owners have no further use, and will render them accessible to astronomers by the methods described above.

EDWARD C. PICKERING

January 19, 1907

## THE SEISMOLOGICAL SOCIETY OF AMERICA

The Seismological Society of America was incorporated under the laws of the state of California on February 13, with a board of directors as follows: George Davidson, president; Andrew C. Lawson, 1st vice-president; T. J. J. See, 2nd vice-president; Alex. G. McAdie, 3rd vice-president; J. N. Le Conte, treasurer; Geo. D. Louderback, secretary; Chas. Burckhalter, W. W. Compbell, C. Derleth, Jr., G. K. Gilbert, A. O. Leuschner, J. S. Ricard.

A letter has been issued, which says: In October 1891 there occurred in Japan what is now historically known as the Mino-Owari Earthquake. Over 7,000 people were killed, 17,000 injured, and 20,000 buildings destroyed. This disaster so impressed the people of Japan that a national movement resulted in the formation of a large general society for the study of earthquake phenomena. An earthquake investigation committee was appointed by the emperor. This committee has already published fifty volumes in Japanese and over twenty in foreign languages. Seventy-five stations have been provided with seismographs and over 1,500 stations report. As a result, Japan is now the foremost nation in activity of earthquake investigation and in devising and applying scientific methods of protection.

The earthquake of April 18, 1906, has brought home to us also the desirability of organization for similar purposes, with the hope that our labors may ultimately be of value to the people in protecting life and property. It is in this spirit that the Seismological Society has been organized. It aims to collect accurate information concerning the mode of action and effects of earthquakes, to establish and train a corps of reliable observers throughout the country, to disseminate the truth among the people, to inform them of the methods devised in various countries to

protect life and property, to supplant any element of terror or helplessness which results from imperfect knowledge by an interest in natural phenomena and a sense of security resulting from familiarity with the facts and the taking of reasonable precautions.

To be of general benefit the society must have a large membership, and the dues (\$2.00 per year, life membership \$25.00) have been placed low for this purpose. The society will inform its members from time to time as to the progress of its work and hopes in the near future to establish a regular series of publications.

Those who are in sympathy with the objects of the society are requested to communicate their desire for membership by writing to the secretary, Professor George D. Louderback, University of California, Berkeley, Cal.

## SCIENTIFIC NOTES AND NEWS

A SPECIAL act of congress, passed on February 27, authorized the president to appoint Lieutenant and Assistant Surgeon James Carroll, U. S. Army, a surgeon with the rank of major, in recognition of his important experimental work on yellow fever. The president at once approved this bill and sent the nomination to the senate, and it was confirmed promptly, so that Dr. Carroll is now a major in the Medical Department of the Army.

Dr. Frederick Remsen Hutton, for thirty years adjunct professor and professor of mechanical engineering at Columbia University and for six years dean of the faculty of applied science, will become professor emeritus on July 1 next. A suitable tablet commemorating Professor Hutton's services will be placed in the mechanical engineering laboratory.

Professor Le Roy C. Cooley will retire from the active duties of the chair of physics of Vassar College at the end of this year.

PRINCE ROLAND BONAPARTE has been elected a member of the Paris Academy of Sciences in the room of the late M. Bischoffsheim.

MR. JOHN HAYS HAMMOND has been nominated president of the council of the Amer-

ican Institute of Mining Engineers, which will hold its next meeting in New York City during April.

The sum of about \$16,000 has been subscribed toward purchasing the homestead of Mr. Alexander Graham Bell at Bradford, Ontario.

Captain Amundsen, the Norwegian explorer, who recently sailed through the Northwest Passage in the *Gjoa*, has lectured before several Paris scientific societies and has been made commander of the Legion of Honor. Captain Amundsen expects to visit the United States in the autumn.

Mr. Frank M. Chapman, curator of ornithology of the American Museum of Natural History, is engaged in making a collection for the museum of southern birds, especially of white herons in various stages of development.

A GRANT of \$500 has been made from the Hodgkins fund of the Smithsonian Institution, to Professor R. von Lendenfeld, of the Royal Zoological Institute at Prague, for an investigation of the organs of flight of Lepidoptera, Hymenoptera and Diptera. In this investigation the wings of the insects will be considered in their relation to mechanical flight, as well as from a purely morphological point of view.

THE Carnegie Institution has renewed its grant of \$1,000 to Professor Haskins, of Harvard University, for the exploration of documentary materials for Anglo-Norman history.

