

Project further down-river and the El Vado dam site for the Middle Rio Grande Conservancy Districts. The remaining time will be given up to physiographic studies in the basin of the Rio Grande under a grant from the Shaler Memorial Fund.

Professor L. C. Graton plans to enlist the services of his advanced students in his geological work in Canada. Professor D. H. McLaughlin, who will resume his study of the geology of the Homestake Mine in South Dakota, will be assisted by S. C. Davidson, and J. K. Gustafson, Austin teaching fellow in physiography. H. J. Fraser, assistant in geology, will devote the summer to research with Professor Graton on the permeability of rocks to mineralizing solutions. The research is financed by mining interests of Northern Rhodesia, South Africa.

P. A. Schafer, assistant in meteorology and geology, will return to Canada for a second summer of investigations for one of the mineral exploration companies. H. A. Powers, instructor in petrography, who will leave the staff of the division to join the U. S. Geological Survey, has been assigned to map the geology of the island of Hawaii. He will work in conjunction with Dr. T. A. Jaggar, who was at one time a member of the division. Russell Gibson, instructor in economic geology, expects to resume his work in the west with the U. S. Geological Survey. R. T. D. Wickenden, assistant in geology and paleontology, will be an assistant with field parties of the Geological Survey of Canada, working on Cretaceous and Pleistocene deposits of Manitoba.

COMMITTEES OF THE AMERICAN ENGINEERING COUNCIL

ANNOUNCEMENT of the membership of committees of the American Engineering Council, which will work with Congress and the Federal Administration in shaping public policies involving vast engineering operations, has been made by Arthur W. Berresford, of New York, president of the council. The council was organized in 1919 under the headship of Herbert Hoover.

D. Robert Yarnall, manufacturer of Philadelphia, has been appointed chairman of the Public Affairs Committee. Mr. Yarnall is a representative on the council of the American Society of Mechanical Engineers. Public questions affecting engineers generally will come before this committee, the other members of which are:

J. L. Hamilton, St. Louis.

John Lyle Harrington, Kansas City, Mo.

H. A. Kidder, New York City.

W. S. Lee, Charlotte, N. C.

R. C. Marshall, Jr., Chicago.

R. F. Schuchardt, Philadelphia.

Charles Penrose, Philadelphia.

C. E. Skinner, East Pittsburgh, Pa.

Max Toltz, St. Paul, Minn.

Edwin F. Wendt, Washington, D. C.

A new committee on communications has been named to study proposed legislation for federal supervision of such means of communication as radio, telephone and telegraph. Bills by Senator Watson of Indiana and Senator Couzens of Michigan are now pending which contemplate the establishment of a Federal Communications Commission analogous to the Interstate Commerce Commission, and the Council's Communications Committee, headed by Edwin F. Wendt, will study the fundamental questions raised by the Watson and Couzens bills. Other members of the Communications Committee are:

O. H. Caldwell, New York, federal radio commissioner.

Dean Dexter S. Kimball, Cornell University.

Frank A. Scott, Cleveland.

Charles B. Hawley, Washington, D. C.

Another committee is that on flood control, of which Gardner S. Williams of Ann Arbor, Mich., is chairman. The committees, according to Mr. Berresford, are already at work and at a meeting of the council's administrative board, to be held in Washington in October, will submit reports reflecting the engineering attitude toward legislation arising at the next session of Congress.

Chairmen of other committees of the council were announced as follows:

Power—Farley Osgood, New York.

Reforestation—William Boss, University of Minnesota.

Street and Highway Safety—M. M. Fowler, Chicago.

Recent Economic Changes—Dean Dexter S. Kimball, Cornell University.

Engineering and Allied Technical Professions—H. C. Morris, Washington, D. C.

Regional Activities—O. H. Koch, Dallas, Texas.

Program of Research—Dr. Harrison E. Howe, Washington, D. C.

Man-Hour Information—L. P. Alford, New York.

Patents—Edwin J. Prindle, New York.

National Hydraulic Laboratory—Farley Osgood, New York.

Washington Potomac Canal—D. H. Sawyer, Washington, D. C.

Finance—John H. Finney, Washington, D. C.

SCIENTIFIC NOTES AND NEWS

At the meeting of the British Association for the Advancement of Science, now being held in Cape Town, the South Africa Research medal, founded in

commemoration of the visit of the association to South Africa in 1905, will be presented to Dr. Robert Broom for his archeological and anthropological researches.

