

The Division of Physical and Inorganic Chemistry will have charge of one of the general sessions and will also have a joint symposium with the Division of Chemical Education on "The Teaching of Physical Chemistry."

The Division of Rubber Chemistry is arranging a joint symposium on "Polymerization."

The council has voted that the policy of the society regarding attendance and participation in its general, divisional and regional meetings shall be as follows:

(a) Attendance at meetings is limited to registered individuals.

(b) All individuals in registering shall state whether or not they are members of the society and, if not, whether they are chemists.

(c) American chemists non-members of the society shall assist in the support of the facilities which they enjoy by paying a higher registration fee than members. This differential at general meetings shall be \$5.00 higher than the fee charged members; while at regional and divisional meetings it shall be at least twice the regular fee adopted. They shall be furnished with a special non-member badge to differentiate them from members of the society and from foreign and non-chemist guests. The differential charged shall not apply to regularly matriculated students majoring in chemistry at any college or university.

(d) Papers by American chemists not members of the society shall not appear on its programs unless they be joint papers with society members.

Swampscott is one of the leading summer resorts in the Boston territory, and is ideally situated on the famous "North Shore." Visitors will combine the pleasures of the seashore with the attractions of the metropolis in enjoying a recreational week as a background for the important scientific sessions. Among other features, the entertainment committee has arranged sightseeing trips for Tuesday and Wednesday, the formal banquet for Wednesday evening, a visit to Harvard University Thursday afternoon, and an all-day North Shore trip on Friday.

SCIENTIFIC NOTES AND NEWS

DR. GEORGE L. STREETER, director of the department of embryology of the Carnegie Institution at Baltimore, has received from the University of Dublin the honorary degree of doctor of science.

DR. FRANK B. JEWETT, of the American Telephone and Telegraph Company, and Dr. William Allen Pusey, the dermatologist, of Chicago, former president of the American Medical Association, were speakers in a symposium on "The Community of Interest of the Professions," held in connection with the recent celebration of the fiftieth anniversary of the American Bar Association.

DR. W. HARVEY SMITH, of Winnipeg, has been elected president of the British Medical Association for the meeting to be held in Winnipeg in 1930.

PROFESSOR VLADIMIR IVANOVITCH KOVALEVSKY, of the State Institute of Experimental Agronomics at Leningrad, will shortly celebrate his eightieth birthday. By order of the Soviet government the title of "scientist emeritus" has been conferred upon him.

WILL C. BARNES retired on July 1 after completing twenty-one years with the U. S. Forest Service. Mr. Barnes, however, will not cease active work in the government service, but will assume the position of secretary of the United States Geographic Board.

DR. HOWARD D. LIGHTBODY, associate professor of physiological chemistry, Michigan State College, East Lansing, has been appointed director of the John C. Oliver Memorial Research Foundation, recently established at the laboratory of the St. Margaret Memorial Hospital, Pittsburgh.

DR. G. C. HAAS, of the foreign service of the U. S. Department of Agriculture, is leaving at the end of August to take a position with the Investment Research Corporation, of Detroit, Michigan.

DR. E. L. KIRKPATRICK, associate agricultural economist of the division of farm population and rural life, will resign from the bureau of Agricultural Economics on August 31 to accept a position in the department of agricultural economics at the University of Wisconsin, where he will be principally engaged in research work in rural sociology.

DR. NELSON MCKAIG, JR., following completion of postgraduate studies at the University of Chicago for the degree of doctor of philosophy, has been appointed associate soil technologist in the Bureau of Chemistry and Soils and has been assigned to research studies on soil fertility problems with sugar cane in the south.

CHARLES W. GILMORE, curator of vertebrate paleontology in the U. S. National Museum, after an absence of three months in the northern Montana fossil fields, resumed his work at the museum on August 13. He reports a successful season in the field, the expedition of which he was in charge having collected two and one half tons of material. Mr. Gilmore was assisted in the field by Mr. George F. Sternberg and Mr. Edwin Cooke.

CHARLES VERNON BOYS, F.R.S., the London physicist, is spending the summer as the guest of Alfred L. Loomis at the latter's laboratory in Tuxedo Park, N. Y.

WILLIAM CUTRIGHT, specialist on insects of the U. S. Department of Agriculture, arrived in Yokohama, on June 28, for a year's stay in Japan and other Asiatic countries. He will carry on research work in the Kyoto Imperial University on the

Japanese flies that kill the American corn borer, the pearl moth.

