The mean monthly temperature at all the Pacific stations for the months of October, November and the first half of December was above the average, the month of October being unusually warm. The mean temperatures at Los Angeles and San Diego were for

	OCTOBER.	NOVEMBER.	DECEMBER.
At Los Angeles,	66°	61°	55°
At San Diego,	65	62	58

Another peculiar feature of the rainfall of the season up to the close of the second December storm, December 15, was the comparatively small precipitation on and in the vicinity of the higher mountain ranges. San Bernardino, distant about twelve miles from the highest mountain of Southern California, Mount San Bernardino (over 11,000 feet high) up to December 14 reported a rainfall of 9.43 inches; Pomona, at the same date, 11.75 inches; Los Angeles, 16.78 inches; Santa Monica, about the same as Los Angeles.

Up to the 21st of December the storms were coast storms. This is evidenced by the limited rise of the rivers. December 12 and 13, in Los Angeles, 4.30 inches fell in twenty-four hours, a greater fall than that of the 24th of December, which flooded a portion of the city and country. That this heavy fall did not cause a disastrous flood was due to the limited precipitation in the mountain districts.

The common theory is that high mountains act as condensers of moisture; consequently the precipitation on our higher mountain ranges and their foothills should greatly exceed that of the valleys. Generally speaking the theory is true, but there are very many exceptions and limitations to it. In my opinion, the northeast or polar wind current is by far the larger factor in condensation of moisture on our coast, the mountain ranges acting more as elevators of the current than as condensers. Wherever there exists a considerable elevation, either a mountain chain or a high range of hills, lying transversely or at right angles to this current, all places situated near the southwest base of such will have a heavy rainfall. Instance: Pasadena, Glendale, Los Angeles, Santa Monica and Santa Barbara, in Southern California; San Francisco, Saucilito, San Rafael and Napa, in Central California;

Sisson, Redding, Yreka and Shasta, in Northern California. The latter place, Shasta, reports a rainfall of 62.56 inches up to December 27. The transverse mountain chains lift or deflect the polar current into the upper air strata, where it performs the office of condensation without acting as an absorber of moisture. These transverse ranges are rain divides. Wherever a low pass in the mountains allows the polar or northeast current to drop into the lower air stratas, the precipitation will be decreased. Instance: San Bernardino, Colton, Riverside, Anaheim and Santa Ana in Southern California. The three first named have a greater elevation than Los Angeles. The rainfall at Riverside up to December 27 measured only 9.36 inches; up to the same date at Los Angeles, 25.62 inches; at Anaheim to the same date, 13.56 inches. The northeast winds from the Cajon and San Gorgonio passes focus upon Riverside and Colton, consequently these places record comparatively small season rainfalls, that of Riverside in 1882-83 being only 2.94 inches; Los Angeles for the same season, 12.11 inches.

There is often a very marked difference in the amount of rainfall recorded by gauges at stations close to each other. The following reports are from three sources—signal station southwest corner of First and Spring street (No. 1), Germain Fruit Company, Alameda street near Macy (No. 2), and the Southern Pacific depot (No. 3), all taken by standard gauges. These records are up to December 26:

No. 1, 24.72 inches; No. 2, 22.46 inches; No. 3, 25.62 inches.

The difference between the lowest and highest record is 3.16 inches. The extreme distance apart is less than a mile. The elevations from the ground are as follows: No. 1, 66 feet; No. 2, 20 feet; No. 3, 10 feet. The distance from the ground at which the gauge is placed may account in part for the difference but not entirely. Variable or eccentric wind currents of different temperature undoubtedly increase or decrease precipitation accordingly as they are cold or warm.

An approaching heavy rain storm is first signaled from points on the western coast of Washington, Oregon or Northern California. Moving southeasterly, it usually reaches us in from thirty to fifty hours after it strikes the northwestern part of the coast.

The October storm was reported in Washington and Northern Oregon on the 6th, Northern and Central California on the 7th, and reached us on the 8th. Most of the December storms entered the coast in Northern California. The storm center being so much further south than usual no doubt accounts for the violence of our December rains and the unusual precipitation. The December rainfall for Washington and Oregon is below the average for that month. There is seemingly a meteorological paradox in connection with our rain storms which, so far as I know, none of our local climatologists have made a note of. All

our heavy rain storms travel from northwest to southeast, moving from the points where they strike the northwest coast southeasterly through from six to ten degrees of longitude. Skirting the western flanks of the Cascades and Sierra Nevada, occasionally crossing these mountain barriers, they expend their force or leave the coast from fifty to one hundred and fifty miles south of San Diego.

The signal service reports rain in Oregon or Northern California, and if the storm is a heavy one, in due time it reaches us. Moving down the coast from the northwest it reaches us from the southeast, rather a paradoxical performance. Our climatologists tell us that the return trade winds, bringing with them immense volumes of moisture gathered from that other paradox, the Kuro Siwo, deposit it in our valleys as rain and on our mountains as snow. The return trades are southwest winds, and every one knows or ought to know that in our part of the state the winds that bring us rain blow from the southeast. One California meteorologist of some standing tells us that the great mountain ranges on the western coast of Mexico change the direction of the return trades, force them through the long narrow Gulf of California and along the Pacific coast, and they pass over the state as southeast winds. These winds, he tells us, are warm and moist when they reach us. Let us see where they get their moisture. The northeast trade winds blow from about  $30^{\circ}$  north latitude to the equator. The return trades passing over them as an upper current become surface winds beyond the calms of Cancer, say in latitude  $31^{\circ}$  north. The Gulf of California heads in latitude  $31^{\circ}$  north. Now if these return trades went skirting along the high mountain ranges of Mexico, dropping to the surface in the desert regions about the head of the gulf, then blowing from the southeast across the Colorado desert and over the San Jacinto range, it is my opinion that they would reach us about as dry and unsatisfactory as this climatologist's theory.

It is now a generally accepted theory that all violent storms are great whirlwinds called cyclonic areas, in which the wind blows in circuits around an axis. This axis is the storm center and the area of low barometer. The circuit of motion is spirally inward and upward in ever narrowing circles, gradually ascending as they approach the center. These areas on our coast originate or move with the Japan current upon the Oregon or Washington coast. Striking the high Cascade range, which parallels the coast, they are deflected southeastward. Flattened by the mountain barrier, they assume an oval form with the longer axis in the same direction as that of the longer axis of the cyclonic disturbance, the broad part of this in the north and tapering to the south. North of Cape Mendocino the rain wind blows from the southwest. South of that cape, where the coast bends to the southeast, the

rain wind is a southerly wind, and south of Point Concepcion, where the coast line bends still more rapidly toward the east, the rain wind is from the southeast. Placing your back to the rain wind, the area of low barometer and the storm center will always be on your left.

Is our climate changing? With every abnormal freak of the weather some amateur meteorologist rushes into print to inform the world that the climate of Southern California is changing. We are positively assured that the dreaded dry years are things of the past, that the planting of trees, the cultivation of the soil, increase of population, building of railroads, etc., have increased and are increasing our rainfall every year. If any one will take the time and trouble to search through the files of our California papers for twenty years or more back, he will find the timber theory of rain production advanced every wet year and ignored every dry year.

If some arboriculturist could devise a plan for planting our foothills and mountain sides with forests of giant sequoia and lofty sugar pine full grown and could keep them growing, possibly during a rain storm the precipitation on the mountain sides might be slightly increased. But that a few orange groves and deciduous fruit orchards and a few scattering clumps of gum trees should change the climatic conditions of the Pacific slope throughout a distance of 1,500 or 2,000 miles is drawing a very big conclusion from a very small premise.

It is a well-known fact to the older residents that during the dry seasons of 1863-64 there was at least 50 per cent. more timber on the foothills, in the canyons and on the mountain sides of Southern California than there is now. Live oak, white oak, mountain ash and lining the river courses were dense growths of willows. Possibly the low growing orange, apple and peach are better condensers of moisture than the loftier sycamore and oak.

If, as it is claimed, the ice line of the frigid zone is moving southward, in the course of time the Japan current will be deflected more to the southward and the area of cyclonic disturbance will move southward with it, and our climate will change slowly, but so very slowly that the change will not disturb any of the present residents of Southern California.

## APPENDIX.

### Report of the Secretary.

Your Secretary has the following report for 1889 :

Number of Meetings, - - - - -	16
Number of Members, January 14, 1889, - - - - -	19
Number of Papers read, - - - - -	18
New Members elected, - - - - -	14
New Honorary Members, - - - - -	4
New Corresponding Members, - - - - -	17

The Society also published and circulated 500 copies of the annual pamphlet, a creditable work of 55 pages. Copies were sent to all historical societies in the United States, and to prominent libraries and colleges.

The Society celebrated the centennial of Washington's Inauguration, April 30. It also held a reception at the Normal School, and was received at the residences of Don A. F. Coronel and George Butler Griffin.

The Society received 32 books from Richard Gird, Esq.; 8 from the Secretary of State of California, and 30 from the Friends' Historical Society. The Secretary also collected 500 pamphlets, and secured files of 8 new daily newspapers, 20 weeklies, 2 monthlies and 92 bound volumes.

B. A. STEPHENS.

### Report of the Treasurer.

I submit the following report for the period from January 7, 1889, to January 6, 1890 :

Amount on hand, January 7, 1889, - - - - -	\$126 55
Received from Admission Fees, - - - - -	28 00
"    "    Dues, - - - - -	118 00
Total, - - - - -	\$272 55

#### EXPENDITURES.

For Printing Annual Pamphlet for 1889, - - - - -	\$122 00
Miscellaneous Expenses, - - - - -	56 10
	\$178 10
Balance on hand, January 6, 1890, - - - - -	\$94 45

J. M. GUINN.

## Report of the Curator.

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I have to report the following property of the Society in my possession on January 6, 1890 :

150 Bound Books.

747 Pamphlets.

39 Maps.

18 Photographs.

1 Case of Curios.

26 Files of Weekly Newspapers.

11 Files of Dailies.

4 Files of Monthly Publications.

Complete files of Newspapers, a large number of Manuscripts, Views, and other Miscellaneous Bundles.

IRA MORE.

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## Report of the Committee on Publication.

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Your Publication Committee would report that eighteen papers were read before the Society in 1889, and that 500 pamphlets were published and circulated.

B. A. STEPHENS,  
IRA MORE,  
H. D. BARROWS.



ESTABLISHED NOVEMBER 1, 1883.

INCORPORATED FEBRUARY 13, 1891.

