

Angell, that the time has come when, in his judgment, he should be permitted to retire from the active direction of the affairs of this university.

We desire to record here and now some measure of our appreciation of his services to this institution, of which he so long has been the head.

It is now nearly thirty-eight years since he assumed the presidency of this university. Under his leadership it has grown in student attendance from about 1,200 to more than 5,000, with a corresponding increase in faculty membership. Its advance in effectiveness of educational work and in all that goes to make a university great has been no less prominently marked. The proud position which this university has attained is due, more than to all other elements combined, to the fact that for more than one half its entire life it has been blessed with his learning, his culture, his wisdom, his tact, and, above all, with the example and inspiration of his high-minded Christian character.

It is impossible to calculate the impress for good given to the world by the 40,000 men and women who have carried with them from this institution into their work and in their lives the commanding influence of his rich character and personality.

Proud as he may justly be of the homage which the world justly yields him as educator, diplomat and publicist, he has even greater cause for pride in the grateful affection of the people of this state, whom he has served so long and so abundantly, and in the love of the army of students, whose lives he has directly enriched and to whom he will always stand for all that is highest and best in scholarly attainments, in private character and in public and private citizenship.

The women of the University of Michigan, at their annual banquet, held at Barbour Gymnasium on April 2, passed resolutions, the first part of which read:

This occasion on which you, in your official capacity, address for the last time the body of women of the University of Michigan marks an era in the higher education of women, not alone in this commonwealth, but in America. Your assumption of Michigan's responsibilities was contemporary with our entrance into its opportunities. We were a hazardous experiment given into your hands in the face of a skeptical world. There are no adequate words to express our gratitude for your unswerving loyalty to that trust. We give you increasing homage and reverence for the gifts of genius with which you have wrought

in our behalf. Yours has been, for two score years, the most potent influence in the land for the unrestricted privilege of higher education for women; yours the simplicity before which self-consciousness vanished; yours the fine courage that has helped many a sinking purpose to effective conclusion; yours the felicitous word that has parried the criticism of an over-expectant world, and has signally won where more militant methods would have lost.

SCIENTIFIC NOTES AND NEWS

THE spring meeting of the council of the American Association for the Advancement of Science will be held in the Assembly Hall of the Cosmos Club, Washington, D. C., on the afternoon of Wednesday, April 21, 1909, at 4.30 o'clock.

THE annual session of the National Academy of Sciences will be held in Washington, D. C., beginning Tuesday, April 20, 1909, at 11 A.M. The place of meeting will be the Smithsonian Institution. The public sessions for the presentation of scientific papers will be held in the large hall of the National Museum on Tuesday and Wednesday afternoons, April 20 and 21.

THE American Philosophical Society, Philadelphia, will hold a general meeting on April 22, 23 and 24. The opening session will be held on Thursday afternoon, at 2 o'clock in the hall of the society in Independence Square. A Darwin commemoration will be held on Friday evening at 8 o'clock in the Hall of the Historical Society of Pennsylvania followed by a reception. The afternoon session on Saturday will be devoted to a symposium on earthquakes. The annual dinner of the society will be held at the Bellevue-Stratford, on Saturday evening.

PROFESSOR T. G. BONNEY, F.R.S., will succeed Professor J. J. Thomson, F.R.S., as president of the British Association and will preside over the meeting to be held at Sheffield next year.

THE London Geographical Society has awarded its Victoria Research medal to Mr. Alexander Agassiz. The society has awarded a special medal to Lieutenant Ernest H. Shackleton.

THE John Fritz medal for 1909 has been awarded by the committee of the national engineering societies to Mr. Charles T. Porter, of Montclair, N. J., for his work in advancing the knowledge of steam engineering and in improvements in engine construction, especially in high speed engineering. The first medal was awarded in 1903 by the board of award organized by the admirers of Mr. John Fritz, the eminent engineer, on the occasion of his eightieth birthday. The other recipients thus far have been Lord Kelvin, Thomas A. Edison, Alexander Graham Bell and George Westinghouse.

THE Mikado of Japan has bestowed on President Eliot the decoration of the Order of the Rising Sun, first class.

MANCHESTER UNIVERSITY has conferred its doctorate of laws on Professor Walter Baldwin Spencer, professor of biology in the University of Melbourne and known for his anthropological researches on the native tribes of central Australia.

