

man Andrews and Robert Henderson, New York; Arthur P. Davis, Oakland, Calif.; Joseph Erlanger, St. Louis; Irving Fisher and William Lyon Phelps, Yale University; Paul Darwin Foote and Gerrit S. Miller, Jr., U. S. Department of Agriculture, Washington; Tenney Frank, Baltimore; Frank Pierrepont Graves, Albany, N. Y.; B. Smith Hopkins, University of Illinois; Dr. Max L. Margolis, Dr. Thomas Lynch Montgomery, Dr. J. Parsons Schaeffer and Albert S. Weimer, Philadelphia.

ELECTIONS BY THE NATIONAL ACADEMY OF SCIENCES

DR. THOMAS HUNT MORGAN, professor of experimental zoology in Columbia University, was elected president of the National Academy of Sciences at the recent annual meeting held in Washington. Professor Morgan succeeds Professor Albert A. Michelson, of the University of Chicago, for a four-year term. The only other living past president of the academy is Dr. William H. Welch, of the Johns Hopkins University. Dr. Frederick E. Wright, of the Geophysical Laboratory of the Carnegie Institution of Washington, was elected vice-president, in succession to Dr. John C. Merriam, president of the Carnegie Institution. Dr. David White, of the U. S. Geological Survey, was reelected home secretary. As members of the council there were elected Dr. George E. Hale, Dr. John C. Merriam and Dr. J. McKeen Cattell. Members were elected as follows:

Eric Temple Bell, professor of mathematics, California Institute of Technology.

Charles Peter Berkey, professor of geology, Columbia University.

William Bowie, chief of the division of geodesy, U. S. Coast and Geodetic Survey.

Arthur Holly Compton, professor of physics, University of Chicago.

Benjamin Minge Duggar, botanist of the Missouri Botanical Gardens.

Thomas Alva Edison.

Rollins Adams Emerson, professor of plant breeding, Cornell University.

Herbert McLean Evans, professor of anatomy, University of California.

William King Gregory, curator of paleontology, the American Museum of Natural History.

Edwin Powell Hubble, astronomer, Mt. Wilson Observatory.

Claude Silbert Hudson, chemist, U. S. Bureau of Standards.

Alfred Newton Richards, professor of pharmacology, University of Pennsylvania.

Francis Peyton Rous, member of the Rockefeller Institute for Medical Research.

Albert Sauveur, professor of metallurgy, Harvard University.

Henry Van Peters Wilson, professor of zoology, University of North Carolina.

As foreign associates there were elected:

Paul Sabatier, professor of chemistry, University of Toulouse.

Godfrey Harold Hardy, Savillian professor of geometry, University of Oxford.

Carl Stumpf, emeritus professor of philosophy, University of Berlin.

At the meeting of the executive board of the National Research Council of the National Academy, the following general officers were elected: *Chairman*, Gano Dunn, president of the J. G. White Engineering Corporation, New York City; *first vice-chairman*, T. H. Morgan, president-elect of the National Academy of Sciences; *second vice-chairman*, John C. Merriam, president of the Carnegie Institution of Washington; *third vice-chairman*, R. A. Millikan, California Institute of Technology. The permanent secretary, Dr. Vernon Kellogg, and the treasurer, Dr. George K. Burgess, director of the Bureau of Standards, continue in these offices. To replace vacancies occurring in the membership at large of the executive board, James F. Norris, professor of organic chemistry, Massachusetts Institute of Technology; F. R. Moulton, professor of astronomy, University of Chicago, and John R. Freeman, consulting engineer, Providence, were elected.

SCIENTIFIC NOTES AND NEWS

DR. MAX WEBER, emeritus professor of zoology at the University of Amsterdam, an authority on marine mammals and fish and for many years engaged in oceanographic work, has been awarded the Agassiz Medal by the National Academy of Sciences.

DR. CHARLES S. HOWE, president of the Case School of Applied Science, was awarded the Cleveland Medal for outstanding service in the public interest at the annual banquet of the Cleveland Chamber of Commerce held on April 19. Dr. Howe has been connected continuously with the school for the past thirty-eight years, taking the chair of mathematics and astronomy in 1899. In 1902 he succeeded Dr. Cady Staley as the second president.

DR. HIDEYO NOGUCHI, of the Rockefeller Institute for Medical Research, has been elected a member of the Royal Academy of Sciences of Denmark.

THE medical faculty of Freiburg University has conferred the distinction of doctor *honoris causa* on Tatsukichi Irisawa, professor of internal medicine at Tokyo.

