

was connected for a brief period with Harvard University. He was a staff member of the Desert Laboratory, 1906; cytologist of the Arizona Agricultural Experiment Station, 1907; director of the department of investigation of the Continental-Mexican Rubber Co., 1907-08, and professor of botany in the Alabama Polytechnic Institute, 1908-12. Since 1912 he has held the MacDonald professorship of botany at McGill University. He has been a member of a number of scientific expeditions to Mexico, Puget Sound and Alaska, Dominica, Java and Sumatra.

For several years he was editor of *Plant World*, is now an associate editor of the *American Review of Tropical Agriculture*, and a member of the editorial board of *Plant Physiology*, the journal of the American Society of Plant Physiologists. Professor Lloyd has published many contributions in the field of botany, including the comparative embryology of the *Rubiaceae*, the morphology and physiology of the Mexican rubber plant guayule, the physiology of stomata, transpiration, tannin metabolism, fluorescent pigments, colloidal phenomena and the physiology of plant growth. His recent work, employing motion pictures to record the activity of conjugating cells of *Spirogyra* and the habits of *Vampyrella*, on which he has reported at recent meetings of the American Society of Plant Physiologists, has attracted much attention, and has thrown much light on the difficult field of protoplasmic physiology.

Professor Lloyd is a member of many scientific societies in this country and abroad, and is recognized as one of the most able and inspiring teachers and as one of the most distinguished investigators in American plant physiology. The American Society of Plant Physiologists expresses its appreciation of his important contributions in awarding to Professor Lloyd the second Charles Reid Barnes life membership in the society.

The Committee on the award of the first Charles Reid Barnes Life Membership of the American Society of plant Physiologists: Lee M. Hutchins, Walter F. Loehwing, Walter E. Loomis, James S. McHargue, Frank M. Andrews, chairman.

SCIENTIFIC NOTES AND NEWS

THE president and council of the Royal Society decided at their meeting on February 16 to recommend for election into the society the following fifteen candidates: Dr. Gleb V. Anrep, Professor Harry Bateman, Professor Carl Hamilton Browning, Mr. Stanley Smith Cook, Mr. William David Dye, Professor Clinton Coleridge Farr, Professor Major Greenwood, Dr. John William Heslop Harrison, Professor Walter Norman Haworth, Dr. David Keilin, Dr. Finlay Lorr-

mer Kitchin, Dr. Francis Sowerby Macaulay, Professor Samuel Barnett Schryver, Professor Walter Stiles and Professor Robert Whytlaw-Gray.

IN connection with the tercentenary celebration by the College of Physicians of London of the publication of William Harvey's book, "De Motu Cordis," the Earl of Balfour, Sir Ernest Rutherford, Professors Ivan Petrovitch Pavlov and Karl Friedrich Wenckebach are to be made honorary fellows of the college.

DR. HENRY LE CHATELIER, honorary president of the French Society of Industrial Chemistry, has been made an honorary member of the American Society of Mechanical Engineers. The presentation was made on February 28 by Charles M. Schwab at a luncheon at the American Embassy in France.

DR. MICHAEL I. PUPIN, professor of electro-mechanics at Columbia University, was recently given the Washington award by the Western Society of Engineers at Chicago in recognition of his work on long-distance telephony and the radio.

PROFESSOR MAYNARD M. METCALF, of the department of biology of the Johns Hopkins University, has been elected a foreign member of the Société de Biogéographie de Paris.

DR. J. C. TH. UPHOF, professor of botany and head of the department of biology at Rollins College, Winter Park, Fla., has been elected a member of the Deutsche Botanische Gesellschaft.

DR. E. E. SLOSSON, director of Science Service, had conferred upon him the honorary degree of doctor of science at the founders' day exercises at Rollins College on February 20.

ON the occasion of the Washington Birthday celebration at the University of Pennsylvania, the honorary degree of fine arts was conferred upon Dr. R. Tait McKenzie, director of physical education at the university.

AT their annual meeting held on February 8, Dr. Charles Greeley Abbot, secretary of the Smithsonian Institution, was elected director of the Research Corporation of New York, to succeed the late Dr. Walcott.

JULIAN C. SMITH, vice-president and general manager of the Shawinigan Water and Power Company, Montreal, was installed as president of the Engineering Institute of Canada for 1928 at the institute's recent annual convention.

