

Nineteen scientific divisions of the society will hear reports of progress in practically every field of chemical science. Four sessions will be devoted to coal. Chemists from England, Germany and the United States will speak on the hydrogenation of coal under the auspices of the Division of Gas and Fuel Chemistry.

Research to be reported at other sessions includes the fields of agricultural and food, biological, cellulose, colloid, fertilizer, industrial and engineering, medicinal, organic, paint and varnish, petroleum, physical and inorganic, rubber, sugar and water, sewage and sanitation chemistry; the history of chemistry, chemical education and microchemistry.

The secretaries of the divisions are:

*Agricultural and Food Chemistry:* H. R. Kraybill, Purdue University.

*Biological Chemistry:* C. A. Elvehjem, Agricultural Chemistry Building, University of Wisconsin.

*Cellulose Chemistry:* W. O. Kenyon, Research Laboratory, Eastman Kodak Company.

*Chemical Education:* N. W. Rakestraw, department of chemistry, Brown University.

*Colloid Chemistry:* Richard Bradfield, department of soils, Ohio State University.

*Fertilizer:* H. C. Moore, P. O. Box 1685, Atlanta, Ga.

*Gas and Fuel Chemistry:* Alden H. Emery, Room 728, Mills Bldg., Washington, D. C.

*History of Chemistry:* Mildred W. Grafflin, *Chemical Abstracts*, Ohio State University.

*Industrial and Engineering Chemistry:* Erle M. Billings, State St., Rochester, N. Y.

*Leather and Gelatin Chemistry:* Edwin R. Theis, department of chemical engineering, Lehigh University.

*Medicinal Chemistry:* D. L. Tabern, Abbott Laboratories, North Chicago, Ill.

*Organic Chemistry:* Ralph L. Shriner, department of chemistry, University of Illinois.

*Paint and Varnish Chemistry:* G. G. Sward, 2201 New York Ave., N. W., Washington, D. C.

*Petroleum Chemistry:* C. R. Wagner, Pure Oil Company, 35 East Wacker Drive, Chicago, Ill.

*Physical and Inorganic Chemistry:* H. S. Booth, Western Reserve University.

*Rubber Chemistry:* C. W. Christensen, Rubber Service Laboratories Company, 1012 Second National Bank Bldg., Akron, Ohio.

*Sugar Chemistry:* E. W. Rice, National Sugar Refining Company of New Jersey, 129 Front St., New York, N. Y.

*Water, Sewage and Sanitation Chemistry:* C. R. Hoover, 8 Pike Place, Middletown, Conn.

*Microchemical Section:* Frank Schneider, school of chemistry, Rutgers University.

#### THE MATHEMATICAL ASSOCIATION OF AMERICA

THE twentieth summer meeting of the Mathematical Association of America will be held during the week

of August 31–September 5, at Harvard University in connection with its tercentenary and in conjunction with the summer meeting of the American Mathematical Society and the Institute of Mathematical Statistics. Meetings of the Association for Symbolic Logic and of the American Astronomical Society will also be held during the same week.

This is the first week of the Harvard Tercentenary Conference of Arts and Sciences. Among the scholars whom Harvard University is inviting as lecturers are several eminent mathematicians. Through the courtesy of the university their lectures will be delivered before the society. The addresses (titles tentative) will be given in the New Lecture Hall. On Tuesday afternoon at two o'clock Professor E. J. Cartan, of the University of Paris, will deliver a lecture entitled "L'extension du calcul tensoriel aux géométries non affines." Professor L. E. Dickson, of the University of Chicago, will speak on Wednesday at 10:45 A.M., his subject being "Waring's Problem and its Generalizations." Professor G. H. Hardy, of the University of Cambridge, will deliver on Thursday morning at 9:30 an address on "The Mathematical Work of Ramanujan." Professor Tullio Levi-Civita, of the University of Rome, will deliver at the Friday morning session at 9:30 an address entitled "The Relativistic Problem of Several Bodies."

At a joint meeting of a section of the society with the Association for Symbolic Logic on Tuesday at 10:45 A.M. in Emerson Hall, Room 211, Professor Rudolf Carnap, of the Deutsche Universität, Prague, will speak, his topic being "Truth in Mathematics and Logic." Friday afternoon at 2:30 in the Lecture Hall there will be a joint session of the society and the American Astronomical Society, the subject being "Cosmogony." Professor Levi-Civita will give an address on "Astronomical Consequences of the Relativistic Problem of Two Bodies," and Sir A. S. Eddington, of the University of Cambridge, will speak on "The Cosmical Constant and the Recession of the Nebulae." These addresses will be followed by discussion.

