

Officers and Directors

W. L. FREVERT, PRESIDENT
~~W. S. WATERMAN, 1ST VICE-PRES.~~
 F. R. BURNHAM, 2ND VICE-PRES.
 J. S. AKERMAN, TREASURER
 GEO. W. MARSTON J. N. NEWKIRK
 L. MENDELSON A. STRAHLMANN
 L. L. BOONE A. F. DILL
 M. F. HELLER L. S. MCLURE, VICE-PRES.
 H. L. TITUS I. I. IRWIN
 L. BRINTON M. KLAUBER
 H. P. WOOD, SECRETARY

San Diego Chamber of Commerce

1519-1523 D STREET

SAN DIEGO, CALIFORNIA, April 30, 1903.

MAXIMUM AND MINIMUM TEMPERATURE

JAN. 1, 1888, TO JAN. 1, 1903

AT SAN DIEGO, CAL.

OFFICIAL RECORDS OF THE U. S. WEATHER BUREAU

WARM IN WINTER

NOV.		DEC.		JAN.		FEB.		MAR.		APRIL	
Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
75	46	73	44	64	33	67	42	72	41	93	47
83	46	69	40	78	36	85	37	80	45	83	47
91	46	79	47	66	35	77	38	74	41	85	45
82	44	72	32	76	35	70	34	76	41	77	44
84	40	71	36	75	38	68	42	73	44	80	41
83	40	82	38	80	38	75	40	75	40	78	43
78	45	70	41	69	32	69	34	72	36	83	43
85	38	79	34	77	36	82	39	74	38	81	44
76	43	78	66	77	39	83	39	85	41	74	42
83	45	80	36	73	40	76	38	70	40	88	46
76	43	79	43	78	36	75	42	77	38	86	45
81	50	80	46	74	43	76	34	86	44	93	46
89	51	79	44	79	46	76	45	80	46	67	45
80	49	76	35	75	40	83	44	82	47	66	46
74	42	74	40	81	36	71	39	76	43	69	47

COOL IN SUMMER

MAY		JUNE		JULY		AUG.		SEPT.		OCT.	
Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
70	52	76	54	77	55	82	57	82	58	80	53
80	50	72	56	84	59	89	62	91	54	80	52
75	46	93	51	80	56	89	58	83	60	90	49
67	53	78	53	88	58	85	60	80	55	84	50
87	47	75	51	75	57	80	57	80	54	83	46
88	49	75	53	79	57	81	59	77	53	88	50
72	45	73	50	77	57	90	55	90	52	87	45
80	51	77	51	74	57	78	54	90	54	84	54
98	48	89	54	80	56	88	59	80	54	79	52
67	50	70	54	79	59	89	60	83	58	76	51
69	51	88	54	77	60	83	63	91	56	81	51
66	48	70	55	78	57	76	58	92	55	93	48
75	49	87	56	84	60	80	59	87	53	72	50
67	51	86	53	74	57	79	58	87	56	96	51
78	50	76	52	76	55	79	60	73	56	71	52

Miss Ellen Scripps,

La Jolla, Cal.

Dear Miss Scripps:-

We have commenced to get things in readines for the Summer Biological School and find that various items of expense are coming in, to meet which we are compelled to call upon the subscribers to the fund contributed for this special purpose and if convenient we will be pleased to receive a check for your contribution (\$100.00).

A recent letter from Prof. Ritter states that he has been fortunate in securing a number of experienced workers and anticipates securing good results .

Very respectfully yours,

H. P. Wood
 Secretary.

The City of San Diego

Charmingly situated on the Bay of San Diego, has :

- 20,000 Inhabitants
- 15 Public Schools
- Good Private Schools
- State Normal School
- 24 Churches
- 3 Daily Papers
- 5 Banks
- Modern Stores
- Good Markets
- Tourist, Family and Commercial Hotels
- Many nicely kept Rooming Houses
- Reasonable priced Restaurants
- A large and handsome Theatre
- 36 Miles Cement Sidewalks
- 4 Miles Paved Streets
- 65 Miles Graded Streets
- Many near-by Points of Interest reached by beautiful drives
- A magnificent Park area, now being developed
- Abundant and Pure Water Supply.

For illustrated literature and information regarding San Diego City or County, write to

H. P. WOOD,
 Secretary Chamber of Commerce,
 San Diego, Cal.

SAN DIEGO BAY. Length, 13 miles. Area, 22 square miles. Area at depth of 18 feet, 3 3/4 square miles. Area at depth of 24 feet, 2.83 square miles. Area at depth of 30 feet, 1.36 square miles. Available anchorage, 6 square miles. Rise and fall of tide, 5 feet. Average width of channel, 800 yards. Depth of water over bar at low tide, 22 1/2 feet. The only harbor south of San Francisco.