Mr. J. A. Fleming, of the department of terrestrial magnetism of the Carnegie Institution of Washington, is at present engaged in making magnetic observations in Central America.

Dr. Bradley M. Davis has resigned from the botanical department of the Marine Biological Laboratory and Dr. George T. Moore will be in charge next summer. Dr. Moore may be addressed at West Chester, Pa., until June 1, and after this date at Woods Hole, Mass.

PRESIDENT ELIOT spoke before the Canadian Club of Montreal, on February 22, on 'Advantages of Variety in Experiments on Free

Government.' On the same day he spoke at the annual dinner of the American University Men's Association in Montreal. On February 23 he spoke before the Canadian Club of Ottawa on 'The Way of Escape from Competitive Armaments.'

At Brown University lectures have been given by Professor Josiah Royce, of Harvard University, on 'Provincialism,' and by Professor E. C. Sanford, of Clark University, on 'The Rôle of the Different Senses in Mental Life.'

Professor E. F. Nichols, of Columbia University, lectured on March 12, before the Middletown Scientific Association, his subject being 'The Pressure due to Radiation.'

The Society for Ethical Culture has arranged for a course of free lectures on 'The Mental Life of Animals' to be delivered at the Ethical Culture building, Sixty-third Street and Central Park West, on the following dates: March 6—'The Behavior of the Lower Animals,' Professor H. S. Jennings, Johns Hopkins University; March 13—'Some Remarkable Instincts of Ants,' Professor W. M. Wheeler, American Museum of Natural History; March 20—'The Behavior of the Higher Animals,' Professor E. L. Thorndike, Teachers College, Columbia University. The lecture begins at 8:15 P.M.

In view of the death of Professor Charles Edward Garman, of Amherst College, Professor Frederick J. E. Woodbridge, of Columbia University, will give a series of lectures before the department of philosophy during the spring term.

Professor John Krom Rees, since 1881 professor of geodesy and astronomy and director of the Observatory of Columbia University, died on March 9, in his fifty-sixth year. Professor Rees had been ill for several years and had recently been made professor emeritus.

Professor Henry Davis Todd, U. S. N. (retired), died at Annapolis, on March 8, at the age of sixty-nine years. Professor Todd served through the civil war with distinction and became head of the Department of Physics

and Chemistry at Annapolis in 1878. From 1886 to 1899, he was assistant on the Nautical Almanac, and was director from 1899 to 1900, when he was retired.

M. Henri Moissan, professor of general chemistry at the Sorbonne and director of the Institute of Applied Chemistry, known especially for his work on fluorine and with the electric furnace, died at Paris, on February 20, at the age of fifty-five years.

Dr. Schreiber, of the Russian Army, died at Kronstadt on March 7, from the bubonic plague, which he contracted while carrying on experiments with bacilli at the Alexander Laboratory. Dr. Pedlevsky, who was working in the same laboratory, has also contracted the disease.

Dr. Alfred Kirchhoff, emeritus professor of geography, University of Halle, died on February 8, aged sixty-eight years.

The death is announced of Mr. Henry Chamberlain Russell, F.R.S., government astronomer of New South Wales since 1870, at the age of seventy-one years.

THE New York assembly on March 5 passed the Young bill, which provides for the establishment of a nautical museum and observatory in Bronx Park, New York.

PRESIDENT ROOSEVELT on March 2 signed proclamations creating or increasing thirtytwo forest reserves in various western states. The agricultural appropriation bill, then pending, contained a provision that such reserves should not be established except by act of congress. The president believed that if such a law were made, important timber lands would be largely dissipated before congress had an opportunity to consider the matter, while under the action taken they will be preserved. In a memorandum he says that these reserves were determined on and the preparation of the necessary papers ordered some months ago-in two thirds of the cases some years ago.

An expedition from the Desert Laboratory of the Carnegie Institution of Washington conducted by Dr. D. T. MacDougal has recently circumnavigated the Salton Sea in a

This lake was found to have a length of over fifty miles and an area of nearly seven hundred square miles. Although the break in the banks of the Colorado River from which the main channel leads to the lake was closed on February 10, yet minor channels and seepage poured sufficient water in the lake to maintain its level during the month following at the maximum depth. is therefore to be expected that the present level may be retained for some time, and that the evaporation may not exceed the inflow by as much as fifty inches during the present Five stations were located and suryear. veyed for the study of the reoccupation of the basin by vegetation as the lake recedes. second sunken basin south of the Salton and lying between the Cucopa Mountains and the main range of Baja California in Mexico was traversed by wagon, skirting the shores of a lake which partially fills it. This basin seems to be subject to more frequent overflow from the delta, and during 1905 a lake thirty miles long and fifteen wide was formed, which has now shrunken to a third of the dimensions Some important material and data bearing upon the plants and animals living in saline waters, hot springs and clay deserts were obtained.

