

been demonstrated valuable and practicable for elementary education.

Its membership consists of teachers and others who are interested in nature-study for schools and whose applications for membership have been approved by the council. The annual membership fee is one dollar, payable before February 1, or upon election to membership in case of new members.

The council for 1908 consists of the following officers:

President—L. H. Bailey, Cornell University.

Vice-presidents—C. F. Hodge, Clark University; F. L. Stevens, North Carolina College of Agriculture; V. L. Kellogg, Stanford University; W. Lockhead, Macdonald College, Quebec; F. L. Charles, DeKalb (Ill.) Normal School.

Secretary-Treasurer—M. A. Bigelow, Teachers College, Columbia University.

Directors (for two years)—D. J. Crosby, U. S. Department of Agriculture; C. R. Mann, University of Chicago; S. Coulter, Purdue University; H. W. Fairbanks, Berkeley, Cal.; M. F. Guyer, University of Cincinnati; (for one year)—O. W. Caldwell, University of Chicago; G. H. Trafton, Passaic, N. J.; F. L. Clements, University of Minnesota; Ruth Marshall, University of Nebraska; C. R. Downing, Marquette (Mich.) Normal School.

The constitution adopted provides for an official monthly journal to be published under the direction of the council; and the well-established journal of nature-study, *The Nature-Study Review*, will be transferred to the society. The annual subscription price (\$1.00) of this journal is included in the membership fee of the society (\$1.00) provided that this fee is paid in advance; but subscribers to *The Review* are not enrolled as members of the society unless elected after filing application. For the purpose of stimulating local interest, sections of the society will be organized in various states and cities. Annual meetings will be held, usually in connection with the national scientific or educational societies. A directory of members will soon be published and revised annually.

The Chicago meeting was well attended by scientific men and dozens of others who were unable to be present expressed great interest in the movement. It is very important that

at least one hundred fellows of the American Association for the Advancement of Science should be enrolled as members of the American Nature-Study Society. Their influence is greatly needed in the Nature-Study Society, directly, and indirectly, in establishing desirable relations with the American Association for the Advancement of Science.

For full information concerning the society, or in sending in applications for membership, address M. A. Bigelow, Secretary, Teachers College, New York City.

SCIENTIFIC NOTES AND NEWS

M. HENRI POINCARÉ, the eminent mathematician, has been elected a member of the French Academy, in the place of the late M. Berthelot.

THE Bruce gold medal of the Astronomical Society of the Pacific has been awarded to Professor Edward C. Pickering, director of Harvard College Observatory, for distinguished services to astronomy. This is the seventh award of the medal, the earlier medalists being Professor Simon Newcomb, Professor Arthur Auwers, Sir David Gill, Professor G. V. Schiaparelli, Sir William Huggins and the late Professor Hermann Carl Vogel.

THE council of the Royal Society of Arts has awarded the gold medal of the Shaw trust for industrial hygiene to Professor W. Gallo-way, in recognition of his researches into the action of coal dust in colliery explosions.

M. BOUQUET DE LA GRYE has been elected president of the Bureau des Longitudes for 1908, M. Poincaré vice-president and M. Bigourdan secretary.

DR. C. CHREE, F.R.S., has been elected president of the Physical Society of London.

THE University of Edinburgh purposes to confer its doctorate of laws on Sir Norman Lockyer, director of the Solar Physics Observatory, South Kensington, and editor of *Nature*.

THE jubilee of Calcutta University will be celebrated on March 14, when the degree of doctor of science will be conferred as follows:

The Hon. Dr. Justice Mukerjee, vice-chancellor of the Calcutta University; Professor A. Schüster, F.R.S.; the Rev. Father E. Lafont, S.J., C.I.E., late rector of St. Xavier's College, Calcutta; Mr. T. H. Holland, F.R.S., director of the Geological Survey of India; Dr. G. Thibaut, C.I.E.

MR. NORMAN TAYLOR, who has been an aid in the New York Botanical Garden for several years, has been appointed custodian of the plantations.

MR. BENJAMIN KIDD has been appointed to deliver the Herbert Spencer lecture for 1908 before the University of Oxford in May or June next. Three lectures have already been given, namely, in 1905 by Mr. Frederic Harrison, in 1906 by Mr. Auberon Herbert and in 1907 by Mr. Francis Galton, F.R.S.