ANNUAL PUBLICATION

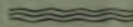
—OF THE—

Historical \* Society

—OF—

Southern California

1891



LOS ANGELES, CAL.  
PRESS OF THE FRANKLIN PRINTING CO.  
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## PRESIDENTS AND YEARS OF SERVICE.

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JONATHAN TRUMBULL WARNER, 1883-4.

JOHN MANSFIELD, 1885.

ISAAC KINLEY, 1886.

IRA MORE, 1887.

HENRY DWIGHT BARROWS, 1888.

EDWARD WADSWORTH JONES, 1889.

JAMES MILLER GUINN, 1890.

GEORGE BUTLER GRIFFIN, 1891.

## Officers for 1891.

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PRESIDENT—GEORGE BUTLER GRIFFIN.

FIRST VICE-PRESIDENT—JOHN MANSFIELD.

SECOND VICE-PRESIDENT—JOHN P. P. PECK.

SECRETARY—B. A. CECIL-STEPHENS.

TREASURER—JAMES MILLER GUINN.

CURATOR—IRA MORE.

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DIRECTORS—GEORGE BUTLER GRIFFIN.

JOHN MANSFIELD.

JOHN P. P. PECK.

B. A. CECIL-STEPHENS.

JAMES MILLER GUINN.

IRA MORE,

NOAH LEVERING.

## Committees, 1891.

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### FINANCE.

E. Baxter, Chairman. C. P. Dorland. C. Cecil Stephens.

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### PUBLICATION.

J. P. P. Peck, Chairman.  
B. A. Cecil-Stephens. J. E. T. Budington. Miss T. L. Kelso.

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### HISTORY.

H. D. Barrows, Chairman.  
J. Adam. A. F. Coronel. W. F. Edgar. J. M. Guinn. Mrs. M. E. Hart.

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### GEOLOGY.

Ira More, Chairman.  
H. S. Orme. I. Kinley. Geo. Hansen.

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### METEOROLOGY.

J. M. Guinn, Chairman.  
Isaac Kinley. C. N. Wilson. J. W. Forsyth. E. W. Jones.

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### BOTANY.

J. C. Harvey, Chairman.  
Frank W. Smith. M. C. Westbrook. W. A. Burr.

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### GENEALOGY AND HERALDRY.

B. A. Cecil-Stephens, Chairman.  
C. P. Fenner. William A. Burr. J. M. Guinn.

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### MINERALOGY.

C. Cecil Stephens, Chairman.  
E. Baxter. C. N. Wilson. N. Levering.

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### ENTOMOLOGY.

A. F. Kercheval, Chairman. J. C. Harvey. C. N. Wilson.

# Members.

## LIFE MEMBER.

Col. George Butler Griffin, 714 Downey Avenue.

## ACTIVE MEMBERS.

Adam, Very Rev. Joachim, - - - - -	101 E. Second Street
Ayers, Col. James Joseph, - - - - -	1033 S. Pearl Street
Barrows, Henry Dwight, - - - - -	520 S. Main Street
Baxter, Edwin, - - - - -	239 S. Hill Street
Budington, John Eliot Thayer, - - - - -	1005 Alpine Street
Burr, William A., - - - - -	St. Angelo Hotel
Burr-Bley, Mrs. Clara A., - - - - -	Philadelphia, Pa.
Carran, Hon. Thomas J., - - - - -	721 W. Twenty-third Street
Clark, Dr. J. E., - - - - -	Cor. Seventh Street and Maple Avenue
Cole, Nathan, Jr., - - - - -	Pasadena Ave. and City Limits
Conrey, Nathaniel P., - - - - -	Hotel Amidon
Coronel, Don Antonio Francisco, - - - - -	701 Central Avenue
Coronel, Doña Mariana Williamson de, - - - - -	701 Central Avenue
Dailey, Col. Charles E., - - - - -	San Francisco
De Celis, Eulogio F., - - - - -	Room 40, Fulton Block
Dorland, Chester Paul, - - - - -	251 S. Bunker Hill Avenue
Dozier, Prof. Melville, - - - - -	829 W. Eleventh Street
Downey, Ex-Gov. John Gately, - - - - -	345 S. Main Street
Earl, Charles Nelson, - - - - -	718 Downey Avenue
Eaton, Judge Benjamin S., - - - - -	South Pasadena
Edgar, Dr. William Francis, - - - - -	631 S. Main Street
Fenner, Charles Putnam, - - - - -	Chino
Forrester, Edward A., - - - - -	949 W. Seventh Street
Forsyth, John W., - - - - -	303 N. Griffin Avenue
Garey, Thomas Andrew, - - - - -	Garey, California
Goodwin, Clarence L., - - - - -	Washington, D. C.
Gosper, Hon. John J., - - - - -	510 S. Main Street
Guinn, Prof. James Miller, - - - - -	115 S. Grand Avenue
Hanchette, H. Jay, - - - - -	425 S. Broadway
Hansen, George, - - - - -	621 S. Main Street
Harvey, James C., - - - - -	851 N. Pearl Street
Jones, Major Edward Wadsworth, - - - - -	1200 W. Seventh Street
Kelso, Miss Tessa L., - - - - -	1605 S. Main Street
Kinley, Major Isaac, - - - - -	Calabasas
Lemmert, Paul H., - - - - -	1610 Figueroa Street
Levering, Judge Noah, - - - - -	164 Beaudry Avenue
Lindley, Dr. Walter, - - - - -	Whittier, California
Lord, Isaac W., - - - - -	Cucamonga, California
Mansfield, Gen'l John, - - - - -	401 S. Hill Street
More, Prof. Ira, - - - - -	631 W. Fifth Street
Orme, Dr. Henry Sayer, - - - - -	245 N. Bunker Hill Avenue
Palmer, Henry A., - - - - -	Claremont, Cal.

**ACTIVE MEMBERS—CONTINUED.**

Peck, Dr. John P. P.,	- - - - -	525 Regent Street
Pico, Rómulo,	- - - - -	San Fernando
Sabichi, Frank,	- - - - -	2437 S. Figueroa Street
Smith, Francis William,	- - - - -	125 S. Daly Street
Spence, Hon. Edward F.,	- - - - -	Monrovia
Stephens, Bascom Asbury, Cecil	- - - - -	213 N. Frémont Avenue
Stephens, Hon. Columbus Cecil	- - - - -	621 Bellevue Avenue
Thayer, John S.,	- - - - -	147 W. Twenty-fifth Street
Thom, Hon. Cameron E.,	- - - - -	118 E. Third Street
Thompson, F. A.,	- - - - -	Room 41, Fulton Block
Van Dyke, Judge Walter,	- - - - -	321 S. Olive Street
Waldron, Prof. Sylvanus A.,	- - - - -	509 Sand Street
Westbrook, Moses Charles,	- - - - -	172 Bonnie Brae Street
Wicks, Moses Langley,	- - - - -	Melrose Hotel
Widney, Dr. Joseph Pomeroy,	- - - - -	421 S. Hill Street
Williamson, Mrs. M., Burton	- - - - -	University, California
Wilson, Major Christopher North,	- - - - -	325 N. Broadway
Wright, Edward T.,	. . . . .	145 N. Olive Street







## Honorary Members.

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PROF. MARCUS BAKER, Washington, D. C.

DR. RICHARD S. DEN, Los Angeles.

DR. LYMAN C. DRAPER, Madison, Wisconsin.

MRS. JESSIE BENTON FRÉMONT, Santa Monica.

Hon. STEPHEN C. FOSTER, Downey.

RICHARD GIRD, Esq., Chino.

DR. JOHN STROTHER GRIFFIN, Los Angeles.

EX-GOVERNOR DON PIO PICO, Ranchito.

MRS. JOSEPHINE LINDLEY PHIPPS, City of Mexico.

PROF. JACQUES W. REDWAY, Washington, D. C.

COL. JONATHAN D. STEVENSON, San Francisco.

ADOLPH SUTRO, Esq., San Francisco.

HON. JONATHAN TRUMBULL WARNER, University.



## Corresponding Members.

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- R. E. BLACKBURN, Ontario.  
DR. J. P. BOOTH, Needles.  
DR. STEPHEN BOWERS, Ventura.  
JUDGE THOMAS H. BUSH, San Diego.  
MRS. JEANNE C. CARR, Pasadena.  
DR. EDWARD STEPHENS CLARK, 16 Geary St., San Francisco.  
BANYER CLARKSON, 15 W. Forty-fifth St., New York City.  
HON. CORNELIUS COLE, Colegrove.  
SCIPIO CRAIG, Redlands.  
GEN. CHARLES W. DARLING, Utica, New York.  
MAJOR JOHN W. DE FOREST, 261 Orange St., New Haven, Ct.  
JUSTUS A. GRIFFIN, 47 King William St., Hamilton, Ont.  
MRS. MARY E. HART, 801 S. Hill St., Los Angeles.  
DR. WALTER J. HOFFMAN, Washington, D. C.  
HON. E. W. HOLMES, Riverside.  
LUTHER M. HOLT, Redlands.  
ALBERT FENNER KERCHEVAL, Los Angeles.  
CHARLES F. MONROE, San Diego.  
E. W. MORSE, San Diego.  
CHARLES MULHOLLAND, Independence.  
CHARLES NORDHOFF, Ensenada, Lower California.  
JUDGE YGNACIO SEPÚLVEDA, City of Mexico.  
HON. JOHN WASSON, Pomona.  
DR. LORENZO G. YATES, Santa Bárbara.

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**IN MEMORIAM.**

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**DR. VINCENT GELCICH.  
COL. JOHN FRANKLIN GODFREY.  
HON. HENRY HAMILTON.  
JUDGE VOLNEY E. HOWARD.  
JUDGE AUGUST KOHLER.  
MAJOR HENRY MILNOR MITCHELL.  
CAPT. JOHN QUINCY ADAMS STANLEY.**

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## Address of Retiring President J. M. Guinn.

READ JANUARY 5, 1891.

IT is well at the end of each year's existence of our society to take an inventory, not alone of the material acquired but also of the work accomplished and the advance made towards the objects for which our society was organized. During the past year we have made substantial progress along all the lines of our society's work. Our annual publication of papers read before the society is one of the best we have issued. It has been favorably received by the public press and has been commended by the librarians of some of the leading libraries of the country. We have received flattering testimonials of its merits from the secretaries of other historical societies and the demand for copies of it from our own citizens has exceeded our supply.

In the collection of material we have been quite successful. We have been so fortunate as to obtain a number of original documents of the Mexican period of Californian history. One of our most valuable acquisitions during the past year, relating to the early American period, consists of files of the Los Angeles Star, running from 1855 to 1868.

