dress at this session on "Certain Aspects of the Chemistry of Infectious Diseases" and Dr. Per K. Frolich, of the Standard Oil Development Company, an address on "Butyl Rubber—a New Hydrocarbon Product." The last address on the program is the presidential address of Dr. S. C. Lind, dean of the Institute of Technology of the University of Minnesota, who had taken as his subject "Chemistry within the Atom."

The session will be followed by a tea, and at nine o'clock there will be a reception and dance at the Masonic Temple.

Dr. Charles F. Kettering, vice-president of the General Motors Corporation, who is honorary chairman of the local committee, will give the address at a subscription dinner on Wednesday evening at seven o'clock. At ten o'clock on the same evening there will be a complimentary dance in the ballroom of the Hotel Statler.

Technical sessions of the various divisions of the society are planned for each day. There have been arranged numerous group luncheons, dinners and a large number of excursions to the industrial plants of the city, especially those illustrative of the major phases of automobile manufacture.

The University of Michigan will act as host for an all-day trip. The party will divide according to interests to inspect the following laboratories:

PHYSICAL CHEMISTRY, PHYSICS. Surface chemistry, adsorption, interfacial tension, adhesion tension, radioactivity, counters, electroscopes, refractivity, crystal models, electron diffraction, heats of combustion, the cyclotron, mechanism of electrode potentials and overvoltage.

ORGANIC CHEMISTRY, BIOLOGICAL CHEMISTRY, PHARMA-CEUTICAL CHEMISTRY. Hormone products, carcinogenic materials, local anesthetics, hypnotics, mydriatics, antispasmodics, absorption spectra, clinical investigation, dental caries, blood diseases, arthritis.

ANALYTICAL CHEMISTRY, INORGANIC CHEMISTRY. Spectrographic methods of analysis, food and drug analysis, titanium precipitates, urea precipitates, tetraphenylarsonium compounds, mineralogical museum.

EXTRACHEMICAL. Burton Memorial Tower, Horace Rackham School of Graduate Studies, Lawyers' Club, Michigan Union, the new Health Service.

CHEMICAL AND METALLURGICAL ENGINEERING, GENERAL LABORATORY. Fluid flow, heat transfer, evaporation and crystallization.

GAS, FUELS AND PETROLEUM LABORATORIES. Analysis, calorimetry, equilibrium cells, columns and pilot plant for equilibrium studies.

METALLURGICAL LABORATORY. Stress-rupture units, creep, vacuum gas analysis apparatus, high-temperature tensile and impact machines. MICHIGAN STATE HIGHWAY TESTING LABORATORIES. Physical and mechanical testing of road-building materials.

RECENT DEATHS

DR. RAYMOND SMITH DUGAN, professor of astronomy at Princeton University, died on August 31. He was sixty-two years old.

DR. LESTER P. BRECKENRIDGE, professor emeritus of mechanical engineering of the Sheffield Scientific School, Yale University, died on August 22 at the age of eighty-two years.

DR. EDWARD MARTIN KINDLE, chief of the Division of Paleontology of the Geological Survey of Canada, died on August 29 at the age of seventy-two years.

COLONEL THOMAS L. RHOADS, Medical Corps, U. S. A., retired, chief surgeon of the First Army of the American Expeditionary Forces during the world war, died on August 20. He was seventy years old.

HENRY HUDSON NICHOLSON, professor of chemistry and director of the chemical laboratory of the University of Nebraska from 1882 to 1905 and later a consulting engineer, died on August 17 at the age of ninety-five years.

LOUIS AGASSIZ SHAW, assistant professor of physiology in the School of Public Health of Harvard University, died on August 27 at the age of fifty-four years.

DR. HAROLD DOUGLAS SINGER, professor of psychiatry at the College of Medicine in Chicago of the University of Illinois, died on August 28 at the age of sixty-five years.

DR. ERNEST H. LINDLEY, chancellor emeritus of the University of Kansas, professor of psychology from 1898 to 1917, died on August 21 aboard the Japanese liner *Asama Maru*. He was seventy-one years old.

MRS. MARY VAUX WALCOTT, wife of the late Dr. Charles D. Walcott, formerly secretary of the Smithsonian Institution, in which she was research associate, died on August 22. She was eighty years old.

THE death is announced of Dr. Hugo Merton, formerly of Heidelberg, who had been working in the Crew Institute of the University of Edinburgh.

SIR JOSEPH (JOHN) THOMSON, Cavendish professor of experimental physics at the University of Cambridge from 1884 to 1918, when he became master of Trinity College, died on August 30 in his eightyfourth year.

