

bit, who will have his headquarters at Woods Hole. The activities at this station will include studies of the occurrence and growth of young squeteague, scup and other shore species of the Woods Hole region. Experiments in methods of tagging and marking these fishes will also be conducted during the summer. The activities of field observers who are collecting data on the catch of pound nets in various localities in the states of New York, New Jersey and Virginia will be directed from this station.

The mackerel investigations are being continued at Woods Hole, where Oscar E. Sette, assisted by Edward W. Bailey, is working on the growth of juvenile mackerel and the analysis of extensive plankton collections made by the *Albatross II* during the 1929 spawning season for their content of mackerel eggs and larvae. Dr. Roderick MacDonald and George L. Clarke will collaborate in analyzing the offshore plankton collected incidentally to the mackerel investigations, with special reference to the relative abundance of the various organisms and their effect on the movements of adult mackerel and their survival.

Studies on the physiology of fishes, particularly their respiration and carbohydrate metabolism, are being continued by Dr. F. G. Hall, professor in Duke University, in collaboration with Dr. I. E. Gray, as-

sistant professor in Tulane University. Raymond Root, fellow in zoology at Duke University, has been employed as stockroom keeper and will also collaborate with Dr. Hall, particularly on the biochemical analysis of fish eggs and larvae.

In addition to the bureau's staff of permanent and temporary investigators a number of independent investigators are engaged on various problems of significance to our understanding of the fisheries. Dr. Edwin Linton, University of Pennsylvania, is continuing studies on the helminth parasites of fishes; Dr. C. J. Connolly, associate professor in the Catholic University, will study the color reactions of crabs; Albert J. Dalton, tutor, College of the City of New York, is studying the critical stages in the embryonic development of fishes in the Woods Hole region, and Paul S. Conger, diatomist of the U. S. National Museum, will continue his studies of the marine diatoms in this region.

Four of the university tables are occupied. R. E. Bowen and Kendall W. Foster occupy Harvard tables, Dr. John C. Hemminger the Johns Hopkins table and M. E. Holcomb the Princeton table. Space has also been accorded Dr. N. A. Cobb, of the Department of Agriculture, and his staff of six assistants, who are conducting research in nematology.

SCIENTIFIC NOTES AND NEWS

At the meeting of the Royal Society of Canada at Ottawa, Professor A. S. Eve, McDonald professor of physics in McGill University, was elected president for the meeting to be held next year at Montreal.

THE gold medal of the University of Hamburg was presented on May 6 to Dr. Francis G. Benedict, director, nutrition laboratory of the Carnegie Institution, Boston, following his lecture before the medical faculty.

THE Academy of Sciences of Vienna has awarded the Ignaz L. Lieben prize to Dr. Karl Przibram, professor of physics in the university.

THE Leslie Dana gold medal for 1929, awarded by the National Society for the Prevention of Blindness in recognition of "the most outstanding achievement in the prevention of blindness and the conservation of vision," will be presented to Dr. Ernest Fuchs, of Vienna, at the International Ophthalmological Congress in Amsterdam on September 10.

It is announced in *Nature* that the Kelvin Medal Award Committee, consisting of the presidents of the leading British engineering institutions, has awarded the Kelvin medal for 1929 to M. André Blondel, engineer of the Ponts et Chaussées since 1889 and for

many years the chief engineer of the French light-house services, distinguished for his work on signaling apparatus and for his investigations on electrical measurements, apparatus and photometry. The medal is awarded as a mark of distinction in engineering work and investigation of the kinds with which Lord Kelvin was especially identified. Former recipients of the medal are Dr. W. C. Unwin, Professor Elihu Thomson and the Honorable Sir Charles Parsons.

Nature reports that an honorary fellowship of the British Academy has been conferred on Professor A. H. Sayce, known for his explorations and for his work on the archeology of the Near East. He has also been awarded the Huxley Memorial Medal of the Royal Anthropological Institute for 1929, and has been invited to deliver the Institute's Huxley Memorial Lecture in 1930. Professor Sayce is now in his eighty-fourth year, and has been a fellow of Queen's College, Oxford, since 1869.

THE Dr. Jessie Macgregor Prize in Medical Science for the triennial period 1929-31 has been awarded to Miss Helen M. Russell, M.D., for her record of work on malaria in the Vasiliki Valley, Macedonia, during 1925. The prize was founded in 1908 as a memorial to the late Dr. Jessie MacLaren Macgregor, of Edinburgh, and is of the value of £75.

DR. H. S. H. WARDLAW, of the department of physiology of the University of Sydney, has been elected president of the Linnean Society of New South Wales for the current session.

