

relative to that code may be obtained on application to the Weather Bureau at Washington, D. C.—A. J. H.

#### DINNER IN HONOR OF DR. L. O. HOWARD

THE dinner held by the entomologists at the time of the annual meetings of the scientific societies affiliated with the American Association for the Advancement of Science, at Nashville, Tenn., during the Christmas holidays was observed as a testimonial to Dr. L. O. Howard, who recently retired as chief of the Bureau of Entomology, of the United States Department of Agriculture. Dr. H. A. Morgan, president of the University of Tennessee, who for many years was one of the leaders in entomology in the south, presided on this occasion and prominent entomologists throughout the United States and Canada paid tribute to the achievements of Dr. Howard which covered a period of nearly 50 years, during which time he has guided the entomological activities of the department, and has built up and stimulated a high degree of cooperation and good-will among the leading entomologists of the world.

Over 240 entomologists attended this dinner, representing all sections of the United States and Canada, as well as foreign countries, to express their respect and appreciation of Dr. Howard and his achievements.

A warm tribute was paid to Dr. Howard by Dr. C. L. Marlatt, the new chief of the bureau, who has been his associate for nearly forty years, in which he pointed out that Dr. Howard would continue his active research work with the bureau.

#### SCIENTIFIC NOTES AND NEWS

THE Geological Society of Stockholm has elected the following to corresponding membership: Professor Reginald Daly, Cambridge, Mass.; Professor Charles Schuchert, New Haven; Dr. E. O. Ulrich, Washington; Dr. F. A. Bather, London, and Professor P. Niggli, Zurich.

DR. L. H. BAILEY, of Ithaca, has been awarded the Veitch memorial gold medal by the Royal Horticultural Society of England "for scientific work on behalf of horticulture."

DR. HENRY FAIRFIELD OSBORN, president of the American Museum of Natural History, has been made a "corresponding academic" of the Italian Institute of Human Paleontology.

DR. TREAT B. JOHNSON, professor of organic chemistry at Yale University, has been appointed Sterling professor of chemistry in the university.

EDWARD BAUSCH, president of the Bausch and Lomb Optical Company, has been elected an honorary member of the American Microscopical Society "in recog-

nition of more than fifty years of active interest in microscopy."

THE American Institute of Mining and Metallurgical Engineers has made the first award of the Hunt prize for the best paper on ferrous metallurgy by a member not more than 40 years of age to Charles H. Herty, Jr., of the United States Bureau of Mines, and the Johnson award for "the encouragement of research in ferrous metallurgy" to P. H. Royster, of the same bureau.

SIR GOWLAND HOPKINS, professor of biochemistry in the University of Cambridge, was recently presented with the Society of Apothecaries medal at a dinner.

ACCORDING to the *Bulletin* of the American Mathematical Society, the Lobachevsky prize of the Physico-Mathematical Society of Kazan has been awarded to Professor Hermann Weyl, of the Zurich Technical School, for his work as a whole and in particular for his contributions to the problems of space from the point of view of the theory of groups and for his researches on the representation of continuous groups. Earlier awards of this prize were to Lie in 1897, Killing in 1900 and Hilbert in 1903.

DR. RICHARD WETTSTEIN, vice-president of the Vienna Academy of Sciences and professor of systematic botany in the University of Vienna, has been elected an honorary member of the Russian Academy of Sciences.

PROFESSOR MANIŁOWSKI, who was recently appointed to the chair of anthropology in the University of London, was the chief guest at a luncheon given at the Lyceum Club on January 28 by the Polish Circle.

DR. VICTOR GOLDSCHMIDT, professor of mineralogy at the University of Heidelberg, celebrated his seventy-fifth birthday on February 10.

SIR JAMES WALKER will retire from the chair of chemistry at the University of Edinburgh at the end of the current academical year.

DR. J. PAUL GOODE, first professor of geography at the University of Chicago, will become professor-emeritus at the close of the present academic year. Professor Goode has been connected with the university since 1901.

THE seventieth birthday of Dean William Kuhns Hill, head of the department of chemistry of Carthage College, was recognized by a celebration consisting of a banquet, the presentation of a handsome chest for letters and a fireside chair presented by friends. The board of trustees have granted Dean Hill a sabbatical recess of one semester.

DRS. WILLIAM J. MAYO and Alexis Carrel were guests of honor at a dinner at the Maryland Club on January 16, previous to their addressing the Johns Hopkins University School of Medicine on "The Splenomegalias" and the activities of tissue cells, respectively.