DR. LINSLEY R. WILLIAMS, former deputy commissioner of the State Department of Health, has been elected president of the New York Tuberculosis and Health Association to succeed Dr. James Alexander Miller, who retires after nine years' service.

THE Sigma Xi Alumni Association of the University of Pittsburgh has elected the following officers for the year 1928: *President*, Dr. Oswald H. Blackwood (physics); *vice-president*, Dr. L. P. Sieg (physics); *secretary*, Dr. Alfred E. Emerson (zoology). The active membership of this association consists of 85 Sigma Xi alumni on the staff of the University of Pittsburgh.

THE following officers and new members of the council of the Royal Astronomical Society have been elected: *President*, Rev. T. E. R. Phillips; *vice-presidents*, Professor A. S. Eddington, Professor Alfred Fowler, Dr. J. W. L. Glaisher, Lieut.-Col. F. J. M. Stratton; *treasurer*, Dr. E. B. Knobel; *secretaries*, Dr. John Jackson, Dr. H. Knox-Shaw; *foreign-secretary*, Professor H. H. Turner; *new members of council*, Professor S. Chapman, Sir Frank Dyson, Mr. W. M. H. Greaves, Dr. Gerald Merton, Professor E. A. Milne.

AT the anniversary meeting of the Royal Anthropological Institute, held on January 24, Professor J. L. Myres was elected president in succession to Mr. H. J. E. Peake, whose term of office has expired. The vacancy for a vice-president was filled by the election of Professor H. J. E. Fleure, and Mr. G. D. Hornblower was elected honorary treasurer in succession to Dr. F. C. Shrubbsall.

PERKINS COVILLE, for the past five years instructor in forestry at Iowa State College, has been appointed assistant silviculturist, a new position in the U. S. Forestry Service. He will assume his new duties on July 1, in Washington.

DR. BERNARD O. DODGE, of the U. S. Department of Agriculture, has been appointed plant pathologist at the New York Botanical Gardens.

RALPH A. MORGAN has resigned from the development branch of the Western Electric Company, to take charge of the research and development work for Black, Swalls and Bryson and their subsidiary corporation, the Cleaners' Equipment Corporation.

DR. GEORGE N. WALCOTT, formerly entomologist at the Insular Experiment Station, Porto Rico, and more recently with Service Technique, Haiti, has accepted a position with the sugar-cane and cotton experiment station in Peru. He is sailing from New York on April 12.

AT the Missouri Agricultural Experiment Station, Dr. Hans Jenny, of the Agricultural Chemical Experiment Station of Zurich, Switzerland, has been given an appointment in the department of soils, substituting for Dr. Richard Bradfield, who is spending a year's leave of absence at Kaiser Wilhelm Institute in Berlin.

DR. CORNELIS LELY, president and honorary member of the Netherlands Royal Institute of Engineers, was the guest of honor at a luncheon given at the Engineers' Club on March 6, under the auspices of the American Society of Civil Engineers, the American Institute of Mining and Metallurgical Engineers, the American Society of Mechanical Engineers and the American Institute of Electrical Engineers. Dr. John R. Freeman presided.

WALTER GRANGER, paleontologist, and Leslie E. Spock, geologist, with their associates, James B. Shackleford and Albert Thomson, sailed from San Francisco on March 2 to join the Central Asiatic Expedition of the American Museum of Natural History. In Peking they will meet Dr. Roy Chapman Andrews, the leader, now getting together a camel caravan, with which it is planned to start for the desert of Mongolia by mid-April.

PROFESSOR R. A. COOLEY, professor of zoology at Montana Agricultural College, will leave on April 1 for a year's leave of absence. He will spend part of the time in the interior of Africa with the Chicago zoological expedition and will study tick parasites.

DR. HENRY C. SHERMAN, Mitchill professor of chemistry at Columbia University, has been granted a leave of absence for the spring session.

PROFESSOR F. E. WOOD, of the department of mathematics at Northwestern University, is spending the year in research in Bologna and Rome.

DR. ALBRECHT PENCK, professor of geography in the University of Berlin, has accepted invitations to lecture at the University of Chicago during June and at the University of California during July.

DR. GEORGE R. MINOT, professor of medicine at the Harvard Medical School, will deliver the fifth Harvey Society lecture at the New York Academy of Medicine on Friday evening, March 16. His subject will be "The Treatment of Pernicious (Addison's) Anemia."

DR. FRANK C. MANN, of the Mayo Clinic, delivered the fourth L. L. McArthur lecture of the Billings Foundation before the Chicago Institute of Medicine on February 24 on "Experimental Peptic Ulcer."

