

ERNEST WILLIAM BROWN, SC.D.

*Professor Phelps:* Professor Brown was born at Hull, England, and received in 1887 his B.A. degree at Christ's College, Cambridge, where two centuries earlier an English poet paid a compliment to Galileo. Professor Brown has won many prizes and is a member of learned societies in America and abroad. In 1891 he became professor of mathematics at Haverford, where he remained until 1907, when he was called to Yale. He became professor emeritus in 1932. His publications on lunar theory and celestial mechanics have given him an international reputation and have added to the glory of Yale. His *Tables on the Motion of the Moon* is a monumental work and has brought him a blizzard of degrees, medals, prizes and honors. He is an excellent chess player and an amateur humorist of high reputation. In his youth he expected to be a concert pianist, but later took up the music of the spheres. His versatility is additionally shown in that, although he is a specialist on the moon, in the year 1925 in the city of New Haven he arranged a personally conducted total eclipse of the sun.

*Dr. Angell:* In grateful and affectionate acknowledgment of the luster shed upon her by your brilliant scientific achievement during a long and distinguished service on her faculty, Yale University gladly confers upon you the degree of Doctor of Science, admitting you to all its rights and privileges.

HUGH SMITH CUMMING, LL.D.

*Professor Phelps:* Born in Virginia, taking his degree of Doctor of Medicine at the University of Virginia, Dr. Cumming was appointed Assistant Surgeon in the United States Public Health Service in 1894, and became Surgeon-General in 1920. In earlier years he made creditable contributions in the field of public health research, particularly in regard to the sanitary conditions of the shell-fish industry, but his finest achievements have been during the last thirteen years, in the administration of Public Health Service. When he took control it was a rather undistinguished organization; he gradually transformed it into an institution of which our country is proud, an institution equalled perhaps in no other country except England. Benchwarmers have been progressively lifted and their places taken by able investigators, with the result that during the last five or six years substantial and far-reaching contributions have been made in the study of such nutritional diseases as beriberi, in the investigation of tularemia, Rocky Mountain spotted fever and endemic typhus; in studies on silicosis, and other aspects of industrial hygiene; also in the field of pure science, where researches in the chemical composition of sugars have attracted attention. All these tech-

nical remarks simply mean that Dr. Cumming is a first-rate citizen.

*Dr. Angell:* Eminent representative of a noble profession, essential architect and builder of the Public Health Service of the United States, everywhere recognized as one of the most beneficent of all agencies dedicated to the public weal, in grateful recognition of the intelligence, devotion and skill which you have brought to your duties, Yale University confers upon you the degree of Doctor of Laws, admitting you to all its rights and privileges.

### THE CHICAGO MEETING

THE notable meeting of the American Association for the Advancement of Science and the associated societies, which opened in Chicago on June 19 and continues to June 30, will be fully reported in SCIENCE. The meeting was held on the invitation of the Century of Progress Exposition, which, together with the American Association, invited as guests a number of the most distinguished foreign men of science. Those who accepted the invitation and took part in the general sessions and conferences are the following:

OTTO APPEL, Agriculture, Berlin  
 F. W. ASTON, Chemistry, Cambridge  
 JOSEPH BARCROFT, Physiology, Cambridge  
 A. MENDELSSOHN BARTHOLODY, Political Science, Hamburg  
 JAKOB BJERKNES, Meteorology, Bergen  
 NIELS BOHR, Physics, Copenhagen  
 FILIPPO BOTTAZZI, Physiology, Naples  
 LUDWIG DIELS, Botany, Berlin  
 JEAN DUFRÉNOY, Agriculture, France  
 LEOPOLD FEJÉR, Mathematics, Budapest  
 ENRICO FERMI, Physics, Rome  
 A. P. M. FLEMING, Engineering, Manchester  
 R. GOLDSCHMIDT, Zoology, Berlin  
 HERBERT J. GOUGH, Engineering, London  
 SIR DANIEL HALL, Agriculture, London  
 A. V. HILL, Physiology, London  
 C. U. A. KAPPERS, Anthropology and Physiology, Amsterdam  
 WOLFGANG KOEHLER, Psychology, Berlin  
 AUGUST KROGH, Zoology, Copenhagen  
 TULLIO LEVI-CIVITA, Mathematics, Rome  
 EMILIO MIRA, Psychology, Barcelona  
 WILLIAM OUALID, Political Economy, Paris  
 HENRI PIERON, Psychology, Paris  
 J. J. SEDERHOLM, Geology, Helsingfors  
 CHARLES E. SPEARMAN, Psychology, London  
 T. SVEDBERG, Chemistry, Upsala  
 R. J. TILLYARD, Entomology and Paleontology, Australia

## SCIENTIFIC NOTES AND NEWS

DR. HARVEY CUSHING, who recently retired as Moseley professor of surgery at Harvard University and surgeon-in-chief at the Peter Bent Brigham Hospital, has been appointed first Sterling professor of

neurology at Yale University. The chair has been founded through a gift of \$300,000 from the estate of John W. Sterling.