H. H. MAGDSICK, who is director of commercial engineering at the National Lamp Works, Cleveland, has been elected national president of the Illuminating Engineering Society for the year 1929-30. He takes office on October 1.

At the quarterly meeting of the council of the Royal College of Surgeons, London, Lord Moynihan was reelected president, and Mr. C. H. Fagge and Mr. V. Warren Low were elected vice-presidents for the ensuing year. Mr. R. H. Burne (physiological curator), Mr. C. F. Beadles (pathological curator), Sir Frank Colyer (honorary curator of the odontological collection) and Mr. C. J. S. Thompson (honorary curator of the historical section of the museum) were reelected to their respective posts. Mr. W. R. Le Fanu, second librarian to the Hellenic Society, was appointed assistant librarian to the college. Mr. H. J. Burrows, F.R.C.S., was appointed Beaverbrook research scholar. He will pursue tissue culture research at the research hospital, Cambridge. The Hallett prize for anatomy and physiology was awarded to L. A. Riddell, New Zealand.

DR. ALEXANDER POGO, of the Yerkes Observatory, has been appointed fellow in the history of science by the Carnegie Institution of Washington. He will work in the library of Harvard University.

FRED L. GARLOCK, who for the last five years has been a member of the faculty of Iowa State College and also of the Iowa Agricultural Experiment Station where he has carried out research in farm finance and country banking, has been appointed senior research specialist in short-term finance and intermediate credit in the bureau of agricultural economics, of the U. S. Department of Agriculture.

PROFESSOR AND MRS. E. B. VAN VLECK, of the University of Wisconsin, will sail from San Francisco on August 15, for a trip around the world. Professor Van Vleck retired from active teaching in June, 1929.

W. K. WILLIAMS, JR., of Arkansas, has been appointed extension forester to represent the Forest Service and the office of Cooperative Extension Work in the work which the department and the states carry on cooperatively. He succeeds G. H. Collingwood, who resigned some months ago.

E. ESCLANGON, director of the Strasbourg Observatory, has been made director of the Paris Observatory. M. Cotton, professor at the Sorbonne, and M. Maurain, dean of the faculty of sciences, have been elected

members of the council of the observatory in place of the late M. Daniel Berthelot and of M. Appell, who recently resigned.

LOUIS O. SORDAHL, who has been appointed to take charge of the Smithsonian Institution Solar Station at Mount Brukkaros, Southwest Africa, a British province, sailed from New York on July 27. Mr. Sordahl will make daily observations of the sun's radiations at Mount Brukkaros, which will be compared with the results found by the solar stations at Swartout, California, and in Chile, the results of which will be used to make long-distance weather forecasts.

At the request of Commander MacMillan, Dr. W. C. Kendall, ichthyologist of the Bureau of Fisheries, is accompanying the MacMillan expedition to Labrador and Baffin Land in order to make extensive collections of the fish life of that region.

THE personnel of the scientific staff of the Mawson Antarctic Expedition has been announced as follows: Commander, Sir Douglas Mawson; medical officer, Dr. Wilson Ingram, Sydney; senior zoologist, Professor Harvey Johnston, Adelaide; taxidermist, Mr. H. O. Fletcher, Sydney; ornithologist, Mr. Falla, New Zealand; chemist, Mr. Alfred Howard, Melbourne; plankton expert, Mr. Marr, of the previous *Discovery* expedition; meteorologist, Mr. H. G. Simmers, New Zealand. A second pilot and another physicist are to be added.

PROFESSOR B. H. CROCHERON, of the agricultural extension division of the University of California, with W. J. Norton, will sail from San Francisco on August 2 for the Orient, where they will investigate the possibility of markets for California fruit. Professor Crocheron goes as special trade commissioner for the U. S. Department of Commerce, which is cooperating with the university in this investigation.

DR. G. A. MULENBURG, associate professor of geology at the Missouri School of Mines, is spending a part of the summer examining mineral deposits in West Texas, New Mexico, Utah and Wyoming.

PROFESSOR PROSSALOW, of the Leningrad Academy of Sciences, is expected in Palestine to study local conditions on behalf of the International Congress of Soil Experts, which met in Dantzig. Together with Professor Greifenberg, also of Russia, he will prepare a map of the different grades of soil.

DR. ERWIN E. NELSON, associate professor of pharmacology in the University of Michigan, has been given sabbatical leave for the first semester of the academic year 1929-30, and is to study with Dr. Walther Straub in Munich.