DR. CHARLES E. DECKER, of the University of Oklahoma, is spending two weeks in a study of the museum's extensive series of Oklahoma Ordovician fossils in collaboration with Dr. E. O. Ulrich, in order to work out a standard geologic section for the early Paleozoic rocks of that state.

DR. JEROME ALEXANDER addressed the Hawaiian Section of the American Chemical Society on June 30, on "Some Applications of Colloid Chemistry."

A MEMORIAL service in honor of the late Dr. Hideyo Noguchi was recently held in Tokyo. The opening addresses were delivered by Viscount Goto, Viscount Ishiguro and Viscount Ishii. Dr. Hata then spoke on Noguchi's work in general bacteriology and Dr. Doi on his work in tropical medicine. A survey of the life of Dr. Noguchi was given by Dr. Chiwaki.

IN connection with the preparation of a detailed biography of the late Charles Saunders Peirce, which will be issued with the edition of his collected works soon to be published by the Harvard University Press, Mr. Charles Hartshorne, of the university, requests that those who have in their possession letters or biographical material by or concerning Mr. Peirce will be so kind as to communicate with him.

A STATUE of the physiologist Vulpian, whose centenary was celebrated last year, has been erected in a street adjoining the Paris Academy of Medicine. It represents Vulpian in meditation, dressed in professorial robe. The statue is the work of a physician, Dr. Paul Richer, professor of anatomy at the École des Beaux-Arts, and a member of the Académie des Beaux-Arts.

GEORGE MARTIN DUNCAN, who for twenty years, until his retirement in 1923, held the chair of logic and metaphysics in Yale University and who had previously for fifteen years been a member of the staff, died on July 26 at the age of sixty-five years.

PROFESSOR E. M. CROOKSHANK, emeritus professor of bacteriology at King's College, London, died on July 1 in his seventieth year.

INFORMATION received by the U. S. Public Health Service through the Department of State contains an announcement that the ninetieth Congress of the Association of German Naturalists and Physicians will be held at Hamburg from September 5 to 22. This is the first time since 1901 that the meeting has been held at Hamburg. The eighty-ninth congress met in Düsseldorf. The program of the natural science section will include papers from the various departments of the natural sciences. Among the papers of the

medical section are the history of the development of anatomy and histology, physiology and physiological chemistry, universal pathology and pathological anatomy, Röntgenology, surgery, ophthalmology, obstetrics and gynecology, pediatrics, neurology and psychiatry, dentistry, medical law and social medicine. In connection with the congress there will also be an exhibit relating to medical and natural science in the new exhibition hall of the zoological gardens and numerous inspections will be made of modern technical and domestic plants, such as incinerators, sewerage systems, gas works and water works.

OFFICERS and members of the Institution of Chemical Engineers of Great Britain were the guests of the American Institute of Chemical Engineers at its twenty-first semi-annual meeting held at Niagara Falls, Canada, August 24, 25 and 26. They will be the guests of the American society in a tour of important industrial centers in Eastern Canada and the United States, ending their trip in New York on September 2. Leading British engineers and industrialists who attended the meeting include Sir Alexander Gibb, G.B.E., C.B., president of the Institution of Chemical Engineers of Great Britain; J. Arthur Reavell, vice-president of the institution; J. W. Hinchley, professor of chemical engineering at the Imperial College of Science and Technology, London, honorary secretary of the institution; F. A. Greene, a consulting engineer in London; P. Parrish, chemical works manager of the Metropolitan Gas Company, London, and C. J. Goodwin, a consulting chemical engineer in London.

THE early establishment of a laboratory for the Gorgas Memorial Institute of Tropical Research and Preventive Medicine, in honor of the late General William Gorgas, has been assured by the visit to Balboa of Dr. Franklin H. Martin and Colonel Joseph F. Siler, who returned to New York on August 26 to complete final arrangements for the project. President Chiari has granted the use of a building intended for a medical school, until the laboratory shall be built by the Panama government. Colonel Siler, medical expert of the United States Army, is a member of the board chosen to select the personnel of the laboratory, the head of whom, it is desired, shall be a comparatively young man who has made a special study of tropical diseases and who gives promise of adding something of value to present knowledge, besides possessing executive ability. Funds are already available to begin the work, as a result of an appropriation by the United States Congress and of contributions from several Latin-American governments. The arrangements necessary for the preparation of the building of the laboratory have been completed,

and it is expected that the equipment for actual research experimentation will be available in a comparatively short time.

