

Industrial and Petroleum Divisions, Joint Symposium on "Chemistry Contribution to Automotive Transportation."

Physical and Inorganic Divisions, Symposium on "Present Status of the Chemistry of Proteins."

Organic Division—Small Banquet Room, Statler Hotel.

8:30 P.M.—Boat ride with special entertainment features.

Wednesday, September 7

9:30 A.M.—Divisional Meetings.

1:30 P.M.—Ladies' Trip. Luncheon and Bridge at Detroit Boat Club.

2:00 P.M.—Divisional Meetings.

8:00 P.M.—Public Meeting and President's Address.

Addressees:

George D. Rosengarten, President, American Chemical Society, "Reflections."

Charles F. Kettering, "The Functions of Research."

Thursday, September 8

9:30 A.M.—Divisional Meetings.

1:30 P.M.—Visits to Manufacturing Plants. Trip (1) Ford, River Rouge; Trip (2) Ford, Highland Park; Trip (3) Sight-seeing.

2:00 P.M.—Golf Tournament.

6:30 P.M.—Group Dinners.

9:00 P.M.—Special Feature Entertainment.

Friday, September 9

8:00 A.M.—Visits to Manufacturing Plants. Trip (4) Parke, Davis & Co.; Trip (5) U. S. Rubber Co.; Trip (6) Acme White Lead and Color Works.

9:30 A.M.—Divisional Meetings (if scheduled).

11:00 A.M.—Trip (7) Ann Arbor.

2:00 P.M.—Trip (8) Dodge Brothers Motor Car Co.; Trip (9) Packard Motor Car Co.; Trip (10) Cadillac Motor Car Co.

Saturday, September 10

There are many interesting boat, interurban car, bus, auto or airplane rides for those who have the time and inclination.

SCIENTIFIC NOTES AND NEWS

DR. W. B. CANNON, of the Harvard Medical School, has been made chairman of the committee of arrangements for the International Physiological Congress to be held in Boston in 1929.

DR. FRIDTJOF NANSEN, professor of oceanography in the University of Oslo, has been elected a corresponding member of the Prussian Academy of Sciences in the section of mathematical physics.

DR. C. CORRENS, director of the Kaiser-Wilhelm Institute for Biology, has been elected an honorary member of the Botanical Society of Tokyo.

THE Russian Academy of Sciences has elected as a corresponding member Professor James Franck, of the University of Göttingen, as recipient of the Nobel prize in physics. Professor Albert Einstein and Professor Walther Nernst, of Berlin, who were already corresponding members, have been elected honorary members.

HONORARY doctorates have been conferred by the University of Innsbruck on Dr. Heinrich Herkner, Dr. Karl Heider and Dr. Albrecht Penck, all of the University of Berlin.

THE Ling Foundation of Los Angeles has awarded a gold medal to Dr. Michael S. Creamer for work in behalf of the health of the school children of southern California. The Ling Foundation was recently organized to forward child health work in southern California.

GEORGE HIGGINS MOSES, United States Senator from New Hampshire, has been made chairman of a special committee authorized by the 1927 Legislature to investigate the feasibility of improving marsh lands at Hampton and to find a remedy for coast erosion.

DR. F. G. COTTRELL, who since September, 1922, has been director of the Fixed Nitrogen Research Laboratory, will continue in charge of this work as chief of fertilizer and nitrogen fixation investigations in the new Bureau of Chemistry and Soils. In addition to fixed nitrogen, this unit will include phosphoric acid, potash and fertilizer investigations being made at the Arlington Experiment Farm.

DR. F. A. ERNST, acting chief of the fertilizer and nitrogen fixation investigations and for some time a member of the Fixed Nitrogen Research Laboratory staff, has resigned to join the engineering staff of the Atmospheric Nitrogen Corporation.

DR. HOWARD R. MOORE, formerly with the Eastman Kodak Company, has been appointed to the staff of the Cryogenic Laboratory of the Bureau of Standards.

WILLIAM HENRY PATCHELL, British consulting engineer and past-president of the Institution of Mechanical Engineers of Great Britain, recently arrived in the United States. Mr. Patchell acts in the capacity of consulting engineer for a number of American public utilities.

DR. W. A. SETCHELL, of the University of California, has returned from a tour around the world. He made a special study of coral reef formation among the islands of the Pacific for a period of four months, and also made a survey of varieties of subantarctic algae. A number of valuable collections made during the trip will be housed in the department of botany.