THE U. S. Civil Service Commission states that the position of assistant technical director (chief chemist), Chemical Warfare Service, Edgewood Arsenal, Maryland, is vacant, and that, in view of the importance of this position in the field of chemical research, the qualifications of candidates will be passed upon by a special board of examiners composed of H. E. Howe, editor, *Industrial and Engineering Chemistry*; H. L. Gilchrist, chief of Chemical Warfare Service, and A. S. Ernest, examiner of the U. S. Civil Service Commission. The salary range for the position is from \$8,000 to \$9,000 a year. Formal applications will be received by the Civil Service Commission until August 28. The position of senior pharmacologist, salary \$4,600, will be filled from applications received not later than August 5.

THE Fifth Pacific Science Congress will be held in Canada in 1932. A committee of the National Research Council has been formed to make the preparations.

A SYMPOSIUM on theoretical physics is being conducted at the University of Michigan from June 24 to August 16. The following courses of lectures were announced: E. A. Milne, of the University of Oxford, "Problems in astrophysics, and vector and tensor methods in statics and dynamics"; K. P. Herzfeld, of the Johns Hopkins University, "Statistical mechanics"; Leon Brillouin, of the University of Paris, "Quantum statistics"; Edward Condon, of Princeton University, "Introduction to quantum mechanics"; P. A. M. Dirac, of the University of Cambridge, "Advanced quantum mechanics"; D. M. Dennison, of the University of Michigan, "Band spectra."

THE formal organization of the Comité International d'Histoire des Sciences was effected in Paris last May. The by-laws provide for a maximum of 30 regular members and 50 corresponding members. The officers elected were as follows: Charles Singer, of London, *president*; Florian Cajori, of the University of California; Abel Rey, of Paris, and Karl Sudhoff, of Leipzig, *vice-presidents*; Aldo Mieli, of Paris, *secretary*. The first International Congress on the History of Science was held at Oslo in 1928. The second will be in London in 1931.

THE *Journal* of the American Mathematical Association reports that a Congress of Mathematicians of Slavic Countries will be held at Warsaw, Poland, from September 23 to 27. The congress will have sections in the following subjects: (1) Foundations of mathematics, history, didactics; (2) arithmetic, algebra, analysis; (3) point-set theory, topology and applications; (4) geometry; (5) rational mechanics, applied mathematics. Those who desire to take part in the congress are asked to indicate this to the secretary of the congress where a proper registration blank

can be obtained. The congress will be held under the presidency of Professor W. Sierpinski. The address of the secretary is Politechnika, Gabinet Matematyczny, p. 72, Warszawa (Pologne), ul. Polna 3.

Industrial and Engineering Chemistry reports that the American Electrochemical Society will hold its fall meeting in Pittsburgh, Pennsylvania, from September 19 to 21, to discuss, among other subjects, the contributions of the American electrochemical industry to aeronautics. Several hundred chemists, metallurgists, plant executives and company officials of both the United States and Canada will then convene to discuss recent developments in the electrochemical industry. The program will consist of visits to various industrial plants in the Pittsburgh district, and also technical sessions at which papers on electrochemical subjects will be presented by various prominent men from all over the country. There will be a special symposium on "Contributions of Electrochemistry to Aeronautics," with emphasis given to the light-weight aluminum and magnesium alloys used in airplane construction. Social features of the meeting will include a smoker, a dinner and dance and a special program for the ladies. Headquarters will be the William Penn Hotel. Reservations may be made through Mark W. Egan, William Penn Hotel.

THE following appointments have been made at Mellon Institute of Industrial Research, Pittsburgh, Pa., during the current calendar year: *Senior Industrial Fellows*: G. J. Cox, Ph.D. (Illinois, '25), utensil; H. B. Meller, E.M. (Pittsburgh, '10), smoke and dust abatement. *Industrial Fellows*: J. D. Alley, B.A. (Columbia, '17), steel treatment; R. F. Beard, Ph.D. (Minnesota, '28), carbonated beverage; H. G. Botset, B.S. (Purdue, '22), petroleum production; Mary L. Dodds, M.S. (Pittsburgh, '27), utensil; A. W. Johnson, B.S. (Pittsburgh, '25), rosin oil; T. R. LeCompte, Ph.D. (Columbia, '27), hemp paper; A. G. Loomis, Ph.D. (California, '19), petroleum production; R. R. McClure, M.S. (Chicago, '17), pigment; S. U. McGary, B.S. (Texas, '21), petroleum production; E. W. Morrison, Ph.D. (Yale, '29), food container; Beauregard Perkins, Jr., B.A., B.S. (Tulane, '16), petroleum production; P. F. Siegrist, B.Cer.E. (Ohio State, '27), Portland cement; J. T. Stearn, D.Sc. (Polytechnic Institute, Zurich, '23), scale; L. W. Vollmer, B.S. (Pennsylvania State, '26), petroleum production; V. S. Wrenn, Ph.B. (Yale, '18), dental; J. L. Young, Ph.D. (Pittsburgh, '26), heating. *Fellowship Assistants*: J. R. Adams, M.S. (Carnegie Institute, '29), petroleum refining; C. N. Bowers, B.S. (Pittsburgh, '29), petroleum production; S. M. Cooper, B.S. (Pittsburgh, '29), petroleum refining; F. E. Gallagher, petroleum production; Dorothy Hamilton, B.Sc. (Trinity College, Washington,