THE bureau of chemistry and soils of the U. S. Department of Agriculture, in cooperation with other bureaus of the department, has joined American apple and pear growers in warfare against the destructive armies of the codling moth by establishing field laboratories at Wenatchee and Yakima, Washington, where it is hoped to develop a poison that will be superior to the lead-arsenate spray which at present is the only effective method with which to combat this serious pest. C. R. Gross, an associate chemist of the bureau, will take charge of the chemical investigations, with the cooperation of Dr. L. A. Hawkins and H. C. Diehl, of the fruit-handling division, and Dr. Charles Brooks and D. F. Fisher, of the fruit-disease division of the Bureau of Plant Industry, and with E. J. Newcomer, of the Bureau of Entomology, in the effort to discover a poison deadly to codling moths, harmless to human beings, which will not require a wash or other treatment that will shorten the life of the apple when in storage.

By the will of the late Miss Mary E. Soule, of Brookline, Massachusetts, the Entomological Society of America has received a bequest of \$1,000.

THERE has recently been displayed in Education Hall of the American Museum of Natural History a loan series of fifty-two paintings and sketches by the late Albert Operti, Arctic and marine painter. These were loaned through the courtesy of a number of his friends, mostly members of the American Museum staff.

WE learn from *Industrial and Engineering Chemistry* that the U. S. Bureau of Mines, Pittsburgh, Pa., has recently completed a one-reel educational motion picture film, entitled "Carbon Monoxide: The Unseen Danger." This film, prepared in cooperation with a large automobile manufacturing company, shows how this deadly gas may be encountered in workshop, garage and home, points out ways of preventing accumulations of the gas and visualizes methods of reviving its victims. Schools, churches, etc., may use the film free of charge, by paying transportation costs.

THE budget estimates of the Russian government and the allied republics for 1927-28 provide for the expenditure of 491,000 roubles on pensions to aged scientific workers and their families. Together with the funds under the social insurance scheme, the sum will mount to 583,000 roubles. Out of these funds there will be pensions given to 626 people. Besides

these special pensions, scientific workers are entitled to social insurance under the general scheme.

A CAMPAIGN for improvement of the health of the Filipinos is being planned by the Governor-General of the Philippines, Henry L. Stimson, according to an announcement by the War Department. An appropriation for the establishment of a school of hygiene and public health in connection with the University of the Philippines has been approved, it was stated. This is considered essential because there are few officers in the Philippine public health service who have had professional training in public health.

THE Michigan College of Mining and Technology is offering for the academic year of 1928-1929 twelve graduate fellowships carrying stipends of \$1,200 each. Holders of these fellowships will be engaged in the study of various problems in connection with the general research program at the college for which the State of Michigan has provided the sum of \$50,000 for the coming year. This program deals with the iron and copper resources of northern Michigan and with their utilization. Appropriate parts of this research program are conducted in cooperation with mining companies, the United States Bureau of Mines, the United States Coast and Geodetic Survey and the Carnegie Institution Department of Terrestrial Magnetism.

THE New York State Legislature appropriated \$1,100,000 this year to finish the erection of the plant science building at the state college of agriculture at Cornell University. This building is to house the departments of botany, plant pathology, genetics and plant breeding, pomology and floriculture, with vegetable gardening adjacent. Foundations for the building were laid last year and the new appropriation is to complete the structure.

THE fifth International Botanical Congress was held at Cambridge, England, from August 16 to 23, 1930, with excursions during the following week. The congress was organized in the following sections: Paleobotany, morphology (including anatomy), taxonomy and nomenclature, plant geography and ecology, genetics and cytology, plant physiology, mycology and plant pathology. For each of these sections a British subcommittee was appointed, by which the program was arranged. The chairmen of these subcommittees are as follows: Paleobotany, Professor A. C. Seward, Botany School, Cambridge; morphology (including anatomy), Professor F. E. Fritsch, Danesmount, Tower Hill, Dorking, Surrey; taxonomy and nomenclature, Dr. A. W. Hill, Royal Botanic Gardens, Kew, Surrey; plant geography and ecology,

Professor A. G. Tansley, department of botany, the University of Oxford; genetics and cytology, Sir John Farmer, Imperial College of Science and Technology, London; plant physiology, Dr. F. F. Blackman, Botany School, Cambridge; mycology and plant pathology, Dr. E. J. Butler, Imperial Bureau of Mycology. Communications made to the congress by means of papers or by participation in the general discussions were permissible in English, French or German. Professor A. C. Seward was chairman of the executive committee.

