the Introductory Course in Qualitative Analysis"; "Objectives and Content of the Introductory Course of the Quantitative Analysis"; "Advanced and Graduate Work in Analytical Chemistry."

The history of chemistry division will hold one half-day session. The division expects to hold an exhibit of autograph letters, documents, medals, etc., relating to the French chemists of the French revolutionary period. Papers by H. M. Elsey, Orville E. May, Lyman C. Newell and Tenney L. Davis have been promised.

The division of industrial and engineering chemistry is planning to have round-table discussions on the following topics: "Lubrication," led by R. E. Wilson; "Filtration," led by D. R. Sperry, and "Equipment Construction," led by W. T. Read. The petroleum division will join in the discussion on "Lubrication."

In addition to a joint symposium with the division of physical and inorganic chemistry on "Atomic Structure and Valence," the division of organic chemistry will hold three half-day sessions.

The paint and varnish division will hold a symposium on "Settling of Pigments," with P. R. Croll as chairman. A number of other papers have been promised.

The petroleum division will hold three half-day sessions in addition to the joint round-table discussion on "Lubrication" with the industrial and engineering chemistry division. The division plans to visit one of the refineries in the neighborhood of St. Louis.

The division of physical and inorganic chemistry plans to devote a whole day to the joint symposium on "Atomic Structure and Valence." The purpose of this symposium is to try to bring physicists and chemists together in an effort to arrive at some common basis of understanding. The following speakers have promised to participate: K. K. Darrow, G. E. M. Jauncey, S. C. Lind, H. S. Fry, W. H. Rodebush, W. A. Noyes, W. D. Harkins, Herman Schlundt and W. H. Carothers.

The rubber chemistry division will hold three halfday sessions. It will also hold its regular banquet. The division of sugar chemistry will hold three halfday sessions.

At the meeting of the division of water, sewage and sanitation a group of papers will be presented on the treatment of water for railroad use, with special reference to softening; another group will have to do with recent advances in the softening of municipal water supplies; and the softening of water in the home will be discussed briefly. Some phases of the utilization of Colorado River water will be discussed in the light of new data on the dissolved mineral matter and the silt carried by the river.

The addresses of the secretaries of the divisions which will hold meetings are as follows:

Agricultural and Food Chemistry: C. S. Brinton, Food Inspection Laboratory, U. S. Appraiser's Stores, Philadelphia. Pa.

Biological Chemistry: M. X. Sullivan, Laboratory of Hygiene, Treasury Department, Washington, D. C.

Cellulose Chemistry: E. C. Sherrard, Forest Products Laboratory, Madison, Wis.

Chemical Education: R. A. Baker, Bowne Hall, Syracuse University.

Dye Chemistry: H. T. Herrick, Color and Farm Waste Division, Bureau of Chemistry and Soils, Washington, D. C.

Gas and Fuel Chemistry: O. O. Malleis, 5557 Wood- mont St., Pittsburgh, Pa.

History of Chemistry: Tenney L. Davis, Massachusetts Institute of Technology.

Industrial and Engineering Chemistry: E. M. Billings, 343 State St., Rochester, N. Y.

Medicinal Products Chemistry: A. E. Osterberg, Mayo Clinic, Rochester, Minn.

Organic Chemistry: Frank C. Whitmore, National Research Council, Washington, D. C.

Paint and Varnish Chemistry: E. W. Boughton, New Jersev Zinc Co., 160 Front St., New York.

Petroleum Chemistry: Carl L. Johnson, The Manhattan Oil Co.. Kansas City.

Physical and Inorganic Chemistry: Ward V. Evans, Northwestern University.

Rubber Chemistry: H. E. Simmons, Bierce Library, Municipal University, Akron. Ohio.

Sugar Chemistry: F. W. Zerban, New York Sugar Trade Laboratory, 80 South St., New York.

Water, Sewage and Sanitation Chemistry: W. D. Collins, U. S. Geological Survey, Washington, D. C.

SCIENTIFIC NOTES AND NEWS

Professor James Kendall, dean of the New York University Graduate School and formerly professor of chemistry in Columbia University, has accepted the chair of chemistry at the University of Edinburgh. Dr. Kendall will succeed his old teacher, Professor Sir James Walker, of Edinburgh, who retires at the end of the present academic year.

