

cuss the processes by which moulds are being used to convert corn sugar into valuable materials such as citric acid. It will perhaps soon be possible to go from corn to glucose and then to citric acid more readily than to go from cull lemons to citric acid according to present practice.

H. G. KNIGHT: The new chief of the Bureau of Chemistry and Soils of the Department of Agriculture, Washington. He will take a leading part throughout the week. He will pay special attention to future possible developments of agricultural chemistry along new lines.

C. S. MINER: Miner Laboratories, Chicago. Under his direction furfural has been changed from a chemical curiosity found only in museums to an important industrial chemical sold in tank cars for a few cents a pound. Its largest use is in artificial resins. He will tell how this development took place, but more especially how other similar advances may be made.

A. S. RICHARDSON: Procter and Gamble, Ivorydale, Ohio. His subject will be hydrogenation, the process by which an oil like cotton seed oil is made to unite with hydrogen gas to form a solid fat suitable for cooking.

G. A. RICHTER: Brown Company, Berlin, N. H. On the preparation of pure cellulose from wood. This material can be used in place of cotton cellulose for almost all purposes.

G. M. ROMMEL: New York. An expert agricultural economist, retained by the Department of Agriculture for special studies on farm wastes with special reference to the preparation of cellulose from them.

H. J. SCONCE: Cornstalks Products Co., 42 Broadway, New York, and Danville. The preparation of useful products from farm wastes.

O. R. SWEENEY: Iowa State College. An authority on the preparation of hundreds of useful products from corn stalks and cobs. He is also working with the Department of Commerce on this problem.

A. W. SCHORGER: Burgess Laboratories, Madison, Wis. A leading authority on the chemistry and utilization of cellulose.

B. W. THATCHER: President, Massachusetts Agricultural College. Formerly dean of department of agriculture, University of Minnesota; formerly director of New York Experiment Station. He will present the broader aspects of the subject with special reference to future possibilities.

CHARLES D. HURD,
Executive Secretary.

AWARD OF THE WILLARD GIBBS MEDAL TO PROFESSOR W. D. HARKINS

PROFESSOR WILLIAM D. HARKINS, of the University of Chicago, received on May 25 the Willard Gibbs gold medal, awarded annually by the Chicago section of the American Chemical Society to a chemist whose work in either pure or applied chemistry has received international recognition. The ceremony took place at a national dinner gathering of scientists at the Palmer House.

Professor Harkins delivered an address on "Surface Structure and Atom Building." Professor S. C. Lind, director of the school of chemistry of the University of Minnesota, made the presentation address, discussing "Harkins the Scientist." Professor G. L. Clark, of the University of Illinois, a former student of Professor Harkins, spoke on "Harkins the Teacher and the Man." S. L. Redman, chairman of the Chicago section, discussed "The Willard Gibbs Medal."

Other speakers were: Professor Arthur H. Compton, of the University of Chicago; Dr. Leo Hendrik Baekeland, honorary professor of chemical engineering in Columbia University and former president of the American Chemical Society, New York; Dr. Harrison E. Howe, of the National Research Council, editor of *Industrial and Engineering Chemistry*, Washington; President Max Mason, president of the University of Chicago, and Professor S. W. Parr, of the University of Illinois, president of the American Chemical Society.

Previous Willard Gibbs medallists have been: Svante Arrhenius, T. W. Richards, L. H. Baekeland, Ira Remsen, Arthur A. Noyes, Willis R. Whitney, E. W. Morley, W. A. Noyes, W. M. Burton, F. G. Cottrell, Madame Curie, J. Stieglitz, G. N. Lewis, M. Gomborg, Sir James Irvine and J. J. Abel.