PRESIDENT A. LAWRENCE LOWELL, chairman of the Commission on Medical Education, has appointed the following committees of the commission to deal with certain groups of problems before it: *Committee on Pre-Medical Training*: Chancellor Samuel P. Capen, *chairman*, University of Buffalo; Dean Henry G. Gale, University of Chicago; President Walter A. Jessup, University of Iowa; President Clarence C. Little, University of Michigan; Professor Leon B. Richardson, Dartmouth College. *Committee on Training in the Medical Sciences*: Professor Lafayette B. Mendel, *chairman*, Yale University; Professor John J. R. Macleod, University of Toronto; Professor Charles R. Stockard, Cornell Medical School; Professor George H. Whipple, University of Rochester Medical School; Professor Hans Zinsser, Harvard Medical School. *Committee on Clinical Training*: Dean David L. Edsall, *chairman*, Harvard Medical School; Professor George Blumer, Yale Medical School; Dean Hugh Cabot, University of Michigan Medical School; Professor Elliott Cutler, Western Reserve Medical School; Professor George E. deSchweinitz, University of Pennsylvania; Professor Charles P. Emerson, Indiana University Medical School; Professor Benjamin P. Watson, Columbia University Medical School. Dr. Willard C. Rappleye, director of study of the commission, is secretary of each of these committees.

ACCORDING to the *Archiv für Rassen- u. Gesellschafts Biologie*, reported in *Eugenical News*, the investigation of the problem of the origin of the Mongoloid racial elements is being studied by the expedition in Further India and to this end it has worked in Upper Burma and the Shan states. The leader of the expedition, Dr. Freiherr von Eickstedt, and his wife have made their headquarters in the town of Namhsan at an elevation of 2,000 meters. Extensive material is being collected; ethnographic articles, 500 photographs and measurements on 230 men and women. The Chinese in the adjacent territory will also be studied.

By recent executive order, President Coolidge has reestablished for the protection of native birds the

Pathfinder Bird Refuge, embracing 22,700 acres on the North Platte River in central Wyoming. The area is set aside for the use of the department as one of the numerous refuges administered by the U. S. Bureau of Biological Survey. All the lands involved have been withdrawn for reclamation purposes in connection with the North Platte project, Wyoming, and are primarily under the jurisdiction of the Department of the Interior. The area includes mainly a reservoir constructed for the use of the Reclamation Service in the irrigation of lands. The establishment of this refuge furnishes nesting grounds as well as important feeding and resting places for the large numbers of migratory waterfowl, especially ducks, in a region where open-water areas providing a haven for birds are scarce. It is unlawful, within the refuge, to hunt, trap, capture, willfully disturb or kill any wild animal or bird of any kind whatever, or take or destroy the eggs of any wild bird, except under such rules and regulations as may be prescribed by the Secretary of Agriculture.

CARRYING authorization for an appropriation of \$350,000, the Bear River migratory bird refuge bill, which has been pending in congress for the last two sessions, has been approved by President Coolidge. This important conservation legislation authorizes the Secretary of Agriculture to construct at Bear River Bay and vicinity, Utah, such dikes, ditches, spillways, buildings and improvements as may be necessary for the establishment of a suitable refuge and feeding and breeding ground for migratory wild fowl, and to acquire, by purchase, gift or lease, water rights and privately owned lands necessary for the purpose. Another conservation measure recently approved by the president is a joint resolution authorizing the secretary of agriculture to accept from James B. Munn, of New York City, on behalf of the United States, a gift of certain lands in Clayton County, Iowa, to become a part of the Upper Mississippi River Wild Life and Fish Refuge. These lands, totaling 488 acres in area and estimated to be worth thirty or forty thousand dollars, were donated to the government by Mr. Munn through his interest in the objects of the refuge.