At the Royal Institution on March 7, Professor J. J. Thomson, of Cambridge University, gave the first of six lectures on "Electric Discharges through Gases."

PROFESSOR HANS GADOW, of the University of Cambridge, England, will give a series of six illustrated lectures at the University of Illinois from March 16 to 21. The general subject of the lectures will be "Coloration of Amphibians, Reptiles and Birds."

THE anniversary meeting of the Geological Society of London was held on February 21, when officers were elected as follows: President, Professor W. J. Sollas, F.R.S.; vice-presidents, Mr. Frederick W. Rudler, I.S.O., Dr. Aubrey Strahan, F.R.S., Dr. J. J. H. Teall, F.R.S., and Dr. A. Smith Woodward, F.R.S.; secretaries, Professor E. J. Garwood and Professor W. W. Watts, F.R.S.; foreign secretary, Sir Archibald Geikie, F.R.S.; treasurer, Mr. Horace W. Monckton, F.L.S. The following awards of medals and funds were made in accordance with the announcement already made: The Wollaston medal to Professor Paul von Groth, of Munich; the Murchison medal to Professor A. C. Seward; the Lyell medal to Mr. Richard Dixon Oldham; the Wollaston fund to Mr. H. H. Thomas; the Murchison fund to Miss Ethel G. Skeat; and the Lyell fund to Mr. H. J. Osborne White and Mr. T. F. Sibby.

THE second in the series of university lectures at Western Reserve University was given by President Charles Sumner Howe, of the Case School of Applied Science, on March 3. President Howe's subject was "The more recent developments in astronomy."

ON the evening of March 6, Professor George B. Shattuck, of Vassar College, lectured before the Stamford Scientific Society on "A Cruise in the West Indies."

DR. LEROY McMASTER, of Washington University, gave a lecture on the "Detection of Ozone, Nitrogen Peroxide and Hydrogen Peroxide in Gas Mixtures" at the monthly meeting of the St. Louis Section of the American Chemical Society, held on February 10 at the Academy of Science building, St. Louis.

HARVARD UNIVERSITY has received \$9,753.64, representing the subscriptions of sixty-two friends of the late Professor Charles Follen Folsom, of the Medical School. At the desire of the subscribers the money is to be used to found in the medical school a teaching fellowship in hygiene or mental diseases, the incumbent to receive the income of the fund. Additional subscriptions not yet paid in will increase the fund by \$1,430 within the next year. Professor Folsom graduated from the university in 1862 and until 1885 was a teacher in various capacities in the medical school. From 1891 to 1903 he was a member of the board of overseers.

At the commemoration day exercises of Johns Hopkins University, on February 22, a portrait of Henry Newell Martin, formerly professor of biology, was presented to the university by his old students. The presentation speech was made by Dr. William H. Howell, dean of the medical school.

DR. D. B. ST. JOHN ROOSA, president of the Post-graduate Medical School of New York City, known for his work on diseases of the eye and ear, died on March 8, at the age of seventy years.

MR. W. A. SHENSTONE, F.R.S., senior science master at Clifton College, known for his researches in chemistry, has died at the age of fifty-eight years.

PROFESSOR IVAN STOŽIR, founder and formerly director of the Royal Meteorological Observatory at Agram, Hungary, died on February 12.

A CONFERENCE of imperial and colonial meteorologists has been convened by the Royal Society of Canada, to meet at Ottawa in May.

THE Prehistoric Society of France will hold its annual meeting at Chambéry from August 24 to 30.

THE Second Congress of the American School Hygiene Association will convene in Atlantic City, New Jersey, on April 17 and 18, 1908. A program is being prepared which includes papers on legislation relative to school hygiene; medical and sanitary inspection of schools and school children; treatment following the medical inspection of school children; nursing systems in public schools; and other subjects of allied nature. Papers have been promised by Dr. Martin Friedrich, health officer, Cleveland, Ohio; Dr. John J. Cronin, assistant chief medical inspector, New York City; Dr. C. Ward Crampton, assistant physical director, public schools, New York City; Joseph P. Chamberlain, lawyer, San Francisco; R. C. Sturgis, chairman, schoolhouse committee, Boston; Dr. Adolf Meyer, director Pathological Institute, State Commission in Lunacy, New York; Dr. Henry D. Holton, secretary, State Board of Health, Vermont; Dr. George L. Meylan, adjunct professor of physical education, Columbia University; Joseph Lee, Boston; A. C. Vandiveer, counsel, Medical Society, County of New York; Dr. Charles Harrington, secretary, Massachusetts State Board of Health; Samuel G. Dixon, commissioner of health, Harrisburg, Pennsylvania; Dr. Myles Standish, professor of ophthalmology, Harvard Medical School, and Hon. Curtis Guild, Jr., governor of Massachusetts.