DR. JOHN SUNDWALL, professor of hygiene, public health and physical education at the University of Michigan, was elected president of the Michigan Public Health Association at its seventh annual meeting in Lansing on January 13.

DR. ARTHUR P. KELLEY, assistant professor of botany at Rutgers University, has joined the staff of the Allegheny Forest Experiment Station, as associate ecologist, with headquarters at the University of Pennsylvania.

EMANUEL FRITZ, associate professor of forestry at the University of California, has been appointed to the field staff of the West Coast Lumber Bureau, as technical authority.

DR. T. DWIGHT SLOAN, formerly professor of clinical medicine at the University of Nanking in China, has been appointed to succeed Colonel Louis G. Trimble as superintendent of the New York Post-Graduate Medical School and Hospital.

ALFRED M. BAILEY has been appointed director of the Museum of the Chicago Academy of Sciences. Mr. Bailey has been curator of birds and mammals in the Louisiana State Museum and in the Colorado Museum of Natural History.

DR. E. KIDSON, of the Central Weather Bureau, Melbourne, Australia, has been appointed to take charge of the Meteorological Bureau of New Zealand.

ON invitation of Governor H. M. Towner, of Porto Rico, President Livingston Farrand, of Cornell University, accompanied by the dean of the New York State College of Agriculture, Albert R. Mann, and Dr. Lewis Knudson, professor of plant physiology, will sail for San Juan on March 1 to make a survey of agricultural conditions on the island, with particular reference to the problems of tropical agriculture and the opportunity for intensive scientific research in that field. President Farrand and Dean Mann while on the island will represent Cornell University at the twenty-fifth anniversary celebration of the University of Porto Rico.

NEIL M. JUDD, curator of American archeology, United States National Museum, returned to Washington on December 6, after six months' field work for the National Geographic Society at Pueblo Bonito, a prehistoric Indian village in northwestern New Mexico. The past summer marked the seventh and

concluding season of the society's explorations at this most remarkable of all the pre-Hispanic pueblos of the southwest. Mr. Judd is now engaged upon preparation of his final reports to be published by the society.

DR. GEORGE D. BIRKHOFF, professor of mathematics at Harvard University, is en route to Japan where he is to conduct some research work in pursuance of the mathematical principles of art.

DR. REUBEN L. KAHN, immunologist of the bureau of laboratories, Michigan Department of Health, has been invited by the health committee of the League of Nations to attend a serologic conference extending from May until July at Copenhagen, Denmark.

THE Lane medical lectures, which are to be given at Stanford University by Dr. F. d'Herelle, directeur du Service Bacteriologique du Conseil Sanitaire, Maritime et Quarantenaire of Alexandria, Egypt, and discoverer of the bacteriophage phenomenon, have been tentatively fixed for the week commencing October 22, 1928. The subjects of the lectures will be as follows: "Bacteriophagy," "Bacterial Mutations," "The Nature of the Bacteriophage," "Infectious Diseases" and "The Phenomenon of Recovery." In addition Dr. d'Herelle will give a general lecture at Stanford University on "Logic in Biological Researches."

DR. GEORGE BARGER, professor of chemistry in its relations to medicine at the University of Edinburgh, whose appointment as non-resident lecturer in chemistry at Cornell University for the second term of the present university year was recently announced, will give lectures on the following subjects: The chemistry of hormones, the chemistry of vitamins, synthetic drugs, chemotherapy, the theory of the action of certain substances as depending on residual valency, illustrated by the analogy of the blue of adsorption compounds of iodine, the action of micro-organisms on carbohydrates and proteins, chemistry of sugars, proteins and purine derivatives and alkaloids.

UNDER the auspices of the H. K. Cushing laboratory of experimental medicine at Western Reserve University, Dr. Hugo Fricke, of Copenhagen, will give a series of fifteen lectures in biophysics at the medical school.

DR. SIGMUND FRAENKEL, professor of medical chemistry at the University of Vienna, addressed the University of Wisconsin Medical Society on January 12 on "Chemistry of the Vitamins."

DR. BIRD T. BALDWIN, director of the Iowa Child Welfare Research Station, will address a series of meetings in the United States and Canada during the last part of February on the subject of child development.

DR. W. F. G. SWANN, director of the Bartol research foundation of the Franklin Institute, lectured on "Recent Theories of the Atom" before the American Philosophical Society on February 3.