Our files of daily and weekly newspapers of Southern California have been steadily accumulating for the past seven years. Our miscellaneous collections, consisting of books, pamphlets, maps, autographs, minerals, specimens in natural history, curios and relics of various kinds, make an interesting and instructive exhibit.

At the urgent request of our society, the board of supervisors of this county was induced to order the translation of the papers and documents of the Spanish and Mexican periods found in the Los Angeles county archives. The translation of these manuscripts when completed will open a rich mine of local history to students and readers not acquainted with the Spanish language. Hitherto these have been sealed books to the great majority of those interested in our early history. Many of the papers read before our society during the past year have been of marked historic value, notably the series written by Dr. W. F. Edgar, on the old forts of California.

In the literary world there is of late an increased interest manifested in historical studies. The leading magazines and reviews are devoting considerable space to historical articles. The series of papers now in course of publication in the Century magazine, entitled the "Gold Hunters of California," and the short sketches in the same periodical portraying life and customs in California before the conquest, are inciting new interest in the history of our state.

The Magazine of American History is doing a noble and patriotic work in popularizing the study of the history of our country. With an increased interest in historical studies has grown a desire and an earnest endeavor to obtain greater accuracy in historical narrative. That critical faculty which weighs and judges every fact and carefully scrutinizes every authority, no matter how seemingly conclusive, is constantly exercised, and has caused the reversal of many long-established historical verdicts. The more extensive our historical reading may be, the less ready we are to accept unquestioned what may be offered to us as veritable history.

This is an age of investigation, and withal it is an age somewhat given to iconoclasm and to irreverence of self-constituted authorities. In this age neither the dicta of prelates nor the decrees of councils can prevail against facts or reason. Neither can the seal of church or state, nor the dust and cobwebs of antiquity, save a false statement from contradiction or a false verdict from reversal. The iconoclast, the image-breaker, has shattered more idols in our historical literature than did the people of Judah in the temples of Baal. No one, however, much of an iconoclast he may be, would desire to eliminate from our literature myth and fable, but surely no intelligent reader would wish to have myth and fable pass current for established history. "All history" may be, as Lord Byron says, "splendid fiction," but most of us, I think, would prefer to have what we read for history at least fiction founded on fact.

The collection and preservation of all material which can have any bearing upon the history of the Pacific coast in general and of Southern California in particular is the primary object of our organization. The value of the collection we have already made, incomplete and somewhat chaotic as it is, is great. Considering the small number of active members we have in our organization and the limited means at our command, we have certainly accomplished a work worthy of commendation; a work that will be more highly appreciated by the generations that succeed us than by our own. From such collections as we hope to make ours

future historians must evolve the true story of our commonwealth.

While we cannot but admire the industry and enterprise of the Bancroft company in making the vast collection that is stored on the shelves of the history building at San Francisco, yet we must record our sincere regret that this vast collection of rare and valuable books and manuscripts—to many of which no duplicates exist—should have become the property of private individuals. Such collections should be free to every student of history; free to every writer of history, that he may form his own opinions and draw his own conclusions from original sources, and not from second-hand statements biased as such frequently are by favoritism or prejudice.

Nearly every one of the older states, and many of the younger states of the union, have state historical societies supported by state aid, into which have been gathered material, which has a bearing upon the history of that particular commonwealth.

California, with a past unrivalled in the variety of the historic phases, romance, adventure, intrigue, revolution, war, conquest; California, with the light and shade of its shifting civilization and a largess of material for an epic, grander than the Iliad and more fascinating than the Odyssey, has suffered antiquarians and literary pot-hunters to capture the great mass of its historic material, and turn it into an article of merchandise.

Believing it to be a duty that we owe our state, and a work that we ought to do for future generations, our society has labored assiduously in the collection of material. But experience and observation show us that we are constantly losing golden opportunities for the want of means. The old-time residents are rapidly passing away; rare books, valuable manuscripts, important documents and interesting curios, illustrative of practices and customs, long obsolete, in their possession, are scattered among the different members of their families, and are soon lost or carried out of the country. With more means at our command, many of these valuables could be secured for our society and preserved to posterity.

But we have other and more pressing needs for more funds. We have no rooms that we have any claims upon, in which to store our collections. At present we are pensioners on the kindness of Professor More of the Normal School. The school needs the space we occupy, and we must move from our present quarters. We have the promise of rooms in the new court house, when that building is completed. If we secure these, we must fit them up with shelving and cases. To make our collections of newspapers, pamphlets and manuscripts available for the purpose of research as

well as for their preservation, they must be bound. For these two imperative needs—fitting up rooms and binding—we require at least a thousand dollars.

The number of papers read before our society has greatly increased in the past year. To publish those worth preservation will require us to double the size of our annual volume of collections and transactions. Our wants are many and increase with our growth; our resources are limited. How to obtain the funds to meet our wants is a problem hard to solve.

The growth and maintenance of the society so far is due to the individual efforts of a few public-spirited persons, none of whom are blessed with a large amount of this world's goods. To increase the amount of our annual dues would work a hardship to these, and prevent an increase in our membership.

Our state constitution prohibits the legislature from appropriating money to aid any institution not directly under the control of the state. To change, as has been suggested, our society into a state historical society, would take the control of it out of the hands of those who organized it and built it up, and it would undoubtedly remove it from its present location as well as change the field of its operations. We cannot hope for any assistance from the state.

The only resource left us seems to be an increase of membership, and we should at once begin an active canvass for members. There are many intelligent and public-spirited persons in our community, who, if the claims of our society were urged upon them, would aid us in our good work.

It is a very prevalent, but, at the same time, a very mistaken idea that it is the province of an historical society to deal only with the things of the long past. One of the most useful fields of labor for such a society lies in the collection and preservation of material of the present for use in the future; in carrying forward from age to age by written and printed page the story of the everyday life of the people. This feature of our society's work ought to appeal to those who have no interest in the collection of relics or antiquarian research.

In conclusion I would urge upon every member increased activity in the work of building up our society. Endeavor to arouse the intelligent and thinking people of our community to the fact we are working not for selfish purposes or pecuniary gain but for the public good.

## Inaugural Address

—OF—

President George Butler Griffin,

READ FEBRUARY 9, 1891.

*Fellow Members of the Historical Society of Southern California:*

IN accordance with custom I beg leave to submit the following brief remarks: When it is considered that our society hitherto has possessed neither a suitable abiding place, nor even a proper legal existence, with greater heartiness, it seems to me, we may congratulate ourselves upon the progress we have made from year to year, until today we have in our possession a goodly number of printed works and manuscripts of no inconsiderable value, as well as a constantly increasing collection of objects of interest such as are to be found usually in the rooms of an association whose field of research is so extensive as ours. The progress we have made in the past naturally will stimulate us to increased endeavor in the future. While I thank you for the honor you have been pleased to confer upon me, I am well aware that, should my administration prove to be successful, it will be because of the cordial support which the various committees and individual members shall give to the general well-being. Persuaded that this support will be given cheerfully, I am confident, therefore, that we shall take no step backward, because we shall bear in mind that conception is merely the beginning of endeavor, and these only preliminary steps toward the accomplishment of the end all of us have in view.

We have been promised by the board of supervisors that, when the court house—now a building—is ready for occupancy, quarters therein will be provided for our society, and our books, manuscripts and other property can then be arranged in such manner as to be easy of access and of real, practical value to ourselves and to other students. Yet it is to be hoped that we do not remain content even with this great gain. It should be our continual aim, and I think that we are all of this opinion, to make every effort tending towards obtaining a home of our own, nor should we relax our efforts until the end is gained. It was hoped that aid from the state, in the



shape of an appropriation, would be extended to us by the legislature now in session, and the necessary bill had been prepared by a member from the county of Los Angeles, but, it seems, the law forbids such appropriation of the public funds, and we must depend upon ourselves for the realization of our wishes. The gods help him who helps himself, and I doubt not that our energy will prove equal to the occasion. I suggest that the constitution be so amended as to provide for the creation of a standing committee on life-memberships, and that it shall be the duty of this committee to invite citizens of Southern California to become life-members of the society, with the distinct understanding that all sums obtained from the payment of life-membership dues be set apart as a fund for the purchase of a building-site, and the erection thereon and proper furnishing of a suitable building. It is well known that there are many patriotic and wealthy citizens of Southern California, who, it cannot be doubted, would become life-members of the society on condition that the amounts paid by them for such memberships should be so dedicated, and, it seems to me, it might not be impossible to obtain from some wealthy resident of a city, of which all residents are so properly proud, the gift of a site on which to build. In no more fitting way could some one of the many public-spirited individuals among us transmit an honored name to the respectful admiration of those who shall come after us.

As yet the society has no legal being. At our recent annual meeting, with gratifying unanimity, you were pleased to take the most important step which, in my opinion, has been taken since we first assembled together. Until now we have formed merely an association of ladies and gentlemen held together by a common love of inquiry in the broad field of historic and scientific research; yet, as a society, having no legal existence, nor any well defined right to hold the valuable property we consider ours. We have good reason to congratulate ourselves that we are so soon to become a corporation duly organized under the laws of the state. This legal status once acquired, it can not be doubted that many who now hold aloof will join us as active co-workers in our important undertaking, and that many others will present to us the books, documents and collections of other kinds we cannot hope to receive otherwise. Indeed I am assured that there are many such persons who await the desired consummation in order to bring gifts to the society.

There exist in our archives many valuable papers on various subjects, which have been read before the society but which still remain in manuscript. The advisability of securing in a more

permanent manner the usefulness of these contributions to knowledge is patent to all, and I recommend that the committee on publications take the necessary steps for the printing of these papers at as early a date as may be practicable.

Although some weeks must pass before we shall be able to take possession of our promised quarters in the court-house, it will be advisable for us to consider, meanwhile, that we shall be called upon to furnish these quarters appropriately. I suggest, therefore, that, if this very important matter come not within the province of some one of our actual standing committees, a special committee be appointed whose duty it shall be to solicit, from members and from citizens, friendly to and interested in the welfare of the society, subscriptions to a fund for the proper furnishing of the rooms of the society.

In order to carry out the various suggestions which I have thought it my duty to make to you, to the consideration of which I earnestly invite your attention, it is obvious that the general fund must be considerably increased. While the list of active members is increasing constantly, the amount received from dues paid by members will not be sufficient, in future, for our needs. It may, or it may not be, advisable to increase the annual dues of active members to five dollars; but let us remember that each of us should consider himself one of a committee which is not appointed under the rules but which includes all of us, and endeavor to add as many names as possible to the list of active members.