ACCORDING to *Terrestrial Magnetism and Atmospheric Electricity* the superintendent of the Coast and Geodetic Survey has decided to continue the operation of the magnetic observatory at Baldwin, Kansas, which it had been the intention to discontinue at the end of the year 1907. On account of the useful-

ness and the needs of continuous magnetic records in this region of the United States it is proposed now to continue the Baldwin observatory until it is possible to construct and establish another observatory in its place somewhere west of the Mississippi River.

WE learn from the *Journal of the American Medical Association* that a delegation of 200 members of the Medico-Chirurgical Faculty of Maryland was given a public hearing on February 12 by the legislature at Annapolis, to urge the passage of the bill asking for an appropriation of \$100,000 for the erection of a public-health institution and medical library building in Baltimore. Speeches were made in favor of the bill by Drs. Charles O'Donovan, president of the faculty; William H. Welch, of Johns Hopkins Medical School; Edward N. Brush, superintendent of Sheppard and Enoch Pratt Hospital, Towson, and Dr. Clotworthy Birnie, Taneytown, formerly a member of the legislature.

THE twenty-first annual exhibition by the department of microscopy of the Brooklyn Institute of Arts and Sciences will be held on Saturday evening, March 14, 1908, at the galleries of the Art Building, 174 Montague Street, from 7:45 to 11 o'clock. It will include a display of objects viewed with the microscope, also apparatus, photomicrographs, lantern slides of microscopic objects and other matter pertaining to microscopy. Admission is by ticket, which may be secured by application at the office of the institute or of the president of the department, J. J. Schoonhonn, 34 Second Place, Brooklyn, N. Y.

THE University of Washington will send a botanical field party to Alaska during the present summer under the direction of Dr. T. C. Frye, of the department of botany. The general plan is to leave Seattle about July 1, and go as far north as Skagway. From the chief cities as a base excursions will be made into the mountains, to glaciers, to mines and along the sea shore. The work will close in Alaska six weeks from date of sailing from Seattle. The expense will be \$20 incidental fee, about \$70 steamer fare, and the living expenses which are estimated at \$80 for the

six weeks, making the total about \$175. The work will be the collection of Alaskan plants, the study of adaptation to environment from seashore to perpetual snow, and from fresh water to dry rock. Lectures will be given on plant ecology, with occasional talks on other subjects.

THE University of Washington will open its marine station at Friday Harbor, Washington, for the fifth annual session, on June 22, 1908. The length of the session will be six weeks. The staff will consist of Dr. Charles W. Prentiss, of the department of zoology of the University of Washington, Dr. Robert B. Wylie, of the department of botany of the University of Iowa, and Professor Charles O. Chambers, of Pacific University, Forest Grove, Oregon. The chief features of the station are its location in the heart of an evergreen forest in the winter rain belt, the abundance of marine plants and animals, its constant use of the dredge, and its low fees.

THE Physics Club of New York at its regular meeting, held March 7, 1908, unanimously adopted the following resolution:

Resolved, That a uniform course in physics for all schools is both undesirable and unattainable. We therefore recommend:

1. That syllabuses should deal with the barest outline of general principles, leaving each teacher free to fill up the course according to his best judgment.

2. That examinations for college entrance should be confined to the general principles specified in the syllabus, and that a teacher's certificate should be accepted for other material—this might well take the form of a rather full statement of the work done.

