vania; Charles O. Hawk, Felicity, Ohio, Ohio University; Garnet Phillips, Terre Haute, Ind., Rose Polytechnic Institute; Ben E. Hess, Huntington Park, Cal., California Institute of Technology; and H. F. McCullough, Scottdale, Pa., special appointment as research engineer.

The following were named as research fellows in metallurgy: Abraham Grodner, Pittsburgh, Pa., Carnegie Institute of Technology; Ralph B. Norton, Eastondale, Mass., Massachusetts Institute of Technology; Gustave H. Pfeiffer, Terre Haute, Ind., Rose Polytechnic Institute; and E. A. Hertzell, Schuylkill Haven, Pa., Pennsylvania State College.

The research program in mining and metallurgy at the Carnegie Institute for the next college year is announced as a continuation of the cooperative arrangements that have been in effect with the Bureau of Mines in mining for the past five years and in metallurgy for the past two years. Two different advisory boards, composed of coal operators and engineers in the one case, and of steel manufacturers, engineers and metallurgists in the other, have approved the problems to be investigated, and will cooperate financially in carrying out the program.

Problems selected in mining have been assigned as follows:

The composition of tar and oil from the low temperature distillation of coal, by R. L. Brown, organic chemist, Bureau of Mines, and Russell B. Cooper, research fellow.

Study of simple catalytic attachments to electric cap lamps for detecting methane, by W. P. Yant, associate chemist, Bureau of Mines, and Charles O. Hawk, research fellow.

Time-pressure relations in combustion of the fine sizes of coal-dust, by C. M. Bouton, associate research chemist, and Garnet Phillips, research fellow.

A study of the propagation of flame in mixtures of natural gas and air, by H. F. Coward, principal assistant, Safety in Mines Research Board, England; G. W. Jones, associate chemical technologist, Bureau of Mines, and Ben E. Hess, research fellow.

A field study of underground coal-loading machines and mining methods adaptable, by J. W. Paul, mining engineer, Bureau of Mines, and H. F. McCullough, research engineer.

Assignments of the studies in metallurgy are aunounced as follows:

A study of the cause and control of abnormality of case carburized steels, by C. E. Sims, electrometallurgist, Bureau of Mines, and Ralph B. Norton, research fellow.

A study of the open hearth steel furnace atmosphere in relation to its effect upon refractories, by Frederick W. Schroeder, assistant chemist, Bureau of Mines, and Gustave H. Pfeiffer, research fellow.

A study of the mechanism of corrosion and the factors effective in its control in steam power plant operation, by R. E. Hall, physical chemist, Bureau of Mines, and E. A. Hertzell, research fellow.

Temperature and heat-flow studies in open hearth and electric steel furnaces, by B. M. Larsen, metallurgist, Bureau of Mines, and Abraham Grodner, research fellow.

SCIENTIFIC NOTES AND NEWS

At the annual meeting of the British Medical Association held at Bath, Dr. Robert George Hogarth was elected president for 1926–27. It was agreed that the annual meeting in 1927 be held in Edinburgh and be part of the Lister centenary celebration.

SIR CHARLES S. SHERRINGTON, president of the Royal Society and Waynflete professor of physiology in the University of Oxford, has been appointed a member of the Medical Research Council, England, to fill the vacancy caused by the retirement of Dr. Henry Head, F.R.S.

THE Baly medal of the Royal College of Physicians of London has been awarded to Dr. R. Magnus, professor of pharmacology at Utrecht.

THE Alfred Ackermann-Teubner Memorial Prize for the promotion of the mathematical sciences has been awarded to Dr. Arnold Kohlschütter, of the Astrophysical Observatory at Potsdam, for his determination of the absolute brightness of stars from the intensity relations of certain spectral lines.

The Royal Belgian Academy has awarded its decennial prize for applied mathematics for the period 1913–1922 to Professor T. de Donder, for his works on the Einstein theory of gravitation and his "Leçons Thermodynamiques êt de Chimie Physique."

M. GAILLARD, director of the Museum of Natural History at Lyons, has been made chevalier of the Legion of Honor.

We learn from Nature that at a meeting of the Vienna Academy of Sciences on June 12, Dr. Oswald Redlich was reelected president, and Dr. Richard Wettstein vice-president. Dr. William Exner, of Vienna, and Dr. Waldemar Chr. Brögger, of Oslo, were made honorary members. Dr. Niels Bohr, of Copenhagen, Dr. Max von Laue, of Berlin, and Dr. Eugen Korschelt, of Marburg, have been elected foreign corresponding members. The following awards were made: the Lieben prize to Dr. L. Meitner for publications on β and γ rays of radioactive substances; the Haitinger prize to Dr. R. Kremann for work on the electrolysis of metal alloys, and also to Dr. L. Moser for work on quantitative analysis and the purification of gases.