Value of Exports to Foreign Countries.....	1895, \$108,048.00;	1900, \$2,009,345.00
Value of Imports from Foreign Countries.....	Nothing.	2,149,208.00

W. L. FREVERT, PRESIDENT
~~W. S. WATERMAN, 1ST VICE-PRES.~~
 F. R. BURNHAM, 2ND VICE-PRES.
 J. S. AKERMAN, TREASURER
 GEO. W. MARSTON J. N. NEWKIRK
 L. MENDELSON A. STRAHLMANN
 L. L. BOONE A. F. DILL
 M. F. HELLER L. S. MCLURE, VICE-PRES.
 H. L. TITUS I. I. IRWIN
 L. BRINTON M. KLAUBER

San Diego Chamber of Commerce

1519-1523 D STREET

SAN DIEGO, CALIFORNIA, May 6th, 1903.

H. P. WOOD, SECRETARY

MAXIMUM AND MINIMUM TEMPERATURE

JAN. 1, 1888, TO JAN. 1, 1903

AT SAN DIEGO, CAL.

OFFICIAL RECORDS OF THE U. S. WEATHER BUREAU

WARM IN WINTER

NOV.	DEC.	JAN.	FEB.	MAR.	APRIL
Max.	Max.	Max.	Max.	Max.	Max.
Min.	Min.	Min.	Min.	Min.	Min.
75 46	73 44	64 33	67 42	72 41	93 47
83 46	69 40	73 36	85 37	80 45	83 47
91 46	79 47	66 35	77 38	74 41	85 45
82 44	72 32	76 35	70 34	76 41	77 44
84 40	71 36	75 33	68 42	73 44	80 41
83 40	82 38	80 33	75 40	75 40	78 43
78 45	70 41	69 32	69 34	72 36	83 43
85 38	79 34	77 36	82 39	74 38	81 44
76 43	78 66	77 39	83 39	85 41	74 42
83 45	80 36	73 40	76 38	70 40	88 46
76 43	79 43	78 36	75 42	77 38	86 45
81 50	80 46	74 43	76 34	86 44	93 46
89 51	79 44	79 46	76 45	80 46	67 45
80 49	76 35	75 40	83 44	82 47	66 46
74 42	74 40	81 36	71 39	76 43	69 47

COOL IN SUMMER

MAY	JUNE	JULY	AUG.	SEPT.	OCT.
Max.	Max.	Max.	Max.	Max.	Max.
Min.	Min.	Min.	Min.	Min.	Min.
70 52	76 54	77 55	82 57	82 58	80 53
80 50	72 56	84 59	89 62	91 54	80 52
75 46	93 51	80 56	89 58	83 60	90 49
67 53	78 53	88 53	85 60	80 55	84 50
87 47	75 51	75 57	80 57	80 54	83 46
88 49	75 53	79 57	81 59	77 53	88 50
72 45	73 50	77 57	90 55	90 52	87 45
80 51	77 51	74 57	78 54	90 54	84 54
98 48	89 54	80 56	83 59	80 54	79 52
67 50	70 54	79 59	89 60	83 58	76 51
69 51	88 54	77 60	83 63	91 56	81 51
66 48	70 55	78 57	76 58	92 55	93 48
75 49	87 56	84 60	80 59	87 53	72 50
67 51	86 53	74 57	79 58	87 56	96 51
78 50	76 52	76 55	79 60	73 56	71 52

The City of San Diego

Charmingly situated on the Bay of San Diego, has:

- 20,000 Inhabitants
- 15 Public Schools
- Good Private Schools
- State Normal School
- 24 Churches
- 3 Daily Papers
- 5 Banks
- Modern Stores
- Good Markets
- Tourist, Family and Commercial Hotels
- Many nicely kept Rooming Houses
- Reasonable priced Restaurants
- A large and handsome Theatre
- 36 Miles Cement Sidewalks
- 4 Miles Paved Streets
- 65 Miles Graded Streets
- Many near-by Points of Interest reached by beautiful drives
- A magnificent Park area, now being developed
- Abundant and Pure Water Supply.

For illustrated literature and information regarding San Diego City or County, write to

H. P. WOOD,

Secretary Chamber of Commerce,
San Diego, Cal.

Miss G. B. Scripps,

La Jolla, Cal.

Dear Madam:-

We are in receipt of your check for \$100 covering amount of contribution for Biological work. We take pleasure in mailing you a marked copy of this morning's Union containing an extract from the Chronicle to hand yesterday, which will show that the University is going into the matter earnestly and that the prospects for the permanent establishment of the work on San Diego Bay are good.