COLONEL WILLIAM B. GREELEY, since 1920 chief of the U. S. Forest Service, will resign on May 1, to accept a position with the West Coast Lumber Manufacturers' Association. Major R. Y. Stuart, now assistant forester in the forest service in charge of public relations, has been appointed to succeed Colonel Greeley.

THE British Iron and Steel Institute will award the Bessemer gold medal to Charles M. Schwab, chairman of the board of the Bethlehem Steel Corporation and president of the American Iron and Steel Institute. The presentation will take place at a meeting of the institute on May 3 and 4.

DR. MARCUS BENJAMIN, editor of the publications of the U. S. National Museum, has recently received the promotion from "Cavaliere" to "Officer" of the Order of the Crown of Italy.

THE grand cross, the highest rank of the Legion of Honor, has been conferred on Dr. Albert Calmette, of the Pasteur Institute, who has developed a preventive vaccine treatment for tuberculosis. His collaborator, Dr. C. Guerin, has been accorded the rank of officer.

Dr. A. W. Hill, director of the Royal Botanic Gardens, Kew, who is on a visit, made possible by a grant to Kew from the Empire Marketing Board, to the botanical, agricultural and forestry institutions of Australia, New Zealand and Java, has been given the degree of D.Sc. by the University of Adelaide.

According to the British Medical Journal the prize of the Marchiafava Foundation of the value of 8,000 lire for the best work on morbid anatomy and experimental pathology has been awarded to Professor Soli, who holds the chair of morbid anatomy at Palermo, for his investigations on arterio-sclerosis produced by Spiroptera sanguinolenta, and Professor Brancati, of the Surgical Clinic of Rome, for his investigations on internal tar cancer.

At a meeting of the British Institution of Electrical Engineers held on February 2 a portrait in oils of Mr. Ll. B. Atkinson, past-president of the institution, was formally presented to the institution by the Cable Makers' Association. The portrait was painted by Mr. G. Harcourt.

Dr. Gustav Giemsa, director of the chemical section of the Hamburg Institute for Tropical Diseases and the inventor of a well-known stain, recently celebrated his sixtieth birthday.

Professor Minkowski, who retired last year from the directorship of the medical clinic at Breslau, celebrated his seventieth birthday on January 13.

More than one hundred of his present and former associates and friends gathered at the Cosmos Club on the evening of February 3, 1928, to do honor to F. P. Veitch, who directs the research work on leather, paper, fabrics and naval stores of the Bureau of Chemistry and Soils. The celebration was to commemorate his twenty-five years of service in the Bureau of Chemistry. It took the form of a dinner, at which W. W. Skinner presided as toastmaster.

PROFESSOR SAMUEL C. LIND, director of the school of chemistry of the University of Minnesota, has been

elected a member of the International Radium Standards Commission, to succeed the late Professor Boltwood, of Yale University.

Dr. R. E. Rose has been appointed a member of the advisory committee of the cancer research fund of the University of Pennsylvania.

STANLEY F. Morse, consulting agricultural engineer, of South Carolina and New York, has been appointed chairman of the newly-organized division of consulting agricultural engineers of the American Society of Agricultural Engineers. The purpose of this division is to bring together in one organization the most competent men in the profession. The qualifications of applicants will be examined and only those of proper training, experience and reliability will be admitted to membership.

GEORGE A. STETSON has resigned as associate professor of heat-power engineering at New York University to become associate editor for the American Society of Mechanical Engineers.

Professor S. C. Langdon has dropped his teaching work at Northwestern University to take charge of chemical research for the Curtis Lighting, Inc., of Chicago. He will continue to direct some of his researches at the university.

FACULTY members from foreign countries who will give summer quarter courses at the University of Chicago include P. W. Bryan, lecturer on geography at the University College, Leicester, England, and John Robert Charles Evans, geology, Brandon College, Manitoba, Canada.

- L. C. COLEMAN, who was granted two years' leave of absence by the department of agriculture in Mysore, India, and has been, during that time, professor of plant pathology at Toronto University, has returned to India to again become director of agriculture in Mysore at Bangalore.
- A. R. Trist, research forester of Australia, has been sent to the United States by the Australian government for a stay of two years to study the organization of the forest experiment stations and the methods involved in forest research in the United States.

SIR WILLIAM B. HARDY, of Cambridge, England, will be the guest of honor at the sixth National Colloid Symposium, to be held under the auspices of the American Chemical Society in Toronto from June 14 to 16.