The 1928 jury which made the award was composed of: Dr. A. D. Little, Boston; Professor F. C. Whitmore, director of the institute of chemistry of the American Chemical Society; Professor J. F. Norris, Massachusetts Institute of Technology; L. M. Tolman, Hammond, Ind.; E. W. Washburn, U. S. Bureau of Standards, Washington; Professor Edward Bartow, University of Iowa; W. Lee Lewis, Chicago; Professor William McPherson, Ohio State University; Professor Julius Stieglitz, University of Chicago; Professor Roger Adams and Professor S. W. Parr, University of Illinois, and Professor Moses Gomborg, University of Michigan.

SCIENTIFIC NOTES AND NEWS

At a dinner on May 23 the Holley medal of the American Society of Mechanical Engineers was presented to Dr. Elmer A. Sperry for his invention of the gyroscope compass.

ORVILLE WRIGHT, pioneer aviator, would be awarded the distinguished flying cross, the highest award for American aeronautical achievement, under a bill introduced in congress by Representative James, of Michigan.

For outstanding service to his profession, Dr. Charles H. LaWall, dean of the Philadelphia College of Pharmacy and Science, was awarded the Rem-

ington medal, at a dinner given in his honor at the Hotel Pennsylvania, New York, on May 14.

THE American Academy of Arts and Sciences has announced the election of new foreign honorary members including Friedrich Paschen and Wolfgang Kohler, of Berlin; Soren Peter Lauritz Sorensen and Carl Hansen Ostenfelt, of Copenhagen; Guglielmo Marconi, of Bologna; Francis Arthur Bather, Alfred Barton Rendle, Charles Tate Regan, Karl Pearson and Richard Burden Haldane, of London; Louis Dollo, of Brussels; D'Arcy Wentworth Thompson, of St. Andrews; Mikinosuke Miyajima, of Tokio; Henri Louis Bergson, of Paris; Benedetto Croce, of Naples; Edmund Husserl, of Freiburg; Hans Oertel, of Munich, and Arthur Cecil Pigou, of Cambridge.

IN connection with the celebrations commemorating the twenty-fifth anniversary of the foundation of the University of Liverpool honorary degrees have been conferred, among others, upon Dr. J. A. Fleming, emeritus professor of electrical engineering, University College, London; J. E. Littlewood, lecturer in mathematics, Cambridge University, and on Dr. Robert Robinson, professor of organic chemistry, Manchester University.

HONORARY degrees are to be conferred by Cambridge University upon Professor A. Einstein, Professor Cumont, Professor W. A. Craigie, Lord Lugard, Lord Justice Scrutton, Sir Cecil Hurst and Sir D. Y. Cameron.

PROFESSOR A. G. TANSLEY, Sherardian professor of botany in the University of Oxford, has been elected a member of the Athenaeum Club for distinguished eminence in science.

M. JOSEPH AUCLAIR was recently elected a correspondent of the Paris Academy of Sciences in the section of mechanics.

DR. WALTHER HORN, director of the department of entomology in the Kaiser Wilhelm Institute, Berlin, has been made a corresponding member of the Hungarian Entomological Society, Budapest.

THE eightieth birthday of Professor A. P. Karpinsky, the well-known Russian geologist, president of the Academy of Science, was recently celebrated in Leningrad.

AFTER ten years' service as dean of Cornell University Medical College, Dr. Walter L. Niles, about to retire, was presented with a bronze plaque by the College Alumni Association at its annual dinner in the Hotel Commodore on May 10. On May 23 Dr. Niles was tendered a dinner at the Waldorf Hotel by the faculty of the college.

PROFESSOR HENRY H. WING, professor of animal husbandry in the college of agriculture at Cornell University, will retire in June after forty years on the faculty.

DR. R. E. SCHUH, professor of geology in Howard University, is resigning after twenty-one years of service.

THE following officers have been elected for the American Section of the Society of Chemical Industry: *Chairman*, Charles Lunn; *secretary*, Foster Dee Snell; *treasurer*, F. C. R. Hemingway; *new members of the executive committee*, Samuel Cabot, Moritz Dittmar, L. V. Redman, R. T. Baldwin and Stephen P. Burke.

