

Physiological Psychology: Calvin P. Stone, Stanford University; Edward A. Bott, University of Toronto.

Abnormal Psychology: Joseph Jastrow, New York.

Instructional Films: Walter R. Miles, Yale University.

Research Films: Joseph Peterson, George Peabody College for Teachers.

Memory and Learning: A. T. Poffenberger, Columbia University.

Personality and Character: Lewis M. Terman, Stanford University.

Student Personnel: Harold E. Burt, The Ohio State University.

Sensation and Perception: Edward S. Robinson, Yale University.

Child Psychology: Florence L. Goodenough, University of Minnesota.

Three round tables were arranged for September 7 as follows:

Problems in Clinical Psychology: Edgar A. Doll, *chairman*.

Instructional Films: Walter R. Miles, *chairman*.

Use of Electric Shock in Psychological Experimentation: G. R. Wendt, *chairman*.

SCIENTIFIC NOTES AND NEWS

DR. ARTHUR H. COMPTON, professor of physics at the University of Chicago, is this year George Eastman visiting professor at the University of Oxford, where he will spend six months. He sailed for Europe on August 3. Prior to his visit to Oxford Dr. Compton planned to attend the first International Congress of Electro-Radio-Biology, held in Venice from September 10 to 15, and the Congress of the International Union of Pure and Applied Physics in London from October 1 to 6.

At the conclusion of the address of Dr. Charles L. Reese, president of the American Chemical Society, to be given at Cleveland on September 10, the society's award in pure chemistry will be presented to Dr. C. Frederick Koelsch, of the University of Minnesota, who will make an address before the division of organic chemistry on "A Cyclic α -Diketone." The award, founded by A. C. Langmuir, is a prize of a thousand dollars given to an American chemist under thirty years of age.

PAUL F. NICHOLS, associate in fruit products at the College of Agriculture of the University of California, has been made Chevalier du Mérite Agricole by the French Government in recognition of his services to the fruit and vegetable drying, processing and manufacturing industries.

DR. WILDER PENFIELD, clinical professor of neurological surgery, McGill University Faculty of Medicine, received a ceremonial chalice at the twenty-first reunion of the class of 1913 of Princeton University. The chalice has been dedicated by the class to commemorate outstanding accomplishments of its members and will be retained by Dr. Penfield until another award is made.

THE University of Sheffield recently conferred the honorary degree of doctor of science on Professor Emeritus William Palmer Wynne, of the department of chemistry, and on Professor Emeritus Edward Mellanby, of the department of pharmacology.

THE "Adlerschild" of the German Empire has been awarded to Dr. Adolf Schmidt, of Gotha, formerly director of the Meteorological Magnetic Observatory at Potsdam.

Nature reports that Dr. