

carefully, how the usefulness and value of the Smithsonian Institution and its allied bureaus could be improved, and offered the following resolutions:

The secretary shall nominate, and by and with the advice and consent of the board of regents, shall appoint the heads of the various bureaus supported by Congress under the direction of the Smithsonian Institution—to wit—the National Museum, the Bureau of American Ethnology, the National Zoological Park, the Bureau of International Exchanges, and the Astrophysical Observatory.

The secretary shall have power to fill up all vacancies that may happen in these offices during the intervals between meetings of the board, by granting commissions which shall expire at the next meeting of the board of regents.

The head of each bureau shall nominate, and by and with the advice and consent of the secretary, shall appoint the subordinates in the bureau under his charge.

The heads of the bureaus shall be termed directors; and the board of regents hereby creates the offices of director of the National Museum, director of the Bureau of American Ethnology, director of the National Zoological Park, director of the Bureau of International Exchanges and director of the Astrophysical Observatory, and instructs the secretary to fill these offices by temporary appointment to expire at the next meeting of the board, when nominations shall be presented for confirmation by the board.

There was no time for adequate discussion of these resolutions and it was believed by all the members that the subject was of too great importance to be passed upon at once by the board. Judge Gray thought that the resolutions should be examined and reported upon by a committee, before asking the board for a decision, and suggested that they might be referred to the committee having under consideration the definition of the powers and duties of the executive committee, for a report. Dr. Bell thereupon withdrew his motion, and moved to refer the resolutions to the committee as suggested by Judge Gray, and this motion was adopted by the board.

The question of the disposition of the remains of James Smithson, the founder of the Smithsonian Institution, then came up for consideration. It will be remembered that

the regents had been notified that the body of James Smithson would have to be removed from his grave, in order to make room for a quarry, and that the regents had decided that the remains should be transferred from the cemetery in Genoa, Italy, where they now rest, to another cemetery in the same city. Dr. Bell offered to have the remains removed to this country at his expense, if the regents would take charge of them upon their arrival, and in view of this proposition he moved a reconsideration of the decision of the board relating to the disposition of the body. The regents seemed to be very favorably impressed with the proposition, and in view of the fact that there was no immediate necessity for the removal of the grave, and that no time remained for discussion of the matter, the resolution was allowed to lie over to be acted upon at the next meeting of the board in December. The meeting then adjourned.

SCIENTIFIC NOTES AND NEWS.

THE National Academy of Sciences will hold its annual stated meeting at Washington beginning on Tuesday, April 17.

THE American Philosophical Society will hold at Philadelphia a general meeting on April 2, 3 and 4. The preliminary program contains the titles of thirty-one papers, including one by President Daniel C. Gilman, on 'The Carnegie Institution during the first year of its development,' and one by Dr. W. H. Welch on 'The objects and aims of the Rockefeller Institute for Medical Research.' The sessions will be held in the hall of the society beginning in the morning at 10:30 and in the afternoon at 2. Luncheon will be served to members on each day; there will be a reception to members and ladies accompanying them on Thursday evening, and visiting members will be the guests of resident members on Friday evening.

PRESIDENT ROOSEVELT has appointed the following as a commission to report to him on the organization, needs, and present condition of government work, with a view to including under the Department of Commerce bureaus not assigned to that department by congress:

Charles D. Walcott, Department of the Interior; Brigadier-General William Crozier, War Department; Rear-Admiral Francis T. Bowles, Navy Department; Gifford Pinchot, Department of Agriculture; James R. Garfield, Department of Commerce and Labor.

THE Carnegie Institution, on the recommendation of the advisory committee on geophysics, has appropriated \$6,000 to be expended under the direction of Dr. T. C. Chamberlin, of the University of Chicago, in research relative to fundamental problems in geology. The investigation will consist of a joint mathematical, astronomical, physical, chemical and geological inquiry into certain phases of the earth problems that lie in the common domain of these sciences. Dr. F. R. Moulton, of the department of astronomy of the University of Chicago; Professor C. S. Slichter, of the department of mathematics of the University of Wisconsin; Professor L. M. Hoskins, of the engineering department of Leland Stanford University; Professor Julius Stieglitz, of the department of chemistry, and Mr. Lunn, of the department of mathematics of the University of Chicago, will participate in the inquiry.

THE French Academy of Moral and Political Sciences has elected Professor E. Caird, master of Balliol College, Oxford, a corresponding member of the philosophic section.

M. BIGOURDAN, astronomer at the Paris Observatory, has been appointed a member of the Bureau of Longitude in the room of the late M. Faye.

PRESIDENT ROOSEVELT has appointed a board of visitors to the Naval Academy for the coming year as follows: Dr. Henry S. Pritchett, Massachusetts Institute of Technology; Professor H. C. Ellis, of Texas; Mr. Lewis Nixon, of New York; Rear-Admiral George Brown, U.S.N., retired, of Indiana; Captain A. T. Mahan, U.S.N., retired, of New York; Lieutenant R. M. Thompson, U.S.N., retired, of New Jersey; and Mr. John R. Procter, of Kentucky, civil service commissioner.

THE Carnegie Institution has made an appropriation to Dr. J. E. Duerden to assist him

in his investigations on the morphology of recent and fossil corals. The studies were commenced while Dr. Duerden was curator of the museum, Jamaica, B. W. I., and have been continued at the Johns Hopkins University and the American Museum of Natural History, New York. The principal results thus far are contained in a series of four papers published in the *Annals and Magazine of Natural History*, and in a *Memoir* of the National Academy of Sciences just issued.