At a meeting of the Medical Society of London, held on March 28, the following were elected honorary

fellows: Professor Irving Cameron (Canada), Professor Sir Charles Sherrington (Oxford), Professor H. C. Jacobaeus (Stockholm), and Professor K. F. Wenkebach (Vienna).

DR. KONRAD E. BIRKHAUG, assistant professor of bacteriology in the University of Rochester School of Medicine and Dentistry, has been elected a member of the Norwegian Pathological Society in Oslo.

SIX American engineers have received the cross of knight of the Czechoslovak Order of the White Lion, "in appreciation of services rendered on behalf of the Czechoslovak State." They are Professor Joseph W. Roe, Calvin W. Rice, Alfred D. Flinn, H. S. Pearson, all of New York; Lawrence W. Wallace, of Washington, and Morris L. Cooke, of Philadelphia.

PROFESSOR CASSIUS J. KEYSER, of Columbia University, who asked to be retired on June 30, has been appointed Adrain emeritus professor of mathematics.

THE New York Academy of Dentistry recently gave a testimonial dinner to Professor William J. Gies, professor of biochemistry in Columbia University, in recognition of his completion of a survey of the status of dental education in this country on which he worked six years under the auspices of the Carnegie Foundation. At the dinner it was announced that a fellowship fund, to be known as the William J. Gies fellowship fund in biochemistry for dental students at Columbia University, has already received contributions amounting to \$18,000.

DR. WILLIAMS MCKIM MARRIOTT, dean and professor of pediatrics of Washington University School of Medicine, St. Louis, has been elected temporary president of the newly organized Missouri Society for Crippled Children.

THE council of the British Illuminating Engineering Society has nominated D. R. Wilson as president for the coming session.

DR. F. L. PYMAN, professor of technological chemistry in the university and in the college of technology, Manchester, has been appointed head of the research laboratories of Messrs. Boots Pure Drug Company, Ltd.

PROFESSOR A. E. TAYLOR, director of the food research institute at Stanford University, has been appointed by President Coolidge a member of the American delegation to the International Economic Conference called by the League of Nations to meet in Geneva on May 4.

DR. J. C. DRUMMOND, professor of biological chemistry at University College, London, and Dr. E. K. Rideal, lecturer in physical chemistry at the University of Cambridge, are among those who have ac-

cepted invitations to take part in the program of the Institute of Chemistry of the American Chemical Society to be held this summer at Pennsylvania State College.

RECENT foreign visitors to the United States include Dr. G. Delepine, professor of geology at Lille, France; C. M. F. Swynnerton, chief of the department of game preservation, Tanganyika Territory, Africa, and T. H. C. Taylor, an entomologist on the staff of the Department of Agriculture, Fiji.

Nature states that Sir John Russell, director of the Rothamsted Experimental Station; Major Walter Elliot, Parliamentary Under-Secretary of State for Scotland and chairman of the research committee of the Empire Marketing Board, and Dr. J. B. Orr, director of the Rowett Institute for Research in Animal Nutrition, Aberdeen, are on their way to Palestine to inquire into problems of animal husbandry. The delegation will meet delegates from Cyprus and probably also from Iraq.

L. W. KEPHART, agronomist in clover investigations, office of forage crops, and R. L. Piemeisel, physiologist of the office of plant geography and physiology, U. S. Bureau of Plant Industry, left Washington on May 1 on a ten-month collecting trip into British East Africa.

HENRY B. COLLINS, JR., and T. Dale Stewart, of the U. S. National Museum, have left Washington for Alaska to seek for the remains of ancient man and to study contemporary races.

UNDER the direction of Dr. Max S. Dunn, assistant professor of biochemistry of the University of California, the whaling ship *Lansing* has been cruising off the coast of southern California and Mexico in search of whales, from which the pituitary and some other glands are being preserved for study in laboratories of the university.

DR. FRANCIS M. ROOT, associate in medical entomology at the School of Hygiene of the Johns Hopkins University, sailed on April 27 for Venezuela, where he will study the mosquito of the region. He expects to be away until September.

DR. WALTER T. SWINGLE, in charge of the office of crop physiology and breeding, U. S. Bureau of Plant Industry, sailed for Algeria on April 9, to attend a conference called to discuss bauidh, a destructive disease of dates.

DR. LECOMTE DU NOUY, associate member of the Rockefeller Institute for Medical Research, is going to Paris in June on a year's leave. He will continue the work which he has been carrying on on the sur-

face tension and the viscosity of organic and biologic colloids at the Pasteur Institute of Paris.

PROFESSOR J. H. PRIESTLEY, head of the department of plant pathology of the University of Leeds, England, has returned home after a series of lectures at the University of California.