Thanking you for your generous assistance in this matter, I remain

Respectfully yours,

J. S. Akerman Treasurer

Biological Committee S.D. Chamber of Commerce.

MAP OF SAN DIEGO & CORONADO BEACH



- REFERENCE**
- 1 Court House
 - 2 City Hall
 - 3 Post Office
 - 4 Public Library present site
 - 5 Public Library, New site
 - 6 Fisher Opera House
 - 7 Hotel Florence
 - 8 Hotel Brewster
 - 9 Horton House and Santa Fe R.R. Office
 - 10 Southern Pac R.R. Office
 - 11 Chamber of Commerce and Y.M.C.A.
 - 12 Santa Fe R.R. Depot & S.D.P. & L.J. R.R. Depot
 - 13 N.C. & O.R.R. Depot
 - 14 Coronado R.R. Depot
 - 15 S.D.C. & E. R.R. Depot

CITY PARK

1400 ACRES

BAY

PACIFIC OCEAN

AREA OF BAY 22 SQ. MILES.

Value of Exports to Foreign Countries.....	1895, \$108,048.00;	1900, \$2,009,345.00
Value of Imports from Foreign Countries	Nothing.	2,149,208.00

SAN DIEGO BAY. Length, 13 miles. Area, 22 square miles. Area at depth of 18 feet, 3 3/4 square miles. Area at depth of 24 feet, 2.83 square miles. Area at depth of 30 feet, 1.36 square miles. Available anchorage, 6 square miles. Rise and fall of tide, 5 feet. Average width of channel, 800 yards. Depth of water over bar at low tide, 22 1/2 feet. The only harbor south of San Francisco.



Value of Exports to Foreign Countries	1895, \$108,048.00;	1900, \$2,009,345.00
Value of Imports from Foreign Countries	Nothing.	2,149,208.00

Officers and Directors

W. L. FREVERT, PRESIDENT
 L. S. McLURE, 1ST VICE-PRES.
 F. R. BURHAM, 2ND VICE-PRES.
 J. S. AKERMAN, TREASURER
 HOMER H. PETERS J. N. NEWKIRK
 L. MENDELSON E. STRAHLMANN
 L. L. BOONE A. F. DILL
 M. F. HELLER M. KLAUBER
 H. L. TITUS I. I. IRWIN
 LEVIS BRINTON

H. P. WOOD, SECRETARY

THE BEST LOCATION FOR A HOME IN THE UNITED STATES

San Diego Chamber of Commerce

1519-1523 D STREET

SAN DIEGO, CALIFORNIA, Sept. 21, 1903.

MAXIMUM AND MINIMUM TEMPERATURE

JAN. 1, 1888, TO JAN. 1, 1903

AT SAN DIEGO, CAL.

OFFICIAL RECORDS OF THE U. S. WEATHER BUREAU

WARM IN WINTER

NOV.	DEC.	JAN.	FEB.	MAR.	APRIL
Max. Min.	Max. Min.	Max. Min.	Max. Min.	Max. Min.	Max. Min.
75 46	73 44	64 33	67 42	72 41	93 47
83 46	69 40	78 36	85 37	80 45	83 47
91 46	79 47	66 35	77 38	74 41	85 45
82 44	72 32	76 35	70 34	76 41	77 44
84 40	71 36	75 38	68 42	73 44	80 41
83 40	82 38	80 38	75 40	75 40	78 43
78 45	70 41	69 32	69 34	72 36	83 43
85 38	79 34	77 36	82 39	74 38	81 44
76 43	78 66	77 39	83 39	85 41	74 42
83 45	80 36	73 40	76 38	70 40	88 46
76 43	79 43	78 36	75 42	77 38	86 45
81 50	80 46	74 43	76 34	86 44	93 46
89 51	79 44	79 46	76 45	80 46	67 45
80 49	76 35	75 40	83 44	82 47	66 46
74 42	74 40	81 36	71 39	76 43	69 47

COOL IN SUMMER

MAY	JUNE	JULY	AUG.	SEPT.	OCT.
Max. Min.	Max. Min.	Max. Min.	Max. Min.	Max. Min.	Max. Min.
70 52	76 54	77 55	82 57	82 58	80 53
80 50	72 56	84 59	89 62	91 54	80 52
75 46	93 51	80 56	89 58	83 60	90 49
67 53	78 53	88 58	85 60	80 55	84 50
87 47	75 51	75 57	80 57	80 54	83 46
88 49	75 53	79 57	81 59	77 53	88 50
72 45	73 50	77 57	90 55	90 52	87 45
80 51	77 51	74 57	78 54	90 54	84 54
98 48	89 54	80 56	88 59	80 54	79 52
67 50	70 54	79 59	89 60	83 58	76 51
69 51	88 54	77 60	83 63	91 56	81 51
66 48	70 55	78 57	76 58	92 55	93 48
75 49	87 56	84 60	80 59	87 53	72 50
67 51	86 53	74 57	79 58	87 56	96 51
78 50	76 52	76 55	79 60	73 56	71 52