DR. HENRY C. TAYLOR, chief of the Bureau of Agricultural Economics of the U. S. Department of Agriculture, has resigned at the request of Secretary Jardine. Thomas P. Cooper, dean of the Agricultural College of the University of Kentucky, has been chosen to succeed him.

Professor A. R. Lamb, chief in nutrition at the Iowa Agricultural Experiment Station, has resigned to accept the position of director of research for the Moorman Manufacturing Company, Quincy, Ill.

S. P. Kinney has been designated supervising metallurgist of the Bureau of Mines, with headquarters at Pittsburgh, Pa.

WILSON POPENOE, for the past twelve years an agricultural explorer for the United States Department of Agriculture, will leave the government service on October 1 to go with the United Fruit Company, as an investigator of horticultural problems.

GLENN E. PAXTON, assistant in plant pathology and graduate student at the University of California, has accepted a position as plant pathologist of the Fuerte Valley Vegetable Growers' Experiment Station of Los Mochis, Sinaloa, Mexico, of which Dr. A. W. Morrill, of Los Angeles, California, is director and entomologist.

THE vice-chancellor of the University of Cambridge has nominated Arthur Lourie, B.A., LL.B., scholar of St. John's, to hold the Choate Memorial Fellowship at Harvard University for the year 1925–26, in the place of Dr. W. H. B. Twamley, of Emmanuel, who resigned the fellowship on his election to a Laura Spelman Rockefeller Memorial Fellowship.

MADAM A. P. RAKITZKAIA, an assistant to Professor Omeliansky, of the Institute of Experimental Medicine, Leningrad, Russia, has been granted a fellowship by the International Education Board in order that she might carry on the study of soil microbiology at Rutgers University and the New Jersey Agricultural Experiment Station at New Brunswick.

THE Highway Research Board of the National Research Council has started a new investigation on culvert pipe with R. W. Crum, engineer of materials and tests, Iowa State Highway Commission, chairman of the investigation.

Dr. Spencer L. Dawes, medical examiner of the New York State Hospital Commission and president of the Interstate Conference on Immigration, has sailed for England to make a study of the examination of British immigrants under the method advocated by Secretary of Labor Davis.

At the meeting of the senate of the Queen's University, Belfast, held on July 15, a tender was accepted for the erection of buildings for the department of agriculture. It is hoped that these buildings will be completed in about 18 months at a cost of £46,000. Of this sum, £34,500 has been given by the Ministry of Agriculture for Northern Ireland, £5,000 was contributed by the late Miss Riddell and £6,000 was provided from general university funds.

Professor H. E. Rose, of the dairy department of the State College of Agriculture at Cornell University, sailed with his family for South America on August 15. Professor Rose has been asked by the Argentine government to investigate and report on dairy conditions in the Argentine.

The Rothamsted Experimental Station, at Harpenden, England, and the New Jersey Agricultural Experiment Station, New Brunswick, N. J., have entered into an exchange whereby Mr. H. Sandon, assistant protozoologist of the Rothamsted Station, and Dr. Charles E. Skinner, assistant microbiologist of the New Jersey Station, are to go to New Brunswick and Harpenden, respectively. A cooperative study has been planned whereby the two institutions may be able to determine definitely to what extent soil protozoa are a major factor in soil fertility. The undertaking is being financed by the International Education Board.

Professor C. H. Kauffman, of the department of botany of the University of Michigan, has been granted sabbatical leave for the first semester of the school year 1925-26, and expects to devote that period to field study in the Pacific coast states.

Dr. Walter R. Miles, professor of psychology at Stanford University, will be special lecturer in psychology at the University of California for the first semester 1925–26, in the absence of Dr. G. M. Stratton.

Dr. Fridtjof Nansen, the Arctic explorer, will head the Norwegian delegation to the forthcoming meeting of the Assembly of the League of Nations.

CAPTAIN GEORGE WILKINS, British polar explorer, has been in Norway preparing for an expedition next year into the Antarctic, where he proposes to explore and survey the coast between Whale Bay and Graham's Land. Captain Wilkins spent four years in the Arctic with Stefansson and two years in the Antarctic with Shackleton. He has negotiated with the Norse Aero Club for the purchase of Amundsen's airplane N-25 for \$20,000, for use in exploration flights in the Antarctic.