Dr. Julius Bauer, professor of medicine at the University of Vienna and physician in chief to the Polyclinic, will deliver several lectures and also the convocation oration before the American College of

Physicians at the meeting in New Orleans, from March 5 to 9

Dr. WILLIAM CROCKER, director of the Boyce Thompson Institute for Plant Research, will address on March 15 the Columbia University chapter of the Society of Sigma Xi, on "Research on Plants as exemplified by the Work of the Boyce Thompson Institute."

Dr. Gerald Wendt, director of the new Battelle Memorial Institute at Columbus, Ohio, will make a lecture tour of the West during the months of February and March. He will deliver three different lectures at a number of colleges and universities, including a popular lecture on "What is the World made of?" and two lectures of special interest to scientists, especially chemists, on the "Creative Artist in Research" and "American Chemical Research in 1928." This is the first of a series of lectures being planned for the institutions in the far west and is being arranged by Dr. J. L. St. John, head of the department of biochemistry in the State College of Washington.

Dr. C. M. A. Stine, chemical director of the E. I. du Pont de Nemours Company, on a recent trip to the Pacific Coast, gave talks before various organizations. On January 13 he addressed the Society of Sigma Xi at the University of Washington on "High Pressure in Manufacturing."

DR. HENRY LAURENS, professor of physiology at Tulane University Medical School, recently gave lectures on "The Physiological Action of Radiant Energy," before chapters of the Society of Sigma Xi at the University of Missouri and the University of Kansas.

Dr. Arthur H. Compton, professor of physics in the University of Chicago, lectured before the West Virginia Chapter of the Society of the Sigma Xi and the West Virginia Scientific Society on February 23. His subject was "What Things are made of."

Dr. ULRIC DAHLGREN, professor of biology at Princeton University, read a paper on March 2 before the American Philosophical Society on "Equilibrium and Hearing."

ON February 11 Professor R. A. Gortner, chief of the division of agricultural biochemistry, University of Minnesota, delivered an address to the Royal Canadian Institute on the subject "Colloid Chemistry and Living Processes."

Industrial and Engineering Chemistry notes that the year 1928 marks the hundredth anniversary of Wöhler's preparation of urea from ammonium cyanate. That discovery marked the beginning of synthetic chemistry and the beginning of the end of the older vitalistic ideas of organic chemistry. It is planned to celebrate the centenary by a special program at the Boston meeting (Swampscott) of the American Chemical Society in September, 1928.

THE centenary of the birth of Dr. Maximovitch, who was a distinguished Russian botanist, was recently celebrated by ceremonies in the town of Sapporo on the isle of Hocksido, Japan. The occasion was presided over by Professor Kingo-Miyabe, of the Institute of Natural Sciences.

A MEMORIAL plaque was recently unveiled in the medical clinic of Münster in honor of F. W. A. Sertürner, the discoverer of morphine, who was born at Neuhaus, near Padeborn, in 1783.

WILLIAM CORLESS MILLS, curator of the department of archeology in the Ohio State Museum, died on January 17, aged sixty-eight years.

JOHN ROWLEY, curator of mammals for the California Academy of Sciences, died in January, aged sixty-one years.

Bradshaw Hall Swales, of Detroit, honorary assistant curator of birds in the U.S. National Museum, died on January 23, at the age of fifty-two years.

WILLET MARTIN HAYES, formerly professor of agriculture at the University of Minnesota and later assistant secretary of the U. S. Department of Agriculture, died on January 15, aged sixty-nine years.

DR. EDWARD S. BURGESS, formerly professor of natural science at Hunter College, New York City, died on February 23, aged seventy-three years.

Professor José Rodriguez Carracido, for many years rector of the University of Madrid, who worked chiefly on the action of alkaloids upon organisms and was the author of several text-books on biochemistry, has died, aged seventy-two years.

The officers of the Louisiana Academy of Sciences met at Alexandria on January 28 at the Louisiana College. Those present were: I. Maizlish, H. L. Smith, Geo. Williamson, Jno. A. Hardin, F. M. Witherspoon, Leo J. Lassalle, Paul M. Horton, S. T. Sanders, H. V. Howe, A. C. Maddox, H. G. Shaw, F. G. Fournet, C. Cottingham, J. E. Guardia, O. B. Owens and A. L. Ducournau. Plans for the first annual meeting, which is to be held on May 5, were discussed as well as some of the future plans of the academy.