DR. T. K. WOLFE, agronomist at the Virginia Agricultural Experiment Station, addressed the University of Virginia chapter of the Society of the Sigma Xi on March 8, on "Achievements in Agricultural Research."

DR. B. S. HOPKINS, professor of inorganic chemistry at the University of Illinois, addressed the Science Club of the Virginia Polytechnic Institute on April 16, on "Some Recent Advancements in Inorganic Chemistry."

It is announced that Professor Kirtley F. Mather, of the department of geology at Harvard University, and the Reverend Dr. John Roach Straton, pastor of Calvary Baptist Church, will engage in debates on the theory of evolution. Tentative dates are May 13 and May 14.

ON April 20, 21 and 22 Mr. Austin H. Clark, of the Smithsonian Institution, gave a series of three lectures on "Life in the Sea," at the annual symposium arranged by the Buffalo Society of Natural Sciences, the University of Buffalo and Canisius College. In these lectures marine life was discussed in its relation to life on land, and in its relation to sea life in the past as evidenced by a study of the fossils.

DR. CHARLES A. KRAUS, research professor of chemistry at Brown University, will offer two lecture courses in the forthcoming summer session at Western Reserve University, June 20 to July 29.

DR. NATHAN FASTEN, head of the department of zoology of the Oregon State Agricultural College, gave two addresses before the students and faculty of Willamette University on April 25. In the morning he spoke before a general assembly on "The Social Significance of the Eugenics Movement." In the evening he addressed the men students of the university on "The Physiology of Human Reproduction."

DR. M. F. GUYER, of the University of Wisconsin, addressed the recent meeting of the Northwestern University chapter of Sigma Xi on the subject of "Heredity and Human Conduct." The meeting was held in the new medical school building on McKinlock Campus.

THE Society of Biology in Paris and its affiliated societies, together with the Eighth International Congress of Neurologists, are planning to celebrate the hundredth anniversary of Vulpian's birth from May

27 to June 2, simultaneously with their regular session. It will coincide with the commemoration of the hundredth anniversary of Pinel's death, which is being organized by the Medico-psychologic Society.

A PORTRAIT of the late Dr. Henry J. Waters, former dean of the College of Agriculture at the University of Missouri, was recently unveiled in the library of the college of agriculture and presented to the college as the gift of members of the faculty and a number of the alumni.

YALE UNIVERSITY plans to honor the memory of two of its teachers, Josiah Willard Gibbs and William Graham Sumner, by the establishment of the Gibbs Fund and the Sumner Fund, \$150,000 having been contributed to the \$250,000 required for each fund. The income from the Sumner fund will be devoted, according to a vote of the university corporation, to the work of the department of economics, sociology and government; the income from the Gibbs fund to the work of the departments of chemistry, physics and mathematics.

DR. IRVING BARDSHAR CRANDALL, a member of the technical staff of the Bell Telephone Laboratories and an authority on the telephonic transmission of speech, died on April 22 at the age of thirty-six years.

PROFESSOR HARRY THOMAS SPENGLER, of the department of civil engineering at Lafayette College, died on April 23, aged forty-four years.

DR. HERMANN D. ENGELHARDT, for the past thirty-two years head of the analytical department of Sharp and Dohme, Baltimore, died on February 9, aged sixty-four years.

DR. ALFRED H. BUCHERER, professor of mathematical physics at Bonn, Germany, died on April 16, aged sixty-two years. Dr. Bucherer formerly lived in this country when he held the position of chemist for the Aluminum Company of America.

PROFESSOR HERMANN AMBROWN, for many years head of the department of microscopy at Jena, has died at the age of seventy-one years.

THE third annual meeting of the Pennsylvania Academy of Science was held at Harrisburg on April 15 and 16. Sixteen papers were read in the scientific program. At the dinner of the academy Dr. George P. Donehoo, of Harrisburg, gave an address on "The Indians of Pennsylvania." The following officers were elected: *President*, E. A. Ziegler, director of the Pennsylvania State School of Forestry; *Vice-president*, F. D. Kern, Pennsylvania State College; *Secretary*, T. L. Guyton, Pennsylvania Bureau of Plant Industry; *Assistant secretary*, M. W. Eddy, Carlisle; *Treasurer*, H. W. Thurston, Pennsylvania State Col-

lege; *Editor*, R. W. Stone, Pennsylvania Geological Survey; *Executive Committee*, O. E. Jennings, University of Pittsburgh; B. L. Miller, Lehigh University; N. H. Stewart, Bucknell University, and W. A. McCubbin, Pennsylvania Bureau of Plant Industry.