THE degree of doctor of science *honoris causa* was conferred by the University of Leeds on Dr. Charles H. Mayo, of Rochester, Minnesota, on July 23. Dr. William J. Mayo was similarly honored in 1924. The University of Manchester conferred honorary degrees on the Mayo brothers on July 14.

PROFESSOR CHARLES SCHUCHERT, curator emeritus in vertebrate paleontology of the Peabody Museum of Yale University; Dr. E. O. Ulrich, geologist, U. S. Geological Survey, and Dr. Thomas Wayland Vaughan, professor of oceanography and director of the Scripps Institution of Oceanography of the University of California, have been elected foreign members of the Geological Society, London.

DR. CARL KASSNER, professor of meteorology in Berlin, has been elected a corresponding member of the Bulgarian Academy of Sciences.

ALFRED REHDER, curator of the herbarium of the Arnold Arboretum at Harvard University, has been elected a corresponding member of the Peking Society of Natural History, China.

A PORTRAIT of Henry H. Wing, professor emeritus at Cornell University, formerly head of the department of animal husbandry in the State College of Agriculture, was presented to the university on June 15. Dr. Wing, who retired in 1928, was a member of the faculty for more than forty years. The portrait was presented by Mr. Jared W. Stiles, '29, in behalf of former students of Professor Wing and his faculty associates, and was accepted by President Farrand. Dean Albert R. Mann, '04, of the College of Agriculture, spoke on Professor Wing's career. The portrait was painted by Professor Olaf M. Brauner.

DR. OTTO WARBURG, professor of botany at Berlin, celebrated his seventieth birthday on July 20.

PROFESSOR CLIFFORD C. CRUMP, professor of astronomy and director of the Perkins Observatory at the Ohio Wesleyan University, has been appointed professor of astronomy and director of the observatory at the University of Minnesota.

DR. ROLAND BROWN, of the department of geology of Yale University, recently appointed as paleobotanist in the U. S. Geological Survey, has taken up his work in Washington with offices in the section of paleobotany of the National Museum. Dr. Brown's first work will embrace field and office studies of the Fort Union floras.

DR. ARTHUR W. GRAY has joined the staff of the Brown Instrument Company as associate director of research. He will be engaged mainly in the development of scientific and industrial instruments. During the past thirteen years, Dr. Gray, formerly of the

Bureau of Standards, has served as director of physical research of the L. D. Caulk Company, as physicist for the Calco Chemical Company, and as vice-president and director of research of Dielectric Products, Inc.

DR. ROBERT K. NABOURS, of the department of zoology of the Kansas State Agricultural College, will be on sabbatical leave for the year beginning on September 1, which he will spend as research associate in the department of genetics of the Carnegie Institution of Washington, at Cold Spring Harbor, Long Island, aided by grants from the institution and from the National Academy of Sciences. During his absence Dr. J. E. Ackert will be acting head of the department.

DR. CARL L. ALSBERG, director of the food research institute at Stanford University, has been appointed a member of the United States delegation to the Conference of the Institute of Pacific Relations which will meet in Kyoto, Japan, from October 28 to November 9.

MR. J. WALTER DRAKE, a director of the National Automobile Chamber of Commerce and former assistant secretary of commerce, has been named chairman of the United States delegation to the second Pan-American Highway Conference which convenes at Rio de Janeiro on August 16. The delegates include Thomas H. MacDonald, chief of the bureau of public roads; Frank T. Sheets, chief highway engineer of Illinois, and Charles M. Babcock, commissioner of highways of the State of Minnesota.

PROFESSOR WILLIAM E. HOFFMANN, of Lingnan University, Canton, China, attended the fourth Pan-Pacific Science Congress in Java, which was held from May 16 to 25, at which he represented the university, the Peking Society of Natural History, the American Association of Economic Entomologists and the Entomological Society of America.

Three of its research specialists will represent the U. S. Forest Service at the International Congress of Forest Experiment Stations to be held this month at Stockholm, Sweden. They are: E. N. Munns, in charge of the Office of Forest Experiment Stations, Washington, D. C.; Dr. Joseph Kittredge, Jr., of the Lake States Forest Experiment Station, St. Paul, and Dr. A. J. Stamm, of the Forest Products Laboratory, Madison. Between 150 and 200 foresters engaged in forest research are expected to attend the Stockholm meeting—the first international congress held since 1910. Following the meeting the Forest Service officers will make a study of forest research in Sweden and several other European countries in which forestry technique has been highly developed

and forest products are being grown successfully on a continuous crop basis.

