

trated publications have been issued from the establishment under the general title *Gentes Herbarum*.

In offering the collection to the university, Dr. Bailey wrote:

The value of these collections depends on the use that is made of them. The accumulations have been assembled over many years with the hope that they may constitute the basis of a departure in education and research, a new unit unlike any now in existence and which need not duplicate the field of any other department. Its primary purpose is to record and study the cultivated flora of the world to the end that the species may be accurately identified as a scientific basis in horticulture, plant-breeding, pathology and any other departments of knowledge that work with domesticated plants; and to provide archives of the plants that men at any time or place may grow.

The university has authorized the establishment of an administrative unit in the College of Agriculture to be known as the Liberty Hyde Bailey Hortorium, to be placed under the direct supervision of a staff member. A full-time curator, whose duty shall be the general care and supervision of the hortorium, will also be appointed. There will be an advisory board consisting of representatives of the major fields of plant science and two members at large appointed by the president, together with the supervisor of the hortorium

and the curator. One or more graduate fellowships, to be known as the Liberty Hyde Bailey Botanical Fellowships, will be established.

RECENT DEATHS

DR. CHARLES E. ST. JOHN, research associate at the Mount Wilson Observatory of the Carnegie Institution of Washington, died on April 26. He was seventy-eight years old.

DR. ERNST BISCHOFF, head of the chemical and pharmaceutical firm of the Ernst Bischoff Company, Inc., New York, died on April 19, at the age of seventy-one years.

THE death is announced of Dr. J. Loring Arnold, professor emeritus of electrical engineering at New York University. He was sixty-seven years old.

RICHARD MORRIS HOLMAN, associate professor of botany at the University of California, died suddenly on April 23, aged forty-nine years.

THE death is announced of Sir Richard Rawden Stawell, of Melbourne, Australia, president-elect of the British Medical Association.

HERBERT BRERETON BAKER, professor emeritus of chemistry at the Imperial College of Science, London, died on April 29, aged seventy-three years.

SCIENTIFIC NOTES AND NEWS

DR. HERBERT SPENCER JENNINGS, professor of zoology at the Johns Hopkins University, has been elected Eastman professor at the University of Oxford for the academic year 1935-36. Dr. Arthur H. Compton, professor of physics at the University of Chicago, is this year Eastman professor. The professorship was founded by the late George Eastman to send American scholars to Oxford, and the endowment is in the hands of the Association of American Rhodes Scholars.

ON the occasion of the annual dinner of the National Institute of Social Science the gold medal of the institute was awarded to Dr. Harvey Cushing, since 1933 Sterling professor of neurology at Yale University.

AT the annual convocation of the American College of Physicians, which met in New York City during the week of May 1, presentation of the John Phillips Memorial Medal was made to Dr. Leo Loeb, professor of pathology at Washington University, St. Louis. Professor Loeb delivered the convocation oration, speaking on "The Thyroid-stimulating Hormone of the Anterior Pituitary Gland." Dr. O. T. Avery, of the Rockefeller Foundation, to whom the John Phillips

award was made for 1932-33, and Dr. William B. Castle, of the Harvard Medical School, to whom the award was made for 1933-34, received the medals at the ceremony.

AT the New Orleans meeting of the Electrochemical Society, the Acheson Medal and \$1,000 Prize for 1935 was awarded to Frank J. Tone, president of the Carborundum Company at Niagara Falls, for his distinguished work in electrothermics. The presentation will take place on October 10, at Washington, D. C., where the fall convention of the society will be held.

DR. WALTER B. CANNON, George Higginson professor of physiology at the Harvard Medical School, was elected an honorary member of the National Academy of Medicine of Spain at the recent celebration of the two hundredth anniversary of its founding.

PROFESSOR GUÉRIN, director of the anti-tuberculosis vaccination service of the Pasteur Institute of Paris, has been elected a fellow of the French Academy of Medicine.

W. B. HERMS, professor of parasitology at the College of Agriculture of the University of California, has been decorated by the French government with the rank of Chevalier du Mérite Agricole.