THE Ohio Academy of Science will hold its thirtyeighth annual meeting at the University of Cincinnati on April 6 and 7, under the presidency of Dr. Harris M. Benedict, of the University of Cincinnati. Among the prominent outside speakers will be Dr. W. T. Bovie, of the Medical School, Northwestern University, and Dr. W. W. Lepeschkin, now at the University of Illinois, botanical department. The former will speak on the "Relation of Physics to Biology" and the latter on "Physico-Chemical Causes of Death." President Schneider, of the University of Cincinnati, will also speak. The Indiana and Kentucky Academies of Science have been invited to attend and participate.

The executive committee of the American Society of Zoologists has voted to hold the 1928 meeting in New York from December 27 to 29, inclusive.

A CONFERENCE was held at the U. S. Bureau of Standards on March 2, to discuss the research work on electroplating that is completed or in progress, and to make recommendations regarding future studies, both by the bureau staff and by research associates of the American Electroplaters' Society.

The American Society for the Control of Cancer will hold its annual meeting on March 3 in New York. In the morning, Dr. Francis Carter Wood will demonstrate modern cancer research at the Crocker Laboratory; Henry F. Vaughan, D.P.H., health commissioner of Detroit, will speak at a luncheon at the Biltmore Hotel on "Functions of Health Departments in the Control of Cancer," and Dr. Jonathan M. Wainwright, Scranton, Pa., on "What the Medical Profession should do about Cancer." Short discussions of cancer control in its practical aspects and a short business meeting will take up the afternoon.

The date of the Third Annual Meeting of the Eastern Section at the University of Virginia (Charlottesville, Va.) has been arranged. The first session will convene on the afternoon of Monday, April 30. Sessions for the presentation of papers, etc., will occupy the afternoon of Monday, the morning of Tuesday and that of Wednesday, and, possibly, Wednesday afternoon also. Tuesday afternoon, May 1, will be devoted to excursions which are being arranged through the local committee. The chairman of the local committee is the president of the Virginia chapter of Sigma Xi, Professor Wilbur A. Nelson, University of Virginia, Charlottesville, Va.

At a banquet in the Hotel Somerset on February 18 the centenary of the Boston Medical and Surgical Journal was commemorated. The first issue appeared February 19, 1828. With its next issue, the periodical will change its name to the New England Journal of Medicine, including also the states of Vermont and New Hampshire in its representations.

Dr. Herbert E. Ives, who was recently awarded the

John Scott medal and premium, for his contributions to electrical telephotography and television, has donated the amount of the premium (\$1,000) to the Optical Society of America, to found and endow a medal. This medal, to be awarded every two years, for distinguished work in optics, is to be named "The Frederic Ives Medal," in honor of the donor's father.

A JOINT resolution to provide \$10,000 for expenses of an American delegation to the Eighth International Dairy Congress, in London during June and July, was passed by the House on January 26. Under terms of the resolution, the President will accept the invitation of the British government and appoint ten delegates to represent the United States.

THE U. S. Senate passed on February 6 the bill introduced by Senator McNary, of Oregon, authorizing an appropriation of \$40,000,000 to be expended over a period of eight years to aid the various states in the purchase of denuded lands for reforestation purposes where reforestation is needed to protect the navigation of streams.

Designation of the American Green Cross as a national body for education and research work in connection with the protection of forests, flood control and allied problems, is provided for in a bill (H. R. Res. 196) just introduced in the House by Representative Evans, of Glendale, Calif. The bill authorizes appropriation of \$120,000 to be placed at the disposal of the American Green Cross for the continuance and development of its organization. The bill was referred to the committee on education.

The Iowa Lakeside Laboratory, situated on West Okoboji Lake in northwestern Iowa and operated in connection with the graduate college of the State University of Iowa, will be open to investigators during the season of 1928 from June 11 to August 17. No formal courses are offered, but research students in any field who find the conditions favorable for their work may be admitted to the laboratory. Supervision of research in experimental embryology and comparative physiology will be by Professor Emil Witschi and Otto M. Helff, of the department of zoology of the university, and in mycology by Professor G. W. Martin, of the department of botany. Professor Martin has been appointed director of the laboratory.