DR. HARRISON E. HOWE, editor of *Industrial and Engineering Chemistry*, has returned from Florida, where he was invited to speak before a number of open forums on the subject of "The New Competition."

THE centenary of the birth of Professor Eugène Koeberlé, the inventor of haemostatic forceps, has recently been celebrated at Strasbourg.

DR. CLIFFORD H. FARR, associate professor of botany in Washington University, St. Louis, died suddenly of pneumonia on February 10, aged thirty-nine years.

DR. KARL KONRAD KOESSLER, associate professor of medicine at the Rush Medical School and member of the Sprague Memorial Institute, died on February 14 at the age of forty-seven years.

DR. G. REESE SATTERLEE, specialist in gastro-intestinal diseases of the Fordham Hospital, New York, died on February 9 at the age of fifty-four years.

WADE TOOLE, professor of animal husbandry at the Ontario Agricultural College, died on January 12.

RICHARD KEARTON, well-known British naturalist, died on February 9 at the age of sixty-five years.

PROFESSOR R. W. GENESE, professor of mathematics in the University College of Wales, Aberystwyth, died on January 21, aged seventy-nine years.

GERMAN exchanges announce the death of the following scientific men: Dr. Valentin Haecker, professor of zoology and comparative anatomy at Halle; Dr. Antonin Prandtl, professor of psychology at Würzburg; Dr. Ludwig Milch, professor of mineralogy at Breslau; Dr. Richard Pribram, professor of physical chemistry at Vienna; Dr. Eilhard Wiedemann, professor of physics at Erlangen; Professor Hans Leo, formerly director of the Bonn Pharmacological Institute, and Dr. Joseph Thomayer, professor of neurology at Prague.

APPOINTMENTS to Ramsay fellowships in chemical science for this session have been made for the present session as follows, the institution selected by the fellow for his research being given: *British Fellowships*: Dr. R. F. Hunter, Imperial College of Science and Technology, London; Mr. A. M. Taylor, University of Cambridge; *Glasgow fellowship*: Mr. James D. Fulton, University of Manchester; *Canadian fellowship*: Dr. W. H. Barnes, Royal Institution, London; *Danish fellowship*: Miss Augusta M. Unmack,

University of Oxford; *French fellowship*: M. Robert le Guyon, University College, London; *Italian fellowship*: Dr. Gastone Guzzoni, Royal School of Mines, London; *Japanese fellowship*: Dr. Yohei Yamaguchi, University College, London; *Spanish fellowship*: Senor Fernando Calvet, University of Oxford; *Swedish fellowship*: Mr. H. Liander, University College, London. The total value of the annual amount of the fellowships that is awarded is approximately £4,000, of which about £3,000 is provided by grants from dominion and foreign sources.

A SERIES of illustrated lectures on important developments and discoveries in various fields of engineering will be given by members of the staff of the Harvard Engineering School during the second half-year. These lectures will be open to the public, and will be given in 110 Pierce Hall on Thursday afternoons, at 4:30 o'clock, as follows: February 23.—"The Telephone and how it Works." Professor A. E. Kennelly, professor of electrical engineering. March 1.—"The Rusting of Iron and its Prevention." Professor Albert Sauveur, Gordon McKay professor of metallurgy and metallography. March 8.—"Steam Locomotives." Professor H. N. Davis, professor of mechanical engineering. March 15.—"The Purification of Municipal Water Supplies, with special reference to Cambridge." Professor M. C. Whipple, assistant professor of sanitary chemistry and sanitary inspector. March 22.—"Gasoline." Professor J. B. Conant, professor of chemistry. March 29.—"Electric and Gas Welding—One of the Most Useful Tools in Modern Industry." Professor C. A. Adams, Abbott and James Lawrence professor of engineering.

THE next International Mathematical Congress will be held at Bologna from September 3 to 10. *Nature* notes that, since the war, previous congresses have been held at Strasbourg in 1920 and Toronto in 1924, but the Bologna meeting will be the first since the war that will be strictly international in character, its two predecessors having been restricted as to membership to subjects of allied or neutral nations. The Italian prime minister takes great interest in the congress and has accepted the office of honorary president. Arrangements are actively proceeding for the various sections of pure mathematics and applications of mathematics to economics and to scientific and technical problems. In addition, excursions are being proposed for visiting the art treasures of Florence and Ravenna and some of the principal hydroelectric plants of Italy. Professor Pasquale Sfamini, rector of the University of Bologna, is organizing president, Professor S. Pincherle is president of the executive committee and the general secretary is Professor Ettore Bortolotti, Via Zamboni 33, Bologna.