In this connection, and it seems to me a feasible way of increasing the general fund, I suggest that the society should, as soon as may be, undertake the management of a course of lectures or other suitable public entertainments. This is in accord with the spirit of our constitution, and would not only prove to be a prolific source of revenue to the society, but would be productive of lasting benefit to the general public.

It is not necessary for me to remind you that we shall not be able to advance the objects for the furtherance of which we are associated except it be by systematic work. The objects for which this society exists are many in number, and I am very confident that there is not one of our members whose views on one, or more, of the topics mentioned in the constitution could fail to be of interest and benefit to that society in a more extended sense of which we are all members. We have accomplished a great deal; but we can, and should, accomplish a great deal more. It is to be hoped, therefore, that the various committees, in the discharge of their duties, will foment the reading of papers on branches of

investigation to which members of the society have given special attention.

I recommend, further, the creation of a standing committee charged with the duty of collecting books, manuscripts and objects of all kinds which may be worthy of preservation, and which should be solicited from persons now possessing them, for we are all aware that many such books, documents and objects exist in the possession of a generation now passing away rapidly. There are many who do not properly esteem these treasures; many who would cheerfully surrender to an institution such as ours, the custodianship—for, practically, this society is merely the custodian of things which in a sense belong to the community at large—of things that assuredly would be more safely guarded and preserved for posterity if deposited in the archives of this society. Time is the devourer of all things, and if a society such as ours do not interest itself in their preservation, within a very few years many things, that would prove of inestimable value to the future historian of the great and growing region we inhabit, will be lost forever. Especial attention should be given to the collection of autobiographies of both men and women among those who dwelt here before the American occupation of California and of pioneers of the existing commonwealth. This is a field that has been but hastily reaped, and the gleanings may well prove to be of greater value than the scanty crop harvested by historians.

In conclusion I recommend a careful consideration of the by-laws, which, after incorporation, we must necessarily adopt.



## Annual Report of the Secretary for 1890.

*To the President, Officers and Members  
of the Historical Society of Southern California:*

Your Secretary *pro tempore* begs leave to submit the following report of doings of the society and of his office for the year 1890:

### ABSTRACT OF MEETINGS HELD DURING THE YEAR.

January 6—Active members present, 17. Voted to expunge from the minutes of December 9, 1889, resolutions of inquiry offered by B. A. C. Stephens about the actions of the Lewis Publishing Company of Chicago in reference to the publication of the "Los Angeles County History." President E. W. Jones read his retiring address. Secretary B. A. C. Stephens filed his annual report for the year 1889. Treasurer J. M. Guinn filed his annual report for 1889. Curator Ira More filed his annual report for 1889. C. N. Wilson, chairman of the Botany Committee, filed his annual report for 1889.

The following officers were elected for the year 1890:

President, J. M. Guinn. First Vice-President, George Butler Griffin; Second Vice-President, E. W. Jones; Secretary, B. A. C. Stephens, (re-elected second time); Treasurer, H. D. Barrows; Curator, Ira More, (re-elected); H. Jay Hanchette and M. C. Westbrook were elected active members.

January 13—Active members present, 13. On motion of George Butler Griffin, Section 3, Article V, of the By-Laws was amended so as to permit active members in arrears to be re-instated upon the payment of delinquent dues. William A. Burr elected an active member. H. D. Barrows, chairman of the History Committee, filed a majority report in reference to the Lewis Publishing Company's history of Los Angeles county. J. M. Guinn, chairman of the Meteorological Committee, filed the annual report of that committee.

February 3—Active members present, 9. Richard Gird, Esq., of the Chino ranch, a benefactor of the society, was elected an honorary member. Judge David M. Adams presented the society with a life-sized crayon portrait of Don Juan J. Warner, for which thanks were tendered. B. A. C. Stephens read a paper on the "History of Fort Moore."

February 4—Active members present, 21. Reception of Dr. Lyman C. Draper, of Madison, Wisconsin. General John Mansfield delivered the address of welcome. Dr. Draper responded in a long and interesting address to the society on the best methods of historical work.

March 3—Active members present, 13. President Guinn appointed the standing committees for the year 1890. B. A. C. Stephens, Ira More and George Butler Griffin appointed a special committee to revise the constitution and by-laws.

April 7—Active members present, 13. C. L. Goodwin read a paper by Isaac Kinley "On the Fallacy of Reasoning from Coincidences." George Butler Griffin read a paper on his "Survey of Tampico Bar."

May 5—Active members present, 7. C. L. Goodwin read a paper by Hon. John A. Wills on "The origin of the Phrase, 'Polygamy and Slavery, Twin Relics of Barbarism.'"

June 2—Active members present, 9. J. M. Guinn read a paper on the "Fragments of Local History."

July 7—Active members present, 6. (One less than a quorum). B. A. C. Stephens filed his resignation papers as secretary, also a list of donations to the society. Accepted. Communication from J. C. Nevin announcing the death of Dr. C. C. Parry, an eminent scientist, and also presented a biographical sketch of the deceased. George Butler Griffin presented the society with a bas-relief of himself, the work of his oldest daughter Eva Rosa Griffin. Resolutions again adopted urging the board of supervisors of Los Angeles county to have the Spanish archives translated into English. C. L. Goodwin elected secretary.

September 1—Active members present, 11. The Publication Committee reported the publication of 500 copies of the annual pamphlet at a cost of \$95.20. E. W. Jones reported the discovery of a bed of fossil clams in the excavation for the mansion of George R. Shatto on Orange street, in Los Angeles city. The thanks of the society were tendered B. A. C. Stephens for his historical donation made last July.

October 6—Active members present, 12. J. M. Guinn read a paper on "Historical Myths." H. D. Barrows read a paper on "General John Charles Frémont." Resolutions adopted thanking the board of supervisors of Los Angeles county for having the work of translating the Spanish archives commenced. Hon. Henry Hamilton, of San Gabriel, donated the files of the Los Angeles Star from January, 1855, to October, 1864, and from May, 1868, to May, 1870.

November 3—B. A. C. Stephens appointed Secretary *pro tempore*. Active members present, 13. George Butler Griffin read a paper on a "Map of the Northern California Missions; also translations of proclamations by Governor Juan Bautista Alvarado, of 1840, and Governor Pio Pico, of 1846. Dr. Wm. F. Edgar read a paper on "Historical Landmarks in the San Joaquin Valley—Old Fort Miller." George Butler Griffin read two papers, "Historical Myths, No. 1," and "Historical Myths, No. 2." J. M. Guinn read a paper on the "Early Gold Discoveries in California." Charles W. Darling, of Utica, N. Y., and Hon. Cornelius Cole, of Colegrove, California, were elected corresponding members. Charles Putnam Fenner, C. P. Dorland and Frank W. Smith were elected active members.

December 1—Active members present, 13. Dr. Wm. F. Edgar read a paper on "Historical Notes on Landmarks in the Sacramento and San Joaquin Valleys—Old Forts Reading and Tejon." George Butler Griffin read translations of a proclamation of Governor Manuel Micheltorena, of December 16, 1844, and of the "Expediente" of the Santa Gertrúdes rancho; also a translation of a letter from Don Antonio F. Coronel to Rev. Joachim Adam. Mary E. Hart, of Long Beach, California, was elected a corresponding member.

#### RECAPITULATION.

Total number of meetings, 13. Average attendance, 12. Total number of active members elected: H. Jay Hanchette, M. C. Westbrook, William A. Burr, Charles Putnam Fenner, Frank W. Smith and C. P. Dorland, 6. Total number of corresponding members elected: Charles W. Darling, Hon. Cornelius Cole, and Mary E. Hart. 3. Total number of honorary members elected: Richard Gird, Esq., 1. Total number of papers read: By E. W. Jones, 1; Isaac Kinley, 1; B. A. C. Stephens, 1; J. M. Guinn, 3; John A. Wills, 1; J. C. Nevins, 1; H. D. Barrows, 1; George Butler Griffin, 9; Wm. F. Edgar, 2; L. C. Draper, 1; Total, 21. Six reports of officers and committees were filed. 500 annual pamphlets were published and distributed among the historical societies, colleges and libraries of the United States. The receipts were \$82.-50, and the expenses were \$120.45. The donations, in the way of bound books, pamphlets, newspapers, manuscripts, photographs, maps and curios were too numerous to burden the minutes with their mention.

Your secretary served as such from January 1889, to July, 1890, when he resigned, owing to his absence in Lower California, Mexico, and C. L. Goodwin, Esq., was elected to the office, which

he had filled *pro tempore* from March, 1890, till July, 1890, and thence, by election, unto and including October, 1890, when he removed to Washington, D. C., and your secretary was appointed *pro tempore* for November and December, 1890; hence devolved upon him the duty of making out this annual report. As the society grows older, and the membership and collections increase, the work of recording and correspondence likewise enlarges, as it has been doing for the two years last past, during all of which time your secretaries, as well as those from the organization of the society, have served without any financial remuneration.

Yours very truly,

B. A. CECIL-STEPHENS,

LOS ANGELES, January 5, 1891.

Secretary *pro tempore*.



# Annual Report of the Treasurer for 1890.

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*To the Historical Society of Southern California :*

I herewith submit Treasurer's Report for 1890, to-wit, from January 6, 1890 to January 5, 1891:

To cash on hand January 6, 1890 . . . . .	\$94.45	
“ “ Admission fees . . . . .	12.00	
“ “ Dues . . . . .	70.50	
	<hr/>	\$176.95

EXPENDITURES:

By cost of Annual Publication . . . . .	\$95.20	
“ Miscellaneous expenses . . . . .	25.25	
	<hr/>	120.45
Balance Cash on hand January 5, 1891,		<hr/>
		\$56.50

H. D. BARROWS,  
Treas. Historical Society of  
Southern California.

LOS ANGELES, Jan. 5, 1891.



## Annual Report of the Curator for 1890.

*To the President and Members  
of the Historical Society of Southern California:*

Owing to the fact that our collection is at present boxed and stored in the museum at the State Normal School building in this city, by the courtesy of the trustees of that institution, and as the society expects to soon have ample quarters in the new county court-house, where the collection can be properly displayed and catalogued, I am unable to give more than a general summary of what I have in my charge, which is as follows:

Bound volumes, 500; pamphlets, 2500; newspaper files, 100; maps, 200; photographs, 100; manuscripts, 500; special editions of newspapers, 100; besides a large amount of printed matter of all kinds; one case of mineral specimens and one case of curios and relics; and four cannon.

I call especial attention to the donation by Richard Gird, Esq., of a finely bound set of H. H. Bancroft's histories, 32 in number.

