

sun, in conjunction with observations made by the department of terrestrial magnetism on "storms" to which the earth's magnetism is subject, will result in a distinct advance in this field of research.

Capital results have been achieved also during the past year by other departments of the institution. At the Geophysical Laboratory in Washington, where geological and mineralogical experiments are being carried on, there has been an important addition to the equipment in the form of apparatus for subjecting materials under observation to high pressures and high temperatures. At the Marine Biological Laboratory at Tortugas, Florida, research has been widely extended by a corps of specialists. The equipment of the Nutrition Laboratory in Boston has proved highly effective in ascertaining the influence of nutrition upon pathological as well as upon normal subjects. The search for the sources of American history, which is being conducted by the department of historical research, has been vigorously carried forward in Mexico, Italy, France, Germany, Great Britain and the United States.

The investigations of the department of botanical research have been continued successfully. Among these the experiments of the director in the production of mutants in plants seem destined to play a fundamental rôle in the determination of the absorbing biological question of the derivation of species. The progress made in the researches in experimental evolution being conducted at Cold Spring Harbor has also been significant, and the facilities of this department have been increased by the purchase of Goose Island, in Long Island Sound, where the development of plants and animals in a state of isolation may be observed.

The publication work of the institution has proceeded actively. Nineteen volumes, with an aggregate of 4,907 pages, have been issued, bringing the total number of the institution's publications to 141, with a total aggregate of approximately 35,000 pages of printed matter. One of the most important publication projects thus far undertaken by the institution was inaugurated during the year, namely,

that of an addition of the Classics of International Law. Under the general editorship of Professor James Brown Scott, the early master-works in international law are to be issued. Each work is to be reproduced by photographic process from the best available edition, and accompanied by a complete translation into English, and supplied with an introductory commentary. The work already begun includes the "*Juris et judicii fecialis, sive juris inter gentes*" of Zouche, and the "*De jure belli ac pacis*" of Grotius.

THE ROCKEFELLER FOUNDATION

AS readers of SCIENCE have learned from the daily papers, a bill has been introduced into the United States Senate incorporating the Rockefeller Foundation, the object of which is "to promote the well-being and advance the civilization of the peoples of the United States and its territories and possessions, and of foreign lands, in the acquisition and dissemination of knowledge, in the prevention of suffering and in the promotion of any and all the elements of human progress." The bill names as incorporators of the foundation John D. Rockefeller, John D. Rockefeller, Jr., Fred T. Gates, Starr J. Murphy and Charles O. Heydt. The principal offices of the foundation would be in the District of Columbia, though the bill also gives the right to establish branch offices elsewhere and to hold meetings of the trustees at any place they may see fit. The amount of the endowment has not been announced. It is said that Mr. Rockefeller's gifts have amounted to about \$150,000,000, and that his present fortune is in the neighborhood of \$300,000,000.

SCIENTIFIC NOTES AND NEWS

DR. ADOLF VON BAEYER, professor of chemistry at Munich, has been elected a foreign member of the Paris Academy of Sciences.

THE following fifteen candidates have been selected by the council of the Royal Society to be recommended for election into the society: Mr. J. Barcroft, Professor G. C. Bourne, Professor A. P. Coleman, Dr. F. A. Dixey, Dr. L. N. G. Filon, Mr. A. Fowler, Dr. A. E. Garrod,

Mr. G. H. Hardy, Dr. J. A. Harker, Professor J. T. Hewitt, Professor B. Hopkinson, Dr. A. Lapworth, Lieutenant-Colonel Sir W. B. Lieshman, Mr. H. G. Plimmer, Mr. F. Soddy.

PROFESSOR G. E. HALE, Professor S. Arrhenius and Madame Curie have been elected honorary fellows of the Physical Society, London.

DR. HUGO MÜNSTERBERG, professor of psychology at Harvard University, has been appointed exchange professor to lecture at Berlin in 1910-11.

THE Academy of Scientific Men of Halle has awarded its gold Cothenius medal to Dr. Wilhelm Pfeffer, professor of botany at Leipzig.

THE New York Academy of Sciences has appointed the following delegates to represent it at international congresses during the coming summer: Professors Hermon C. Bumpus, Bashford Dean and Henry E. Crampton for the Zoological Congress at Graz; Professors James F. Kemp, J. J. Stevenson and Dr. E. O. Hovey for the Geological Congress at Stockholm.