PROFESSOR ARTHUR H. COMPTON, of the University of Chicago, was the guest of honor at the annual banquet of the Iowa chapter of Sigma Xi on February 29 and gave an illustrated public address under the auspices of the society on the subject "What Things are Made of."

DR. IRVING S. CUTTER, of Northwestern University Medical School, will give a Mayo Foundation lecture

at the Mayo Clinic on April 6 on "Some Sidelights on the Etiology of Puerperal Fever." This lecture is one of a series on medical history.

DR. CHESTER DARROW, of the Institute for Juvenile Research, Chicago, delivered an illustrated public lecture at Colgate University on February 28 on "Recent Developments in the Use of the Galvanometer in Psychology."

ON February 18, Dr. L. R. Jones, professor of plant pathology at the University of Wisconsin, delivered an address to the Royal Canadian Institute on the subject "The 'Survival of the Fittest' in the Field of Plant Pathology."

THE council of the Royal Medico-Psychological Association has decided to commemorate the life work of the late Sir Frederick Mott by publishing a memorial book, and for this purpose has appointed a committee consisting of Drs. C. Hubert Bond, F. L. Golla, Douglas McRae, Thomas Beaton and J. R. Lord.

DR. HARRIS HAWTHORNE WILDER, since 1892 head of the department of biology at Smith College, died on February 27, aged sixty-four years.

DR. CHARLES F. DAWSON, formerly assistant chief of the U. S. Bureau of Animal Industry and professor of bacteriology at the University of Florida, died on February 28, aged sixty-seven years.

DR. R. S. HOLWAY, emeritus professor of physical geography at the University of California, died on December 2, aged seventy years.

DR. W. L. JOHANNSSEN, professor of plant physiology in the University of Copenhagen, died on November 11.

THE United States Civil Service Commission announces open competitive examinations for associate agricultural engineer at a salary of \$3,000 and assistant agricultural engineer at a salary of \$2,400, applications for which must be on file with the commission not later than March 27. The examinations are to fill vacancies in the Bureau of Public Roads, Department of Agriculture, for duty in Washington, D. C., or in the field, and in positions requiring similar qualifications.

THE central petroleum committee of the National Research Council will meet in New York on March 17 to make recommendations to the American Petroleum Institute for research projects to be conducted during 1928-29 under the research fund contributed by Mr. John D. Rockefeller and the Universal Oil Products Company. Suggestions and proposals for research projects should be sent to the chairman of the committee, Professor Hugh S. Taylor, Princeton Univer-

sity, to reach him before March 15. Announcements on the research projects will be made before April 1.

FREE public lectures on medical topics will be given under the auspices of the Chicago Academy of Sciences and the North Side Branch of the Chicago Medical Society at the Chicago Academy of Sciences, at 3:30 P. M. on Sundays as follows: March 18, "Preventive Medicine," Dr. Nathan Smith Davis III; March 25, "Heart Disease in Childhood," Dr. Harold A. Bachmann; April 1, "Cults, Quacks and Cures," Dr. Morris Fishbein; April 15, "Tuberculosis," Dr. Ethan Allen Gray; April 22, "The Pre-School Child," Dr. Gustav L. Kaufmann; April 29, "The Prevention of Contagious Disease," Dr. Archibald L. Hoyne.

THE American Institute of Mining and Metallurgical Engineers, which recently held its annual meeting in New York, will convene in Boston next September. Electrical prospecting and the new geophysical methods now being used for the discovery of ore will be studied and discussed in technical sessions at this meeting.

PHI chapter of Tri Beta, honorary biology fraternity, was installed at Peru College, Nebraska, on February 13, by Dr. Wm. M. Goldsmith, of Southwestern College, Winfield, Kansas.

THE *British Medical Journal* states that the centenary celebration of the faculty of medicine at Cairo and an international congress of tropical medicine and hygiene will be held in association from December 15 to 22, 1928, in that town. In the provisional program which has just been issued, it is stated that various sectional meetings will be held and that special attention will be paid to ankylostomiasis and bilharziasis. In connection with this celebration a medical exhibition is being arranged, and it is possible that the foundation stone will be laid of a new building to replace the existing Kasr-el-Ani Hospital.