Miss Scripps,

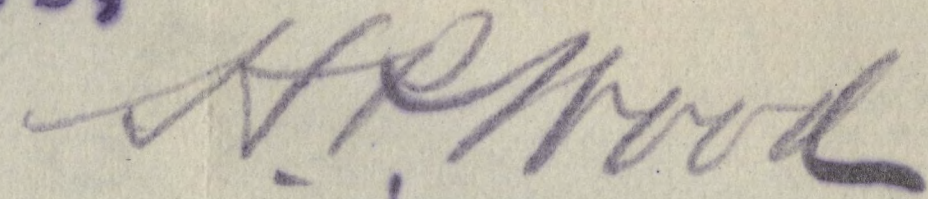
La Jolla, Cal.,

Dear Madam:-

Prof. W. E. Ritter of the California State University requests the pleasure of meeting you in the rooms of the San Diego Chamber of Commerce at 2 p.m. Thursday, Sept. 24th, at which time he will make some interesting statements concerning the University's summer biological work.

Important results are hoped for from this meeting and it is earnestly desired that you may be present.

Respectfully yours,



Secretary.

The City of San Diego

Charmingly situated on the Bay of San Diego, has:

- 20,000 Inhabitants
- 15 Public Schools
- Good Private Schools
- State Normal School
- 24 Churches
- 3 Daily Papers
- 5 Banks
- Modern Stores
- Good Markets
- Tourist, Family and Commercial Hotels
- Many nicely kept Rooming Houses
- Reasonable priced Restaurants
- A large and handsome Theatre
- 36 Miles Cement Sidewalks
- 4 Miles Paved Streets
- 65 Miles Graded Streets
- Many near-by Points of Interest reached by beautiful drives
- A magnificent Park area, now being developed
- Abundant and Pure Water Supply.

For illustrated literature and information regarding San Diego City or County, write to

H. P. WOOD,

Secretary Chamber of Commerce,
 San Diego, Cal.

UNIVERSITY OF CALIFORNIA
OFFICE OF THE PRESIDENT

Berkeley, August 17, 1903.

My dear Miss Scripps:--

In behalf of the Regents let me express the University's appreciation of your kind coöperation toward making possible the summer work of the Department of Zoölogy at the San Diego Marine Biological Laboratory. The conditions at San Diego for such research work were found to be exceedingly favorable. Professor Ritter reports that all things considered the summer's work was the most satisfactory of any that the department has yet carried on.

Very sincerely yours,

Miss Ellen B. Scripps,
La Jolla,
San Diego County,
California.

Benj. I. Wheeler.

San Diego, Cal. Sept: 30, 1903

Miss Ellen Scripps.

La Jolla, Cal.

Dear Miss Scripps:

At the called meeting of the Marine Biological Association of San Diego, held in the Chamber of Commerce rooms Sept. 26. at 8.00 P.M. you were elected Vice-President of the Association. The other officers elected were as follows:—

President— Mr. H. H. Peters.

Vice-President— Miss Ellen Scripps.

Scientific Director, Prof. Wm. E. Ritter.

Treasurer, Mr. Julius Waugenheim.

Secretary, Dr. Fred. Baker.

Trustee, Mr. E. W. Scripps.

" Mr. James McMullen.

The first three officers are ex-officio members of the Board of Trustees: the Secretary and Treasurer were added to it, so making with Mr. Scripps and Mr. McMullen, a full board of seven members.

I enclose a copy of the By-Laws as they were adopted. No

other business of importance was transacted.

Very respectfully,

Fred. Parker Secy.

Miramar, Cal., October 27th, 1903.

Mr. H. P. Wood,
Chamber of Commerce,
San Diego, Calif.

My dear Mr. Wood:-

I enclose you herewith letter addressed to my sister,
Miss Ellen B. Scripps, by Mr. H. H. Peters, dated Chicago October 12th, 1903.
I think Dr. Baker should have this letter, and that it should be submitted
to the Board of Trustees. I advise that no action be taken until Mr.
Peters' return home. Of course, I would be willing to be one of five
\$1000.00 men that he suggests.

Yours sincerely,

E. W. Scripps.

Enc

San Diego, Cal. Oct. 30, 1903

E. W. Scripps, Esq.
Miramar, Cal.

Dear Sir:-

Mr. Wood handed me last evening a letter from you enclosing one from Mr. Peters to Miss Ellen Scripps, the contents of which were duly noted. I will hold same on file, unless you desire it returned, until the arrival of Mr. Peters.

Mr. Peters has promised Dr. Ritter to come home by way of Berkeley, where I hope he may meet Pres. Wheeler and Prof. Loeb.

Very respectfully
Fred. Baker.

UNIVERSITY OF CALIFORNIA
DEPARTMENT OF ZOOLOGY
~~BERKELEY~~ Coronado

Dec. 29, 1903.

My dear Miss Scripps,

Since writing you yesterday morning I have found that a meeting of the board of trustees of the San Diego marine biological association may be called for Thursday. This being so I have decided to put off the collecting trip to La Jolla until Saturday. The tide on Saturday is lower than on Thursday too.

Counting on seeing you at the meeting of the board.

I am
yours very sincerely,
Wm. E. Ritter.

UNIVERSITY OF CALIFORNIA
DEPARTMENT OF ZOOLOGY
~~BERKELEY~~ Coronado

December 27, 1903.

Miss Ellen Scripps,
La Jolla, Calif.

Dear Miss Scripps,-

On Thursday next, the 31st, there is a good low tide and a number of our laboratory party plan to go to La Jolla collecting. The tide is low a little after noon, so we shall go over on the morning train, and I at least shall count on calling on you for a few minutes.

If your sister has returned from the East yet perhaps she would be willing to go collecting with us. I am sure she could help us should she be able to go.

Very sincerely yours,

Wm. E. Ritter.

DRS. BAKER & BAKER
1145 SIXTH STREET

SAN DIEGO, Cal Dec. 29, 1903

Miss Ellen Scripps,
La Jolla, Cal.

Dear Miss Scripps:

In company with Mr. St. H. Peters I visited the Biologists at Coronado yesterday, and it was decided to call a meeting of the Trustees at the earliest possible date. Mr. Wood undertook to communicate with your brother and yourself to learn what time would be convenient. I trust it may be possible for you both to be with us.

In view of the questions likely to arise, I send you herewith a copy of the report read by Prof. Ritter when the last general meeting was held.

Very respectfully,
Fred. Baker.

Prof Allen's Report to
Marine Biological Lab San Diego

REPORT OF PROFESSOR RITTER
TO THE
MARINE BIOLOGICAL ASSOCIATION OF SAN DIEGO.

-----:-----

"The time has not yet come for entering into details. I do, however, deem it important that the association should have before it in clear outline at the very first, what in my judgment the aims and policy of the proposed institution should be.

"A comprehensive investigation of the marine life and of the physical conditions under which it exists, of this immediate portion of the Pacific Ocean, should be the general aim. This means that the investigation would have to be systematic, continuous, and long continued. In other words it means organized as distinguished from individual, or unorganized effort. That is it means a staff of investigators sufficiently numerous and varied in special training to cover the various special problems that would be comprehended in the general aim.

"The point here of prime importance from the business side is, that it means money compensation for the investigators. It means a salaried staff.

"Now I suspect that the business members of the association, those, who could not be expected to be familiar with the subject of marine laboratories, will regard what I have said as the most natural thing to say---the policy indicated as the most natural

policy. Business men are accustomed to organization, and to seeing service paid for. They will not, consequently, perceive at once the real import of what I am proposing. The fact is, however, and it is this fact that makes me particularly desirous of being fully understood at the outset, that such ideas for a marine laboratory are a rather radical departure from those that have hitherto prevailed among American men of science, and with reference to American marine laboratories. The ideas that have determined the character of all American laboratories thus far have been quite different. These ideas have been in the first place, to provide a place where any investigator might go and find facilities and specimens for carrying on his own special investigations; and, in the second place, to provide a place for giving formal instruction to beginning students in biology.

"In other words, so far as investigation is concerned, the idea has been individual, consequently unorganized effort. This has meant instead of a salaried staff, individuals paying for the privilege of the laboratories. In other words instead of the investigators being an expense to the laboratory, they have been its chief source of income.

"The idea that I am putting forward as to aims and policy is rather that of the astronomical observatories than of the marine laboratories as they now exist. At the Lick Observatory, for example, to instance a familiar case, the paid staff of a dozen or more astronomers have differentiated and correlated their work to fulfill the aims of the observatory as an organized unit of astronomical research, and each works continuously at the problem or closely related group of problems that has fallen to

his hands.

"No marine laboratory in the United States, excepting those of the U.S. Fish Commission, which of course are special in aim, is in any such way, an organized unit of biological research. In the first place, with none of them is work continuous. Usually they are almost wholly deserted, if not in fact locked up, for most of the year. In the second place there is no coordinated effort in any of them. It might happen, so far as the policy of the laboratories is concerned, that every investigator would be working at the same problem at the same time.

"Such individual, unorganized work astronomical science has long ago passed beyond, a working astronomer closely in touch with all that is best and most recent in his science, said to me a short time ago, there can be no doubt whatever that biology, particularly marine biology, will very soon pass beyond this stage. Indeed the forward movement has already distinctly begun in Europe. The famous Naples Zoological Station has done something toward it, but the advance guard of the movement is the Liverpool Marine Biological Committee with its laboratory on the Isle of Man.

"One difference of very great importance between the organization of the astronomical observatories, and my present idea about the proposed San Diego biological institution is this: The observatories command the entire working time and strength of the astronomers, and consequently are obliged to pay them full salaries; i. e., the astronomers receive no regular compensation from any other source.

" My plan looks to a staff composed chiefly of biologists who are regularly connected with other institutions, mostly the universities, to which they give the larger share of their time and hence from which they receive the larger portion of their income. As members of the staff of the Institution they would receive pay in proportion to the time they devote to its work. That such a plan can be made to work with efficiency and economy both experience and observation clearly indicate.

"Does this idea of what the San Diego institution should be primarily, preclude the idea of its being a laboratory of the prevailing kind? By no means. Progress anywhere does not necessarily mean that the old condition or characteristics must be cast off and left behind, but rather that advance shall be made. The former traits may be carried along. Indeed some of them always are in the soundest progress. No single instrumentality whatever has contributed so much in the last 25 years to the promotion of biological research as have the marine laboratories of the type still prevalent, and their usefulness is by no means at an end.

"There is not the least reason why a station, or institution of the kind I am proposing should not likewise provide facilities for the individual worker. Indeed, it should be in a position to do this in a far more comprehensive and efficient way than the laboratory in connection with which no exploration is being systematically carried on.

"The Institution should look to the establishment of a public

aquarium and marine museum.

"Possibly too it may maintain a school for a period during the summer, after a time, though on this point I am by no means fully convinced.

"The Aquarium-museum should, in my opinion, while under the same Director and Board of Management as the laboratory, have its own funds, and be conducted with a large measure of independence of the laboratory. The board of management should take up the aquarium question at an early date.

Now as to what to do first to get the scientific work going. How much money ought we to have? How much must we have to do anything? And how shall we use what we have?

I want to present the following as foundation propositions that should be kept in view in all our consideration of financial questions, and of immediate procedure: The best interests of the undertaking demand that it should have the attention and good opinion of the scientific men of the country from the very outset. To assure these, two things are essential; first, that it shall be scientifically sound; and, second that it should be financially sound. Scientific soundness, as judged by scientific men, will depend upon the soundness of the underlying idea, and of the management to which the carrying out of this idea is committed. Financial soundness will depend upon the definiteness and certainty of the resources, rather than upon their magnitude.

It follows from this that if, in the judgment of the association, there should be a probationary period, the best plan would be a definite equipment, and a definite annual appropriation for

a specified term of years--two, three, four or five, as may be determined.

As a basis to work upon for determining what sums shall be available for each of these purposes, I may give you estimates that would place the operations on a good footing. Then it will remain for the association to go as far as it can toward reaching the mark indicated.

I have had the plans drawn by a responsible firm of engineers in San Francisco, for a vessel that would be adequate for doing everything we should want to do in depth of water not to exceed 400 or 500 fathoms.

The estimates for building and equipping this vessel complete in every respect except as to the scientific apparatus that would be necessary, as furnished by a ship builder, and the engineers, is \$11,550.

This then is about what it would cost to give us a new boat, amply large and first class in every essential respect.

Much good work could be done, however, with a considerably smaller and less expensive boat.

As to a laboratory building and its equipment, as long as the work were to be prosecuted in a tentative, or probationary way, I should certainly say that the least possible sum should be devoted to this purpose - for the building not more than a few hundred dollars a year.

The chief expenditure would be for operating expenses, running the boat and providing the salaries for the scientific investigators. To carry on a good range of work -- though by

no means the widest range possible -- I have items listed that would call for the annual expenditure of \$9,800.

Now here again, while this would give the Institution a good, though by no means full, working staff, a good amount of work could be accomplished on a smaller expenditure. The reduction could be effected by limiting still more the number of lines of work to be carried on, and by limiting also the amount of time given to each. A good deal could be done, for example, on \$5,000. a year.