A COMMITTEE of the U. S. Department of Agriculture, consisting of Dr. B. Youngblood, principal economist of the Office of Experiment Stations (*chairman*); Dr. Karl F. Kellerman, associate chief of the Bureau of Plant Industry, and H. R. Tolley, assistant chief of the Bureau of Agricultural Economics, has been appointed to survey the state agricultural work in North Carolina and make suggestions for development. The work is being carried on by the state college of agriculture, the state agricultural experiment station, the state extension service and the state department of agriculture. The committee spent some time in North Carolina recently making a preliminary study of the work of the several state agencies.

DR. J. W. GIDLEY, of the U. S. National Museum, is visiting several localities in Idaho, one in Montana, one in Oregon and probably one in Washington, for the purpose of examining reported finds of fossil bones. This work being completed, he will visit the museums at the University of California, Los Angeles, Pasadena, Denver and Kansas.

DR. WILLIAM J. KERR, professor of medicine at the medical school at the University of California, has returned to San Francisco after nine months spent in research in England with Sir Thomas Lewis, heart specialist.

DR. RESIK BEY, minister of health of Turkey, and Dr. Assim Bey, chief medical officer of the ministry of health of Turkey, are visiting the United States.

MRS. DELIA J. AKELEY, the explorer, who led the Brooklyn Museum Expedition into Central Africa, recently described her experience in an illustrated lecture in the McMillin Academic Theater at Columbia University.

DURING the latter half of June, Dr. Henry C. Sherman, Mitchill professor of chemistry at Columbia University, lectured on the chemistry of nutrition in the summer session of the Colorado Agricultural College; and on June 24 he addressed a joint meeting of the college assembly, the local Sigma Xi Club and visitors from several chapters of the society upon "Science in the Service of Health and Longevity."

Industrial and Engineering Chemistry reports that Albert Sauveur, Gordon McKay professor of metallurgy and metallography in Harvard University, has accepted the invitation of the board of directors of the American Society for Steel Testing, to present the E. D. Campbell Memorial Lecture for 1929. This lecture was established by the directors of the society in 1926 to perpetuate the memory of its honorary member, Edward DeMille Campbell, of the University

of Michigan. The first lecture was presented by Dr. Guertler, of Germany; the second by Zay Jeffries, of Cleveland; the third by W. H. Hatfield, of England. Dr. Sauveur's lecture will be given on Wednesday morning during the National Metal Congress and Exposition to be held in Cleveland the week of September 9.

A MEMORIAL to Hudson Maxim, inventor, was dedicated at Lake Hopatecong on July 13. The memorial, a ten-ton boulder on which there is a bronze tablet, was unveiled by Doris Maxim, a granddaughter. Dr. Miller Reese Hutchinson, member of the U. S. Naval Consulting Board, was master of ceremonies. Dr. Spencer Miller, Dr. Henry B. Kummel and Charles G. Muller made addresses.

THE Philadelphia County Medical Society is making arrangements for the painting of a large portrait of Pasteur which will be installed in its headquarters office at a date to be announced.

THE centenary of the birth of the physiologist Eduard Friedrich Wilhelm Pflüger, the founder of *Pflüger's Archiv*, who died in 1910, was celebrated on June 7 at Bonn, where he was professor for fifty years.

THE Pacific Science Congress voted at the recent fourth triennial meeting in Java to hold its next meeting in Canada in 1932. The first meeting was held at Honolulu, Hawaii, the second in Australia and the third in Tokyo.

The Collecting Net reports that the General Education Board has given \$200,000 to be added to the endowment fund for the general purposes of the library of the Marine Biological Laboratory at Woods Hole, Massachusetts. This with the original endowment will bring the income of the library up to about \$25,000 a year. In 1925 the board appropriated \$50,000 for the library which has been expended on the purchase of books and monographs.

THE New York Academy of Sciences announces three prizes offered by Mr. A. Cressy Morrison, to be known as the A. Cressy Morrison Prizes I, II and III. Prize I, of \$750, will be awarded in December, 1930, for the best paper on solar and stellar energy. In December, 1929, Prize II will be awarded for the best paper on experimental biology and Prize III for the best paper on a scientific subject not covered by the first two prizes. The competition for Prize I is open to all. Prizes II and III are limited to members of the academy and affiliated societies, but non-members may become eligible by joining one of these organizations before the closing date.