THE Southern Appalachian section of the Society of American Foresters recently elected the following officers: *Chairman*, Dr. C. F. Korstian, silviculturist, Appalachian Forest Experiment Station; *vice-chairman*, M. A. Mattoon, supervisor, Pisgah National Forest; *secretary*, F. W. Haasis, assistant silviculturist, Appalachian Forest Experiment Station.

AT the recent convention of Sigma Pi Sigma, national honorary physics fraternity, the following officers were elected: *President*, Professor C. C. Hatley, of Duke University; *vice-president*, Professor R. C. Young, of the College of William and Mary; *secretary-treasurer*, Professor Marsh W. White, of The Pennsylvania State College; *councilors*, Professors J. M. Douglas and W. N. Mebane, Jr., of Davidson College.

PROFESSOR OLLIE E. REED, head of the dairy husbandry division of the Michigan State College of Agriculture, has been appointed chief of the Bureau of Dairy Industry of the U. S. Department of Agriculture. He will take up his duties in Washington about September 1. The position has been vacant since the first of the year, when Dr. C. W. Larson resigned to become director of the National Dairy Council.

DR. OSCAR C. WILLHITE has been appointed chief of the neuropsychiatric division of the United States Veterans Bureau at Washington, D. C., to succeed Dr. L. M. Wilbor.

GEORGE N. SCHRAMM, assistant physicist in the electrochemical section of the U. S. Bureau of Standards, has taken a position as research chemist in the Vandergrift, Pa., laboratory of the American Sheet and Tin Plate Company, and will conduct research on the corrosion of iron and steel.

H. W. HOOTS recently resigned as a geologist in the U. S. Geological Survey to engage in commercial geology.

LOUIS O. SORDAHL, research assistant in physics at the University of Wisconsin, has been appointed field assistant of the Smithsonian Institution's station for the study of solar radiation at Mount Brukkaros, Africa, and not director as was incorrectly reported in *SCIENCE* and other publications.

PROFESSOR HARLAN T. STETSON, of the Harvard Astronomical Laboratory, has been appointed exchange professor from Harvard University to Carleton, Grinnell and Pomona Colleges for the second half of the next academic year.

ACCORDING to the *Journal* of the Washington Academy of Sciences, Dr. E. G. Zies, of the geophysical laboratory, Carnegie Institution, will spend several months in the Dutch East Indies, in a study of the gases and other volatile products of the volcanoes of that region. Messrs. E. T. Allen and C. N. Fenner will spend the summer in a chemical and geological study of the geysers and hot springs of the Yellowstone National Park.

MEMBERS of the third University of Michigan Greenland Expedition are sailing on the *Stavangerfjord* on June 5. Dr. William H. Hobbs, director of the expedition, has already left the United States and will join the other members in Copenhagen and sail on the *Disko* about June 15 for their base at Holstensborg, Greenland.

AUSTRALIAN newspapers note that Dr. Frank Blanchard and his wife, Dr. Frieda Cobb Blanchard, both of the University of Michigan, are spending 1927-28 studying the fauna and flora of Australasia, particularly the mountainous temperate portions of New Zealand, Tasmania and Australia. They also intend spending some time on the Great Barrier Reef, Queensland. Dr. Blanchard is studying particularly the herpetology of Australasia, and Mrs. Blanchard the flora of the cooler portions, with a view to securing plants suitable to the conditions of the botanical gardens of the University of Michigan, of which she is assistant director.

C. W. GILMORE, curator of vertebrate paleontology in the U. S. National Museum, left on May 12 to take charge of an expedition in the Two Medicine Formation of Montana, in search of dinosaur and other vertebrate remains, which will be in the field for two and a half months.

DR. C. POULSEN, of the Mineralogical Museum, Copenhagen, spent April and May at the U. S. National Museum in connection with his study of the Silurian fossils collected in North Greenland by Dr. Lauge Koch.