DR. ALEXANDER GRAHAM BELL entertained the board of managers of the National Geographic Society, of which he is president, at dinner on the evening of March 14. It is reported that Mr. Ziegler has invited the National Geographic Society to send a representative without cost to the society on the Arctic expedition that he is planning.

PROFESSOR WILLIAM BEEBE, of the mathematical department of Yale University, is at present in Italy.

PROFESSOR BARULA, the zoologist of the Baron Toll expedition, who left the expedition's yacht *Saria* in May with three others to engage in scientific research in New Siberia, has arrived at Irkutsk, eastern Siberia.

PROFESSOR R. H. THURSTON, director of Sibley College, Cornell University, gave a lecture before the New York Electrical Society on March 18, the subject being 'The Steam-turbine to date.'

CONGRESS has passed a bill appropriating \$125 per month during her lifetime as a pension to Mrs. Emily Lawrence Reed, widow of the late Major Walter Reed, U.S.A., whose important investigations on yellow fever at Havana are well known.

THE death is announced of M. Alexis Rousset, the explorer, at Cape Lopez, in the Gulf of Guinea. He was returning from an expedition in the Shari region, where he had discovered and mapped a shorter route through the Tafa region, between Lake Chad and the Congo basin.

STANFORD UNIVERSITY has secured the library of the late Mr. Konrad, chief hydraulic engineer of the Netherlands.

THE German emperor has approved of a plan for founding an institute for advanced medical education in Berlin as a memorial to the late Empress Frederick.

SENATOR WM. A. CLARK, of Montana, has contributed \$250 for the furtherance of the investigations being carried on by the University of Montana Biological Station at Flathead Lake, under the direction of Professor Morton J. Elrod. This is his fifth contribution for this purpose.

THE consul-general for Mexico in Liverpool has received official notification that the Mexican government proposes to give an annual grant of money to the Liverpool School of Tropical Medicine, in whose operations from its formation they have taken a deep interest.

THE London Epidemiological Society held a meeting on February 25 for the discussion of the possible spread of yellow fever to Asia by way of the Panama canal. The discussion was opened by Dr. Patrick Manson, medical adviser to the Colonial Office. A committee was appointed to cooperate with American societies in drawing the attention of the governments of Great Britain and the United States to the question.

PROFESSOR RUSSELL H. CHITTENDEN, director of the Sheffield Scientific School of Yale University, has arranged the Thirty-Seventh Annual Course of Sheffield Lectures, which are now being delivered on Friday evenings, at 8 P.M. Following is the list of lectures, with their subjects:

'Mont Pelée and the Tragedy of Martinique': Professor ANGELO HEILPRIN, of the Academy of Sciences, Philadelphia.

'Storms and Weather Phenomena': Professor WILLIS L. MOORE, Chief of the U. S. Weather Bureau, Washington.

'Peary's Progress to the Pole': Mr. HERBERT L. BRIDGMAN, of Brooklyn, N. Y.

'Our Isthmian Canal': General HENRY L. ABBOTT, of the U. S. Army, Retired, Cambridge.

'Household Art in Japan': Professor EDWARD S. MORSE, of Salem.

'Recent Astronomical Photography': Mr. GEORGE W. RITCHEY, of Chicago University and the Yerkes Observatory.

'Modern Methods and Results of Exploration for Dinosaurs': Professor HENRY F. OSBORN, of Columbia University.

'The Discovery of the Use of the Arteries; or Experiment vs. Subtlety in Biology': Professor JOHN G. CURTIS, of Columbia University.

'The Medicine-Man': Professor ALBERT G. KELLER, of Yale University.

'Professional Codes of Ethics': Professor ROSSITER W. RAYMOND, Secretary of the American Institute of Mining Engineers.

'The Land of Ophir': Professor JOHN HAYS HAMMOND, of the Sheffield Scientific School.

THE following cablegram has been sent from Great Britain to the daily papers: Lord Lister has communicated to the Royal Society a paper by Dr. Allan Macfadyen, director of the Jenner Institute of Preventive Medicine, setting forth a prophylactic and curative treatment for typhoid fever. Dr. Macfadyen found that by crushing the microscopic cells of the typhoid bacillus in liquid air the cellular juices can be obtained apart from the living organism and that these juices are highly toxic. By injecting them in small, repeated doses into living animal its blood serum is rendered powerfully anti-toxic and bactericidal; that is to say, it becomes an antidote alike to living typhoid bacteria and to the poison that may be extracted therefrom. Dr. Macfadyen explains the application of the serum to animals and details his various experiments which showed that the serum is a curative of typhoid as well as a protective against infection. The Jenner Institute is now investigating the juices of other bacteria. If its experiments prove, as is expected, that bacterial juices in general react upon the animal organism in the same way as on the living bacteria which produce them, the fact will profoundly influence medical speculation and practice. Regarding the crushing of bacteria the question naturally arises, by what unimaginable accuracy of grinding can these infinitesimal organisms be broken so as to release their intercellular toxins. The crushing of the bacilli is done in liquid air because when thus frozen hard they become brittle and, notwithstanding their almost inconceivable minuteness, can be completely broken up by trituration and will under no subsequent conditions show a sign of bacterial growth.