ACCORDING to the *Geological Magazine* the Geological Survey of Denmark will celebrate its fortieth anniversary in June, by a series of meetings and excursions to which foreign geologists are to be invited. Previous to the meeting in Copenhagen an excursion will be arranged to Bornholm, Denmark's outlying rocky island in the Baltic, which is replete with stratigraphical and all sorts of geological interest. Another party is to visit Moën and Zealand, where remarkable dislocations in the Senonian Chalk can be seen and studied. The conference will be devoted to lectures and discussions on the geology of Denmark, interspersed with inspections of the Copenhagen museums, with their collections of minerals, fossils and pre-historic remains. Afterwards, an eleven-day excursion will enable foreign geologists to visit and in-

spect a wide range of glacial phenomena in Zealand, Funen and Langeland, as well as on the mainland in Jutland.

In view of the disastrous floods which have occurred in the United States during the past year and the fact that congress at its present session will discuss legislation relating to flood prevention, schools of engineering in the country will be interested in the visit of two distinguished men from Holland who will lecture on flood prevention as exemplified in the reclamation of land from the Zuider Zee. Dr. Cornelis Lely, the distinguished engineer of Holland who originated the plan of draining the Zuider Zee, is expected to visit the United States this winter, arriving the latter part of February. He expects to lecture in the colleges in the east during the month of March. Mr. Plate, president of the Shipping Association in Rotterdam, with many years of experience in engineering in Holland and the Dutch East Indies, will arrive in New York on February 15. He will lecture on the same subject *en route* to San Francisco and upon his return trip to Ann Arbor. The fact that these men will visit different parts of the country will make it possible for engineers to become familiar with the methods used in Holland with the reclamation of land from the Zuider Zee. The Institute of International Education, 2 West 45th Street, New York City, is arranging the itineraries of both of these lecturers.

At the League of Nations assembly in September a report was presented on the work of the League's Committee on Intellectual Cooperation. The report, according to an account printed in *Nature*, directs special attention to the creation at the International Institute of Intellectual Cooperation of a coordination service of information offices attached to libraries, to the committee's proposals for coordination between the organs of bibliography for the various sciences, to the need of funds for the maintenance of the office for annual tables of constants and mathematical quantities, and to the steps taken in preparation for the Popular Arts Congress (to be held at Prague in 1928), for an international agreement with regard to casts, and for promoting the extension of the educational work of museums. It is also pointed out that additional funds are needed for the institute, grants to which are at present made only by the following countries: Austria, Czechoslovakia, France, Hungary, Italy, Monaco, Poland and Switzerland. The question how to protect and reward men of science and their discoveries by means of an international convention has been investigated during the past five years, and it is now thought that the matter is ripe for definite action. It is intended, therefore, to convene a committee of experts to prepare a draft convention.

A separate report was submitted on the Italian proposal for the creation of an educational kinematographic institute. This proposal looks to the creation at Rome of an institute under the direction of the League of Nations, but to be carried on at the expense of the Italian government.

DR. WILLARD R. JILLSON, director and state geologist of the Kentucky Geological Survey, announces the completion of a unit set of thirty structural oil and gas and geological maps of eastern Kentucky. The maps are issued by the Kentucky Geological Survey at the scale of 1 inch to the mile, and taken as a unit constitute the largest area, structurally mapped on the same keybed—the Fire Clay coal—in the world. The district covers 10,500 square miles. This work initiated in 1918 has just been completed with the release of the Harlan County sheet.

A HISTORY of the world's development, told in chronological exhibits of the birds, mammals and terrain of each period, has been begun by Dr. Frank C. Baker, curator of the museum of the University of Illinois. Every general type of bird has been arranged in ordinal periods. The development of birds during each era, showing the types, nests, eggs, skeletons and reproductions or actual display of plumages, is illustrated. Partially completed now are exhibits of the Cambrian, Ordovician, Silurian, Devonian, Mississippian and Pennsylvanian periods.

THE Wilder medal, one of the highest awards made by the American Pomological Society, has been given to the Canadian Government Central Experimental Farm, Ottawa, for the Melba apple, which was originated at the Ottawa farm. This is the eighth time that the Wilder medal has been awarded to the Canadian Government Experimental Farm for notable varieties of apples.

DR. R. S. BASSLER, of the U. S. National Museum, writes that a pamphlet on the international rules of zoological nomenclature has been published by the Biological Society of Washington, copies of which can be had by addressing the secretary of that society, care of the U. S. Bureau of Entomology.