DR. R. M. WENLEY, who has been acting as director of the British Division of the American University Union, returns next month to the headship of the department of philosophy and psychology in the University of Michigan.

DR. J. B. AUSTIN, of Yale University, as a guest of Cryogenic Laboratory of the Bureau of Standards, has been engaged in an investigation of the ultra-violet absorption spectra of toluene and the three xylenes at low temperature.

FRANK REEVES has been granted leave from the U. S. Geological Survey for four months to do commercial work in petroleum geology in Canada.

Two series of colloquia will be given at the University of Wisconsin summer meeting of the American Mathematical Society and the Mathematical Association of America, held during the week of September 5. Professor Anna Pell-Wheeler, of Bryn Mawr College, will lecture on "The Theory of Quadratic Forms in Infinitely many Variables and Applications." Professor E. T. Bell, of California Institute of Technology, will lecture on "Algebraic Arithmetic."

LOUIS A. FUERTES, distinguished as a naturalist and artist, lecturer at Cornell University, was killed in an automobile accident on August 21. Mr. Fuertes was born in Ithaca, New York, on February 7, 1874.

PROFESSOR LIONEL REMOND LENOX, for thirty-five years a member of the faculty in chemistry at Stanford University, died on July 25, aged sixty-two years.

JOHN HENRY REYNOLDS, formerly dean of the faculty of technology of the University of Manchester, died on July 17, at the age of eighty-five years.

C. W. DANIELS, formerly director of the London School of Tropical Medicine, died on August 6, aged sixty-five years.

PROFESSOR ALEXANDER BACKHAUS, formerly director of the Agricultural Institute of the University of Königsberg, has died at the age of sixty-one years.

A NEW episcopate has been installed at the Royal Society of Medicine, London, as part of the memorial to the late secretary, Sir John MacAlister. The instrument has been constructed in Germany by Carl Zeiss, according to the specifications of the committee in charge of the memorial, on whose behalf the secretary of the society, Mr. G. R. Edwards, accompanied by the operator, made a special journey to Jena and spent four days in the Zeiss workshops conferring with experts of the firm.

MEMORIAL HOSPITAL, New York City, an institution for the study and treatment of cancer and allied dis-

eases, has received \$25,000, or \$5,000 a year for five years, from Lucius N. Littauer, of Gloversville, N. Y., to defray the cost of special research in chemotherapy; \$5,000 from Mrs. S. M. Gibbons, of New York, to finance the study of the "gross clinical cases of cancer," and \$2,500 from Daniel Guggenheim, of New York, for special research on the effects of radioactivity on certain parts of the body. It will be remembered that Memorial Hospital received recently for the enlargement of its work \$60,000 a year for five years from Mr. John D. Rockefeller, Jr., and \$250,000 for the purchase of radium from Mr. Harkness.

THE fourth International Congress of Theoretical and Applied Limnology will be held in Rome this year, and a full program has been arranged covering the period from September 18 to October 3. From *Nature* we learn that the congress will be divided into four sections, dealing with physics and chemistry, geology and hydrography, biology, and applied limnology, respectively. The first week will be spent in Rome, during which time lectures and papers will be given and opportunity will be afforded for visiting the Limnological Exhibition, the Royal Central Laboratory of Hydrobiology, the Royal Fish Breeding Establishment and the Zoological Gardens. Receptions will also be given on the Capitol and at the Royal Italian Geographical Society. Two days will be spent at Naples, where the visitors will be received at the zoological station and at the university. The congress will conclude with an itinerary to the Hydrobiological Stations on Lakes Garda, Como and Maggiore, while nights can be spent *en route* at Perugia, Verona and Milan. The congress will end on Monday, October 3, at Lake Maggiore.

The Archivio di storia della scienza, which was started in 1919 for the history of science under the editorship of Aldo Mieli, of Rome, is now being enlarged and issued as an international journal, in which articles appear in the Italian, English, French or German language. Twenty-seven foreign editorial collaborators have been chosen. The two thus far representing the United States are Florian Cajori, of the University of California, and Edgar F. Smith, of the University of Pennsylvania.