AT the summer meeting of the American Mathe-

matical Society at Cornell University, from September 8 to 12, the tenth colloquium of the society will consist of two courses of lectures: "The new differential geometry," by Professor L. P. Eisenhart; and "The theory of approximation," by Professor Dunham Jackson.

SIR JOHN ROSE BRADFORD has been appointed to give the Harveian Oration of the Royal College of Physicians of London in 1926.

It is announced that on account of unforeseen circumstances the Lane Medical Lectures which are to be given by Professor Vittorio Putti, of the Rizzoli Institute, will be postponed until November 9, instead of being delivered during the second week of October as was originally planned.

JOHN H. SAGE, banker and known for his publications on the birds of Connecticut, for more than twenty years secretary of the American Ornithologists' Union, died on August 16, at the age of seventy-eight years.

A. B. SKINNER was killed on August 17 in an automobile accident while collecting Indian relics for the Heye Foundation of New York. Mr. Skinner, who at the time of his death was thirty-nine years of age, had previously been assistant anthropologist in the American Museum of Natural History and more recently assistant curator of the Milwaukee Public Museum.

Dr. E. J. McWeeney, professor of pathology and bacteriology, at University College, Dublin, has died, aged sixty-one years.

The death recently occurred of Professor Dr. Ing. Otto Lummer, for many years director of the Physical Institute of the University of Breslau.

THE western Christmas meeting of the American Mathematical Society and the meeting of the Southwestern Section of the society will be held at Kansas City, in conjunction with the meeting of the American Association for the Advancement of Science. At the time of these meetings, Professor James Pierpont will deliver the annual Gibbs lecture, on the topic "Some modern views of space." It is planned to hold the ordinary meeting on Tuesday, December 29, to have a joint session with the Mathematical Association and with Section A on Wednesday morning, and to have the Gibbs lecture presented before a general session of the American Association on Wednesday afternoon. The ordinary meeting of the Mathematical Association will probably fall on Thursday.

DEFINITE plans are being made for the holding of the First International Congress of Soil Science at Washington, D. C., in early June, 1927. The American Organizing Committee consists of: F. J. Alway, University of Minnesota; F. E. Bear, Ohio State University; G. S. Fraps, Agricultural and Mechanical College, Texas; R. Harcourt, Ontario Agricultural College, Guelph; S. B. Haskell, Massachusetts Agricultural College, Amherst; D. R. Hoagland, University of California; T. L. Lyon, Cornell University; C. F. Marbut, U. S. Department of Agriculture; A. G. McCall, University of Maryland; W. H. McIntire, University of Tennessee; M. F. Miller, University of Missouri; F. T. Shutt, Dominion Experimental Farm, Ottawa; F. A. Wyatt, College of Agriculture, Edmonton, Alberta; Jacob G. Lipman, chairman of the New Jersey Agricultural College and Experimental Station, New Brunswick.

THE Journal of the American Medical Association states that at the twenty-first annual meeting of the American Society of Tropical Medicine in Washington, Dr. Aldo Castellani, professor in the London School of Tropical Medicine, London, among others, presented a paper on "Parenteric fevers"; Dr. R. Kawamura, of the Niigata Medical University of Japan, on "Japanese river fever"; Dr. Raymond E. Scott, U. S. Army, on "Black madura foot"; Dr. Richard P. Strong, Boston, on "Medical results of the Amazon expedition in 1924," and Dr. Henry J. Nichols, U. S. Army, on "A note on cross-immunization in syphilis and yaws." Dr. Henry R. Carter was elected honorary president; Dr. Joseph F. Siler, U. S. Army, president; Drs. George C. Shattuck and Charles S. Butler, vice presidents; Dr. Brayton H. Ransom, secretary-treasurer; Dr. William E. Deeks, councilor for five years, and Dr. Henry J. Nichols, editor. Dr. Nichols reported that the editorship of the American Journal of Tropical Medicine should be "a full-time matter" and that the present plan is regarded as temporary until better arrangements can be made.