A COLLECTION from various parts of British New Guinea, visited by airplane, has been presented to the U. S. National Museum by Dr. E. W. Brandes. Dr.

Brandes flew over 10,000 miles in mostly unknown territory.

A SLAB of sandstone containing the bones of extinct mammals of the Miocene Period from an agate quarry in Nebraska has recently been acquired by the museum of Wesleyan University. The giant matrix was purchased from Mr. J. D. Figgins, formerly curator of the Colorado Museum of Natural History at Denver. The slab is unique in the abundance of bones and in having in one slab three forms from one locality.

The Geographical Journal, London, has received details about a proposed expedition to Greenland, under Professor A. Wegener, the expenses of which are to be defrayed by the German government through the *Notgemeinschaft der Deutschen Wissenschaft*. Professor Wegener, who before coming prominently before the public as the author of the theory of continental drift had taken part in the exploration of the inland ice of Greenland, arrived in Copenhagen in February to make arrangements for a preliminary expedition this year in preparation for the main undertaking planned for 1930, the object of which is the detailed study of the ice-sheet. For this purpose three stations will be established in the same latitude, but at wide intervals. The first will be at Perdlorfik in the Umanak district in West Greenland, about 20 km within the border of the ice. The second will be dug into the central part of the ice-sheet, and three or four men will winter there. The third will be on Scoresby Sound in East Greenland. By this means the temperature of the ice in its different strata will be investigated. The expedition will be provided with all modern appliances, including, in addition to dog sledges, motor sledges with air propellers, and Icelandic ponies will be used for forming the depots on the ice. Radio and weather-forecasting stations will be established at the various stations.

WE learn from *The Experiment Station Record* that the Agricultural and Veterinary College of Minas Geraes, Brazil, held its first commencement on December 15, 1928, granting certificates to two students from the one-year course. The total enrolment of the college in all courses is seventy. At the close of the year the State of Minas Geraes established a new position of technical adviser in agriculture, to which Dr. P. H. Rolfs, head of the college for the past eight years, has been appointed. Dr. Rolfs is to continue his residence at the college, but will have general supervision of all agricultural activities of the state government. Dr. Bello Lisboa, chief engineer for six years in charge of the construction work of the college and for two years vice-director, has succeeded Dr. Rolfs as director. The State of Minas Geraes is greatly enlarging its agricultural activities in other

directions. A bureau, principally for the protection of livestock against diseases, has been established at Bello Horizonte with Dr. Hermann Rehaag as chief, and the state is preparing to organize a citrus station of 40,000 trees and conduct a modern exporting plant for citrus fruit. A biological institute corresponding to an experiment station is also to be established at the college with the principal members of the staff recruited from abroad.

It is reported in *Nature* that the John Melrose Laboratory of the Waite Institute for Agricultural Research in South Australia was officially opened in April. The laboratory has been built with the aid of a gift of \$50,000 from Sir John Melrose. The institute was established some years ago as the result of a gift by the late Mr. Peter Waite to the University of Adelaide for the purpose of furthering education and research in agriculture and allied subjects. The endowment comprises the Urrbrae, Claremont and Netherby estates lying on the scarp of the Adelaide foothills within four miles of the city and consisting of nearly 300 acres. In addition there is a trust fund of £58,450. Of recent years considerable assistance has been forthcoming from the state government, the Empire Marketing Board, the Council for Scientific and Industrial Research, the Imperial Chemical Industries, Ltd., and the Commonwealth Bank of Australia. It is understood that the Council for Scientific and Industrial Research and the University of Adelaide are discussing a project for establishing jointly at the institute a division of soils research.