The botanical specimens of the late Ellsworth Bethel, of Denver, have been given by the trustees of the State Historical Society to the Colorado Agricultural College and the University of Colorado. The Bethel collection proper consisting of some 10,000 mounted specimens and a much larger number of unmounted Colorado plants was received by the botanical department of the agricultural college. The col-

lection is a valuable one as representative of the region.

THE sum of \$10,000 has recently been granted to the American Philosophical Association by the Carnegie Corporation of New York City for the preparation of a series of Source Books in the History of the Sciences. They will be under the general editorship of Professor Gregory D. Walcott, of Hamline University, St. Paul, Minn. The volumes will present the most important contributions of the most eminent scientists from the Renaissance to the present. Seven different fields of science are being covered by special committees under the supervision of the following: Frederick Barry, professor of chemistry, Columbia University; Joseph S. Ames, professor of physics, the Johns Hopkins University; Harlow Shapley, professor of astronomy, Harvard University; Alfred M. Tozzer, professor of anthropology, Harvard University; David Eugene Smith, professor of mathematics, Columbia University; Edwin G. Conklin, professor of zoology, Princeton University; R. T. Chamberlin, professor of geology, University of Chicago. The first volume, on astronomy, will be ready for publication within the next few months.

The Smithsonian Institution has engaged to prepare a series of twelve books to be known as the Smithsonian scientific series, under the general editorship of the acting secretary. It is the purpose of the series to give pictures of the activities of the whole institution and its branches. The publication is not intended for the specialist nor in any sense is it a collection of monographs, but is rather intended to present those features of the greatest interest to the average intelligent reader with no special training along technical lines. It is expected that the individual books of the series will come out at various intervals during the next two years.

At the recent meeting of the board of managers of the Wistar Institute of Anatomy and Biology, Philadelphia, the titles of professor and assistant professor were discontinued and a new series of titles designating members of the scientific staff were adopted. As the chief function of the institute is the promotion of research in biology the following titles were adopted as being most appropriate: Member, associate member, associate, and fellow. At the same meeting Dr. Helen Dean King was elected a member of the institute.

ERRATA. In the article by Dr. G. De Geer on the "Geochronology as based on Solar Radiation" (SCIENCE, 1927, LXVI, p. 458), in line 14 of the second column for "this" read "the," in line 22 of the fourth column omit the words "already made" and in line 37 of the fifth column for "non" read "now."

UNIVERSITY AND EDUCATIONAL NOTES

THE income from a bequest of \$100,000 from the late Thomas U. Coe, of Bangor, which has recently become available at the University of Maine, is to be used as a foundation for research. Projects bearing on the developing of the state are to be submitted by the faculty for approval under this fund.

THE chemistry building of the South Dakota State College, Brookings, S. Dak., was totally destroyed by fire on February 4, 1928. All records and material are a total loss.

SIR ARTHUR SHIPLEY, late master of Christ's College, left £5,500 to Christ's College for the endowment of a fellowship, along with various other bequests, including some relics of Darwin.

THE Rio de Janeiro correspondent of the Journal of the American Medical Association writes that the president of the Minas Geraes has signed the law creating a state university. This will include at first four colleges, namely, law, engineering, medicine and odontology and pharmacy. The medical school will have an annual endowment of 600,000 milreis (about \$72,000).

Dr. C. W. Hungerford, professor of plant pathology in the agricultural college of the University of Idaho, has been appointed assistant dean of the college of agriculture and vice-director of the Idaho Agricultural Experiment Station.

At the University of California, Dr. Chauncey D. Leake, associate professor at the University of Wisconsin, has been appointed professor of pharmacology, and Dr. Alfred C. Reed has been appointed professor of tropical medicine in the George Williams Hooper Foundation for Medical Research.

Dr. Laurence Selling, Portland, has been appointed clinical professor of medicine and head of the department of medicine of the University of Oregon Medical School.

Dr. Willis Dew Gatch has been appointed head of the department of surgery, including gynecology and orthopedic surgery, in the Indiana University School of Medicine, succeeding the late Dr. John H. Oliver.

WILSON F. BROWN, instructor in chemical engineering at the Ohio State University, has been appointed to an associate professorship at the Kansas Agricultural College, to take charge of the work in industrial chemistry and chemical engineering.

Dr. Gustav Hertz, professor of experimental physics in the University of Halle, has been appointed to succeed Professor Kurlbaum as professor of physics at the Technische Hochschule, Berlin.