The twelfth annual Congress of Hygiene will be held at the Institut Pasteur, Paris, under the presidency of Dr. Faivre, from October 19 to 23, when, according to the British Medical Journal, the following subjects will be discussed: (1) Is syphilis tending to disappear? introduced by Professor Pautrier, of Strasbourg; (2) standardization of the methods of bacteriological analysis of water, introduced by Dr. Rochaux, of Lyons; (3) epidemiology, geographical distribution and prophylaxis of undulant fever, introduced by Dr. Burnet, of the Institut Pasteur, Tunis; (4) experimental hygiene and laboratory research, introduced by Dr. Dujarric de la Rivière; (5) general and social hygiene, introduced by Drs. Ott and Brian; (6) sanitary hygiene, introduced by Dr. Dequidt.

At the concluding meeting of the Esperanto Congress at Geneva, it was decided to hold the congress in Edinburgh next year.

At a meeting attended by Dr. Gunn, director of the European Mission of the Rockefeller Institute, Professor Brumpt, member of the Académie de Médecine, and Dr. Sari, senator of Corsica, it was decided to found a malaria research laboratory at Bastia (Corsica). The expenses will be defrayed by the Rockefeller Institute.

An additional Peruvian experiment station has been established at Chuquibamba, north of Juliaca, at an altitude of 12,500 feet, with Colonel Stordy as director. The farm or ranch contains about 18,000 acres and is stocked with about 15,000 sheep and provided with modern equipment.

UNIVERSITY AND EDUCATIONAL NOTES

Dr. Max Mason, professor of mathematical physics in the University of Wisconsin, has been elected president of the University of Chicago, succeeding the late Dr. Ernest Dewitt Burton.

THE state legislature of Tennessee has this year appropriated \$315,000 to purchase additional lots adjoining present holdings of the university in Memphis, also \$250,000 to assist in the construction of the first unit of the proposed building program; \$100,000 has been donated by the citizens of Memphis also for this purpose. The first unit will be five stories high and will accommodate the departments of anatomy, physiology and chemistry. Construction work will start this summer.

The entire property of Valparaiso University, Indiana, has passed into the hands of the Lutheran University Association, a branch of the National Lutheran Education Association. The university, which would otherwise have closed for lack of funds, will open as usual on September 28.

THE Medical School of the Middlesex Hospital, England, has received a gift of £20,000 from Mr. Thomas Robinson Ferens, of Hull, for the foundation of an Institute of Otology, to be devoted to research into the structure, functions and diseases of the ear, nose and throat.

Dr. WILLIAM T. SANGER has been elected president of the Medical College of Virginia, at Richmond.

A. H. Leidigh, assistant director of the Texas Agricultural Station, has been appointed dean of agriculture and agronomy at the Texas Technological College, a state institution at Lubbock which is to open its doors to students next fall.

WILFRED W. Scott has resigned his position as

associate professor of chemistry at the Colorado School of Mines to accept the professorship of analytical and industrial chemistry at the University of Southern California, Los Angeles.

E. G. Mahin has resigned his position as professor of analytical chemistry at Purdue University to join the faculty of the University of Nôtre Dame, where he will be professor of analytical chemistry and metallurgy.

Dr. Aura J. Miller, a fellow in medicine of the National Research Council, working with Dr. Wolbach at Harvard Medical School, has accepted an appointment as assistant professor of clinical pathology at the University of Nebraska.

Dr. Arthur Joseph Hill, associate professor of organic chemistry at Yale University, has been advanced to the rank of professor.

At the Massachusetts Institute of Technology Dr. George L. Hosmer has been promoted from associate professor to professor of geodesy, and Dr. Richard G. Tyler from associate professor to professor of sanitary engineering.

Professor J. W. Bews, of Natal University College, Pietermaritzburg, has been appointed professor of botany in Armstrong College, in the University of Durham, in succession to Professor M. C. Potter, retired.

DISCUSSION AND CORRESPONDENCE THE CONDITION OF BIOLOGICAL LITERATURE IN PARIS

THE French government is forced, at the present moment, to the strictest economy. Since the universities and many of the scientific libraries are a property of the state, much of this economy falls upon them. France has never been exceedingly lavish upon its institutions of higher learning, and now, at a time when the value of laboratories and scientific libraries is beginning to be understood by the public at large, the unfortunate financial condition which followed the Great War causes a general retrenchment in expenditures. On the other hand, the disadvantage at which the franc finds itself upon the markets of the world renders almost impossible certain purchases which ought to be made, in the interest of science, in foreign countries with a high rate of exchange, such as the United States, Great Britain and Germany.

While this general condition doubtless is felt in all fields of science, a greater familiarity with biological literature allows me to speak with authority only on this one subject. The most important biological libraries in Paris are those of the Muséum d'Histoire