PROFESSOR FERDINAND ZIRKEL, for nearly forty years professor of mineralogy and petrography at Leipzig, has retired from active service.

DR. JULIUS HANN, professor of cosmical physics at Vienna, has celebrated his seventieth birthday.

At the meeting of the American Association of Pathologists and Bacteriologists, held last week at the Harvard Medical School, Dr. Frank D. Mallory, assistant professor of pathology of the Harvard Medical School, was elected president for the meeting to be held next year at Washington.

PROFESSOR F. D. FULLER, chief chemist, Pennsylvania Department of Agriculture, Harrisburg, Pa., has been appointed chief of the cattle food and grain investigation laboratory, Bureau of Chemistry, U. S. Department of Agriculture, Washington, D. C., and assumed the duties of his position on April 1.

UNIVERSITY COLLEGE, Oxford, has awarded the Radcliffe prize for 1909 to Mr. Arthur Frederick Hertz, Magdalen College, for his dissertation on the physiology and pathology of the movement of the intestines.

DR. HERMON C. BUMPUS, director of the American Museum of Natural History, has received letters from Dr. R. M. Anderson and Dr. V. Stefansson, explorers for the museum on the extreme north coast of Alaska. The letters were dated October 15.

Two assistant curators of the Field Museum of Natural History, Messrs. S. C. Simms and F. C. Cole, are to take up the ethnological investigation in the Philippines interrupted by the recent murder of Dr. William Jones.

THE Phi Beta Kappa address at Columbia University will be given by Dr. A. Lawrence Lowell, president-elect of Harvard University.

SEÑOR JOAQUIM NABUCCO, ambassador from Brazil to the United States, will deliver the baccalaureate address at the University of Wisconsin.

DR. GEORGE H. PARKER, professor of zoology at Harvard University, gave a series of six lectures at the University of Illinois, March 29 to April 3, on the subjects of coral islands, the functions of the ear in fishes, and the origin of the nervous system.

THE third meeting of Research Workers in Experimental Biology, of Washington, D. C., was held at the Medical Department of George Washington University, on April 3, when Dr. Leo Loeb, assistant professor of experimental pathology in the University of Pennsylvania, read a paper on "The Experimental Production of Maternal Placenta."

SIGMA Xi Honorary Fraternity at the University of Pennsylvania initiated its new members in the Randal Morgan Laboratory on April 7. Previous to the exercises old members and new assembled in the auditorium, where Mr. H. Clyde Snook, of New York, delivered a lecture on "The Mechanical Rectification of One Million Volts."

THE Woman's College, Baltimore, in conjunction with a committee of the alumnae association, has arranged a course of lectures on "Nutrition." The first were given last week by Dr. William J. Gies, of the College of Physicians and Surgeons of New York. Other lecturers are to be: Dr. Henry C. Sherman, New York; Dr. William H. Howell, Johns

Hopkins University; Dr. H. P. Armsby, State College, Pa., and Dr. C. W. Stiles, Washington, D. C.

THE Oliver-Sharpey lectures of the Royal College of Physicians, London, have been given by Professor C. S. Sherrington, F.R.S., on "The Rôle of Reflex Inhibition in the Co-ordination of Muscular Action."

PROFESSOR HENRY JONES, on behalf of a committee, appeals for funds towards a memorial of the late Dr. Edward Caird in the University of Glasgow—to place an inscribed tablet in the moral philosophy classroom, and to supplement the endowment of the lectureship in political philosophy.

THE regents of the University of Kansas have named the entomological collections of the university the Francis Huntington Snow Entomological Collections, in honor of the late chancellor of the university.

DR. PERSIFOR FRAZER, well known as a chemist, geologist and mining engineer as also for his studies in handwriting, died at his home in Philadelphia on April 7, at the age of sixty-three years. Dr. Frazer had been connected with the United States and Pennsylvania Geological Surveys and was at one time professor of chemistry in the University of Pennsylvania. His father was professor of natural philosophy and chemistry in the university and one of his sons is now instructor in chemistry in the institution.

MR. CHARLES ALDRICH, a fellow and one of the founders of the American Ornithologists' Union, died at Boone, Iowa, on March 8, at the age of eighty years. In addition to ornithology, Mr. Aldrich was interested in local history and had been curator of the State Historical Department at Des Moines, Iowa.