B. A. C. Stephens, our secretary, also donated his entire historical collection pertaining to Southern California, which he was several years in making, and consisting of 48 bound volumes, 495 pamphlets, 53 copies of special editions of newspapers, 618 newspapers containing historical articles, 66 maps, 12 photographs, several autograph letters of prominent people, a large number of valuable manuscripts and documents, a case of mineral specimens, and several thousand newspaper clippings on historical and miscellaneous subjects.

The recent donation by Dr. Wm. F. Edgar of 153 bound volumes and several hundred pamphlets, some of the books being very old, is worthy of especial commendation.

The complete files of the Los Angeles Daily Tribune, covering a period of four years and two months, were purchased at a cost of \$11.00.

A very valuable donation was recently received from the West Virginia Historical and Antiquarian Society, consisting of several bound volumes, and pamphlets pertaining to the history of that state. Donations are also acknowledged from many other historical societies.

A large number of public documents from the different departments at Washington, D. C., and Sacramento have also been received.

Through the efforts of the secretary nearly every newspaper published in Southern California is received for filing in our archives.

By the courtesy of Brigadier General A. D. McD. McCook, commanding the Department of Arizona, the society has been given possession of the four old cannon in this city, which were used in the Mexican war against the American army, and captured by the latter.

Donations continue to come in at such a rapid rate that very soon the society will be compelled to employ a librarian to give his sole time to their care.

The following publications are received and placed on file in the archives:

Dailies—*Courier*, San Bernardino; *Enterprise*, Riverside; *Express*, Los Angeles; *Herald*, Los Angeles; *Independent*, Santa Barbara; *Observer*, Ventura; *Press*, Riverside; *Press*, Santa Ana; *San Diegan*, San Diego; *Star*, Tucson; *Times*, Los Angeles.

Weeklies—*Alliance Farmer*, Los Angeles; *Bee*, South Riverside; *Breaker*, Long Beach; *California*, Los Angeles; *Champion*, Chino; *Chronicle*, Colton; *Citizen*, East Los Angeles; *Citrograph*, Redlands; *Compass*, Redondo Beach; *Eye*, Needles; *Facts*, Redlands; *Gazette*, Anaheim; *Gazette*, Lancaster; *Herald*, Banning; *Independent*, Independence; *Journal*, Fullerton; *Kaleidoscope*, San Bernardino; *Lower Californian*, Ensenada; *Messenger*, Monrovia; *New Era*, Perris; *News*, Orange; *Observer*, Ontario; *Phœnix*, Riverside; *Pointer*, Whittier; *Pomotropic*, Azusa; *Record*, Ontario; *Register*, Bishop; *Register*, Pomona; *Register*, San Jacinto; *Sentinel*, Julian; *Sentinel*, Yuma; *Standard*, Santa Ana; *Star*, Pasadena; *Süd California Post*, Los Angeles; *Times-Index*, San Bernardino; *Times*, Lancaster; *Times*, Pomona; *Workman*, Los Angeles.

Monthly—*Orange Belt*, Alessandro.

Magazines—*West American Scientist*, *Science and Horticulture*, *Iowa Historical Record*, *American Geographical Society Bulletin*, *Pacific Coast Monthly*.

Very respectfully,

IRA MORE,  
Curator.

LOS ANGELES, July 1, 1891.

## Annual Report of Historical Committee.

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The Historical Committee of the Historical Society of Southern California respectfully reports that, during the years 1889-90—since the date of last report—there have been read before the society, translations accompanied by historical and explanatory notes, of the following documents:

1. The letter which General Sebastian Vizcaino wrote from the bay of Monterey, dated December 28, 1602.
2. A printed proclamation of Governor Alvarado, without date, but issued December, 1840.
3. A manuscript proclamation of Governor Pico, dated July 27, 1846.
4. The patent of the Rancho Santa Gertrúdes, dated May 22, 1834.
5. A letter of A. F. Coronel, relating to the founding of Los Angeles, dated April 11, 1888.
6. A printed proclamation of Governor Micheltorena, dated December 16, 1844.

Also the probable date and authorship of a manuscript map of the missions of Alta California were treated of in a communication read before the society.

Original historical papers read before the society are mentioned in the report of the Publication Committee.

Respectfully,  
GEO. BUTLER GRIFFIN,  
*Chairman.*

LOS ANGELES, January 5, 1891.



First Annual Report  
—OF THE—  
Committee on Genealogy and Heraldry.

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*To the Historical Society of Southern California:*

We, the undersigned, your Committee on Genealogy and Heraldry, hereby submit our first annual report.

We find by the minutes of April 1, 1889, that on motion, a committee was constituted on heraldry and genealogy in accordance with the following resolution:

“Resolved, That a Committee on Genealogy and Heraldry be added to the list of the regular standing committees of the society, and that the President be authorized to appoint two members of the society on the said committee.”

No report was made for the year 1889, as the work was comparatively new to members of the committee; nevertheless, some preliminary work was done, especially in the department of heraldry.

As many do not see the utility of the creation of this department of historical work in our society, we herewith present what we consider some valid reasons for the same. Historical work generally includes the public events of the world, and deals little with even the great personages of its dramas, unless it be to occasionally and briefly present a biography. The reason for this may be what Macaulay terms the “perspective of history.” Regarding time as a picture, individuals would naturally disappear in the dim distance of the receding past before nations, the larger bodies, would vanish.

The study of the history of nations is always recommended for the reason that the coming generations can profit by the history of those past. How often is the history of the ancient Roman republic, with its concentration of wealth and power in the hands of a few preceding its downfall, held up as a warning to our American republic to avoid a like fate! If nations can thus receive benefit from the history of nations, why may not individuals likewise receive benefit from the history of individuals, and particularly from the line of their own descent?

The principal cause for the neglect of the study of genealogy and its companion—heraldry—on this continent undoubtedly sprang from the extreme American antipathy to everything English, a strong sentiment created by the Revolution. But of late years there has been a remarkable revulsion of feeling on this point, and everywhere, particularly in the Atlantic States, people are looking up their genealogies. Old bibles are being opened, family papers looked up, public records searched, and even tombstones are carefully scrutinized for a missing date or coat of arms. The number of family histories published in America within the past twenty years reaches into the thousands. Several societies and publishing houses are wholly devoted to this line of research; notable among the former are the Huguenot Society of New York, the New York Genealogical Society, and the Rhode Island Genealogical Society, the last named society having published several large volumes. Joel Munsell's Sons of Albany, N. Y., is one of the oldest publishing houses in this line, Mr. Joel Munsell having been in the business over forty years ago. There are several eastern magazines devoted wholly to genealogical subjects.

Their research has gone not only to American evidence, but they have crossed the Atlantic ocean, and the archives of Great Britain, Holland, Germany and France have yielded rich treasures of knowledge on questions of American genealogy. Already have the names of each and every British immigrant to America previous to the year A. D. 1700 been secured and published, and it is to be hoped that it will not be long before the list will be brought down to the year 1800.

The formation of certain American societies makes genealogical lore valuable. The Order of the Cincinnati was composed at first of the commissioned officers of the Revolutionary army. It is still kept alive by admitting the oldest male heir of each original member. The Society of California Pioneers has founded the Junior Pioneers, admitting thereto only the descendants of its own members. The Grand Army of the Republic, composed solely of Union soldiers of the Rebellion, has a similar organization in the Sons of Veterans, whose name indicates the character of its membership. The Military Order of the Loyal Legion, composed only of commissioned officers of the Union army in the Rebellion, has rules in this regard, similar to the Order of the Cincinnati.

The study of genealogy is not only a pleasing gratification of a laudable curiosity, but it is an incentive to patriotism, and increases family love and pride and veneration for our ancestors, and thus, as Macaulay says, entitles us to the respect and remembrance of

our posterity. Who is there among us who will not feel more firmly bound to his country if he knows that he had a great-grandfather who fought in the Revolution, a grandfather who bore arms in 1812, and a father who went to the front in the Rebellion? Already through the brief investigations of this committee, not only have long-separated branches of families been pleasantly reunited but communication has been re-established between other branches who had lost all trace of each other for nearly two hundred years.

There is another, and perhaps the greatest, benefit to be derived from a careful study of genealogy, and that is a revival of the science of stirpiculture. Application being made to a famous horse-breeder of Kentucky for some information about his ancestry, he replied, "Why I know more about the pedigree of my horses than I do of my own," As if the genus *homo* is of less importance than the genus *equus*! If "a sound mind dwells in a sound body," and the lower grades of the animal kingdom can be bred to such high degrees of physical superiority, reason urges that man, standing at the head of the animal kingdom, can likewise receive the benefit of the same laws, not applied with Spartan heroism but rationally and conservatively. The revival of physical training in our schools is certainly a step in that direction, and a right one, and, surely, if one knows the physical virtues and vices of his ancestors, he can at least direct the stream of his descent, so as, in a measure, to preserve the one and lose some of the other. These ideas are certainly in accord with those of many learned writers on hygiene. Who knows but that here in America, where there is a grand re-mingling of the blood of the Aryan family—Kelts, Teutons, Slavs, Latins and Greeks—there will yet be produced, by observance of these scientific laws, a grander grade of manhood than that of which our remote ancestors boasted upon the uplands of Asia? \*

Nor is the art of heraldry to be despised. It is of the greatest assistance in the study of genealogy. The following is condensed from the London Encyclopedia as explanatory on the subject:

Armorial ensigns are hereditary marks of honor made up of fixed and determined colors and figures, sometimes bestowed by sovereign princes as a reward for military valor or eminent public services. They also serve to denote the descent and alliance of the bearer, or to distinguish cities, societies, etc., whether civil, military or ecclesiastical. Arms were first used by commanders in war to distinguish their persons to their friends and followers. Homer, Ovid and Virgil relate that their heroes had divers figures

on their shields whereby their persons were distinctly known. The same is true of our American Indians.

The origin of heraldry as an art must be referred to the times of Charlemagne and Frederick Barbarossa, since it commenced and increased under the feudal system. The hereditary arms of families did not begin till toward the close of the fourth century. Coats of arms first originated in the German tournaments, being a sort of livery made up of several lists (strips), fillets (threads or cords), or narrow pieces of stuff of various colors, whence came the *fess*, the *bend* and the *pale*, indicating the manner in which those bands were originally worn; these being the most ancient charges of family arms, since those who had never been at tournaments wore no such marks of distinction.

The adventurers who enlisted in the crusades also assumed several new figures formerly unknown in armorial ensigns, such as allerions, bezants, escallop-shells, martlets, etc., but more particularly crosses of different colors and shapes, of which there are at least twenty-two varieties.