PROFESSOR PUNNETT, Mr. H. Gadow, King's, and Mr. A. E. Shipley, Christ's, have been appointed representatives of Cambridge University at the International Congress of Zoology to be held at Graz in August next. Mr. A. G. Tansley, Trinity, has been appointed to represent the university at the International Congress of Botany to be held at Brussels in May next.

SIR J. J. THOMSON has been nominated to represent Cambridge University at the celebration next October of the centenary of the University of Berlin.

SIR WILLIAM PREECE, Sir Joseph Swan and Professor G. Vernon Harcourt have been elected the first honorary members of the Illuminating Engineering Society.

DR. A. HERTZFELD, director of the Institute of Sugar Industry in Berlin, has been elected a foreign member of the Swedish Academy for Agriculture.

DR. EDM. VON LIPPMANN, Halle, has been given the honorary degree of doctor of engi-

neering by the Dresden Institute of Technology.

THE naturalists of France and of many other parts of the world are uniting in a jubilee celebration in honor of J. H. Fabre, styled by Charles Darwin "the immortal Fabre," and referred to by him also as "that inimitable observer." Fabre, after years of labor and of patient observation and of most important work, is, in his age, the most modest of men, leading a retired life, and his admirers everywhere and in all walks are uniting in this celebration. Not only are naturalists coming together for this jubilee, but prominent officials throughout France and prominent men in literature as well, since Fabre's published work possesses a high literary value. No one, says David Sharp, has ever written on his subjects with equal brilliancy and vivacity. So Mistral, the poet; Edmund Rostrand, the poet and dramatist, and Maurice Materlink, the naturalist, philosopher and novelist, among others, have united in this jubilee. Members of the French Academy engaged in other branches of science, such as Poincaré, and men prominent in many walks of life, not even excepting journalism, such as Hèbrard, the director of the *Temps*, have also associated themselves with Fabre's other admirers. The jubilee will be held on the third of April, at the time of the inauguration of the Institute of Oceanography by the Prince of Monaco. A medal will be struck in honor of the occasion. Americans wishing to contribute may send their subscriptions to Dr. L. O. Howard, permanent secretary of the American Association for the Advancement of Science, Smithsonian Institution, Washington, D. C. These should be sent at once, since the subscription closes the twenty-fifth of March.

SINCE the return of the DeMilhau Peabody Museum South American Expedition of Harvard University, Dr. William C. Farabee has received from the Universidad Mayor de San Marcos de Lima a diploma as honorary member of the faculty of sciences in the university, for "scientific merits and important services rendered to the government of Peru."

DR. J. K. SMALL, head curator of the museums and herbarium of the New York Botanical Garden and Mr. J. J. Carter, of Pleasant Grove, Pennsylvania, have spent about four weeks in botanical exploration of the unknown interior of the Andros Islands, thus completing the botanical survey of the Bahamian archipelago.

DR. J. E. MOORE, professor of surgery in the University of Minnesota, was seriously injured on February 25 by the fall of the temporary roof in the building where he was conducting a class in surgery. It is expected that he will recover. Nine students were more or less seriously injured.

THE New York alumni of the Johns Hopkins University held their annual dinner on March 2, when Dr. Simon Flexner, director of the Rockefeller Institute of Medical Research, presided.

PROFESSOR JAMES H. TUFTS, of the University of Chicago, will deliver a series of ten lectures on "Present Problems in Metaphysics and the Theory of Knowledge," before the department of philosophy, psychology and education of the Johns Hopkins University, March 9-19.

DR. W. S. FRANKLIN, professor of physics at Lehigh University, lectured before the Middletown Scientific Association of Wesleyan University on the "Practical Applications of the Gyrostat."

MR. F. W. DARLINGTON, of Pittsburgh, Pa., lectured before the electrical engineering students at the University of Minnesota on February 23 on "The Electrification of Steam Railways."

THE first discourse given on the new foundation of the Halley lecture at Oxford University will be delivered by the founder, Dr. Henry Wilde, F.R.S.

A TABLET in memory of Ross Gilmore Marvin, who was drowned in the Arctic Ocean on the Peary Polar expedition, will be unveiled in Sage Chapel, Cornell University, next month. Commander Peary will give the memorial address.