My final word, then, for now is, if we are to have anything, let the sum be as large as possible, of course, but above all, let the sum be definite, certain, and for a specified period of time.

A. G. Spaulding
Bk. Lencer

A. H. Frost
3380 D St.

E. S. Babcock
Coronado Cal.

John Akerman
9, Pac Wood-Loaf
Co

San Diego, Calif.,

July 29, 1903.

Mr. E. W. Scripps,

Marina, Calif.,

My dear Mr. Scripps,-

I have been thinking a good deal about the marine aquarium-laboratory matter since the talk Professor Kofoid and I had with you on the subject the other day at your home, and both Kofoid and I have been to La Jolla today to look the ground over a little from this point of view.

I should much like to discuss the matter further with you before our work at Coronado comes to an end and we go north. I leave on Tuesday next, Aug. 4, and if you could give me see me before then, and would specify a time and place for meeting, I should be glad to conform myself to your convenience.

Mr. H. P. Wood, Secy. of the Chamber of Commerce of San Diego, who is, as you know, much interested in the laboratory, is, I understand, expected home on Saturday next. If it would be agreeable to you

I should be glad to have him visit you with

we should be able to do.

With the most pleasant remembrances to

our visit to your hills and trees, and with-
warmest regards to Mrs. Scripps, I am
Cordially yours,
Wm. E. Ritter.

Minutes of meetings

DRS. BAKER & BAKER

1145 SIXTH STREET

F U

Miramar ^{SAN DIEGO} Cal. Aug. 2^d 1903

There were present at an informal meeting held at the residence of E. W. Scripps, Esq. this day, for the purpose of considering the advancement of biological research, Prof. W. E. Ritter of the State University, Miss Edlen Scripps, Mr. E. W. Scripps and H. P. Wood.

In order to introduce the subject to the meeting Prof. Ritter read a report. After carefully discussing the report, it was the unanimous opinion that the plan outlined in the report was thoroughly practical, the financial requirements being looked upon as moderate. It was thereupon determined to form an association to be hereafter named, the object of which would be to promote the location of a Marine Biological Station in the vicinity of San Diego.

The following temporary organization was effected: Pres. Prof. W. E. Ritter, Vice-Pres. and Secretary Dr. Fred. Baker, Treasurer Mr. H. P. Wood.

Upon motion the Secretary and Treasurer were authorized to invite such citizens of San Diego, and others (ladies and gentlemen) as were likely to feel an interest in the work contemplated, to a general meeting for a thorough discussion of the plan.

Mr. E. W. Scripps deeming it desirable and necessary that

Minutes.

(2)

DRS. BAKER & BAKER

1145 SIXTH STREET

a fund should be raised to meet preliminary expenses, placed at the disposal of the Treasurer \$100⁰⁰. Miss Ellen Scripps giving a like amount. ^{SAN DIEGO.}

No further business being presented, the meeting adjourned subject to the call of the President or Vice-President.

Approved Sept. 24, 1903

San Diego Cal. Aug. 3. 1903

Mr. E. W. Scripps.

Miramar, Cal.,

Dear Sir:—

At the meeting of the Biological Com. of the Chamber of Commerce to hear the final report of Prof. Ritter on the work done at the Station during the summer. Prof. Ritter and Mr. Wood reported the action taken yesterday at Miramar, forming a definite organization to promote the establishment of a Marine Biological Station. We discussed carefully the calling of a meeting, and decided, subject to your approval, to postpone same until the arrival of Mr. Homer Peters who is said to be due here about the 20th.

It is important that Prof. Ritter should go to Berkeley at once to inaugurate his year's work, and when this is done he can return to be present at the meeting if necessary. In the meantime, if Mr. Peters's return is postponed too late to suit your convenience, we can call the meeting at any date that seems best. If this decision does not meet your approval, kindly notify me, and we will take such action as you may suggest.

Very respectfully

Fred. Baker.

UNIVERSITY OF CALIFORNIA
OFFICE OF THE PRESIDENT

Berkeley, August 15, 1903.

My dear Mr. Scripps:--

In behalf of the Regents let me express the University's appreciation of your kind coöperation toward making possible the summer work of the Department of Zoölogy at the San Diego Marine Biological Laboratory. The conditions at San Diego for such research work were found to be exceedingly favorable. Professor Ritter reports that all things considered the summer's work was the most satisfactory of any that the department has yet carried on.

Very sincerely yours,

Benj. I. Wheeler.

Mr. E. W. Scripps,
Miramar,
San Diego County,
California.