DR. JAMES FRANCK, professor of physics at the

University of Göttingen, who refused the offer of the Nazi government to let him retain his position there, has been appointed for the coming academic year Speyer guest professor at the Johns Hopkins University.

At the commencement exercises at Harvard University the degree of doctor of science was conferred on Professor Harlow Shapley, director of the Harvard College Observatory, and on Dr. George David Birkhoff, professor of mathematics. In conferring these degrees, President Lowell made the following citations: "Harlow Shapley—An astronomer of renown, whose spirit, searching for the center of the universe and the nature of the ultra-galactic nebulae, chafes at observing only from this paltry planet." "George David Birkhoff—First in our land among masters of mathematics, that great tool of science; greater still in the realm of pure imagination."

At the commencement exercises at the University of Pennsylvania the degree of doctor of science was conferred on Professor Charles W. Burr, of the Graduate School of Medicine.

THE doctorate of science has been conferred by Brown University on Professor Harlow Shapley, director of the Harvard College Observatory, and on the late Frederic P. Gorham, at the time of his death chairman of the department of biology at the university.

DR. HERBERT S. JENNINGS, director of the zoological laboratory of the Johns Hopkins University, received the degree of doctor of science at the commencement exercises of Oberlin College.

THE honorary degree of doctor of science was conferred by the Ohio State University at its commencement, on June 12, on Dr. Edward Francis, of the National Institute of Health, Washington, D. C.

SIR WILFRED THOMASON GRENFELL delivered the commencement address at the ninety-sixth commencement of the University of Louisville on the evening of June 6. The honorary degree of doctor of science was conferred upon him by the university.

DR. C. U. ARIENS KAPPERS, director of the Zentral Institut für Hirnforschung at Amsterdam, received the honorary degree of doctor of laws from the Chicago Medical School, at its eighteenth annual commencement, in recognition of his work in neuropsychiatry.

DR. A. A. BENEDETTI-PICHLER, of the department of chemistry, Washington Square College, New York University, has received the Pregl Prize, awarded annually by the Vienna Academy of Sciences for distinguished work in microchemistry.

DR. ROBERT P. BIGELOW, professor of zoology at the Massachusetts Institute of Technology, who has been connected with the institute since 1893, retires at the end of the academic year with the title professor emeritus. He will be an honorary lecturer at the institute next year.

DR. CHARLES H. RICHARDSON, for more than twenty-five years professor of mineralogy and head of the department at Syracuse University, has retired with the title of professor emeritus of mineralogy. He will continue as director of the natural science museum and will give part of the time to lecturing at the university. On June 19 he received the honorary degree of doctor of science from Norwich University, Northfield, Vermont.

SIR ARTHUR KEITH, who has been for twenty-five years conservator of the museum and Hunterian lecturer of the Royal College of Surgeons, will shortly retire, but will continue his connection with the college. He will have charge of the two laboratories of the college, recently built at Down, in Kent, where Charles Darwin lived. They are endowed by Sir Buckston Browne and are for experimental work in surgery. Sir Arthur will supervise the work of young surgeons who will live and work in Down.

DR. E. MELLANBY, professor of pharmacology at the University of Sheffield, has resigned.

DR. G. A. CLARK, lecturer in physiology at the University of Sheffield, has been promoted to a professorship in succession to Professor J. B. Leathes.

At a meeting of the court of the University of St. Andrews on June 2, John Anderson was appointed professor of surgery in succession to the late Professor L. Turton Price.

At the annual meeting of the New Orleans Academy of Sciences, the following officers were elected: Robert Glenk, curator, Louisiana State Museum, *president*; H. H. Beard, Ph.D., biological chemist, Louisiana State University Medical Center, *first vice-president*; E. C. Faust, M.D., parasitologist, Tulane University, *second vice-president*; E. L. Demmon, chief, U. S. Forest Experiment Station, *secretary*, and Dr. D. S. Elliott, dean of the department of physics, Tulane University, *treasurer*.

OFFICERS of the Minnesota chapter of Sigma Xi for the coming year are as follows: *President*, Dr. Samuel C. Lind; *Vice-president*, Dr. Frederic K. Butters; *Secretary*, Dr. Frederick B. Hutt; *Treasurer*, Dr. George A. Thiel; *Board of Electors*, Dr. John E. Anderson, Dr. C. H. Bailey, Dr. Charles A. Mann and Dr. Owen Wangensteen.