D. C., '27), smoke abatement; S. R. Hathaway, A.M. (Ohio State, '28), sleep; Eleanor M. Jones, A.B. (Goucher, '29), smoke abatement; J. A. Satosky, B.S. (Pennsylvania State, '29), carbon black; W. F. Speer, B.S. (Pittsburgh, '28), edible gelatin; Mary E. Warga, M.S. (Pittsburgh, '28), smoke abatement; Helen B. Wigman, B.S. (Pittsburgh, '28), utensil; C. G. zur Horst, Met.E. (Pittsburgh, '24), petroleum production.

H. R. TOLLEY, assistant chief of bureau, and Chris L. Christensen, in charge of the division of cooperative marketing, Bureau of Agricultural Economics, have been invited to attend the International Conference of Agricultural Economics in England, which meets from August 26 to September 7. Other American economists who have been extended an invitation to the conference are: Dr. C. E. Ladd, Dr. G. F. Warren, Dr. F. A. Pearson, and Dr. Leland Spencer, all of the New York State College of Agriculture; Dr. H. C. Taylor, director of the comprehensive survey of rural Vermont for the Vermont Commission on Country Life; F. P. Weaver, of Pennsylvania State College; H. A. Wallace, of *Wallace's Farmer*, Des Moines, Iowa; Dr. G. A. Pond, of the Minnesota State College of Agriculture, and H. C. M. Case, of the Illinois State College of Agriculture. The delegation expects to sail on the steamship *Leviathan* from New York on August 17. The conference, which will bring together men engaged in economic research in the United States, Canada, England and some northern European countries, was planned by Dr. Ladd, Professor C. W. Orwin, of the research institute of agricultural economics at the University of Oxford, and Leonard K. Elmhirst, of Dartington Hall, Devon, England. It is the desire of the group to further the field of agricultural research by bringing together the men who are actively engaged in this work in the various countries, for the interchange of information as to methods and procedure, in order that each may be helped by the experience and research of the others.

SUBSTANTIAL progress is reported towards the arrangements for the World Poultry Congress of 1930, which is being organized by the British Ministry of Agriculture. Provision is being made for displaying large flocks of poultry in the grounds of the Crystal Palace, and the conditions under which these are to be exhibited will be announced later. An interesting departure is under consideration by the British Fur Breeders' Association, which is concerned with the production of fur-bearing animals apart from rabbits and silver foxes. It is hoped to include in the exhibition such animals as mink, muskrat, skunk and marten, with a view to interesting the public in the

breeding of these animals in England. Important developments are reported from the United States, Canada and other countries. A substantial grant has been made by the United States government, and the general committee, under the chairmanship of Dr. Morley Jull, chief poultry husbandman, is occupied with the work of organization along with 12 subcommittees. In Canada the National Committee is under the honorary chairmanship of Dr. W. R. Motherwell, Minister of Agriculture, and includes all the ministers of agriculture of the Canadian provinces. At least 1,000 delegates are expected from the United States and Canada, and a steamship has been chartered for their transport. The German National Committee has applied for 1,500 feet of floor space, Holland will have a space at least as large, and France, Spain, Belgium and Denmark are among the other countries which will have important national exhibits.

Industrial and Engineering Chemistry reports that the College of Doctors of the University District of Barcelona, Spain, has organized an International Committee of Cultural Relations which, under an honorary committee, is composed of representatives of the university, of the College of Doctors and of the Consular Corps. The members of the governing body of this committee are one professor and one collegiate doctor for each of the five university faculties—namely, philosophy and letters, law, science, medicine, and pharmacy. The purposes for which the above committee has been organized are broad and include the cultivation of cultural relations with foreign countries, cooperation in all legitimate enterprises which tend to strengthen international relations and to guarantee the peace of the world, to encourage the study of Spanish and culture in universities and other scientific centers abroad and to endeavor to have established in Barcelona institutes' representative of the culture of the various countries which will aid in making this culture known to Spain. The committee has been organized in view of the International Exposition of Barcelona, and will initiate its work by offering information and guidance to those visitors particularly interested in science, enabling them to become acquainted with the cultural centers of their city and will assist them in arranging conferences and other meetings pertinent to the occasion. The committee proposes to organize a general register of national and foreign cultural institutions, to invite the representatives of various scientific and cultural organizations to hold conventions in Barcelona, aiding them in every way possible in this connection. Further, the committee proposes to correlate the various institutions of Spanish culture throughout the world, seeking to encourage them in their work and to assist in the publication of their articles.