DR. RUSSELL L. CECIL, assistant professor of clinical medicine at the Cornell University Medical Col-

lege, delivered the commencement address at the Medical College of Virginia, Richmond, on May 29. On this occasion the honorary degree of doctor of science was conferred upon him.

H. E. HOWE, editor of *Industrial and Engineering Chemistry*, Washington, D. C., during the months of April and May has made a number of addresses before groups of engineers, college students and luncheon clubs in Oklahoma, Missouri, Minnesota, Illinois and Pennsylvania, emphasizing various applications of scientific research to industrial achievement.

DR. JEROME ALEXANDER addressed the New England Association of Chemistry Teachers at their 109th meeting at Wesleyan University, Middletown, Conn., April 19, on "Colloid Chemistry and its Applications." Films were shown which were loaned by Dr. Alexis Carrel and Mr. Heinz Rosenberger, of the Rockefeller Institute for Medical Research.

DR. R. W. BOYLE, dean of faculty of applied science in the University of Alberta, addressed the Philosophical Society of Washington on "Ultrasonics," on May 26.

DR. E. S. LONDON, professor of physiology in the University of Leningrad, gave two illustrated lectures under the joint auspices of the Institute of Medicine of Chicago and the University of Illinois College of Medicine on May 3 and 4, on "Experimental Fistulas of Blood Vessels" and "Enzymes, Hormones and Vitamins."

SIR JAGADIS BOSE lectured at University College, London, on "The Motor Mechanism of Plants," on May 8 and demonstrated by new types of sensitive recorders the contractility and rhythmic pulsations of plants.

At the last meeting of the University of Pennsylvania chapter of the Society of the Sigma Xi, on May 9, the following minute was unanimously adopted: "This chapter of the society of the Sigma Xi sincerely mourns the passing of Edgar Fahs Smith, former provost of the University of Pennsylvania, for many years a most highly valued member of this society. In his going, science loses one of its most distinguished servants, and the many who enjoyed his friendship lose a rare blessing."

A COPENHAGEN message reports the death of Dr. C. G. Johannes Petersen, for 40 years director of the Danish Biological Station. Dr. Petersen had been associated with Danish fishery research work since 1883, and was known for his investigations of the life history of various food-fishes.

THE eighty-fourth annual meeting of the American Psychiatric Association will be held at the Hotel

Radisson, in Minneapolis, on June 5, 6, 7 and 8, under the presidency of Dr. Adolf Meyer, of Baltimore, Md. The program will cover such subjects as administration, mental hygiene, pathology, clinical psychiatry, phylogenetics, psychoanalysis and psychopathology, with round-table discussions in addition to the regular meetings. A feature of the meeting will be the annual address by Professor Rosecoe Pound, dean of the Harvard Law School.

THE Chemistry Research Club met on May 17 in the Natural History Museum, New York City. It was voted to make application to become an affiliated society in the New York Academy of Sciences. Professor Arthur E. Hill, of New York University, read a paper on "The Alkali Periodides." Dr. K. G. Falk, of the Harriman Research Laboratories, read a paper on "Lipase Actions in Normal Tissues and Tumors," in which he summarized the research which he has carried on in the past ten years.

THE third symposium on general organic chemistry will meet at Princeton University late in December, 1929, under the auspices of the division of organic chemistry of the American Chemical Society. The executive committee of the division consists of William Lloyd Evans, Frank C. Whitmore, F. B. Dains, E. Emmet Reid and James B. Conant.

THE annual meeting of the Chicago Neurological Society was held at the Billings Memorial Hospital on May 17. Among others, Drs. Anton J. Carlson, Arno B. Luckhardt, Dallas B. Phemister, John Favill and Roy R. Grinker spoke. The president of the society invited the members to be his guests at dinner at the Shoreland Hotel.