At Syracuse University on May 29, Sigma Pi

Sigma, honorary physics fraternity, installed its twenty-sixth chapter when twenty students, alumni and faculty members were initiated into the society as the Alpha-Beta Chapter. The installing officers were: Dr. Marsh W. White, Pennsylvania State College, *executive secretary*, and G. D. Collins, Cornell University, *national vice-president*. The formal installation was followed by a dinner at the University Inn, in honor of the installing officers, visiting members of Sigma Pi Sigma and administrative officers of the university. After brief speeches by Dr. Royal A. Porter, head of the physics department at Syracuse, and others, Dr. White delivered an address on "New Frontiers in Contemporary Physics."

THE Textile Foundation has authorized a survey into the personnel and facilities for textile education. A committee consisting of Dr. Karl T. Compton, president of Massachusetts Institute of Technology, E. C. Brooks, president of North Carolina State College, and R. E. Doherty, dean of the School of Engineering, Yale University, has been appointed to inquire into the possibility of such a survey, and upon their recommendation the work will begin.

THE appointment of an advisory committee on sanitation to serve the Baltimore Health Department, especially on matters of environmental hygiene, has been announced. Dr. William H. Howell, director emeritus of the Johns Hopkins School of Hygiene and Public Health, is chairman of the committee. Wilmer H. Schulze, who since 1929 has been chief of the division of chemical technology, was made director of the new bureau of environmental hygiene in the health department.

DR. GLENNON GILBOY, associate professor of soil mechanics in the department of civil engineering at the Massachusetts Institute of Technology, has sailed for Copenhagen, where he will attend the sessions of the World Power Conference as a delegate of the United States. The conference opened in Copenhagen on June 26, continues in Stockholm from June 28 to July 6 and will end in Oslo on July 8.

COLONEL CHARLES F. CRAIG, of the Department of Tropical Medicine, Tulane University, spoke on "The Factors Influencing the Transmission of the Malarial Fevers" at the recent meeting of the New Orleans Academy of Science.

AFTER completing a series of lectures at the University of London in May, Professor William K. Gregory gave a lecture on June 6 at the University of Oxford on "The Evolution of Jaws and Teeth in Primates." Dr. Gregory has now returned to the United States.

THE annual Boyle lecture of the Junior Scientific Club at the University of Oxford was delivered on

June 2 by Lord Rutherford, who took as his subject "The Artificial Transmutation of the Elements."

THE fifth congress of the International Society of Urology will be held at the Royal Society of Medicine, London, from July 10 to 15, under the presidency of Sir John Thomson-Walker.

THE fifteenth annual meeting of the American Society of Mammalogists was held at the Biological Institute of Harvard University, from May 9 to May 13. Sixty-six members were present from ten states and one Canadian province. Forty-one papers were presented. Several resolutions were passed, among them one urging that the black bear be taken off of the bounty list in New Hampshire, and another stressing the importance of preserving the elk herd in the Olympic Mountains. The officers elected for the coming year were: *President*, Vernon Bailey; *Vice-presidents*, T. S. Palmer, H. E. Anthony; *Recording Secretary*, Robert K. Enders; *Corresponding Secretary*, Robert T. Hatt; *Treasurer*, Mrs. Viola S. Snyder; *Directors*, class of 1933-1935, Joseph Grinnell, A. Brazier Howell, Remington Kellogg, W. E. Saunders, Harold Coolidge, Jr. Edward A. Preble continues as chairman of the editorial board in charge of *The Journal of Mammalogy*. The next annual meeting will be held at the American Museum of Natural History in New York City.

THE United States Civil Service Commission has announced open competitive examinations for the positions of senior highway construction supervisor, salary \$4,600 to \$5,400; senior highway design engineer, salary \$4,600 to \$5,400, both with the Bureau of Public Roads, Department of Agriculture, Washington, D. C.; junior park naturalist, Department of the Interior, salary \$2,000 a year. The salaries carry a provision for a 15 per cent. reduction as a measure of economy and a 3½ per cent. deduction for retirement.

MORE than \$2,000,000 has been bequeathed to the University of Chicago by the late W. G. Zoller to establish and maintain a free dental dispensary, according to the *Chicago Tribune*. The income will be used by the university "for the purpose of equipping and maintaining dispensaries and laboratories and to supply competent and skilful dental service, including diagnostic aids to the needy and poor, free of charge, in such manner that the greatest number of people may secure skilful treatment to enable them to be relieved, and to prevent the numerous ills which result from neglect of the teeth."