FOREIGN papers state that the inhabitants of Gross-Lichterfelde, the native place of Otto Lilienthal, have decided to erect a monument to the memory of their countryman, who was amongst the earliest practical pioneers in aviation, and met his death in 1896 while making a flight at Gömberg, in the province of Brandenburg. The monument will be erected either on the hill on the slopes of which Lilienthal made his early experiments, or in the square on the bank of the Teltour Canal.

THE Rev. G. F. Whidborne, known for his work in geology, died on February 14, at the age of sixty-four years.

COLONEL C. F. CONDER, of the British Army, who made important explorations in Palestine, died on February 16.

DR. HENRI DUFOUR, professor of physics at Lausanne, has died at the age of fifty-eight years.

THE following awards of the Mary Kingsley medal have, as we learn from *Nature*, been made by the Liverpool School of Tropical Medicine: Mrs. Pinnock, in recognition of the services rendered to the cause of tropical medicine and sanitation by her brother, the late Sir Alfred Jones, founder and first chairman of the school; Mr. W. Adamson and Professor W. Carter, for assistance rendered in the foundation of the school; Prince Auguste d'Arenberg, president of the Suez Canal Company, for his campaign against malaria at Ismailia; Sir William Macgregor, Governor of Queensland, for his services to sanitation and tropical medicine while governor of Lagos; Surgeon-General Walter Wyman, head of the Marine Hospital Service in the United States, for the organization which he has given to the service under him and for the manner in which he has always supported scientific principles in public sanitation; Sir Alfred Keogh, recently Director-General of the Royal Army Medical Corps, for the organization which he has given to the service under him and for the manner in which he has always supported scientific principles in public sanitation. The medal for valuable contributions to the scientific and educational side of tropical medicine has been awarded to Pro-

fessor R. Blanchard, Paris; Dr. A. Breinl, director of the Tropical Diseases Institute in Queensland; Professor A. Celli, Rome; Dr. C. W. Daniels, director of the London School of Tropical Medicine; Surgeon-Colonel King, Indian Medical Service; Professor Nocht, director of the Hamburg School of Tropical Medicine; Professor G. H. F. Nuttall, Quick professor of parasitology at Cambridge University; Major L. Rogers, Indian Medical Service; Professor J. L. Todd, associate professor of parasitology at McGill University.

FROM statistics published in the German press, giving for European countries the number of dirigible balloons and aeroplanes already finished at the end of 1909, or which will be ready for use very shortly, Consul Carl Bailey Hurst, of Plauen, quotes the following: Germany possesses 14 dirigibles of six different models—namely, Gross, Zeppelin, Parseval, Schütte, Siemens-Schuckert and the Rhine-Westphalian air ship—and five aeroplanes. France has seven dirigibles and 29 aeroplanes; Italy, three dirigibles and seven aeroplanes; Russia, three dirigibles and six aeroplanes; Austria, two dirigibles and four aeroplanes; England, two dirigibles and two aeroplanes, and Spain, one dirigible and three aeroplanes. Altogether, European nations have 32 dirigibles and 56 aeroplanes that are presumed to be available for service.

THE enterprise of German foresters and the importance of tree planting for forest purposes are shown by two items of news which come, the one from Montana, the other from Ontario. It is reported that a demand has developed for Montana larch seeds to be used by German nurserymen; while white pine seedlings are to be imported from Germany by the town of Guelph, Ont., for planting a 168-acre tract of land belonging to the municipality. The Germans recognize that the introduction into their forests of valuable trees native to other countries may be to their advantage. Although as a rule the forest trees best adapted to each region are those which naturally grow in it, there are many exceptions. Norway spruce and Austrian and