DR. ARNOLD DRESDEN, assistant secretary of the American Mathematical Society, reports that the twenty-seventh western meeting of the society was held at the University of Chicago on Friday and Saturday, April 15 and 16, 1927. Professor Virgil Snyder, Cornell University, president of the society, presided at some of the sessions, being relieved by Professor D. R. Curtiss, H. L. Rietz, Dunham Jackson and G. A. Bliss. The total attendance at this meeting was about 120, including 87 members of the society. At this meeting fifty papers on geometry, point set theory, algebra, theory of numbers, applied mathematics and analysis were presented. A special feature was the symposium address on "Some Phases of General Topology," delivered on Friday afternoon by Professor E. W. Chittenden, of the University of Iowa.

THE Association of State Geologists on invitation of George Otis Smith, director of the U. S. Geological Survey, met in Washington, D. C., on April 25 and 26, for a conference with officials of the Federal Survey. Sixteen State Geological Surveys were represented. Those present were: H. A. Buehler, Missouri; G. C. Branner, Arkansas; J. A. Bownocker, Ohio; E. F. Bean, Wisconsin; C. N. Gould, Oklahoma; Herman Gunter, Florida; C. A. Hartnagel, New York; M. M. Leighton, Illinois; H. B. Kummel, New Jersey; E. B. Mathews, Maryland; S. W. McCallie, Georgia; R. C. Moore, Kansas; Wilbur A. Nelson, Virginia; W. F. Pond, Tennessee; R. W. Stone, Pennsylvania; I. C. White, West Virginia.

THE regular meeting of the Le Conte Geological Club was held at the department of geology, Stanford University, on April 25. Papers were presented by Howell Williams, George E. Ekblaw, M. K. Eliasevich, and Marcel E. Touwaide. Professor A. C. Lawson delivered an after-dinner address on "Geological Observations in Africa." Officers for the coming academic year were elected, Dr. Solon Shedd, curator of the Branner geological library at Stanford, succeeding Mr. E. L. Furlong, of the University of California as president, and Dr. Hubert G. Schenck was reelected secretary-treasurer.

THROUGH the efforts of Dr. I. Maizlish, head of the department of physics at Centenary College, the Sigma Delta chapter of the Sigma Pi Sigma National Physics Fraternity was established on April 20. Dr. J. M. Douglas, head of the department of physics at

Davidson College, North Carolina, installed the chapter. Addresses at the initiation banquet were made by President Geo. S. Sexton, Dr. J. M. Douglas, Dr. I. Maizlish, Dean Jno. A. Hardin and Professor Robert Frye. The charter members are: T. J. McCain, *president*; Edwin Monkhouse, *secretary-treasurer*; Henry Fisher, *vice-president*, and John I. McCain. Dr. Maizlish is an honorary member of the Centenary chapter.

UNDER the auspices of the Associated Business Papers, the American Chemical Society, the American Engineering Council, the American Electrochemical Society, the American Institute of Electrical Engineers, the American Institute of Chemical Engineers, the American Institute of Mining and Metallurgical Engineers, the American Society of Civil Engineers, the American Society of Mechanical Engineers, the Army Ordnance Association and the Society of Automotive Engineers, a special trip to West Point is being arranged on May 12. The *Alexander Hamilton* of the Hudson River Day Line has been chartered for the trip. On reaching West Point the party will be the guests of Brigadier-General M. B. Stewart, superintendent of the academy. A close survey of the operation of the National Military Academy will be permitted and there will be special drills by the cadets, followed by an evening parade in full-dress uniform. It is planned to leave the West 42nd Street pier at 10:00 a. m., returning there at about 10:00 p. m.

Nature reports that the tenth Italian Geographical Congress will be held at Milan from September 6 to 15, under the patronage of the King of Italy and the honorary presidency of the prime minister. It is being organized by the Italian Touring Club. There will be five sections: (1) Physical and cartographical; (2) historical; (3) political and economic; (4) explanation; (5) education. At the conclusion of the meetings there will be a number of excursions, by rail or road, to various parts of Italy. During the congress there will be an exhibition of recent Italian maps and photographs.

THE fifth exhibition of chemical apparatus and appliances will take place from June 7 to 19 at Essen, Germany, and simultaneously the principal conference of the Association of German Chemists. Previous exhibitions have been held at Hanover, Stuttgart, Hamburg and Nürnberg, under the name of the "Achema." The name "Achema" is a combination of the initial letters of the "Ausstellung für chemisches Apparate-Wesen" (exhibition of chemical apparatus and appliances). Apart from the problems of chemical apparatus technic in general, which arise from science and practice, the matter of apparatus

for the chemical treatment of carbon will have special attention. The exhibition will be held in five halls situated on the exhibition grounds at Essen, which have been completely renovated for the purpose.