ALBERT COLLEGE, at Glasnevin, Ireland, with which is combined the Free State's agricultural experiment station, has been handed over to Dublin University as a step in the government's efforts to promote the use of modern farming methods. The transfer was arranged by Patrick Hogan, Minister for Agriculture. The college and experiment farm will be administered through the newly formed agricultural department of Dublin University. It consists of approximately 350 acres of land, of which 40 per cent. is under tillage. It was organized in 1926 for the purpose of demonstrating practical farming methods, carrying out research work and disseminating a knowledge of farm management, including the commercial aspect of Irish agriculture. The buildings have been remodeled recently to provide facilities for research. The central building provides residential accommodations for about fifty students and a house staff. It includes a large refectory, lecture halls, a library well stocked with the most up-to-date works and laboratories for agricultural chemistry. A new wing has been added to the main block to provide laboratories for plant pathology, agricultural bacteriology, botany and zoology.

ONE of the objects of the British Science Guild, founded twenty-three years ago by the late Sir Norman Lockyer, is to educate public opinion by spreading the knowledge of scientific achievements and the results of scientific contemplation. With the view of furthering this particular aim, there was recently instituted the Norman Lockyer Lecture, and the fourth of this annual series of these lectures was delivered

in London by Professor J. Arthur Thomson, of the University of Aberdeen. The subject of the address was "The Cultural Value of Natural History." According to *Nature* seven contributions of natural history to human culture were reviewed by Professor Thomson. Power is added to our vision of the world—"the eye sees what it brings with it the power of seeing; and well-informed vision is richest and clearest." The esthetic sense is cultivated—"there is no risk of the cold light of science hurting the esthetic emotion, for the more we know of a beautiful thing the greater is our enjoyment." Interest is stimulated—"natural history gives us glimpses of a dramatic world." Big ideas, such as evolution and the interrelations of living things of world-wide significance, are its progeny. Its problems present infinite variety of mental discipline and resolute thinking; and the deep impressions made by even superficial contact with nature are of fundamental value in moulding outlook. Finally, there is guidance in human affairs to be found in a rational study of animate nature—"a society that dispenses with sifting is working its own doom"; "success attends the small families among animals well-equipped in body and mind"; "in bygone days we heard much about original sin, we need to hear more about original righteousness," and so on. This address has been printed by the British Science Guild and may be obtained from the offices, 6 John Street, Adelphi, W.C.2. The Guild requires financial support to enable it to carry on and extend its useful work for the public good, and an appeal is made for new members.

UNIVERSITY AND EDUCATIONAL NOTES

Nature reports that the new laboratory at the University of Sheffield for research on the cold-working of steel, opened on July 6, has been established in consequence of a gift from the Worshipful Company of Ironmongers of London, which made a grant of £800 a year for seven years to endow a fellowship and two scholarships in the cold-working of steel. To make this gift available, the firms connected with the cold-working industry have, through the Cutlers' Company of Hallamshire, presented the university with the necessary plant.

PROFESSOR R. D. CARMICHAEL has been appointed administrative head of the department of mathematics at the University of Illinois as successor to Professor E. J. Townsend, who was granted his own request to be allowed to retire on September 1 of the present year.

At the University of Chicago, Dr. Samuel K. Allison, of the University of California, has been ap-

pointed associate professor of physics. Dr. I. S. Falk, hygiene and bacteriology; Dr. G. K. K. Link, botany, and Dr. Sewall Wright, zoology, have been promoted to full professorships.

DR. HAROLD ST. JOHN, associate professor of botany and curator of the herbarium at the State College of Washington, has been appointed professor of botany at the University of Hawaii and on the botanical staff of the B. P. Bishop Museum. Otis W. Barrett, agricultural director of the Insular Department of Agriculture and Labor of Porto Rico since 1923, has been appointed to the chair of horticulture.

At the University of South Carolina, Dr. W. E. Hoy, Jr., has been appointed professor of biology and head of the department, and Dr. J. T. Penney associate professor of zoology.

PROFESSOR W. E. MILNE, of the University of Oregon, who has been on leave as professor of mathematics at Stanford University this year, will return