At the annual meeting of the Boston Society of Natural History, held on May 1, the following officers were elected for 1935-1936: *President*, F. W. Hunnewell; *Vice-presidents*, Nathaniel T. Kidder, Glover M. Allen, William M. Wheeler; *Secretary*, Clinton V. MacCoy; *Treasurer*, Augustus P. Loring, Jr.; *Trustees*, Charles H. Blake, Ralph Hornblower, John C. Phillips, Alfred C. Redfield, Charles H. Taylor, William H. Weston, Jr. At the same meeting the annual Walker Prizes in Natural History, offered this year for the best memoir on any subject in the field of general zoology, were awarded to Caryl P. Haskins, Harvard University, for his paper on "The Perception of Sound and Sound Production in Certain Ants" (first prize) and Dr. T. T. Chen, Yale University, for his paper on "Chromosome Studies in Protozoa. I. Observations on Mitosis in Some Opalinids (Ciliata), with Special Reference to the Behavior and Individuality of Chromosomes" (second prize).

At the meeting of the Louisiana Academy of Sciences held in Alexandria on March 29 and 30, O. L. Meehan, of the U. S. Bureau of Fisheries, Natchitoches, was awarded the gold medal of the academy for his paper on "The Relative Importance of the Plankton Constituents of the Bass Ponds as Measured by their Organic Contents." The twenty-five-dollar prize awarded by the Graduate School of Louisiana State University was given to George H. Lowery, Jr., graduate student in the department of zoology of the university. The subject of his paper was "Preliminary Notes on the Biological Survey of Louisiana—Life Regions and Mammals."

THE Howard Taylor Ricketts Prize of the University of Chicago for 1935 has been awarded to Floyd S. Markham, advanced student in bacteriology, for his paper entitled "Studies in the Submaxillary Gland Virus of the Guinea Pig" and to Sion W. Holley, assistant in pathology, for his paper entitled "Corneal Reactions of Normal and of Tuberculous Guinea Pigs to Tuberculo-protein and Tuberculo-phosphatide." Established in honor of Dr. Howard Taylor Ricketts, who discovered the germ of typhus fever and died from the disease while working in Mexico in 1910, the award is announced each year on May 3, the anniversary of his death. The prize is given to a student or students for the best results in research in either the department of pathology or the department of hygiene and bacteriology.

JAMES H. CRITCHETT, vice-president of the Union Carbide and Carbon Research Laboratories, Inc., New York City, has been elected to succeed Dr. Hiram S. Lukens, of the University of Pennsylvania, as president of The Electrochemical Society, Inc.

DR. ERNEST B. BRADLEY, of Lexington, Ky., was chosen president-elect of the American College of Physicians at the recent Philadelphia meeting. He will take office at the session a year from now. Dr. James Alex. Miller, professor of clinical medicine at the College of Physicians and Surgeons of Columbia University, was inducted as president. He succeeds Dr. Jonathan C. Meakins, professor and head of the department of medicine at McGill University, who gave the presidential address, in which he traced the history of the various colleges of physicians and surgeons. Dr. Arthur R. Elliott, of Chicago; Dr. David P. Barr, of St. Louis, and Dr. Egerton L. Crispin, of Los Angeles, were elected first, second and third vice-presidents, respectively.

At a recent meeting of the Seismological Society of America, Professor S. D. Townley was elected president of the society. At the same time he relinquished the editorship of the *Bulletin* of the Seismological Society, which he has held since 1911.

PROFESSOR F. ELLIS JOHNSON, head of the department of electrical engineering at the Iowa State College, has been appointed dean of the School of Engineering at the University of Missouri.

PROFESSOR THORNDIKE SAVILLE, since 1932 head of the department of hydraulic and sanitary engineering at New York University, has become associate dean of the College of Engineering.

DR. ANDREW HUNTER, Gardiner professor of physiological chemistry at the University of Glasgow, has been appointed professor of pathologic chemistry at the University of Toronto. He succeeds the late Professor Victor J. Harding.

THE retirement, after serving continuously for forty years, is announced of Professor Ransom A. Moore, head of the department of agronomy at the University of Wisconsin. He will be succeeded by Olaf S. Aamodt, head of the department of field crops of the University of Alberta.

DR. CARL E. GUTHE, director of the Museum of Anthropology at the University of Michigan, has been made chairman of the Division of Social Sciences, established by the regents in May, 1934, at the request of the Social Science Research Council of the university. It will consist for the present of the following departments and schools: anthropology, business administration, economics, geography, history, law, philosophy, political science, psychology and sociology.