VOLUME VI., No. 1, of the University of California Publications in American Archeology and Ethnology is by S. A. Barrett on "Ethno-geography of the Pomo and Neighboring Indians." It is intended both as a background and preliminary for future studies of the ethnology of the Pomo Indians of California, and as the first of a series of investigations describing the territorial limits, tribes of villages, and internal dialectic divisions of each of the groups or families of Indians in California. Besides the Pomo, the paper

treats of the contiguous families between San Francisco Bay and latitude 40, the Pacific Ocean and the Sacramento River. The author finds seven markedly distinct dialects among the Pomo, and at least as many more among the other families in the territory considered. The degree of affinity and difference between these dialects is shown in vocabularies of about three hundred words, which are superior to any previously existing material of the same kind, not only in representing all forms of speech in the region, but in being collected by one observer according to the same method. The boundaries of the territory of the Pomo and the other families, and of each dialect, are described in detail and shown on a large map. Tribes in the ordinary sense of the word are declared to have been wanting, the only political unit having been the small village. Of such villages several hundred are listed, each given under its native name and located as exactly as possible. The Pomo territory was not extensive, but included several regions of quite different environments, such as the coast, the Clear Lake region, the open valleys, and the timbered mountain ranges. The effect of these varying environments on the mode of life and customs of what must at one time have been the same people, as proved by language, is fully discussed.

IN the House of Commons on February 17, as we learn from *Nature*, Mr. Mallet asked the secretary of state for war whether he was aware of the public service rendered by a commission of the Royal Society, at the request of the war office and the admiralty, in discovering the cause of Malta fever, from which many hundreds annually of our soldiers and sailors on that island until recently suffered; and whether, in view of the importance of this discovery in the annals of preventive medicine, inasmuch as at the present moment the disease had been entirely stamped out, he would consider the desirability of giving the thanks of the government to the Royal Society for this instance of the successful application of British scientific research? In his reply to this question Mr. Haldane said: "I am aware of the great service rendered by the commission in question. The commission's

investigations and the adoption of preventive measures as the outcome of its recommendations have been followed by the practical disappearance of Malta fever from the garrison of the island. I think that the Royal Society is well aware how genuine is the appreciation of the government. We owe much to the Royal Society's commission for the successful issue of this remarkable investigation, and for the excellent results which have followed. These results illustrate the enormous importance of bringing science into our business of government."

THE coal purchases of the United States government aggregate in value nearly \$6,300,000 annually, and it became apparent some time ago that a more uniform basis for buying coal was urgently needed. Until after the establishment of the fuel-testing plant of the United States Geological Survey at St. Louis, in 1904, reliable information in regard to the character of the coals of the United States was difficult to obtain. Coal has been purchased by the government, as well as by the general public, on the mere statement of the selling agent as to its quality or on the reputation of the mine or district from which it was obtained; and if it did not prove to be satisfactory there was no standard for settlement or justification for canceling the contract. If a consumer thought he had cause to find fault with the quality of the fuel he received he was in many cases assured that it must be good because, like all the other coal sent him, it came from a mine with an established reputation. All the other products of mines—gold, silver, copper, and even lead, zinc and iron ores—are purchased to a great extent on the basis of their value as shown by chemical analysis; of coal this is now true only in a small degree, but the number of contracts made on this basis is increasing from year to year. The United States Geological Survey has been charged with the duty of analyzing and testing the coals used by the government, and a summary of the information on this subject obtained to date, including samples of the specifications for coal contracts that are now in use and analyses of some of the coals

purchased during the winter of 1906-7, prepared by Mr. D. T. Randall, has just been published as Bulletin No. 339. This bulletin is distributed free of charge and may be obtained on application to the director of the survey at Washington, D. C. Samples of the specifications used by many of the large commercial consumers of coal are also given.

PORTO RICO will soon have its only national forest under administration. Mr. M. Rothkugel, of the United States Forest Service, has sailed from New York for the island to make a study of forest conditions and outline a plan of management of the Loquillo National Forest. The Loquillo is the only national forest in the insular possessions of the United States, and, while it was created in 1903, provisions for its administration were not made until early in January, when the comptroller of the treasury affirmed the jurisdiction of the Department of Agriculture over the forest. The forest takes in a little less than 66,000 acres and is located in the north-eastern part of the island. Mr. Rothkugel, on reaching Porto Rico, will confer with Governor Post, and will spend three months studying conditions and making his plans and will report to Forester Gifford Pinchot. While in Porto Rico he will select and appoint native rangers, picking men who have a thorough knowledge of forest conditions in Porto Rico.