The introduction of armorial bearings into England is referred to the second crusade in A. D. 1147. About 1189 the arms were usually depicted upon a small escutcheon and worn at the belt. King Richard I is the earliest instance of their being borne upon an ordinary shield, though they are found on seals of the seventh and eighth centuries. Heraldry, like most human inventions, was introduced and established gradually, and, after having been rude and unsettled for many ages, it was at least methodized and fixed by the crusades and tournaments.

These marks are called arms because they were worn by military men at war or tournaments. They are also called coats of arms because they were formerly worked upon coats worn over armor. There are nine different kinds, viz., arms of

1. Dominion, borne by emperors, kings and states. Under this head come the arms of the United States of America and of the State of California, although it must be admitted that the latter was not constructed with any regard to the rules of heraldry.
2. Pretention, of a political division claimed by a king, etc.
3. Concession, given by princes as a great reward.
4. Community, of cities, societies, etc. The arms of the city of Los Angeles are *argent* charged with a bunch of mission grapes *proper*. Our historical society, not yet having incorporated,\* has selected no seal, and it is to be hoped that when it does that some attention will be given to the laws governing the same.

\*Incorporated February 13, 1891, and selected for its seal, the arms of the United States quartered with Spain and Mexico: significant of the three countries which have successively ruled Southern California.

The seal should have the two striking characteristics of simplicity and appropriateness.

5. Patronage, such arms of states, manors, etc., as the governors, etc., add to their own.

6. Family, belonging exclusively to certain families which none others have the right to assume. In Great Britain, violations of this law did render all articles bearing arms of families, and owned by persons not entitled to wear them, subject to seizure and confiscation by the earl marshal. Under the British law of primogeniture only the oldest male heir is allowed to use the full coat of arms of his ancestors together with the supporters, crest, and motto. The other male heirs may use the same but it must be charged with a difference, as a label, crescent, etc., of which there are some thirty-six distinguishing "marks of cadency," as they are called. The female heirs and their descendants are entitled only to the shield, and this must be of a lozenge shape for the female, but this is not held under the Scotch law.

There are many families in Southern California, who, by right of descent, are entitled to coats of arms, and this committee would like to hear from all such, and receive copies of their coats and lineage.

7. Alliance, added by marriage and quartered.

8. Succession, added by inheritance and quartered.

9. Assumptive, "taken by caprice," says the above named authority, and, it might be added, without regard to "rhyme or reason." America, with all of its democracy of sentiment, is, perhaps, more cursed with arms assumptive than any other country. Where persons of no intellectual education and of obscure descent, become financially independent, their first impulse is to assume a coat of arms. Generally a book on peerage is consulted, and if a family is found of the same name, whether related or not, their coat is at once dishonestly assumed, and blazoned on house, plate, carriage, lodge and livery; or a jeweler is employed, who does the stealing by proxy or constructs a coat out of his own mind without regard to heraldic laws. As a consequence some funny things happen, as on the façades of several prominent residences in this city there are coats of arms charged with a bend sinister. The bend sinister is a sign of illegitimate descent, which the wealthy owners, perhaps both ignorantly and innocently, publish to the world.

We think it should be laid down as one of the cardinal rules of this society that no coat of arms should be recorded in our archives until the right of the claimant thereto has been fully established.



The number and names of genealogies filed by your committee the past year (1890) in your archives have been:

1. The Weir family genealogy.
2. The descent of George Butler Griffin from Jesse De Forrest, the founder of New York.
3. The descent of Charles Putnam Fenner from John Putnam.
4. Joshua Stephens' Family History.
5. Clippings from the Richmond, Va., Critic.
6. Family History of Hon. William Vandever.

We invite all the members of the society to prepare and file with us their respective genealogies, and as many others as can be obtained.

Respectfully submitted,

B. A. CECIL-STEPHENS, *Chairman.*  
GEO. BUTLER GRIFFIN,  
M. C. WESTBROOK,

LOS ANGELES, January 5, 1891.

*Committee.*



# Annual Report of the Committee on Meteorology.

*To the President, Officers and Members  
of the Historical Society of Southern California:*

THE phenomena of the medium, in which we live and have our being, have given the name to the growing science of meteorology; and, although so old as to have been known and referred to, in about the same sense it is now, by Aristotle, 300 years B. C., when he wrote concerning water, air and earthquakes, yet it was not until the middle of the 17th century, when the thermometer and barometer had become available, that it began to assume more importance, but the science of modern meteorology as renovated by telegraphy in the transmission of weather observations, may be said to have been realized not more than a quarter of a century ago, and now, at this day, the percentage of successful weather forecasts seems to depend only on the wide distribution of many observations, promptly and correctly reported.

I quote from the advance report of the chief signal officer of the army in regard to weather and temperature predictions, which says, "that they have increased in the percentage of accuracy from 78.3 per cent. in 1887, to 83.8 per cent. in 1889, and that on a general average of all these observations, they amount to 86 per cent., and that 98 per cent. of all the important cold waves were successful forecasts." Of these cold waves, Prof. Russell reports 691 as occurring between 1880 and 1890. The predictions in regard to the extraordinary floods of this most extraordinary year, just closed, were, in the main, correctly reported—according to the same authority. We also learn from this same report that 1000 of the more violent storms and tornadoes *together* caused the deaths of 1071 people, and a loss of about \$23,000,000 (during last year) in property in the United States. It is also stated in this connection that in the last 18 years, the annual death rate from tornadoes is, on an average, about 102; and yet in no state, it is said, may a destructive tornado be expected oftener than once in two years. These storms and tornadoes seem to have attracted more general attention throughout the country since the occurrence of the one that did so much damage to the city of Louisville, Kentucky, in

March last, than formerly, and have since been reported as occurring in various parts of the country as well as in other parts of the world with which we are in communication.

There has been, and is, a strong desire among the people to ascertain, if possible, the cause of these fearful and destructive agencies, with the view of escaping their horrible effects, but nothing in the power of man has been suggested. A few scientists have suggested, as a cause, the old "sun spot theory," while others believe that the primary cause is to be found in the electrical condition of the sun as compared to that of the earth, but it is known, by those who study the phenomena of storms of all kinds, that they originate as far as the earth apparently is concerned in the unequal distribution of heat and moisture, mostly in certain areas of the earth's surface, and that under certain complicated conditions including an initial center of greater heat than the surrounding cold air, inducing an ascending buoyant current, from this warmer central air, which, with the motion of the earth on its axis, together with the pressure of the inflowing air, produces a gyratory motion, and with a sufficiently saturated condition of some of the air to keep up an unstable equilibrium, an upward vortex results, from which the terrible cyclone is soon formed.

The storms and tornadoes that result in cyclones seem to start originally from the vicinity of the poles of the earth; these, whose effects we hear most of, from the north pole, which travel south-easterly, pushing across our lowest mountains in the far northwest, and spending the greater part of their force in those cyclonic areas toward the center of the continent, and finally disappearing off the Atlantic coast.

Coming to the meteorology with which we are more especially concerned, we may congratulate ourselves that we do not live in a cyclonic area, since we know the awful results to some of the inhabitants of such areas during the past year.

We so far have an immunity from these disasters, which we get chiefly from being protected on one side by the more equable temperature of the Pacific ocean, and on the other by a high range of mountains. In this locality sand storms, occasionally, and the cold drying north-winds, especially towards spring-time, are about the most disagreeable winds that we have, and they break through the mountain passes, while we usually have a low barometer with a high temperature during the day with cold nights, generally, as against a high barometer and low temperature on the northern part of the coast. This condition here is usually followed by rain in three or four days, and cooler weather.

Some meteorological observers remark that our rain-storms here are accompanied by more electricity and thunder latterly than formerly. What effect, if any, the developement and use of so much electricity during the past few years, together with the bands of iron connecting us with other parts of the continent, may have in this relation, has not yet, so far as I know, been scientifically investigated.

The climate of this coast is greatly modified by the ocean—especially that of our own locality—in being open to the cooling breezes. The south-west winds, sometimes called "return trade winds," are generally the *original* source of our moisture in the form of fogs and rains—although the south-east winds usually deposit the rain on the southern part of the coast. The winds that bring the fogs are more or less saturated with moisture by the great Japanese current, the "Kuro Siwo," or "black stream," which, it is said, flows towards our northern coast at the rate of about 10 miles an hour. These winds strike our coast far to the northward, cooled and saturated with moisture from the current—the greater part of which is deposited before their influence reaches us, but they are still moist enough to transfer to us, after cooling down our atmosphere, rain in winter and in the summer fog which results from the condensing qualities of their low temperature. These fogs do good in passing over the land, in the course of least resistance, across the valleys, through the mountain passes, and along their cool high crests southward until met by the rarefied warm air from across eastern deserts and plains, as at the San Gorgonio pass where the writer has seen them disappear like a flash. Our high mountain ranges are condensers of moisture, and generally in their vicinity there is greater precipitation than out on the more distant plains. Although our rains usually come from the south-east, we sometimes have, when the temperature has been brought down low enough by the rains from the usual quarter, very heavy rainstorms from the north-east; but generally they only last as the low temperature does, the wind veering back to the south-east and then as it cools and clears up, to the south-west and west. Our weather here is affected more or less by general and wide-spread storms in the east, as was the case in the general wide-spread storm reported as having commenced December 26, which was a violent snow storm general all over New England, some of the Middle and Western states with snow in some places from 12 to 18 inches deep, with the temperature from 10° to 25° or degrees below zero, while Los Angeles temperature as reported the same day from the signal office here

was for the maximum temperature  $82^{\circ}$ , but the morning of the 27th was cloudy with a maximum temperature of  $75^{\circ}$ . December 28th the maximum temperature was  $78^{\circ}$ . December 29th,  $72^{\circ}$ . December 30th, morning cloudy with 0.16 inches of rain and maximum temperature for the day,  $62^{\circ}$ ; with very cold weather reported in the east and in Europe. Usually, however, the smaller or less universal storms there do not affect our weather here, and the further east the storm center is, the less we are affected by it here, as often dispatches announce violent rain or snow-storms in Europe when we are having fine weather here, as was the case in the latter part of November last, when a snow-storm was announced in Paris, on the English channel, and over Europe generally, while we in Los Angeles had fine summer weather.

It would seem from looking back over the meteorological data as far as the record goes, in regard to the weather in California, that we have, especially in the southern part of the state, or that we have had, years of droughts and floods, running somewhat rhythmically or in other words, that in a yet not very well defined cycle of years we have had a rather insufficient amount of rain, falling sometimes to a drought, and in another similar cycle, in which we have had quite a sufficiency of rain, rising occasionally to a flood or two, as if there was in nature, a tendency to restore, within a still larger undefined cycle of time, an equilibrium in seasons and a uniformity in climate.