DR. HOWARD S. BRODE, professor of biology and curator of the museum at Whitman College, Walla Walla, Wash., for the past thirty-six years, will retire as head of the department at the close of the present

academic year. He will continue to serve as curator of the museum. Dr. Malcolm D. Brode has been appointed acting head of the department for the coming year.

DR. ROBERT T. HATT has resigned as assistant curator in the Department of Mammalogy of the American Museum of Natural History as of July 1, to become director of the Cranbrook Institute of Science.

THE appointment of members of an advisory council for the George S. Cox Medical Research Institute for the study of diabetes, which is one of a group of related medical units affiliated with the University of Pennsylvania, has been announced by Dr. Alfred Stengel, vice-president of the university in charge of medical affairs. Those appointed are: Dr. J. B. Collier, professor of biochemistry at McGill University; Dr. George A. Harrop, associate professor of medicine, the Johns Hopkins University; Dr. Elliott P. Joslin, clinical professor of medicine, Harvard University; Dr. Phillip E. Smith, associate professor of anatomy, School of Medicine, Columbia University; Dr. Rollin T. Woodyatt, professor of medicine, University of Chicago; Dr. O. H. P. Pepper, professor of medicine, University of Pennsylvania.

DR. IRVING LANGMUIR, director of the Research Laboratory of the General Electric Company, gave a lecture at Harvard University on "Films Consisting of One or More Layers of Molecules" on May 7 under the auspices of the Harvard Chapter of the Society of Sigma Xi.

THE annual Phi Beta Kappa address at Colgate University was delivered on April 16 by Professor Douglas Johnson, of Columbia University, who took as his subject "Muddy Thinking."

THE second annual Harry Hayward Charlton Memorial Lecture in Anatomy was delivered on April 30 by Dr. H. B. Latimer, professor of anatomy at the University of Kansas, at the Medical School of the University of Missouri. Professor Latimer spoke on "Growth as Illustrated by Laboratory Animals."

DR. F. H. PIKE, of Columbia University, lectured before the Washington Square College Chapter of the Psi Chi (national honorary society in psychology) on April 17 on "The Nature of Nervous Reactions."

THE annual dinner of the Cornell Medical College was held at the Biltmore, New York City, on May 2. The speakers included President Livingston Farrand, of Cornell University, and Dr. James Ewing, professor of oncology at the college.

FOR several years the department of geology and geography of Northwestern University has had an

exchange lecture plan. There have been two exchanges with the University of Cincinnati, one with Washington University, St. Louis, and this year with George Peabody College, Nashville. In this year's exchange, Professor W. H. Haas gave a series of four lectures on "The Geography of the Tropics" on April 11 and 12, and Professor A. E. Parkins filled the return engagement at Evanston on April 25 and 26, speaking on "The Geography of the South."

THE Wilbur Wright Memorial Lecture and conversation of the Royal Aeronautical Society will take place in the Science Museum, London, by permission of Colonel E. E. B. Mackintosh, director of the museum, on May 30. The lecture will be read by D. W. Douglas, president of the American Institute of Aeronautical Sciences, and designer of Douglas aircraft.

THE sixth annual meeting of the American Association of Physical Anthropologists was held at the Wistar Institute of Anatomy, Philadelphia, on April 25, 26 and 27. The annual public address was delivered by Professor T. Wingate Todd, of Western Reserve University, who spoke on "The Bodily Expression of Human Growth and Welfare." At the annual dinner the guest speaker was Professor C. U. Ariens Kappers, of the University of Amsterdam.

THE ninety-fourth Congress of German scientific men and physicians, which had been arranged for this year, has been postponed to May 24, 1936, when it will be held in Dresden under the presidency of Professor Sauerbruch.

THE dedication of the new library and chemical buildings at the University of Arkansas will be held on June 10. At the exercises for the chemistry building Dean V. L. Jones will preside, and the main address will be given by Dr. Edward Bartow, president-elect of the American Chemical Society.

THE Regents of the University of Michigan have changed the name of the department of chemical engineering to the department of chemical and metallurgical engineering and have authorized the dean and faculty of the College of Engineering to arrange a program in metallurgical engineering leading to the degree of Bachelor of Science in Engineering (Metallurgical Engineering).