IN the development of the Blandy Experimental Farm of the University of Virginia, which was bequeathed to the university by the late Graham F. Blandy, the appointment has been recently announced of Dr. Orland E. White, curator of plant breeding and economic plants at the Brooklyn Botanic Garden, as professor of agricultural biology and director of the farm. *The Experiment Station Record* reports that five research fellowships have been established,

two of \$1,000 each and three of \$500 each, to which graduates from standard colleges who have majored in biology or agriculture will be eligible. Appointees are expected to register in the graduate department of the university and take work leading toward a higher degree.

THE U. S. Public Health Service has called attention to the unusual prevalence of poliomyelitis. Reports from eight states disclosed the presence of 192 cases of this disease for the week ended August 6. Incomplete reports from 34 other states showed only 42 cases. For the week ending August 6, California reported 56 cases; Connecticut, 11; Massachusetts, 10; Missouri, 15; New Jersey, 17; New Mexico, 9; Oklahoma, 3; Texas, 10. For the corresponding week of last year, 38 states reported only 66 cases.

The South African Mining and Engineering Journal contains notice of the discovery by H. R. Adam, of a new palladium mineral from the Tweefontein workings, having the apparent formula Pd_3Sb . The mineral contains practically no platinum, and the sperrylite PtAs_2 , found in the same locality, is free from palladium. These two minerals represent the only compounds of the two metals found in nature.

RICHARD M. SUTTON, of the Norman Bridge Laboratory of the California Institute of Technology, writes: "At 8:40 on the evening of July 25, while riding through the San Joaquin Valley near Merced, my attention was attracted by a brilliant meteor falling toward the south. As it approached the earth it suddenly broke into two pieces of nearly equal intensity, whose paths diverged at an angle of 30° from each other. After continuing their flight for about one second longer, they were both extinguished at approximately the same time."

DR. T. D. A. COCKERELL writes to SCIENCE as follows: "We reached Leningrad July 10 on the Russian steamer *Soviet*, having three days at Bremen on the way. We had three days in Leningrad and saw the principal scientific establishments. The museum of the Academy of Sciences is magnificently full of important things, all excellently arranged. We found the entomological collections very extensive and in very good order. We saw the famous mammoth, with hair on it, dug out of the ice in Siberia; also the last meal from its stomach. The academy collections came quite safely through the revolution, thanks especially to Professor Karpinsky. The Botanic Garden is very fine; we were shown everything by Professor Komaroff, well known for his studies of the Asiatic flora. The great building and extensive operations of the geological committee astonished us. Here we saw the duck-billed dinosaur found on the Ameer, very

like Canadian forms. On the way here we had part of a day in Moscow, where we were taken about by Professor D. Itovaisky, well known for his work on ammonites. At Irkutsk we are comfortably placed in the guest-room of the Geological Committee. We have already been to Ust Balei for fossil insects; and have made good collections of recent insects. Tomorrow we expect to go to Lake Baikal. We have seen a great deal of Professor W. Schewiakoff of the university here. His work on radiolaria is, I presume, much the best ever done on that group. The university here, though only a few years old, is already an important institution, and supports a research laboratory on Lake Baikal. We are the first Americans to see it in its developed condition, and to see Professor Schewiakoff's very beautiful preparations showing the anatomy of various animals. Every one without exception has been very kind to us. There is a general desire for more intercourse with America."

THE American Ceramic Society is sponsoring a foreign trip in 1928. The tour has been built around European ceramic centers such as: Stoke-on-Trent and the "Potteries" in England, Delft in Holland, Meissen in Germany, Prague in Czecho-Slovakia and Paris in France.

THE annual inspection by the General Board of the British National Physical Laboratory at Teddington took place on June 24. Over 1,000 visitors were conducted over the extensive buildings, and a keen interest was shown in the progress of the various departments where the staff were engaged carrying out their work of research and experiment. The visitors were received by Sir Ernest Rutherford, president of the Royal Society and chairman of the board, Sir Richard Glazebrook, chairman of the executive committee, and Sir Joseph Petavel. In the aerodynamics department special attention was centered on the Cierva autogyro, which was described as a wingless aeroplane. In the engineering department instruments for measuring and recording the vertical and horizontal disturbances of the ground due to traffic received much attention. These instruments have been designed and constructed at the laboratory primarily for the measurement of ground disturbances due to road and rail traffic. Particularly interesting was a working model of a motor-car showing the action of the front and back brakes. It revealed that the sudden application of the back brake made the vehicle swerve to one side or the other, while the application of the front brake only made the car skid straight on. Interesting experiments were also witnessed in the metallurgy and physics departments.