Since the season of '49 and '50, according to the oldest record that has fallen under my observation, which was kept in Sacramento, there has been recorded some half-dozen droughts and about an equal number of floods as occurring in the state. The first drought mentioned as authentic, as far as I know, is to be found in volume VI, of Bancroft's history of California, where droughts are mentioned as occurring in the last decade of the last century and especially the one that occurred in the season of 1784-5, which did considerable damage to some of the northern missions. Passing over others that have occurred since that time, the data in regard to which are not now in my possession, I mention the first one that caused deep distress among some of the Americans as well as the native inhabitants of this part of the state. I refer to the severe one of '63-4. About 13 years after this disastrous season, the precipitation as recorded in Sacramento was only 7.79 inches. The 7th season after this ('70-1) the precipitation was 8.47. Six years after this ('76-7) 9.19 inches. In Los Angeles for a part of this same season (the signal station having been established here), it is recorded as 5.24 inches. Again in '81 as 5.53 inches.

I quote from the meteorological review of the state in regard to the earliest heavy precipitation as recorded in Sacramento. The first of importance, that some of the American inhabitants still remember, is that of '52-3 as 36.36 inches at that place. Nine years afterwards ('61-2) another is recorded there as 36.10 inches. Six years after this ('67-8) 32.79 inches is recorded. For '78 and on to the present we quote from the data of the Los Angeles station and in that year 20.86 inches is recorded. In '73-4, 40.39 inches is recorded and last but not least, '89-90, last season, is recorded as 34.52 inches. In '86, also in the month of January, there was a precipitation of nearly 8 inches. These precipitations for 10 years *back* give Los Angeles an average annual precipitation of 16.10 inches.

It may be interesting to make a comparison between one or two of our coast climates and one or two of the interior climates. According to data from the signal office of Los Angeles for the past ten years, for which I am indebted to the politeness of Mr. G. E. Franklin, Los Angeles has an average annual rain-fall for that time of 16.10 inches and an average annual temperature for the same time of in round numbers 61° Fahrenheit, with a difference between the temperature of the six months of winter or wet months of the year (that is from the 30th of September, to the 31st of March) and the six months of summer or warm months (that is from the 1st of April, to the 30th of September) on the average of 10° Fahrenheit, or in other words the winter months are on the average 10° cooler than the summer months and vice versa. San Diego for the same time, according to data for which I am indebted to the politeness of Mr. M. L. Hearne, the signal observer there, has an average annual rainfall of 10.34 inches and an average annual temperature of 60° Fahrenheit, with a difference in temperature, between the winter and summer months of 8° Fahrenheit, whereas Colton, a town on the Southern Pacific R. R. some 58 miles east of Los Angeles, and about the same distance from the coast has, according to data for *one year only* ('89-90), for which data I am indebted to the chief engineer of the Southern Pacific Company, Mr. Wm. Hood, an annual rainfall or had, last year, of 14.89 inches and an annual temperature for the same time of 65°9 with an average difference, for that year, between the winter and summer months, of 17° Fahrenheit.

Riverside, some half dozen miles south of Colton, has, according to data, furnished me, through the politeness of Mr. W. E. Keith, a private observer at that place, a rainfall for the last year of 18.27 inches and an average annual temperature for the eight

years ending with '89 of 63.67 an average difference between the winter and summer months of 13°.2 Fahrenheit.

California has, comparatively, a dry atmosphere, especially the interior of the southern part of the state, and that is what gives to those exposed to the fierce rays of its summer sun, the immunity, from what is known as "sunstroke."

The writer served with United States troops, for three or four years, in the valleys of the Sacramento and San Joaquin. He saw miners work day after day, barefoot, in the San Joaquin river, with the head frequently uncovered and exposed to the sun in an atmosphere from 40° to 50° Fahrenheit warmer than the water in which they stood. He has also marched with troops across the Colorado and Mojave deserts and up and down the Colorado river, all in the middle of summer and never yet saw a case of "sunstroke" in California.

LOS ANGELES, January 5, 1891.

WM. F. EDGAR,  
*Chairman.*



## Annual Report of the Committee on Geology.

To the President and Members of  
*the Historical Society of Southern California:*

YOUR Committee on Geology has little of interest to report pertaining to this science applicable to Southern California, nor any new fact, or event to add to general conditions, heretofore so fully given by its predecessor. This can only be done, outside of ordinary conditions, by actual field work which has not been practicable during the last year. But your committee do not wish to be understood by this simple announcement, as not taking interest in the great question of the earth's structure, and the laws governing the great energizing form of its internal or surface movements to such a degree as to appall the human mind when contemplating the disasters attending the outbreaks of volcanoes and the earthquakes so graphically pictured in history. Therefore, in the absence of any striking local event that would naturally find its place in this report, it may not be out of place for the chairman of your committee to offer a few reflections on the general subject of geology, and cognate subjects; first absolving the other members of the committee from all responsibility for any statement he may make, as no pretense to a scientific discussion will be attempted; but rather as a layman inquiring as to what we do and what we do *not* know about the earth's structure, and about the *crust* theory and the *mollen* conditions of its center. So fixed in the mind of man seems to be this theory that any further inquiry almost seems to be precluded, and at the bare suggestion of further investigation for absolute facts, coupled with a determination to push the issue for their production, the inquirer is looked upon with a kind of solemn awe, as if he were tampering with a fate already fixed by some divine decree.

Yet, seismic and volcanic disturbances continue to manifest themselves, as they have manifested themselves since the dawn of history; a time long ante-dating the christian era; and for centuries the explanation of the cause of these disturbances has been such as to confuse rather than enlighten the mind of man. Scien-



tists, with the aid of fossils and primary igneous rocks, volcanic flames, and heated air in deep excavations, have been for two hundred years affirming the *crust* theory, and *molten* condition of the earth's center. The weakness of their evidence, so long the almost sole support of this early accepted theory became so apparent, that at length nearly all geologists of our own time, except Lyell, abandoned the theory as wholly untenable. We may not express surprise that such opinions should prevail two hundred years ago, with the then limited knowledge of the law of physics, and may look with charity upon the earlier scientists barring the dogmatism and curt language with which these opinions were announced, but for Lyell bred in all the learning of the Scotch school there can be no excuse. His theory based upon heat, in deep wells, mines, and boiling springs, may all appear, and still be explicable from natural causes; yet these wholly fail as proof to support the molten conditions claimed.

It is admitted that in the composition of the earth, and in all deep excavations or pits, there is found in the progress downward a calcareous substance, in some form, from the oolite to the mass, even insignificant in quantity; yet quite sufficient with the natural moisture, or percolating water from the surface, of which the earth is full, to generate the heat and gases which our early friends supposed came from below; instead of from the union of two chemical agents at the point of contact, one of these agents coming directly from the surface, and, in my view, it is absurd to suppose that, because heat may be found at great depths, even according to the formula given of an increase of one degree in every fifty feet after the first hundred feet, as we penetrate below the earth's surface, it necessarily leads on to a seething cauldron and that we mortals, with becoming gravity, are supposed to be walking around the periphery of its great rim. To this cheerful condition of things, I enter a respectful protest, though the assertion have the support of names well known to historic and scientific research. Nor is it true, though the heat theory be admitted, that combustion in these lower depths does, or can, take place for the want of oxygen to support it, but does take place, and can take place only, as the escaping gas, lava and cinders of the volcano meets at the *crater* the oxygen of the *outer air*, when natural combustion takes place and the flame follows the column of the outflow. Thus leading to the belief that the whole column came in this condition from the indeterminable and unknown regions from below, called, for the want of a better name, the earth's center. This familiar principle of chemical reaction can

be illustrated in the laboratory. Therefore, in this view, the molten theory seems to me more than a caprice; it is a kind of scientific *fetich*, in the worship of which so many have heretofore acquiesced, because it bore the weight of antiquity, and the authority of great names known to science.

Popular discussion of this subject is limited for want of better knowledge, and those who do know, or pretend to know, so often envelope it in a kind of hazy rhetoric, that the discussion confuses rather than enlightens the understanding.

The argument supporting the heat theory in deep wells and mines and supposed to lead up from this molten condition below, is more than untenable.

The deepest mine in the world, up to the later developements on the Comstock, is located in Bohemia, and has a depth of 3,300 feet; something over two-thirds of a mile, with a temperature at the bottom of  $75^{(0)}_{100}^{\circ}$  Fahrenheit.

The average increase of heat given by geologic authority is stated to be about  $100^{\circ}$  to the mile of depth.

The mines on the Comstock have reached a depth one hundred feet greater than the Bohemian mine, but temperature is not given. The deepest well in history is reported to be at Pesth, Hungary, where a depth of 8,140 feet has been reached with a temperature of water at the bottom of  $158^{\circ}$  Fahrenheit. At this depth, with the alleged ratio of progression as we go down, the degree of heat at the bottom should be something over  $170^{\circ}$  for the fraction over one and two-third miles of depth. Add  $75^{\circ}$  for the normal of the first 100 feet, and we have  $245^{\circ}$  of heat, or  $33^{\circ}$  in excess of the boiling point of water, rendering all manual labor at less than a two-mile depth impracticable, if not impossible.

On the other hand, what becomes of the rule applied to the sea whose specific gravity is one-fifth of the earth, with a radiation that much greater, ought to fix a boiling point nearer the surface? But facts established by deep sea sounding show the reverse to be true, as appears by the report of the Challenger, whose greatest recorded depth was 26,850 feet, or something over five miles, and the water to be intensely cold\*. So, if the theory of the ratio of increase be as given, the heat at the bottom of the ocean would be so great as to fuse many minor metals, and the boiling of the sea result. This condition, we know, does not and cannot exist, and to my mind this ratio of heat as we go downward is misleading and false; and another theory relating to the central condition of

\*The greatest depth in the Atlantic was 23,250 feet, in latitude  $19^{\circ} 41'$  N., Longitude  $65^{\circ} 7'$  W. The deepest sounding taken in the Pacific was 26,860 feet, in latitude  $11^{\circ} 24'$  N., E. Longitude  $143^{\circ} 16'$  E.

the earth must be found which shall be more consistent with reason and logical deduction.

Without attempting to give this theory, I claim it is not an unreasonable hypothesis to suppose that the earth's center is mainly solid, necessarily so in view of the known laws of gravitation and atmospheric pressure, though rent with surface fissures and caverns, with a possibility of lake and river systems throughout its interior structure, and that near the surface, as well as on the outer surface itself.