DR. ARTHUR GAMGEE, F.R.S., emeritus professor of physiology, University of Manchester, and late Fullerian professor of physiology in the Royal Institution, died in Paris on March 29, aged sixty-seven years.

DR. VAN HEUVEK, director of the Zoological Gardens at Antwerp, has died at the age of seventy-one years.

DR. LUDWIG THANHOFFER, professor of anatomy at Buda Pesth, has died at the age of sixty-six years.

THE U. S. Civil Service Commission announces an examination on April 21, to fill three or more vacancies in the position of laboratory assistant (in chemistry) and assistant chemist in the Bureau of Standards, at salaries varying from \$900 to \$1,200 per annum for laboratory assistant, and from \$1,400 to \$1,800 per annum for assistant chemist. The duties in connection with these positions vary from routine testing to advanced work involving original investigation. As far as practicable, appointees are assigned to work in the subjects for which they are best fitted.

THE *Bulletin* of the American Mathematical Society states that the Deutsche Mathematiker-Vereinigung now includes 725 members, of whom 60 are Americans. The Circolo Matematico di Palermo has a membership of 635, of whom 105 are Americans.

THE annual meeting of the German Bunsen Society of Applied Physical Chemistry is to be held at Aachen on May 23-26, immediately before the International Congress of Applied Chemistry in London.

UNDER the will of Elizabeth F. Noble, of Mansfield, Mass., bequests of \$10,000 each are made to the American Society for the Prevention of Cruelty to Animals and the American Anti-vivisection Society, \$5,000 goes to the Massachusetts Society for the Prevention of Cruelty to Animals, and after other sums are paid, the three societies are to share in the residue of the estate.

THE daily papers state that the Jesuit Fathers have decided to install a complete apparatus in twelve colleges belonging to their order in this country to take earthquake records.

PLANS are maturing for a large exposition to be held in Buenos Ayres in May and June of 1910, on the occasion of the centennial celebration of the independence of the Argentine Republic.

ALL paleontologists are interested in the discoveries in the Permian of northern Russia,

and are awaiting eagerly publication of the results arrived at by Professor Amalitzky. The kinship which these remarkable animals bear to those of the Permian of North America and of South America renders the problem one of international importance. The only figures which have been published are those which appeared through the courtesy of Professor Amalitzky in a popular work by Sir Edwin Ray Lankester. All the collections have now been transferred to the Museum of the Academy of Sciences of St. Petersburg, which will be their permanent home. Professor Amalitzky is, however, the director of the Polytechnic Institute of Warsaw.

ILLUSTRATED lectures will be delivered in the lecture hall of the museum building of the New York Botanical Garden, Bronx Park, on Saturday afternoons, at four o'clock, as follows:

April 24—"A Winter in Jamaica," by Dr. William A. Murrill.

May 1—"Spring Flowers," by Dr. Nathaniel L. Britton.

May 8—"How Plants Grow," by Dr. Herbert M. Richards.

May 15—"Evergreens: How to Know and Cultivate Them," by Mr. George V. Nash.

May 22—"Collecting Seaweeds in Tropical Waters," by Dr. Marshall H. Howe.

May 29—"Vanilla and Its Substitutes," by Dr. Henry H. Rusby.

June 5—"The Selection and Care of Shade Trees," by Dr. William A. Murrill.

June 12—"The Ice Age and Its Influence on the Vegetation of the World," by Dr. Arthur Hollick.

June 19—"Haiti, the Negro Republic, as seen by a Botanist," by Mr. George V. Nash.

June 26—"Some American Botanists of Former Days," by Dr. John H. Barnhart.

July 3—"An Expedition up the Peribonca River, Canada," by Dr. Carlton C. Curtis.

July 10—"Collecting Experiences in the West Indies," by Dr. Nathaniel L. Britton.

ACCORDING to the New York *Evening Post* a valuable archeological collection has recently been installed in the museum at Vanderbilt University as the gift of General Gates P. Thruston. The relics include specimens from Tennessee, Missouri, Arkansas and other southern states and Indian relics from Peru.