WE learn from the *Journal* of the American Medical Association that ceremonies were held on April 21 dedicating the George Eastman Dental Clinic at Rome, a gift to the Italian government from the late

Mr. Eastman, of Rochester, New York. Harvey J. Burkhart, D.D.S., director of the Rochester Dental Dispensary, founded by Mr. Eastman, formally presented the building to the government and Dr. Amedeo Perna, director of the new institution, accepted it. A bust of Mr. Eastman, presented to the clinic by Italian citizens of Rochester, was unveiled by Mrs. Burkhart, following an address by Dr. Joseph Carlucci, Rochester. The Honorable John W. Garrett, ambassador from the United States to Italy, read a cable of congratulation from President Roosevelt. Premier Mussolini inspected the building during the day. The Rome clinic is the second of five dental clinics in European cities for which Mr. Eastman set aside gifts of \$1,000,000 each. The first was opened in London two years ago. The corner-stone for the third, in Stockholm, was laid on April 29, at ceremonies in which the crown prince and princess of Sweden and Dr. and Mrs. Burkhart participated. It is expected that this clinic will be finished by September, 1934, and that the corner-stones for similar buildings in Paris and Brussels will be laid this autumn.

THE *Journal* of the American Medical Association reports that the All-India Institute of Hygiene and Public Health, Calcutta, a gift of the Rockefeller Foundation to the government of India, was opened recently; addresses were made by Sir John Anderson, governor of Bengal, and Lieut. Col. Alexander D. Stewart, director of the institute. The school will be operated in cooperation with the Calcutta School of Tropical Medicine, where basic subjects will continue to be taught, while the institute deals purely with public health subjects related to Indian requirements. It will later be affiliated with the University of Calcutta, through which a doctorate in public health will be offered. The building, which harmonizes with the school of tropical medicine, has four stories, with facilities for teaching, laboratory work and lectures. A number of rooms will be artificially cooled.

THE Franklin Institute of Philadelphia, on May 17, 1933, conferred a John Price Wetherill Medal on The Koppers Co., Pittsburgh, "in consideration of the development of systems for the liquid purification of gases, the success of which is evidenced by the number of such installations in regular use." The Koppers Research Department, working at the Mellon Institute and at the company's plants, developed a purification process using a liquid absorber. In this process the hydrogen sulfide is first absorbed, and then removed from the absorbing solution by activation with air. This air, containing the hydrogen sulfide, is either discharged into the atmosphere or utilized through combustion in boilers, gas producers, or coke ovens. Later modifications were made in the process whereby sulfur could be recovered from the hydrogen sulfide.

ACCORDING to press reports Colonel Charles A. Lindbergh, technical adviser to the Pan-American Airways System, may take charge of survey flying in Greenland and Iceland this summer. Juan T. Trippe, president of the system, states that an expedition would carry on further studies of the northern transatlantic flying route. If it is possible for him to be away, Colonel Lindbergh may later join the expedition by plane. A chartered vessel, the *S. S. Jelling*, of 3,500 tons, will carry a technical staff headed by Major Robert A. Logan, of the airline, to Labrador and Greenland. It will have on board equipment for meteorological study, including an airplane. The vessel will also serve as a base for the expedition. The expedition aims to supplement the data on the route already assembled. The work is being carried on in association with European international airlines, including Imperial Airways and the French Aéropostale. It is planned that an airplane, flying from New York, shall join the expedition later in the summer to carry out special surveys and photographic work.

## DISCUSSION

### A GRAND MASTER KEY TO BIOLOGICAL LITERATURE

BIOLOGY long since has grown to unwieldy proportions and has split into several groups of more workable size and presumably of greater community of interest. These groups in turn have undergone or are undergoing a disintegration. At Atlantic City, for example, was held the first annual meeting of the Genetics Society of America with a program of 45 papers. A new Mycological Society of America emerged at the same time. Under the four headings of Agriculture, Botany, Medical Sciences and Zoology, 19 organizations held meetings at Atlantic City and in most of them simultaneous sessions were held to

dispose of the mass of papers offered. Furthermore, the Atlantic City meeting was not one of the "big" meetings, and many societies met elsewhere. Truly biology has spawned a diversified progeny and the end is not yet.

Some of the new organizations indicate clearly the need for realignments—the old cleavage lines are now unnatural. This was recognized 18 years ago by the Ecologists and more than a year ago by the Geneticists. In other cases the need is extant, witness simultaneous sessions dealing with virus diseases in the Medical Sciences and in the Phytopathological Society, not to mention papers in three different societies dealing with problems of immunity.