The Christian Science Monitor reports that the College of Engineering, Copenhagen, which is at present engaged in constructing extensions almost tripling its actual capacity, is to celebrate its centenary at the end of August by holding a congress of Scandinavian engineers. About 1,000 visitors are expected to attend and the congress consists of eighty honorary presidents, all distinguished engineers, with a special board, comprising a leading engineer from each of the Scandinavian countries—Denmark, Sweden, Norway, Finland and Iceland—assisted by an organizing committee of rather more than a score of engineers. The opening takes place on August 28, in the large hall of the Industrial Society, the first address being given by Professor P. O. Pedersen, the director of the Copenhagen College of Engineering, on "Development of the Electrical Technique of Communication and Denmark's Contributions in This Field." The actual centenary jubilee will be solemnized on August 30, commencing with an impressive function in the Forum. A special "Cantata" has been written by the poet, L. C. Nielsen, for which Carl Nielsen has composed the music. The King of Denmark will be present. On the last day of the congress the members

will be taken to Elsinore by the East Asiatic Company's motor vessel *Fiona* where the congress will be formally brought to its conclusion in the Knight's Hall of the ancient Kronberg Castle.

THE first step in giving effect to the recommendations of the Indian Royal Commission on Agriculture, according to *The Christian Science Monitor*, has been taken by the government of India, which will shortly set up an Imperial Council of Agricultural Research. The commission recommended that the council should be an independent body to promote, guide and co-ordinate agricultural and veterinary research throughout India. The government, however, modified this proposal considerably, the alterations tending to bring the council more under governmental control. It is not desirable that the Legislative Assembly should be deprived of its normal constitutional control over an activity which affects the staple industry of the country. The central organization is to have an executive body and an advisory board. The member of the viceroy's executive council in charge of agriculture will be chairman of the board, which will include the principal administrative officer of the council and representatives of the Central Legislature, the Provincial Governments and other bodies. The chief administrative officer will serve also as chairman of the advisory board, which will consist largely of experts and its duties will be to examine all proposals in connection with the scientific objects of the council.

At the meeting of the Highway Research Board of the National Research Council in Washington, on December 13, R. W. Crum, director, announced that arrangements had been made for conducting an investigation of methods of curing concrete pavement slabs. The work will consist first in making a correlation survey of all available existing data. These data will be analyzed and submitted to a special committee appointed by the board. The further program of the project will depend upon the findings of this committee.

A NATIONAL experimental station, under the auspices of the University of Washington, is planned, designed to aid the Northwest in such problems as reclamation, flood control, hydro-electric development and industrial expansion. The rivers and harbors bill to be enacted by the national congress at its next ses-

sion authorizes the secretary of war and chief of engineers to establish several such laboratories for determination of fundamental data useful in hydraulic engineering. According to Professor Charles Harris, in charge of the university laboratory, among the problems waiting solution include river and harbor improvement, water measuring devices in connection with seepage problems, methods of bank and pier protection and the study of dams and spillways by means of models. The board of trustees of the Seattle Chamber of Commerce have passed a resolution stating the mutual advantage to the state of Washington, the University of Washington and the federal government to have one of the national hydraulic laboratories established on the Seattle campus, and have directed their Washington, D. C., bureau to assist in obtaining the laboratory.

A FOREST PROTECTION BOARD has been inaugurated by the U. S. Department of Agriculture in order further to aid in the development of general policies for the protection of the forests of the United States and in the preparation of coordinated plans therefor, the informal committee set up by the chief coordinator under date of May 28, 1928, is hereby established as a coordinating agency to be known as the forest protection board. The board will be constituted as follows: The chief of the Forest Service, Department of Agriculture, chairman *ex officio*; the chief of the Weather Bureau, Department of Agriculture; the director of the National Park Service, Department of the Interior; the commissioner of Indian Affairs, Department of the Interior; the commissioner of the General Land Office, Department of the Interior; the chief of the Bureau of Biological Survey, Department of Agriculture; the principal entomologist in charge of forest-insect investigations, Bureau of Entomology, Department of Agriculture, and the principal pathologist in charge of the office of forest pathology, Bureau of Plant Industry, Department of Agriculture. The forest protection board shall, subject to the approval of the chief coordinator and within the limitations of existing law, coordinate the policies and plans for the prevention and suppression of forest fires and for general forest protection formulated by the several federal bureaus and agencies charged with the protection of the forests of the country.

UNIVERSITY AND EDUCATIONAL NOTES

SPACE for the division of plant nutrition is being provided at the University of California in the new life science building now under construction at a cost of approximately \$1,750,000. An extensive poultry plant has recently been built and equipped at a cost of \$80,000.

SIX new buildings, approximating a total expenditure of two and a half million dollars, will be constructed on the campus of the Pennsylvania State College within the next two years, according to plans approved by the board of trustees of the college. Funds for the program come from the \$2,250,000