THE ninetieth meeting of the German Society of Naturalists and Physicians will be held at Hamburg from September 16 to 28. Special emphasis will be given in the general meetings and in the sections to the relationships of German science and medicine to maritime studies and to overseas countries.

ACCORDING to *Nature*, the twentieth annual general meeting of the Institute of Metals will be held in London on March 7 and 8, under the presidency of Dr. W. Rosenhain, superintendent of the department of metallurgy and metallurgical chemistry in the National Physical Laboratory. The papers to be read and discussed include contributions from metallurgists in Germany, Japan and the United States, as well as Great Britain. The autumn meeting will be held at Liverpool from September 4 to 7.

THE twenty-second Dutch Congress of Natural Science and Medicine will be held at Rotterdam from April 2 to 4, 1929, under the presidency of Professor P. E. Verkade, of Rotterdam.

THE committee on scientific research of the American Medical Association invites applications for grants in aid of research on problems bearing on clinical medicine. Inquiries may be addressed to the committee at 535 North Dearborn Street, Chicago, Ill.

THE council of New York University has accepted a \$3,000 annual fellowship from Sherman M. Fairchild, president of the Fairchild Aviation Company, for research in air-cooled aircraft engines by a graduate of the Guggenheim School of Aviation.

THE new \$1,000,000 Chandler laboratories of Columbia University were formally opened on February 16, when members of the society of the Sigma Xi inspected them. The laboratories were built with an anonymous gift of \$1,000,000 made to the university in honor of the late Professor Charles F. Chandler, who was head of the university's department of chemistry.

MAX EPSTEIN, who established the Max Epstein clinic in the University of Chicago, has given the university \$100,000 to be subscribed to the building fund of the Chicago Lying-in Hospital. Mr. Epstein's contribution is to be used to establish in the Lying-in Hospital building, to be erected on the medical quadrangles, an out-patient department which shall be operated as part of the Max Epstein Clinic.

WORK will start in the spring on an addition to the University of Minnesota Hospital to cost \$890,000.

ACCORDING to press reports, Albert Fuchs, Chicago millionaire, whose wife, Fanny Richter Fuchs, pianist, recently died of cancer, has announced an offer of all his wealth for cancer research. He is said to have sold his eastern holdings recently for \$2,000,000.

VANDERBILT UNIVERSITY announces the gift of \$50,000 from Mr. Bernard Flexner, of New York City, for the establishment of a lectureship for the purpose of perpetuating the association of his brother, Mr. Abraham Flexner, in the recent reorganization of the school of medicine. The income from this donation will make it possible to bring leading scientific men to Vanderbilt to lecture on subjects in the field of medicine and possibly allied sciences. It is to be designated as the "Abraham Flexner Lectureship," which will serve to further emphasize the interest of the university in scientific work. By special provision of Mr. Flexner in making the gift, the first series of lectures will be given during the session of 1928-29.

ACCORDING to the *Journal* of the American Medical Association, the board of trustees of St. Margaret Memorial Hospital, Pittsburgh, has received funds to establish a laboratory for clinical and biological research to be known as the John C. Oliver Memorial Research Foundation. The donor is Mrs. John C. Oliver, of Sewickley. The gift will provide generously for the equipment and maintenance of such a department in the hospital. A full-time biochemist will be in charge under the direction of a committee from the staff comprising Drs. Paul Titus, Ernest W. Willetts and Charles J. Bowen. The new department will not take part in routine laboratory work of the hospital, but will be available to the entire medical staff for research on any general medical problem.

THE contract has been let for the new \$500,000 dairy building at the Iowa Experiment Station. An insectary, especially for the study of the European corn borer, was also authorized by the legislature, and a section of the new horse barn and machinery shed has been completed. The old brick horse barn will be converted into a laboratory for the department of landscape architecture, while the old dairy building will afford much-needed additional room for other departments in the agricultural division.

THE American Society of Mechanical Engineers has presented its gallery of forty-five portraits of noted engineers to Cooper Union. The gallery contains paintings of past presidents of the engineers' society. Among those represented are Charles M. Schwab, Ambrose Swasey, George Westinghouse and Admiral George F. Melville.

THE French Academy of Sciences has awarded the Le Comte donation of 50,000 francs (triannual) to Dr. Alexander Yersin, director of the Pasteur Institute, Annam.