A GEOLOGICAL field conference was held in northwestern Arkansas on May 12 and 13, under the auspices of the department of geology of the University of Arkansas. About 50 geologists were present, representing Arkansas, Oklahoma, Kansas, Missouri and Nebraska. Formations of late Mississippian and early Pennsylvanian age were studied.

THE Alpha Gamma chapter of Phi Sigma was installed at the University of South Dakota on May 15 by Professor Don B. Whelan, of the department of entomology of the University of Nebraska.

ON May 11, a public address was given under the auspices of the Maryland chapter of the Society of Sigma Xi by Dr. F. C. Whitmore, chairman of the division of chemistry of the National Research Council. His subject was "The Habits of the Atoms." On May 18, the first annual initiation and banquet was held. Twenty-four active and associate members were initiated. Dr. William Crocker, director of the Boyce-Thompson Institute for Plant Research, deliv-

ered the address of the evening. His subject was "The Work of the Boyce-Thompson Institute."

PLANS for participation of the United States in the World Engineering Congress in Tokio next year were formulated at a meeting of the American committee at the Carlton Hotel, New York, on March 22, following a dinner tendered to the committee by the Japanese Ambassador, T. Matsudaira. Officers elected by the committee follow: *Honorary chairman*, Herbert Hoover; *chairman*, Elmer A. Sperry, New York; *vice-chairman* and *chairman of the executive committee*, John W. Lieb, New York; *vice-chairman*, C. E. Grunsky (Pacific Coast), San Francisco; C. E. Kettering (Middle West), Detroit; *executive secretary*, Maurice Holland; *executive committee*, Gano Dunn, New York; George W. Fuller, New York; Maurice Holland, New York; Dugald C. Jackson, Cambridge, Mass.; Frank B. Jewett, New York; John W. Lieb, New York; J. H. McGraw, New York; O. C. Merrill, Washington D. C.; Calvin W. Rice, New York; Charles F. Scott, New Haven; Dr. Sperry, Brooklyn; W. E. Wickenden, New York; *finance committee*, John W. Lieb; *technical program committee*, D. C. Jackson; *transportation committee*, F. B. Jewett; *entertainment committee*, O. C. Merrill; *publicity*, J. H. McGraw; *promotion and attendance*, George W. Fuller; *nominating committee*, Gano Dunn.

JAMES L. CLARK, of the Carlisle-Clark African expedition of the American Museum of Natural History, sailed from New York on May 9 to get material for the Akeley African Hall of the museum. They will proceed to Nairobi, British East Africa, the expedition's headquarters, where they will meet G. Lister Carlisle, Jr., who left New York with Mrs. Carlisle on April 1. W. R. Leigh, an artist who accompanied the late Carl Akeley to Africa, and C. C. Raddatz, of the department of preparation, will also be members of the expedition. Leaving Nairobi the expedition will spend at least four months in the field, then go out through Uganda and the Sudan to Khartum and across the desert to Wadi Halfa on the second cataract of the Nile, and from there travel down the river to Cairo.

PHYSIOLOGICAL optics as a study for scientific study and instruction has received important recognition at the Wilmer Ophthalmological Institute, the Johns Hopkins University School of Medicine. On October 1, 1928, carrying out the provisions of a special gift, a research laboratory will be opened, designed and equipped for the study and investigation of all phases of pure and applied physiological optics. The work of this laboratory will be conducted by Dr. C. E. Ferree, professor of experimental psychology and director of the psychological laboratory at Bryn Mawr

College, who has been appointed resident lecturer in ophthalmology and director of the research laboratory of physiological optics; and by Dr. Gertrude Rand, of Bryn Mawr College, who has been appointed associate professor of research ophthalmology.

THE Fleischmann mammal wing of the Santa Barbara Museum of Natural History was opened on April 3. This new portion of the building is the gift of Major Max Fleischmann, who recently returned from a hunting expedition to French Indo-China. Four large habitat groups were completed in time for the initial opening of the wing and others are now in progress.