SCIENTIFIC NOTES AND NEWS

IN recognition of "distinguished service in the hospital field" the American Hospital Association will present its 1940 Award of Merit to Dr. Sigismund S. Goldwater, commissioner of hospitals of New York City, at the annual convention to be held in Boston during the week of September 16.

THE poultry building of the College of Agriculture and Experiment Station of Cornell University was dedicated in June and formally named Rice Hall. The Experiment Station Record points out that this is the first college building in the country to be named in honor of a poultryman. It writes: "During his thirty years of work at the university as head of the department, Emeritus Professor James E. Rice molded the thought and activity of many engaged in the industry. He was an eminent teacher and contributed much toward the development of poultry research." The speakers at the dedication included President Edmund E. Day, of Cornell University; Dr. Carl E. Ladd, dean of the New York State Colleges of Agriculture and Home Economics and director of the experiment station; Dr. Liberty Hyde Bailey, formerly dean of the College of Agriculture; representatives of leading poultry interests, and Professor Rice.

O. L. BEISWINGER, of Akron, was elected president of the National Association of Power Engineers at the annual convention at Columbus, Ohio. Stephen C. Castell, of Davenport, Iowa, was elected vice-president.

DR. WILLIAM E. AYLING, of Syracuse, N. Y., was elected president of the New York State Association of School Physicians at the recent annual.conference held at Saratoga Springs.

DR. ISAAC H. JONES, of Los Angeles, was elected president of the Pacific Coast Oto-Ophthalmological Society at the recent meeting in Spokane.

JOHN FULTON, after serving for forty-three years in the Oregon State College at Corvallis, since 1907 as head of the department of chemistry, has retired to part-time service as professor emeritus. Dr. E. C. Gilbert, since 1930 professor of chemistry, has been appointed acting chairman of the department.

DR. OSWALD N. ANDERSEN, assistant superintendent of Barnes Hospital, St. Louis, has been appointed general director of the School of Hygiene and Physical Education at Stanford University with the rank of associate professor.

DR. ELWOOD C. DAVIS, who has been in charge of professional preparation and research in physical education at Pennsylvania State College, has been appointed head of the department of physical education at the University of Pittsburgh. He succeeds Dr. John Dambach, who resigned last year to become head of the same department at Queens College, New York.

DR. ROBERT L. MCMURRAY, assistant professor of pharmacy at the Ohio State University, has been appointed associate professor of pharmacy at Washington State College. Dr. JOHN B. LUCKE, associate professor of geology, will become head of the department of geography at the University of Connecticut. He succeeds Dr. Richard E. Dodge, who retired a year ago and is now professor emeritus.

DR. TIMOTHY P. WHITE, who recently retired from the Bureau of Animal Industry, has been appointed professor of anatomy and histology in the School of Veterinary Medicine of Middlesex University, Waltham, Mass.

CHARLES W. COTTERMAN, instructor in genetics and biometry at the Ohio State University, has become a research associate in the laboratory of vertebrate genetics at the University of Michigan. He will conduct studies in human heredity for which funds have been provided by the Board of Governors of the Horace H. Rackham School of Graduate Studies.

BORIS A. KRUKOFF, who has been associated with the New York Botanical Garden while working on his collections of South American plants, has been appointed honorary curator of economic botany.

Current News of Chemistry and Chemical Engineering reports that Harold A. Frediani, until recently instructor in charge of analytical industrial chemistry at the Louisiana State University, has been appointed assistant director of the Fisher Scientific Company Development Laboratory, Pittsburgh, Pa.

The Journal of Chemical Education, edited for the division of education of the American Chemical Society by Professor Norris W. Rakestraw, of Brown University, has formed a group of associate editors. They are: Hubert N. Alyea, Princeton University; Tenney L. Davis, Massachusetts Institute of Technology; Ed. F. Degering, Purdue University; William A. Felsing, the University of Texas; Malcolm M. Haring, the University of Maryland; Philip A. Leighton, Stanford University; Laurence L. Quill, the Ohio State University, and Elbert C. Weaver, Bulkeley High School, Hartford, Conn.

DR. H. A. GLEASON returned to the New York Botanical Garden on August 10 after a two-months' collecting trip in the eastern and middle western states, bringing back 3,000 specimens for the herbarium. Accompanied by John Dwyer, a graduate student from Fordham University, he covered territory from New York to Virginia, west to the Mississippi and Missouri Rivers and north to Minnesota and the Great Lakes region.