The Seventh International Zoological Congress, to be held in America, has established a section of heredity. Dr. Chas. B. Davenport, Cold Spring Harbor, L. I., N. Y., as secretary of this section, solicits from investigators in the subject, titles of papers which they would like to present to the section.

THE next meeting of the American Electrochemical Society will be held at the University of Pennsylvania on May 2, 3 and 4, under the presidency of Mr. Carl Hering.

The second congress of the International Surgical Society will be held in Brussels in September, 1908, under the presidency of Professor Czerny of Heidelberg.

According to press dispatches the Argentine Antarctic ship *Uruguay*, which left Buenos Ayres on January 29, 1906, has arrived at Scotia Bay, South Orkney Islands, after a perilous voyage, during which she encountered

hundreds of icebergs and heavy pack-ice and sustained considerable damage. The Scotia Bay station was established by the Scottish Antarctic expedition of five years ago, and was taken over in 1905 by the Argentine Government, which is continuing the meteorological and magnetic observations begun by the Scottish expedition.

The Journal of the American Medical Association states that it is almost settled that the Ontario Medical Library Association, the Toronto Clinical Society, the Toronto Medical Society and the Toronto Pathological Society will merge into the Academy of Medicine, Toronto. The academy will be managed by a council of twelve, and the first council will be composed of the officials of the Ontario Library Association and the presidents and secretaries of the other three societies. These will choose their own officers, while succeeding councils will be composed of nineteen members. The academy has a house in Queen's Park, and a library and auditorium to cost \$50,000 will be added. Dr. J. F. W. Ross is president of the Ontario Medical Library Association; Dr. H. B. Anderson, of the Toronto Clinical Society; Dr. R. D. Rudolf, of the Toronto Medical Society, and Dr. J. A. Amyot, of the Toronto Pathological Society.

## UNIVERSITY AND EDUCATIONAL NEWS

COLUMBIA UNIVERSITY has received a gift of \$30,000 from an anonymous source to be used for pressing needs of the university.

Mr. Andrew Carnegie has offered \$50,000 toward the building fund of the McGill University College of British Columbia, conditional on a similar sum being collected.

Announcement is made that a graduate school of agriculture will be conducted at Cornell during the summer of 1908, under the management of the Association of American Agricultural Colleges and Experiment Stations. Sessions were held at the Ohio State University in 1904, and at the University of Illinois in 1906.

Various bills have been introduced in the Massachusetts legislature, which would tax the

residences of college and university professors owned by the institutions. One of these bills provides for reimbursing the town or city by the state. President Eliot and other representatives of universities and colleges were expected to appear before the legislative committee on taxation on March 13.

A course in anthropology was offered at Minnesota for the first time last autumn by Professor A. E. Jenks, then beginning work in the department of sociology, and it was elected by six students. The course was offered again the second semester, beginning on February 4, and has been elected by eighty-three students. An advanced course was also offered the second semester which has been elected by eighteen students.

THE trustees of Columbia University at their last meeting promoted a number of officers of instruction, including the following: From adjunct professor to professor-Earl B. Lovell, civil engineering; Henry C. Sherman, chemistry. From lecturer to professor—Dickinson S. Miller, philosophy. From instructor to adjunct professor-William Campbell, metallography; William P. Montague, philosophy; James H. McGregor, zoology. From tutor to instructor—Tracy E. Hazen, botany; Floyd J. Metzger, chemistry; Charles P. Berkey, geology; Bergen Davis, physics: Cavalier H. Jouet, chemistry; Victor J. Chambers, chemistry. From lecturer to tutor—Samuel R. Williams, physics; Pauline H. Dederer, zoology. From assistant to tutor -William N. Berg, physiological chemistry; Marion E. Latham, botany.

MR. WILLIAM SPENS, B.A., has been elected director of natural science studies and fellow of Corpus Christi College, Cambridge.

Professor Josef Pompeckel, recently called to Königsberg, has now accepted the chair of geology and mineralogy at Göttingen, as successor of Professor von Koenen.

Errata: In Science xxv., p. 293, second column, the fourth word of line 12 should be spikelets, the fifth word ligule. In line 18, the first word should be Commutata.