It is announced in *Nature* that the British Secretary of State for the Colonies has appointed a committee "to formulate practical proposals for submission to the Colonial Governments to give effect to the resolution for the Colonial Office Conference on the subject of Colonial Agricultural Scientific and Research Services." These proposals are to "include a scheme, based on contributions to a common pool, for the creation of a Colonial Agricultural Scientific and Research Service available for the requirements of the whole Colonial Empire for the support of institutions needed for that purpose, and for the increase of research and study facilities in connection with specialist services of the Colonies generally." The committee is thus constituted: Lord Lovat, Parliamentary Under-Secretary of State for Dominion Affairs (chairman), Mr. W. Ormsby-Gore, Parliamentary Under-Secretary of State for the Colonies; Sir Graeme Thomson, Governor of Nigeria; Mr. A. S. Jelf, Colonial Secretary, Jamaica; Mr. O. G. R. Williams, Assistant Secretary, Colonial Office; Major R. D. Furse, Private Secretary (Appointments) to the Secretary of State for the Colonies; Sir J. B. Farmer, Dr. A. W. Hill, Mr. F. L. Engledow, and Dr. A. T. Stanton, Chief Medical Adviser to the Secretary of State for the Colonies.

THE *British Royal Geographical Journal* reports that the Italian National Committee for Geography has decided to promote the creation of a fund for studies in Palestine, which will be devoted mainly to geographical research, whereas the scope of similar institutions which have existed for many years in other countries has been mainly historical and archeological. In accordance with this purpose, the first work to be undertaken by the Italian fund will be an expedition to chart the Dead Sea on a fairly large scale and to map the adjoining portion of the depression in which it lies and of the Jordan trough. In addition to the hydrography and mapping a geological survey and various limnological researches will be carried out. It is also planned to establish a station on the Dead Sea shores for protracted observation of variations in the sea-level and of the meteorological conditions of the basin.

UNIVERSITY AND EDUCATIONAL NOTES

THE will of Elbert H. Gary, chairman of the board of the United States Steel Corporation, includes bequests for scholarship funds of \$50,000 each to McKendree College, the University of Pittsburgh, Lafayette College, Trinity College, Lincoln Memorial University, Syracuse University, Northwestern University and New York University.

THE campaign to raise \$1,000,000 for the Medical School of Howard University, Washington, has been brought to a successful conclusion. Negroes contributed \$150,259 to the campaign. A tablet bearing the names of fifty-one Negroes whose donations ranged from \$1,000 to \$10,000 will be placed in the new medical school building.

At a meeting of the board of trustees of Ohio State University, on August 4, Dr. John H. J. Upham, Columbus, was appointed acting dean of the Ohio State University College of Medicine. Dr. Eugene F. McCampbell, who was formerly dean, retired on July 1.

DR. ALBERT WARREN STEARNS has been appointed dean of Tufts College Medical School, Boston, and will take up his new work on September 1, succeeding Dr. Stephen Rushmore.

DR. F. M. BALDWIN, who for the past ten years has been in charge of physiology at Iowa State College at Ames, has resigned his professorship to take charge of the department of physiology and become director of experimental marine biology in the University of Southern California at Los Angeles.

M. N. SHORT, of the U. S. Geological Survey, has been appointed lecturer in mining geology at Harvard University during the absence of Professor Gratton on his sabbatical year.

DR. O. H. ELMER, assistant plant pathologist at the Iowa Agricultural Experiment Station, has been appointed to succeed Dr. R. P. White as assistant professor of botany and assistant plant pathologist at the Kansas College and Experiment Station.

D. S. MASTERS, of Ohio State University, has been appointed instructor in chemistry and chemical engineering at Washington University, St. Louis, Mo.

DR. J. H. ASHWORTH, of the University of Edinburgh, has been transferred from the chair of zoology to the chair of natural history.

DISCUSSION AND CORRESPONDENCE

THE "WASHBOARD" OR "CORDUROY" EFFECT DUE TO TRAVEL OF AUTOMOBILES OVER DIRT ROADS

THE writer returned recently from a somewhat extended trip by motor car in the Mojave desert, where much of the mileage was over unpaved roads. Of these, two types were noted, first, primitive desert road, which winds among sage and cactus over the long gently sloping alluvial washes characteristic of this desert, apparently following the trail of the first wagon or automobile to mark the way, and second, the worked dirt roads mainly traveled.

The first type, particularly serving as feeders for