THE people of Ireland pay \$5,000,000 a year for the timber which is imported from other countries. This is the penalty of failure to protect its forests. Ireland has only 1½ per cent. of its land in timber and much of that small area is covered with scrub growth of little value. At the same time 23 per cent. of the island is uncultivated. Few inhabited countries have been so extensively deforested. The work of changing conditions for the better has been entered upon however, and scientific forestry will be applied. Consul General Alfred K. Moe, of Dublin, Ireland, reports the progress that has been made looking to the preservation of the few remaining forests and the reforestation of vast areas. The Irish Department of Agriculture maintains a forest school at Avondale which will have charge

of the tree planting. A special study has been made of Lord Fitzwilliam's estate which was planted to timber fifty years ago. A popular objection to reforestation in Ireland has been that forest plantations offer less employment to labor than equal areas of agricultural land. It was shown, however, that Lord Fitzwilliam's forest, although planted on poor soil, not valuable for agriculture, had employed four times as much labor as has been employed upon the agricultural land and was more profitable to the owner. Within the past year timber to the value of \$50,000 has been sold, and much remains to be cut.

ACCORDING to Consul-general William H. Michael, of Calcutta, it is proposed by the British India government to link the five rivers—the Indus, Jelum, Chenab, Beas, Ravi and Sutlej—together in such manner as to equalize the flow of water when one river or more is in flood and thus supply the whole canal system connected with these rivers. Mr. Michael continues: "By this arrangement the Punjab (the meaning of Punjab is five rivers) will be given a water supply for irrigation sufficient at all times. The decision of the government of India to adopt the northern alignment for the Sind-Bombay connection railroad, partly on military grounds and partly owing to the objections raised by the Rao of Cutch to the southern alignment, puts an end, for the present at least, to cooperation between the irrigation department and the railway company, which was expected to effect great benefit in that part of the Punjab through which the lines would have run. In time, when the great irrigation projects in the Punjab, now in course of construction, shall have been completed, the irrigation department will take up the scheme of drawing and rendering fit for cultivation the lowlands and salt marshes which make up what is known as the Runn of Cutch. It is claimed that the irrigation department has work in hand on plans that have been adopted to engage its time, energies and available capital for thirty years.

THE collection of anthropoid apes in the Regent's Park Gardens is, says the London *Times*, the finest ever brought together.

Within the last few days it has been further increased by the kindness of Dr. J. C. Graham, who has presented a fine orang (*Simia satyrus*), probably about six years old. The animal, which has been a pet, is in good condition, and already on friendly terms with its keeper, whose experiences with anthropoids goes back to the arrival of the first gorilla in 1887 and the experiments of Professor Romanes in teaching Sally, the famous chimpanzee, to count. Jacob, as the new arrival was called by its former owner, is not as yet on exhibition, but is kept in the basement, owing to want of room in the upper hall, which contains only four large cages, though their division has been discussed. Although somewhat upset by the process of transfer from the traveling box to the temporary cage, he soon resigned himself to the new surroundings, and feeds well. He has for a near neighbor Delia, a young orang presented by Dr. Graham in 1905, and well known to visitors from its being taken out to exercise in fine weather by the keepers. The name Delia is not in this case feminine, as one might be inclined to consider it, but geographical, having reference to the district of Deli, in the northeast of Sumatra. In the hall is Sandy, the very fine orang presented by Dr. Ridley, which arrived early in September, 1905, and had lived for seven years in the Botanical Gardens at Singapore. In addition to these oranges the society possesses nearly a dozen chimpanzees and four gibbons.

UNIVERSITY AND EDUCATIONAL NEWS

HARVARD UNIVERSITY has received \$25,000 from Mr. Larz Anderson, '88, of Brookline, and Mrs. Anderson, for the building fund of the Dental School. Work on the new building will be begun very shortly.

At the inauguration on March 4 of Dr. Edward Dwight Eaton as president of Beloit College, he announced that Mr. Andrew Carnegie had given the institution \$50,000 to insure the gift of \$150,000 from the general educational board, and to endow a chair of political economy and finance.

By the will of Mrs. Louisa S. Baker, bequests of \$6,000 and \$4,000 are made to the Massachusetts Agricultural College and Am-