DR. A. J. RIKER, professor of plant pathology at the University of Wisconsin, and Dr. P. W. Zimmerman, of the Boyce Thompson Institute, members of a committee for the study of cancer problems and overgrowths in plants, visited the New York Botanical Garden on August 13 to consult with Dr. B. O. Dodge and members of the laboratory staff of the garden on further activities of the committee.

PROFESSOR ROY S. SWINTON, on leave of absence from the University of Michigan, will join the faculty of the University of the Philippines in Manila, P. I., for a year. Professor Swinton, who was at the University of the Philippines from 1911 to 1913, will advise the university on the installation of a new mechanics and hydraulics laboratory.

THE tenth International Congress of Dermatology and Syphilology will be held in New York City in September under the presidency of Dr. Oliver S. Ormsby. Dr. Paul A. O'Leary, of the Mayo Clinic, Rochester, Minn., is executive secretary.

THE twenty-third annual meeting of the American Society of Ichthyologists and Herpetologists was held in Toronto from September 2 to 4. Sessions were held at the Royal Ontario Museum of Zoology. There was an "open house" in the Biological Building of the University of Toronto on Monday evening. The annual dinner was held in Hart House. On the last day of the meeting there were joint sessions with the American Fisheries Society.

THE National Advisory Cancer Council at a meeting on June 25 at the National Cancer Institute in Bethesda, Md., awarded grants for research on cancer: Washington University School of Medicine, St. Louis, \$16,000; Memorial Hospital for the Treatment of Cancer and Allied Diseases, New York, \$3,300; Barnard Free Skin and Cancer Hospital, St. Louis, \$5,000; University of California Medical School, San Francisco, \$5,000, and American College of Surgeons, Chicago, \$5,900. Among reports presented at the meeting was a special one on protection of personnel working in cancer clinics against injury from exposure to radium, x-rays and neutrons, by Carl Voegtlin, chief of the cancer institute.

THE Newark Museum has received from Louis Bamberger, of South Orange, a gift of new exhibits and study equipment for the science department. The new material, most of which will be specially designed and made to order, will be ready for installation later this autumn, according to Miss Beatrice Winser, director of the museum. Mr. Bamberger is

vice-president of the Board of Trustees. Among the exhibits and equipment acquired through the Bamberger gift are an electrically operated model of the solar system on which the planets move in related speed to one another, a fluorescent mineral room where ultra-violet lamps bring out hidden qualities and colors in minerals; a model of a drop of pond water magnified two hundred and fifty times to show microscopic plant and animal forms, two microscopes and a microprojector together with a number of slides; a series of working models illustrating the structure of the human body, and an "illusion exhibit machine" which performs such miracles as apparently reducing a duck to its skeleton or changing a weasel from summer brown to winter white. The new material will be installed as received and a formal opening of the science department with an entirely new set-up will be held later in the autumn.

COMMANDER F. W. REICHELDERFER, of the U. S. Weather Bureau, has made a statement to the effect that only three institutions in the country now have an advanced meteorological course, and these have each graduated from ten to twenty men a year. Most of the men have been Army and Navy officers sent there by the military service. There have been only about ten to twenty men each year for civilian occupations. This is due to the fact that the opportunity for employment has been limited. However, he states that the new five-day weather forecasting system, initiated recently by the Weather Bureau, is creating a demand for meteorologists.

AN Associated Press dispatch states that construction of a \$1,250,000 addition to the plant of the Spencer Lens Company, Buffalo, N. Y., to provide facilities for national defense production, started on September 3. Burton H. Witherspoon, president of the company, states that production facilities have been increased about 50 per cent. and employment has been raised from 1,000 workers to 1,600.

Nature states that Dr. Charles Slater, consulting bacteriologist to St. George's Hospital, London, who died on March 15, bequeathed £10,000 to St. George's Hospital for teaching bacteriology or research work in that science, £5,000 to the University of Manchester for the equipment and maintenance of the laboratories and £4,000 to the University of Cambridge for teaching or research work in medical science.

DISCUSSION

THE FIRST THOUSAND MATHEMATICAL WORKS PRINTED IN AMERICA

THE University of Michigan recently published a volume (xxvi+697 pp.) entitled "Bibliography of Mathematical Works Printed in America through 1850," edited by Louis C. Karpinski, with the cooperation for Washington libraries of Walter F. Shenton. This book is especially useful to librarians, but it is also of interest to students of the early development of mathematics in the Americas. In fact, on