The Colloquium Lectures of the American Mathematical Society on "Topics in General Analysis" will be delivered by Professor E. W. Chittenden, of the University of Iowa, on Tuesday, Wednesday and Friday mornings, and on Thursday afternoon in Emerson Hall. Each lecture will be scheduled for approximately one hour. A fee of two dollars will be charged for attendance at any or all of these lectures. By invitation of the society, Professor G. C. Evans, of the University of California, will give at the Saturday morning general session in Emerson Hall D an address entitled "Methods of Modern Analysis in Potential Theory." In addition to those mentioned above, the

society will hold sessions for the presentation of regular papers on Tuesday and Thursday morning and afternoon in Emerson Hall.

The Tercentenary Conference has arranged several evening lectures (titles tentative). Besides that of Professor Hardy on Monday evening, there will be on Wednesday evening an address by Professor Étienne Gilson, of the Collège de France, on "Scholastic Philosophy," on Thursday evening by Professor Edward Joseph Dent, of the University of Cambridge, on "Some Aspects of Music," and on Friday evening by Professor John Dewey, of Columbia University, on "Authority and Resistance to Social Change." Ad-

mission will be either by ticket issued by Harvard University or by registration badge of the mathematical organizations.

An informal joint dinner of the mathematicians and their guests will be held on Thursday evening in Lowell House and Winthrop House. These houses adjoin one another and the after-dinner program of addresses will take place in Lowell House to which those dining in Winthrop House may adjourn. Professor J. L. Coolidge, master of Lowell House, will be toastmaster, and there will be addresses by President Conant, of Harvard University, by some of the guests of the university and by others.

## SCIENTIFIC NOTES AND NEWS

DR. HARLOW SHAPLEY, director of the Harvard College Observatory, has been elected a member of the Norwegian Academy of Sciences.

DR. CALVIN B. BRIDGES, of the Carnegie Institution of Washington, who has been working in association with Dr. T. H. Morgan, at the California Institute of Technology, on the heredity and cytology of *Drosophila*, has been elected a corresponding member of the Academy of Natural Sciences of Philadelphia.

M. V. GRÉGOIRE, professor of botany at the University of Louvain, has been elected a correspondent of the Paris Academy of Sciences in the section of botany. He takes the place of the late Hugo de Vries.

THE following have been elected foreign members of the Linnean Society of London: Professor M. L. Fernald, curator of the Gray Herbarium of Harvard University; Dr. B. A. Fedtschenko, professor of botany at the University of Leningrad; Professor P. Pelse-neer, permanent secretary of the Royal Academy of Sciences, Belgium; Dr. K. F. von Tubeuf, professor of the anatomy, pathology and physiology of plants at the University of Munich, and Dr. W. M. Wheeler, professor of entomology, emeritus, at Harvard University.

THE Royal Medals of the Royal Geographical Society have been awarded as follows: The Founder's Medal to G. W. Murray, director of desert surveys, Egypt, for his long-continued explorations and surveys in the deserts of Sinai and eastern Egypt, for his studies of Badawin tribes and his unstinted help to desert expeditions, and the Patron's Medal to Major R. E. Cheesman, C.B.E., for valuable service to geography during nine years' residence in N. W. Ethiopia, including reconnaissance and surveys of the course of the blue Nile and exploration of Lake Tana and its islands. The Victoria Medal has been awarded by the council to Dr. Stanley Kemp, for his work in sur-

veys of the Southern Ocean; the Murchison Grant to Michael Leahy, for his explorations of Central New Guinea; the Back Grant to Muhammad Ayub Khan, for his surveys on three expeditions under the leadership of Sir Aurel Stein, in East Persia, 1931-34; the Cuthbert Peek Grant to T. H. Harrison, to assist him in his proposed expedition to New Guinea, and the Gill Memorial to Lieutenant A. L. Nelson, R.N.R., for his charts of the South Sandwich Group, South Orkneys and South Shetlands.

AT the recent convocation of the University of Toronto, honorary degrees were conferred on seven graduates of the university. Those conferred in the sciences were the doctorate of laws on Dr. George Fred Kay, professor of geology and dean of the College of Liberal Arts of the State University of Iowa, and the doctorate of science on Dr. William Henry Collins, director of the Geological Survey of Canada; on Dr. Ralph S. Lillie, professor of general physiology in the University of Chicago, and on Thomas Reeve Rosebrugh, who retires this year from the chair of electrical engineering in the University of Toronto, after serving on the staff since 1890.

MIDDLEBURY COLLEGE conferred on June 15 the doctorate of laws on Dr. Karl T. Compton, president of the Massachusetts Institute of Technology, who gave the commencement address, and on Dr. William Otis Hotchkiss, president of the Michigan College of Mining and Technology. The degree of doctor of science was conferred on Dr. Eugene C. Bingham, professor of chemistry at Lafayette College, and on Dr. Philip Wheelock Ayres, forester of the Society for the Protection of New Hampshire Forests.

THE degree of doctor of science was conferred on Ira N. Gabrielson, chief of the U. S. Biological Survey, at the sixty-seventh annual commencement exercises of the Oregon State College at Corvallis on June