BEGINNING next September, a new department of agriculture will be inaugurated in Carthage College, Carthage, Illinois. A two years' course will be offered which will coordinate with the work offered at the University of Illinois.

THE Louisiana State University is adding to its summer curriculum a field course in zoology at some near seaside point, probably at the foot of Barataria Bay. The course is to be open to students who have had preliminary training and will be conducted with

emphasis upon the local marine fauna. It is hoped that students from other southern schools and instructors interested in research upon local marine forms will join the undertaking.

A LARGE number of specimens of plants, birds, mammals and insects are included in the collections brought back by the Lee Garnett Day expedition to Mount Roraima, according to an announcement by the American Museum of Natural History. A total of 1,260 birds, some 350 mammals and many plants and insects were sent back by the party. The members of the expedition were G. H. H. Tate and T. D. Carter, of the museum's department of mammalogy, and Mr. Tate's brother, G. M. Tate, who joined them after traveling from Para, Brazil, up the Amazon and Negro Rivers to Manaus, thence by boat and canoe to the confluence of the Rivers Surumu and Cotinga. From there the journey was made in eleven days on foot.

PURCHASE of the plant collections of the late Dr. L. M. Umbach, of North Western College, Naperville, Ill., has added about 50,000 specimens to the University of Wisconsin herbarium. The acquisition practically doubles the collections of the university, and makes it one of the largest herbariums of middle west plants. Included in the addition are also collections from other parts of the country, from Europe, some from Asia and elsewhere.

It is reported that the Rockefeller Foundation has given to the Stockholm High School 25,000 crowns for a building for a biochemical institute, with Professor Hans Von Euler as director. A like sum has been raised in Sweden.

THE Puget Sound Biological Station of the University of Washington, located at Friday Harbor, Washington, is erecting a fireproof store room 24 x 56 feet and a fireproof research laboratory, 31 x 73 feet. These are to be finished by June 1.

UNIVERSITY AND EDUCATIONAL NOTES

THE University of Chicago has received a gift of \$250,000 from Mr. Julius Rosenwald to be used for graduate work and research in the departments of physics, mathematics and astronomy.

Six friends of Wesleyan University have pledged a total of \$600,000 to the centennial committee. The aims for the centennial year include a fund of \$1,000,000 to raise the faculty salaries and to provide adequate pensions for retired faculty members.

DR. EDWARD HICKS HUME, former president of Yale-in-China, has been appointed to the newly cre-

ated post of director of the Post-Graduate Medical School and Hospital at Yale University. Under the new organization, the dean of the medical school, the superintendent of the hospital and the principal of the school of nursing will all be responsible directly to Dr. Hume, who in turn will be responsible to the board of directors.

DR. GARY N. CALKINS, professor of protozoology in Columbia University, has been named executive officer of the department of zoology for three years.

HAROLD GOULDEN, formerly of the Squibb Laboratories, has been appointed an instructor in the department of biochemistry of the New Jersey College of Pharmacy.

ASSOCIATE PROFESSOR LAO G. SIMONS has been promoted to a full professorship and head of the department of mathematics at Hunter College.

A. J. WILSON, professor of analytical chemistry at North Carolina State College, has been appointed chairman of the department of chemistry for the remainder of the session, succeeding Frank E. Rice.

M. E. DELAFIELD, head of the department of public health and hygiene at University College, London, has been appointed to the university chair of chemistry as applied to hygiene tenable at the London School of Hygiene and Tropical Medicine.

DR. F. G. TRAYHORN has been appointed professor of chemistry at University College, Hull.

DR. SIGURD, of Freiburg, has succeeded Professor Trendelenburg in the chair of pharmacology at Berlin.

DISCUSSION AND CORRESPONDENCE

TREE FROGS AND PITCHER PLANTS

It is well known that the regions where the southern pitcher plant (*Sarracenia flava*) abounds may also be the home of the carolina, or green tree frog (*Hyla cinerea*), but an association between them has not been noticed. However, the following observations seem to show that these frogs make use of the pitcher plant, though this may prove to be no general rule but only a local habit, possibly restricted to special conditions of weather.

In June and July, 1888, an examination of some of the pitcher plant leaves growing in abundance in the wet lands amidst pine groves close to Beaufort, North Carolina, showed that not a few of the leaves were inhabited by tree frogs. The leaves of this plant form beautiful yellow-green trumpets that stand straight up, in clusters, so high that one is naturally tempted to look down into their wide mouths to the water and insects that may be down in the narrowly