A number of specimens were taken from mounds near Nashville, Tenn., and show such skill as to point to some higher civilization than that of the Indians who dwelt there in historic times. The Peruvian relics show so close a resemblance to these remains that the theory of kinship between the makers of this pottery and the people of Peru has been advanced. In addition to the Indian relics, there are many minerals, gems and semi-precious stones. The collection is arranged in a room of University Hall to be known as the "General G. P. Thruston Room."

A NEW index map of Alaska, showing areas covered by topographic surveys, has been issued by the U. S. Geological Survey. On the back of this map is printed a list of the survey's publications on Alaska, arranged geographically. These publications comprise 28 maps and 119 reports. The work of the Geological Survey in Alaska, begun in 1898, has been indispensable to the development of the mineral resources of the territory. The value of the mineral output of Alaska to date is approximately \$148,000,000, including the values of gold, silver, copper, coal, tin, marble and other minerals. The cost of the survey's explorations in the territory has been less than three tenths of 1 per cent. of the total value of the mineral productions. Since 1898 areas in Alaska amounting to 121,252 square miles have been topographically surveyed on a scale of four miles to the inch and 2,732 square miles on a scale of one mile to the inch. These surveys cover, respectively, 20.85 and 0.47 per cent. of the total area of Alaska, which is 586,400 square miles. During the same period geologic reconnaissance maps have been made of 99,350 square miles and detailed geologic maps of 2,304 square miles. In addition to this work, practically every mining district in Alaska has been examined, and some have been mapped in great detail. The water resources of some of the important placer districts have also been studied and the results published.

On the invitation of President Edmund J. James, a conference was held at the University of Illinois on March 31. The conference considered the needs of the state in out-of-door improvement, both for the home and the

municipality and a state organization for this purpose was effected. The following objects and plans were considered:

1. To circulate information through publications originating with the organization and wherever procurable. These should discuss topics upon which the people want information, the kinds and uses of ornamental plants, insect enemies, the arrangement of the farm and suburban home, the practical problems of street, play ground, park and cemetery development, the customary methods of improvement organizations and kindred subjects.

2. To promote, where requested, the formation of village, municipal and neighborhood improvement and similar societies, park boards and park-way associations and to assist them within its field.

3. To advise upon the instruction of landscape gardening and ornamental horticulture, both professional and elemental in the University of Illinois and to assist in similar courses given elsewhere in the state.

4. To contribute lectures upon the subject throughout the state when requested.

5. To advise upon experiments in the hardiness and usefulness of ornamental plants in the different latitudes of the state and to encourage the creation in some form of small public plant gardens where the ornamental use of trees, shrubs and flowers can be readily studied.

6. To frame and secure necessary legislation which shall promote out-of-door art.

A COLLECTION of British birds' eggs has been presented to the Natural History Museum of Aberdeen University by Mr. R. Hay Fenton, London, a native of Aberdeen. The collection contains specimens of practically every British bird, and includes an egg of the great auk. It numbers upwards of 7,000 specimens.

THE American Museum of Natural History has recently acquired, through purchase from Mr. G. R. Cassedy, of Cañon City, Colo., an iron meteorite that will form a valuable addition to the series of meteorites in the foyer of the museum. The specimen, which weighs 682 pounds, was found November 11, 1907, in Fremont County, Colorado.

PROFESSOR W. M. DAVIS, of Harvard University, read a paper on March 22, before the Royal Geographical Society, London, on "The Colorado Canyon." At the meeting of the so-

ciety on April 5, Sir Harry Johnston gave a lecture on the scenery of Cuba, Haiti and Jamaica, with illustrations from photographs taken by him.

WE learn from the London *Times* that the members of the committee of the ill-fated Danmark Arctic expedition have raised a sum of £1,250, which, if the government will provide a similar amount, will be sufficient to despatch a small motor-yacht expedition to northeastern Greenland to search for the diaries and sketches probably left at Danmark Firth by M. Mylius Erichsen, the leader of the Danmark expedition, and his companions MM. Brönlund and Hagen, who perished in an attempt to cross the inland ice in winter. The plan was set on foot by the well-known Arctic explorer Captain Ejnar Mikkelsen, who will be the leader of the new expedition, which, according to the intentions of the committee, will consist of seven persons, and will start from Copenhagen about June 15, 1909, returning in the autumn of 1910.