*Nature* states that on March 20 the king will open the eastern block of the new buildings of the Science Museum at South Kensington. First formed in 1856,

the collections have occupied various buildings, but now for the first time they are shown in one designed for this purpose, though about a quarter of the collections still remain in buildings which were originally constructed for the exhibition of 1862.

A PRIZE of about \$250 is offered by the British *Journal of Anesthesia* for the best research in anesthesia made in Great Britain during the coming year. This will be known as the Sidney Rawson Wilson prize, in memory of the late Dr. Wilson.

THE University of Edinburgh has received intimation of a bequest by the late James Sanderson, Galashiels of five shares of the residue of his estate, to be applied for the advancement or promotion in the university of technical and scientific study and research in the chemistry and engineering branches of the faculty of science. The amount of the bequest is estimated at about £35,000. The university has accepted the offer of an endowment contributed by former students and others associated with the work of emeritus Professor Robert Wallace, for the foundation of a university prize, to be known as the "Wallace Prize," to be awarded to the best degree student of the third year in agriculture.

ACCORDING to the report of the Royal Magnetical and Meteorological Observatory at Batavia for 1926, recorded in *Terrestrial Magnetism*, the electrification of the Batavia-Buitenzorg railway has made it necessary to move the recording magnetographs at Buitenzorg to the Island of Kuiper in the Bay of Batavia. The plans for the new building have been completed and construction was to begin shortly.

## UNIVERSITY AND EDUCATIONAL NOTES

OF an allotment of \$200,000 to the school of agriculture, Pennsylvania State College, for new buildings, \$150,000 is to be used for the first unit of a biology building, primarily for botany. The remaining \$50,000 is to be divided between a new sheep barn, an addition to the dairy barn milk room, a livestock hospital and the first unit of a new poultry plant.

COLUMBIA UNIVERSITY has announced twenty-eight gifts, aggregating \$25,950, including one of about \$10,000 from Dr. L. M. Waugh for the purpose of financing a research expedition to Labrador.

THE new Warner laboratory of mechanics and hydraulics at the Case School of Applied Science has been completed.

THE Dorr Memorial Research Laboratory of Temple University was dedicated on January 31. This laboratory was made possible through a \$50,000 fund bequeathed by the late Dr. Henry Isaiah Dorr.

T. R. FERENS has given a further sum of £22,500 to the newly established University College at Hull. This brings his gifts to the college to about £300,000. Mr. Ferens has asked that £20,000 of his latest benefaction should be set aside for endowing a chair. The foundation stone of the new buildings will be laid on April 28.

DR. CHARLES K. EDMUNDS, formerly president of Canton Christian College, now Lingnan University, and later provost of the Johns Hopkins University, has accepted the presidency of Pomona College. He will assume office about May 1.

DR. MADISON BENTLEY, of the University of Illinois, has been appointed Sage professor of psychology at Cornell University to occupy the chair held for nearly thirty-five years by the late Edward Bradford Titchener.

DR. EDWARD U. CONDON, recently an International research fellow in mathematical physics at Göttingen and Munich and at present a special lecturer in Columbia University, has been appointed assistant professor in physics at Princeton University.

DR. P. W. WHITING, for the past year research investigator under the National Research Council stationed at the Bussey Institution, Harvard University, has been appointed assistant professor of zoology at the University of Pittsburgh.

ALBERT H. GILBERT, assistant professor of botany at the University of Vermont and associate plant pathologist for the Vermont Experiment Station, has been appointed professor of plant pathology and head of that department at Macdonald College, the Agricultural College of McGill University.

A. C. HARDY has been appointed the first professor of zoology at University College, Hull, England. Mr. Hardy acted as zoologist to the recent expedition to the Antarctic in the *Discovery*.

DR. EMIL RITTER VON SKRAMLIK, of Freiburg, has been appointed professor of physiology at Graz.

## DISCUSSION AND CORRESPONDENCE THE ICHNOLOGY OF TEXAS

IT is almost one hundred years since the Reverend Dr. Duncan initiated the subject of ichnology by the description in the *Transactions of the Royal Society of Edinburgh* of some genuine tracks in the New Red Sandstone of Scotland. During the century that has passed there have been many contributions to the subject, and the last two years have been especially fruitful of studies, both in America and in Europe. Interest in these fascinating objects does not wane, but rather seems to be on the increase, in spite of the