ON July 30 President Coolidge signed a proclamation creating the Huron National Forest in Crawford, Oscoda, Iosco and Alcona Counties in the State of Michigan, and transferring to this forest a part of the lands formerly within the Michigan National Forest. It was thought desirable to give the name "Huron" to the new National Forest in order to avoid the confusion which comes from naming a National Forest after the state, when there are two or more national forests in the same state. The Huron National Forest contains a gross area of approximately

500,000 acres, of which about 200,000 is now owned by the United States and the remainder is either in private ownership or is owned by the State of Michigan. The National Forest Reservation Commission has authorized the acquisition by the Department of Agriculture of the privately owned lands and it is expected, therefore, that these will ultimately be purchased.

THE International Education Board of the Rockefeller Foundation has given \$200,000 to the Paris National History Museum to house the botanical collections in a new building. The total cost will be \$280,000. The French government will contribute the balance.

UNIVERSITY AND EDUCATIONAL NOTES

ROBERT LAW, JR., has raised the amount he contributed to the development fund of the University of Chicago to \$200,000. This sum will be used as an endowment for a distinguished service professorship.

DR. EDWARD H. ROCKWELL, dean of the college of engineering of Rutgers University, has been appointed professor of civil engineering at Lafayette College.

GEORGE W. SWENSON, assistant professor of electrical engineering at the University of Minnesota, has resigned to become professor of electrical engineering at the Michigan College of Mines at Houghton, Mich. He will be head of this department, which has just been established.

DR. GEORGE L. ZUNDEL, of Yale University, has been appointed assistant professor of plant pathology extension at the Pennsylvania State College.

DR. JOHN L. ULRICH, of the Plant Research Laboratory of Lehn and Fink, Bloomfield, New Jersey, has been appointed head of the department of physiology at the Homeopathic Medical School, New York City.

In the department of zoology of the University of Pittsburgh, the following changes in rank are in effect for the coming year: Robert T. Hance, from acting head to head of the department; P. W. Whiting, from assistant to associate professor; E. Alfred Wolf, from instructor to assistant professor; A. W. Kozelka, from instructor to assistant professor at the Erie Center; E. P. Jones, from graduate assistant to instructor at the Uniontown Center.

THE China Medical Board of the Rockefeller Foundation has appointed Dr. Max M. Zinninger professor of surgery at the Peking Union Medical College. Dr. Zinninger has been with the Cincinnati College of Medicine and the Cincinnati General Hospital for about six years.

THE retirement of Professor Diarmid Noël Paton from the chair of physiology in the University of Glasgow will take effect on September 30. The Secretary of State for Scotland has recommended the appointment of Edward Provan Cathcart to the vacancy. Professor Cathcart at present holds the chair of physiological chemistry in the University of Glasgow, to which he was appointed in 1919.

DISCUSSION AND CORRESPONDENCE

"CENTERS OF RESEARCH," A REPLY

IN a recent article in *SCIENCE* entitled "Centers of Research,"¹ Professor S. R. Williams discusses what he believes to be the paucity and mediocrity of research in some of our graduate schools and suggests a remedy. While we agree that in some schools the situation is unsatisfactory we are inclined to differ as to some of the causes and the remedies. Professor Williams ascribes this condition to the practice of dividing research students among several members of the departmental staff, and suggests that the remedy is to place the department of research under *one outstanding leader who alone will direct and supervise the research of all candidates for the Ph.D. degree in that subject*, in analogy to the condition in German universities.

In contradistinction to conditions existing abroad where the funds for the support of more than one full professorship in a single subject are rarely available, our recent demand for wholesale education has created a very different situation. In the first place, many of our larger institutions are adequately supporting not one professorship in a department, but several. The demand for men to occupy the positions in competition with the excellent industrial opportunities for able men has filled many of these places with men of an average poorer quality than in analogous positions in Europe. In addition to this, the administrations of universities are demanding productive research from these men and their students. The result is, as Professor Williams states, rather lamentable in some cases. It seems to us, however, that the situation has been painted a bit blacker than it really is, and certainly than it will be in the future.

American standards for the Ph.D. are being perceptibly raised. Agencies such as the National Research Fellowships and the Bartol Research Foundation are training the abler Ph.D.'s in research for periods of several years after they have obtained their degrees. This is furnishing the universities with a most excellent supply of tried and able young men to carry on and direct graduate research.

Again, while it may be true that the smaller insti-

¹ *SCIENCE*, Volume 68, p. 61, July 20, 1928.