WE learn from the London *Times* that the British Ornithologists' Union has decided to undertake a zoological exploration of the interior of Dutch New Guinea. Dr. Lorentz, who is once more on his passage out to New Guinea, has been recently up the Noord River, and mapped some of the ranges lying south of the Charles Louis Mountains, but his aims were geographical rather than zoological. The direct objective of the new expedition will be the Charles Louis Mountains, a snow-capped range forming part of the great central system stretching across the island from east to west. These are the Snow Mountains of the Dutch, and the highest peak is given on the most recent map as 17,000 feet. It is proposed that the expedition shall leave England about June, and every endeavor will be made to provide for a clear year's work. Mr. Walter Goodfellow, whose name is known from his collecting journeys in New Guinea, will be in command of the expedition, and his assistants, Mr. Stalker and Mr. Wollaston, have had some previous experience in the island. To these it is intended to add two specially-selected men, so that all branches of zoology and botany, and also of geography, may be

represented. Mr. Stalker is now on his way to the Aru Islands, where he will collect for Sir William Ingram, for whom, it will be remembered, he brought home the Prince Rudolph bird-of-paradise, which was exhibited at the Zoological Gardens last year. When his contract with Sir William is completed he will go over to the Ke Islands, and work there till the arrival of Mr. Goodfellow's party in New Guinea, when a start will be made from the south coast, just under the highest-known point of the central range. A small committee, consisting of Dr. F. D. Godman (president of the British Ornithologists' Union), Dr. P. L. Selater (editor of the *Ibis*), Mr. E. G. B. Meade-Waldo, Mr. C. E. Fagan (treasurer) and Mr. W. R. Ogilvie-Grant (secretary), will deal with the results of the expedition. The expenses for one year's exploration have been calculated at £3,000, of which about half has been subscribed or promised.

UNIVERSITY AND EDUCATIONAL NEWS

THE legislature of Nebraska made appropriations for the State University for the biennium 1909-11 as follows: from the "one-mill university levy," for general expenses, salaries, etc., about \$750,000; from the general fund—for a site for the medical college, \$20,000; for experimental sub-stations (3), \$45,000; for farmers' institutes, \$20,000; for permanent improvements, additional land, etc., \$100,000.

THE following letter has been addressed by Mr. Andrew Carnegie to the president of Hamilton College:

In recognition of the unique services of Elihu Root as Secretary of State in the cause of international peace, through arbitration treaties negotiated by him, and in various other directions, I give the sum of \$200,000 to Hamilton College, the institution of which he and his two brothers and also his two sons are graduates, and of which his father was so long a distinguished professor. In accordance with the wish of Mr. Root, this sum is to be held and invested by the trustees of the college as a trust fund, the income to be devoted to the salaries of the instructors of the college. It is to bear the name of the Elihu Root Peace Fund.

OUT of the \$260,000 recently secured by Knox College (\$50,000 from the General Education Board, \$50,000 from Mr. Carnegie and \$160,000 from the alumni and friends of the institution), \$50,000 is to be used in building a Science Hall. It is expected that work will begin on this building the present season.

THE last legislature appropriated money to establish six new graduate fellowships at \$500 each at the University of Kansas. They are open to teachers in Kansas colleges and to superintendents and principals of Kansas schools, who are graduates of colleges and universities of recognized standing and who have shown preeminent qualification for advanced work. A large glass company with head offices in New York City has offered \$1,500 a year for two years for a fellowship for a research student working on "The optical properties of glass in relation to its chemical constitution."

MR. F. G. THOMPSON, of the class of 1897, has presented Harvard University with \$50,000, for salaries in the department of history and government.

THE directors of the Krupp's Works at Essen have made an annual grant of 10,000 Marks for the aeronautic professorship at Göttingen University, to be devoted to research work connected with aeronautics.

ON recommendation of the chancellor and regents of the University of Nebraska, the legislature of the state has amended the charter of the institution so as to allow the regents to establish the following colleges, viz: (1) The Graduate College; (2) The College of Arts and Sciences; (3) The College of Agriculture; (4) The College of Engineering; (5) The Teachers College; (6) The College of Law; (7) The College of Medicine. The first named, which has hitherto been called the Graduate School, is now raised to the dignity of a college. The name of the second college has been shortened from College of Literature, Science and the Arts, to College of Arts and Sciences. The third and fourth colleges have hitherto constituted the Industrial College, and this name will now disappear, giving place to the colleges of Agriculture and of Engineering.