STUDIES of landslides in unconsolidated materials are being begun at the University of Cincinnati, with the intention of determining causes and of considering such factors as angle of slope, soil saturation and mode of movement. Dr. James K. Rogers, of the department of geology, would like to hear from readers of *SCIENCE* who know of the location of landslides in unconsolidated material in the states east of the Mississippi.

A TRUST fund for the maintenance of neurological research at the Wistar Institute of Anatomy, Philadelphia, has been established by Mrs. Carlos F. MacDonald, widow of the New York psychiatrist, who died on May 29, 1926. The amount of the fund was not made public, but it is to be increased to several hundred thousand dollars.

A COLLECTION of medical books containing many of the earliest printed works on the subject, brought together by Dr. E. C. Streeter, of Boston, over a period of twenty years, has been purchased by the New York Academy of Medicine. The purchase price was \$185,000, of which \$85,000 was contributed by the Rockefeller Foundation. Fellows of the academy contributed an additional \$10,000 and other large contributors included Edward S. Harkness, \$25,000; Carl Tucker, \$10,000; Mrs. Walter S. Ladd, \$10,000; Felix Warburg, V. Everit Macy and Harry P. Whitney, \$5,000 each; Clarence A. Mackay, \$2,000, and Dunlevy Milbank, Jeremiah Milbank and Harry H. Flagler, \$1,000 each.

DELIVERY of the William Libbey geographical library to the Clark University library has been completed. The Libbey library was presented to the university as a memorial to Dr. William Libbey, late professor at Princeton, by his widow, Mrs. William Libbey. Before his death, Dr. Libbey left instructions that his collection of geographical material be placed in an institution promoting geographical research. Mrs. Libbey decided in favor of Clark University. The library of Dr. Libbey contains about 8,000 vol-

umes, including leading geographical publications of Germany, France, Great Britain and the United States. The gift to the university library also includes the Libbey card catalogue of all the important articles in geography that have been published. The collection also includes 14,000 lantern slides with views from all parts of the world, accompanied by a full index to the slides.

UNIVERSITY AND EDUCATIONAL NOTES

FRANK G. TALLMAN, vice-president of the E. I. du Pont de Nemours Company, has made a gift of \$100,000 to Bowdoin College, to establish the Tallman lecture fund as a memorial to the Bowdoin members of his family. The income is to be used to provide visiting professors and lecturers.

GROUND-BREAKING ceremonies for the George Herbert Jones chemical laboratories, at the University of Chicago, were held on May 29. Mr. George Herbert Jones, director of the Inland Steel Company, whose gift of \$665,000 made the chemistry laboratory possible, was one of the speakers at the ceremony. President Max Mason and Professor Julius Stieglitz, head of the department of chemistry, also gave addresses.

ALBANY MEDICAL COLLEGE, Albany, N. Y., has announced plans to raise a \$2,000,000 endowment fund.

DR. KENYON S. BUTTERFIELD, president of Michigan State College, has resigned and Dr. R. Shaw, dean of agriculture in the college, has been appointed his successor.

EARL D. HAY, head of the department of mechanical and industrial engineering at the University of Wyoming, has been appointed to a similar position at the University of Kansas.

DR. CAREY CRONEIS, instructor in geology at Harvard University, has been appointed assistant professor of paleontological geology at the University of Chicago, where he will have charge of the work in invertebrate paleontology, succeeding in that field the late Professor Stuart Weller. Dr. Croneis will conduct the field courses in geology in Missouri this summer and begin his full-time work in Chicago in October.

At Yale University, the following have been promoted from the rank of instructor to assistant professorships: Dr. Harold Kirby, Jr., biology; Francis Thomas McNamara, electrical engineering, and Frederic William Keator, mechanical engineering.

DR. A. SCHMINCKE, of Tübingen, has been appointed professor of pathology at Heidelberg.