THE opening of the Museums of the Peaceful Arts in New York City took place on April 20, following a dinner meeting of the American members of the Newcomen Society. The Museums of the Peaceful Arts, of which Dr. F. C. Brown was recently appointed director, occupy temporary headquarters at the Scientific American Building, 24 West Fortieth Street, where a start has been made in organizing a great industrial technical museum for the city, made possible by a bequest from the late Henry R. Towne. The Newcomen Society is organized for the study of history and technology. Its headquarters are in London, but it has an active group in America. Charles Penrose, American member of the council, presided at the meeting which followed dinner at the Engineers' Club. This meeting was held simultaneously with a meeting in London, and a paper on Marc Sequin and the invention of the tubular boiler was read at both gatherings. Following the dinner the group adjourned to the museums, where they were greeted by Dr. George F. Kunz, president, and surveyed the exhibits so far collected, which include a portion of the lightning rod which Benjamin Franklin erected on St. Paul's Cathedral.

ACCORDING to *Nature* a Danish scientific expedition, under the leadership of Professor C. Olufsen, and supported by the Carlsberg fund, is now on its way to Senegal to explore the upper region of the valley of the River Niger, the Upper Volta, and the south part of the Sahara, especially Air (Asben or Agadiz). The expedition, the main purpose of which will be to collect objects of ethnological interest for the Danish Museums, is to return via Zinder and Kano, through Nigeria, to the Guinea Coast, and thence by sea to Dakar. Professor Olufsen will be accompanied by two Danish scientific workers, Oluf Hagerup (botanist) and Harry Madsen (zoologist).

UNIVERSITY AND EDUCATIONAL NOTES

UNION COLLEGE, Schenectady, dedicated its new physics laboratory on April 30. The exercises were held in the building, which is nearing completion.

THE will of the late Dr. Walter B. James includes bequests of \$25,000 to Columbia University to the endowment fund of the College of Physicians and Surgeons; \$25,000 to the New York Academy of Medicine, and \$25,000 to the Trudeau Sanatorium, Saranac Lake.

It was announced, April 9, that Samuel Mather has subscribed \$1,000,000 toward the campaign to raise \$6,000,000 by the university hospitals of Cleveland for additions to the medical center. Thirteen years ago, Mr. Mather and his associates secured the land for the medical center, and his gifts to its institutions already total millions of dollars.

PROMOTIONS announced by Columbia University include the following from the grade of associate professor to full professor: Dr. Albert T. Poffenberger, psychology; Dr. Samuel R. Powers, natural sciences; Dr. William D. Reeve, mathematics; Dr. William E. Caldwell, clinical obstetrics and gynecology; Dr. William W. Herrick, clinical medicine, and James K. Finch, civil engineering.

DR. ROSS V. PATTERSON, dean of Jefferson Medical College, has been elected to a full professorship in medicine in the college. Other promotions include Dr. C. E. G. Shannon, to be professor of ophthalmology, and Dr. Fred J. Kalteyer, Dr. E. J. G. Beardsley, and Dr. Elmer H. Funk, professors of medicine.

DR. SIDNEY S. NEGUS, professor of organic chemistry at the University of Richmond, has been appointed to a similar position in the Medical College of Virginia, Richmond.

DR. J. R. HAAG, assistant professor of agricultural and biological chemistry at Pennsylvania State College, has been appointed to a position in the Oregon Experiment Station.

ASSISTANT PROFESSOR ETHEL M. TERRY-MCCOY has resigned from the staff of the department of chemistry at the University of Chicago.

DR. CECIL MCLAREN WEST has been appointed professor of anatomy in the University College of South Wales, in succession to Professor D. Hepburn, who retires from the beginning of October.

E. FOEX, director of the Central Station of Phytopathology, Paris, has been appointed professor of plant pathology at the National Horticultural School.

DISCUSSION AND CORRESPONDENCE

NaOH VERSUS Na₂CO₃

As a result of recent investigations upon alkali soils in the division of agricultural chemistry of the Arizona Agricultural Experiment Station, it has been shown that very few black alkali soils actually contain sodium carbonate, under field conditions. The alkalinity of such soils is due to the presence of sodium hydroxide, which in turn is derived from the hydrolysis of sodium zeolite.

The erroneous idea that many soils contain excessive amounts of sodium carbonate has arisen from