San Diego Chamber of Commerce

1519-1523 D STREET

SAN DIEGO, CALIFORNIA,

Aug 15 '03

Officers and Directors

W. L. FREVERT, PRESIDENT
 L. S. MCLURE, 1ST VICE-PRES.
 F. R. BURNHAM, 2ND VICE-PRES.
 J. S. AKERMAN, TREASURER
 L. MENDELSON J. N. NEWKIRK
 L. L. BOONE A. STRAHLMANN
 M. F. HELLER A. F. DILL
 H. L. TITUS M. KLAUBER
 I. I. IRWIN

H. P. WOOD, SECRETARY

MAXIMUM AND MINIMUM TEMPERATURE

JAN. 1, 1888, TO JAN. 1, 1903

AT SAN DIEGO, CAL.

OFFICIAL RECORDS OF THE U. S. WEATHER BUREAU

WARM IN WINTER

NOV.	DEC.		JAN.		FEB.		MAR.		APRIL		
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	
54.6	73.44	64.33	67.42	72.41	93.47	3.46	69.40	78.36	55.37	80.45	83.47
11.46	79.47	66.35	77.38	74.41	85.45	2.44	72.32	76.35	70.34	76.41	77.44
14.40	71.36	75.38	68.42	73.44	80.41	3.40	82.38	80.38	75.40	75.40	78.43
8.45	70.41	69.32	69.34	72.36	83.43	5.38	79.34	77.36	82.39	74.38	81.44
6.43	78.66	77.39	83.39	85.41	74.42	3.45	80.36	73.40	76.38	70.40	88.46
6.43	79.43	78.36	75.42	77.38	86.45	11.50	80.46	74.43	76.34	86.44	93.46
9.51	79.44	79.46	76.45	80.46	67.45	0.49	76.35	75.40	83.44	82.47	66.46
4.42	74.40	81.36	71.39	76.43	69.47						

COOL IN SUMMER

MAY	JUNE		JULY		AUG.		SEPT.		OCT.		
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	
70.52	76.54	77.53	82.57	82.58	80.53	70.50	72.56	81.59	89.62	91.54	80.52
75.46	83.51	80.56	89.58	83.60	90.49	37.53	78.53	83.58	85.60	80.55	84.50
37.47	75.51	75.57	80.57	80.54	83.46	32.49	75.53	79.57	81.59	77.53	88.50
72.45	73.50	77.57	90.55	90.52	87.45	30.51	77.51	74.57	78.54	90.54	84.54
98.48	89.54	80.56	88.59	80.54	79.52	57.50	70.54	79.59	89.60	83.58	76.51
89.51	88.54	77.60	83.63	91.56	81.51	66.48	70.55	78.57	76.58	92.55	93.48
75.49	87.56	84.60	80.59	87.53	72.50	67.51	86.53	74.57	79.58	87.56	96.51
78.50	76.52	76.55	79.60	73.56	71.52						

✱✱

The City of San Diego

harmfully situated on the Bay of San Diego, has:

- 20,000 Inhabitants
- 15 Public Schools
- Good Private Schools
- State Normal School
- 24 Churches
- 3 Daily Papers
- 5 Banks
- Modern Stores
- Good Markets
- Tourist, Family and Commercial Hotels
- Many nicely kept Rooming Houses
- Reasonable priced Restaurants
- A large and handsome Theatre
- 36 Miles Cement Sidewalks
- 4 Miles Paved Streets
- 65 Miles Graded Streets
- Many near-by Points of Interest reached by beautiful drives
- A magnificent Park area, now being developed
- Abundant and Pure Water Supply.

✱

For illustrated literature and information regarding San Diego City or County, write to

H. P. WOOD,

Secretary Chamber of Commerce,
 San Diego, Cal.

*Mr. Scripps Esq
 Miramar Cal
 Dear Sir*

Trans from of Aug 12

Containing cheque for 100⁰⁰ to be used only for the purpose of preparing for organization of Biological Institution and to be paid out on requisitions of Dr Fred Baker duly to hand. I will at once make a special deposit of the amount and try to assure you that your wishes will be respected.

Very truly yours

H. Wood

*Acting Treasurer
 Biological Institution*

SAN DIEGO BAY. Length, 13 miles. Area, 22 square miles. Area at depth of 18 feet, 3 3/4 square miles. Area at depth of 24 feet, 2.83 square miles. Area at depth of 30 feet, 1.36 square miles. Available anchorage, 6 square miles. Rise and fall of tide, 5 feet. Average width of channel, 800 yards. Depth of water over bar at low tide, 22 1/2 feet. Only harbor south of San Francisco.





E. W. Scripps, ca. 1903