These submerged systems may serve as a means of transit from point to point of compressed air, or gases seeking an outlet, and may be hundreds of miles in extent, as where volcanoes of South America are active; those of Central America are in a state of repose, and it is a noticeable fact that, when Maunaloa is in a state of eruption, our Pacific coast is quiescent.

To the force of gravitation and of atmospheric pressure, must be added the weight of water present in the atmosphere, which so often, in its fall as rain, deluges whole continents with floods to such a degree as to paralyze the crust theorist, with fear for the safety of his favorite shell.

The existence of the Mammoth cave of Kentucky and that of the still greater one at Litchfield in the same state, must be taken to be in direct support of the submerged, or internal lake and river systems. The first of these caves has been explored for a distance of ten miles; the latter for *fourteen* miles, with still unexplored regions beyond, and in each cave are deep fissures filled with torrents of roaring water, rushing on to unknown depths and distances. What factors these waters may be, or may become, in any of the great seismic or volcanic disturbances of the earth "from center to circumference," is not to my mind satisfactorily explained; but, however unsatisfactory the alleged causes that produce these phenomena may be, they still exist, and it is claimed by a Central American observer (M. de Montessus), that there is no day, nor any hour in a day, in which they do not manifest themselves in some part of the globe. Such disturbances are not always formidable or destructive, but are sufficient, as they always have been, to excite apprehension and terror in the mind of man.

While we do not know positively, I am confirmed in the belief, for some time entertained, that these phenomena are due to that imponderable quantity in nature known as heat within, instead of below the alleged crust, that to its generation and expansion near the earth's surface are due the geysers and volcanos; that this heat is generated in the earth by the contact of various substances that

go to make up its body, and that in this contact, certain chemical reaction takes place by which both gas and heat are generated, forming the moving power by which the solved or fused mass finds its exit at the crater; that in seeking an outlet, this eruptive energy often produces cracks and fissures, and in some instances an upheaval of the surface itself, while on the contrary, a rapid condensation of this heat to cold, contracting to such a degree as to loosen the strain upon the surrounding mass, a sudden closing, or impact of the walls takes place with such force as to indicate one of the striking features of a genuine earthquake.

In addition to some of the causes alluded to as producing these terrifying *temblores*, there are two other subtle and fugitive elements in nature, that are believed by some to have no unimportant part in these terrestrial disturbances, natural gas and electricity. How far do these affect oscillations or upheavals of the earth? we are up to the present time without data to fix a rule to estimate their force, or to determine a condition by which their power is developed.

But, as was said interrogatively in the first part of this article, there is one thing we *do* know, and that is there is no power in the earth or the atmosphere known to science or mechanics that bears any comparison with electricity for destructive energy, and gas is only less so under certain conditions, and as the earth is a reservoir for both of these elements, this belief is not without plausibility, if not force. In addition to the reasons already given, another may be urged that should be conclusive against the claim of the central heat and molten condition.

It is a well known and recognized fact in practical life as well as in science, that the mollusk is the representative of the lowest form of animal life, and as life can only exist by the unity of heat and moisture, it must necessarily follow that the presence of the mollusk in the silurian formation of the earth's strata marks the limit of moisture and animal life, and from here upward through all forms of life to the mammal; an increase of heat and moisture must exist, corresponding to the increased blood and vigor, found in the varied forms of animal life that exists in the transition. If then we progress upward from the mollusk in the silurian, to the troglodite in the reptilian age, and from him to the warm blooded animals in the mammalian, which is the line and order of the earth's strata defined by science itself, what becomes of the heat theory in deep mines and wells which increases one degree in each fifty feet of depth? In this ratio no life could exist within the narrowest limit of the pretended earth-crust.

One need not be a geologist to see the fallacy of such a proposition. It is faulty, both in logic and in mathematics, and what a lawyer would term demurrable, for it fails for want of a sequence in one, and to illustrate the power of a given quantity or a correlative proposition in the other.

The error of this method of reasoning lies in following a given proposition to a supposed conclusion to what seems to be a logical result, without reference to other principles that are necessary factors in the settlement of questions upon such a basis, that it will resist a hostile analysis from any and all quarters.

Unfortunately the science of geology, notwithstanding all its achievements and its progress to its present position as an important factor in the world's knowledge of the earth's structure, fails as yet to give the exact character and condition of its center. Therefore, a conclusion can only be approximately reached by a proper interpretation of such known laws of the earth's hidden forces, as govern events bearing upon such changes as affect the earth itself. In attempting to do this, is presented the old story of doctors disagreeing in their diagnosis of the case to be treated. Thus Le Conte, always conservative and keeping his line of retreat open, gives the heat theory and its ratio of increase as we go downward to  $3000^{\circ}$ , or the point of rock fusion, and states "that many persons have *rashly* concluded that the earth is essentially an incandescent liquid mass," and further on shows that "their condition is improbable," and that volcanos are "openings into local reservoirs" and "not into a universal sea of liquid matter."

Having the concurrence of an author of such recognized authority in this science, I may well conclude with the simple statement that the conclusions here sought against the molten theory, is also confirmed by what is believed to be the best and latest thought in astronomical science, in planet-growth and world-building from nebulae or areolitic and cosmic dust, as the foundation of all planetary structures. This result is reached by analysis of space visitors that reach us whose composition and texture are found to be almost identical, varying only in stone, iron and nickel, always hard with a specific gravity nearly if not quite equal to the same substances found upon the surface of the earth. These bodies moving in space, meet with varying fatality. To a great extent they are destroyed by fusion, on impact with our atmosphere, and appear to us as shooting stars, while others, at supposed greater distances and less affected by the laws of gravitation, take up the course of a comet, and still others that of a planetary character with orbit and revolution round the sun.

If this theory of planetary construction be true, and it has the support of two of the ablest astronomers in history, La Place and Proctor, with the difference that the former adhered to the cosmic dust and nebulæ theory, the latter to the ejection method of creation from other planetary bodies, but leaving undetermined the question of power of a planetary body to throw off a portion of itself outside of its own power of gravitation.

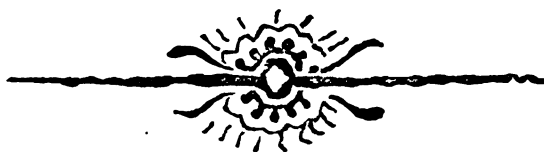
However this question may be settled, if it can be, beyond all doubt, the great plan or method of world-building or planetary construction, is governed by the same law of creation, whatever be the plan, for it is immutable and without change.

Therefore, by applying the same methods of construction to our own planet that prevails in others, our earth must be, like them, mainly solid, and I claim that the superficial crust theory and molten condition of the earth's center is without law or logic for its support.

JNO. MANSFIELD,

LOS ANGELES, January 6, 1891.

*Chairman.*



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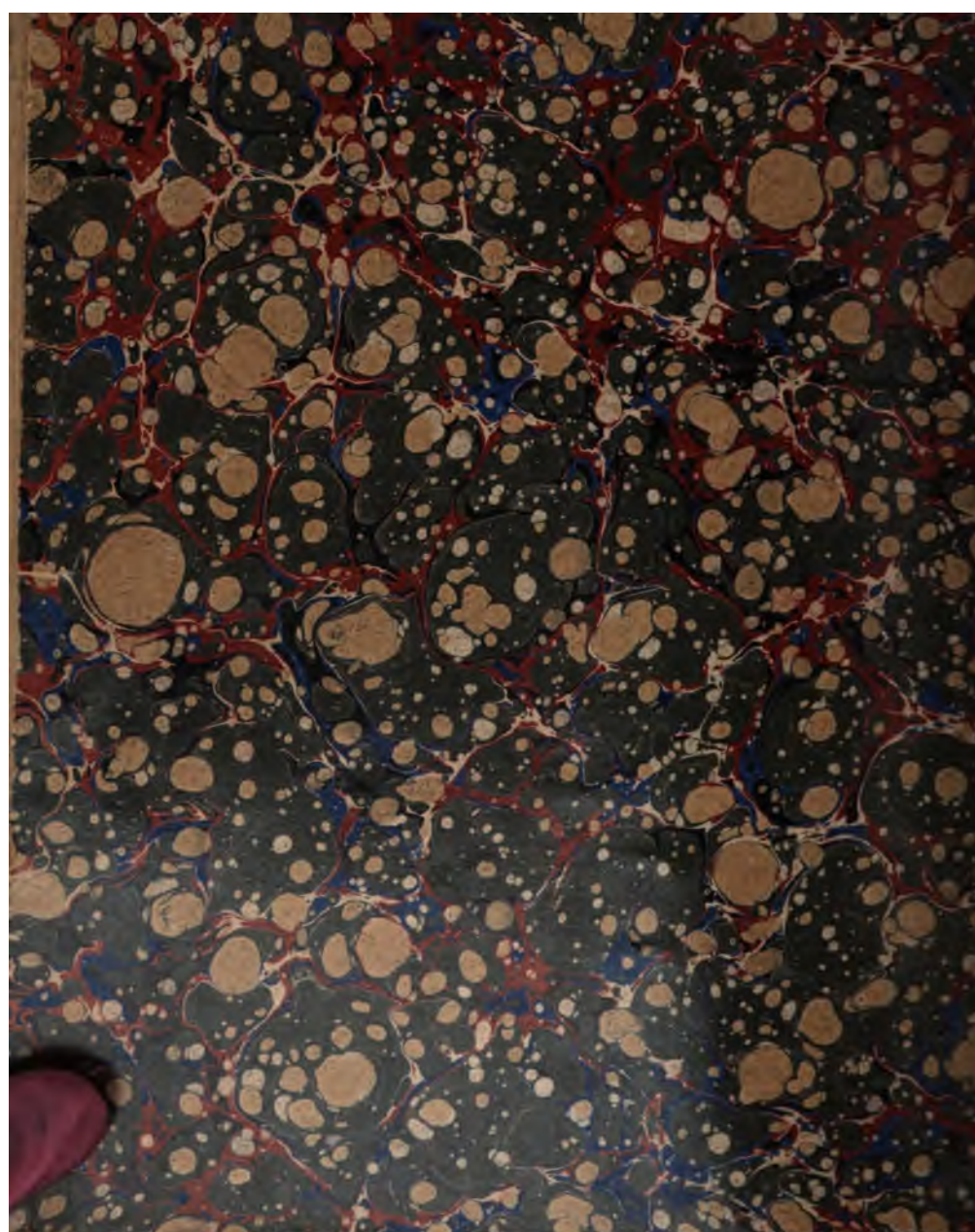












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