Scotch pine have been carried from their native home to other parts of Europe and to America and have been found well worth the attention of the grower of timber. Several of our own species have met with favor in Europe and flourished there, such as the Douglas fir, black walnut and others. The Australian eucalyptus is proving a great find for America and South Africa. Our own white pine long ago crossed the Atlantic in response to the needs of Europeans, whose forests are comparatively poor in tree species, and is now grown commercially on such a scale that when it is wanted for planting in its own native habitat the German nurseryman is often ready to deliver young plants here for a lower price than our own nurserymen will quote. Now the Germans are going to try the Western larch also. The request from the German nurseryman instructs the collectors to gather the choicest seeds when ripe this fall. One nurseryman on Flathead Lake has offered to exchange larch seeds for seeds of desirable German shrubs, which he intends to cultivate and sell in America. In the same region, four or five months ago, foresters of our Department of Agriculture gathered seed for use in the neighboring Lolo Forest, where a new forest-planting nursery was begun last year. The objects of the Guelph planting are, according to local accounts, to protect the town's water source by a forest cover over its springs in the hills, to make a beautiful woods for a public park and to provide for a future timber supply as a municipal asset. In foreign countries, forest tracts are often owned and managed by towns and cities as a paying investment and to insure a permanent supply of wood for local consumption, but in America planting by municipalities other than for parks and for watershed protection has scarcely been thought of. The kinds of trees to be grown in the Guelph park have already been decided upon by the Ontario Agricultural College. The proposed reforestation promises to be of so great economic and sanitary value that the estimated cost of \$8 per acre for importing

and planting the seedlings and caring for the growing trees is regarded as well worth while.

WE learn from *Nature* that the late Mr. R. Marcus Gunn, the eminent ophthalmic surgeon, who devoted much of the leisure of his vacations to making a collection of fossils, has left them to the British Museum (Natural History). He worked especially in the Jurassic formations of Sutherland, and at the time of his death was engaged in the preparation of a memoir on the Jurassic flora of Brora, in collaboration with Professor A. C. Seward, who is now completing the undertaking. He obtained many fish-remains, Mollusca and other fossils, which form a valuable addition to the national collection. Mr. Gunn also collected from the Old Red Sandstone of Caithness, and will always be remembered for his discovery of the problematical fossil fish *Palæspondylus gunni*, which was named after him by Dr. Traquair.

UNIVERSITY AND EDUCATIONAL NEWS

TUFTS COLLEGE has been made the residuary legatee under the will of John Everett Smith, and will, it is said, receive on the death of Mrs. Smith the sum of \$500,000.

CHARLES ALFRED HASBROUCK, a well-known civil engineer, who died in California on February 1, bequeathed to Cornell University, from which he graduated in 1884, the farm at Forest Home, near Ithaca, on which he was born. His bequest to the university was made as a memorial to his wife, Mary Fobes Hasbrouck. In his will he expressed a wish that the property be used for the benefit of the women students of the university.

THE corporation and the board of overseers of Harvard University have created the department of university extension, and appointed in it the following officers: Dean, Professor Ropes; members of the administrative board for 1909-10, Professor Ropes, Professor Royce, Professor Hanus, Professor Hart, Professor Moore, Professor Osterhout, Professor Hughes and Professor Munro.

It is announced that extension teaching on a large scale will be undertaken next year by Columbia University. The field to be covered

will be broad. There will be classes organized in languages, literature, history, economics and politics; in various scientific subjects, including electrical and mechanical engineering; in architecture; in music and fine arts; in preventive medicine and sanitary science; in manual training and the household arts; in teaching, and in law. For this work a large staff of professors and lecturers will be appointed, chosen in part from the present teaching staff of the university. Professor James Chidester Egbert, director of the summer session, has been appointed director of extension teaching.

THE faculty of the University of Minnesota has inaugurated a movement to secure the erection of a suitable tribute from the people of the state of Minnesota to President Cyrus Northrop. It was decided that the tribute should take the form of a men's building to be erected upon the campus at a cost of not less than \$400,000.

THE new recitation hall of Eastern College at Manassas, Va., erected at a cost of \$35,000, was dedicated on February 22. Addresses were made by Dr. Elmer E. Brown, U. S. Commissioner of Education, Congressman Jones, of Virginia, and Dr. Hervin U. Roop, the president of the college.

PROFESSOR JOHN S. SHEARER, of the department of physics of Cornell university, is acting as a member of the Columbia University faculty during the rest of the present college year. Professor Wm. H. Hallock, head of the department of physics of Columbia University, will spend the period in Europe.

DR. LOUIS T. MORE, professor of physics, has been elected dean of the College of Liberal Arts of the University of Cincinnati.

MR. FRANK M. LEAVITT, now at the head of the department of manual training of the Boston city schools, has been appointed associate professor of industrial education in the School of Education of the University of Chicago.

MR. S. BRODETSKY, bracketed senior wrangler in 1908, has been elected to the Isaac Newton studentship at Cambridge University.