THE School of Medicine of George Washington University announces the acceptance of several grants for various research projects as follows: From the Rockefeller Foundation the sum of \$25,500 in support of studies in the department of biochemistry; a renewal of the Kane-Kotz Fund of \$1,700 for studies on clinical endocrinology in the department of obstetrics and gynecology; from the Eli Lilly Company the sum of \$1,200 for a fellowship in biochemistry, and a grant

of \$1,800 for the study of the post-pituitary hormones from Parke, Davis and Company.

Two gifts, amounting to \$243,000, have been made to the University of Chicago by the Rockefeller Foundation. The larger gift, of \$168,000, is to assist in establishing a department of psychiatry and the second gift, of \$75,000, is for support of research in the humanities. With the establishment of the department of psychiatry as a division of medicine, there are represented in the south side medical school all the ordinary branches of medical research. The new psychiatric division will maintain twelve beds in a special unit of the University Clinics, and emphasis will be laid on research in the causes and cure of mental disease. Appointment of a psychiatrist as head of the department will be made before July 1, when the new unit will be established.

A GIFT of £10,000 has been received from J. Albert Thompson for the purpose of establishing a commercial laboratory in the University of Edinburgh. This will provide for the immediate requirements in staff and equipment for a laboratory providing the approved methods of training for students for the commerce degree.

A JOINT expedition representing the museum of the University of Pennsylvania and Columbia University has left for Venezuela where, under the leadership of Dr. M. Vincent Petrullo, four months will be spent in investigating the Goajiros, one of the least-known primitive tribes. Accompanying Dr. Petrullo will be Mrs. Gwyneth Browne Harrington, of Boston; Miss Lydia du Pont, of Wilmington, Del., and Lewis Korn, of Philadelphia, assistants in the South American Section of the University Museum, and Dr. and Mrs.

Paul Kirehoff, who will represent Columbia University. The group will stop over for a few days at Curaçao and then proceed to Maracaibo, Venezuela, before journeying into the interior. In addition to the University Museum and Columbia University, the expedition is being sponsored also by the Latin-American Institute, Philadelphia, which has recently been formed in response to a demand for an agency to organize and coordinate research and to disseminate information on the entire field of Middle and South American ethnology, archeology, anthropology and linguistics. The forthcoming investigation of the Goajiros is the first opportunity of the institute to carry out actively the purposes of its foundation.

THE British Mount Everest Committee has arranged to send to Mount Everest this summer a small reconnaissance expedition in preparation for a further attempt on the summit in the early summer of 1936, under the leadership of Hugh Rutledge. The reconnaissance will be led by E. E. Shipton, and will include H. W. Tilman, Dr. Charles Warren, E. H. L. Wigram, L. V. Bryant (from New Zealand), Michael Spender and one or more members from India of the Himalayan Club not yet finally selected.

DR. SVEN HEDIN, accompanied by members of his expedition, arrived in Stockholm on April 15. The London *Times* reports that he was received at the station by a large and cheering crowd, headed by the Duke of Dalecarlia, grandson of the King. Later in the day a deputation from the Swedish Royal Geographical Society waited on him at his home and presented to him a superbly bound publication and the Austrian Minister handed to him a high Austrian distinction.

DISCUSSION

THE ORIGIN OF THE HIGHER FLOWERING PLANTS

WHEN recently reading Dr. A. C. Seward's "Plant Life through the Ages" (1933) the old puzzle concerning the apparently sudden dominance of Angiosperms in Cretaceous time came before me and led to the development of some ideas which may be worth discussing. It has been commonly assumed by botanists that the first Angiosperms were trees or at all events woody plants. This opinion appears to be strongly fortified by the fossil record, the remains found belonging almost exclusively to arborescent forms. But evidence of this sort is probably not conclusive, for such reasons as the following:

(1) In the existing flora, herbaceous plants are especially prevalent in mesophytic and arid situations, and from their mode of growth, as well as the circumstances of their environment, are extremely unlikely to be preserved as recognizable fossils. The deciduous leaves of trees, which often cover the ground after a storm, are very much more likely to be covered up and preserved.

(2) No one can possibly doubt that herbaceous plants abounded during mid-Tertiary time, much as they do to-day. Yet if we examine Knowlton's "Catalogue of the Mesozoic and Cenozoic Plants of North America" (1919) the extreme poverty of herbaceous genera in the recorded extinct floras is astonishing.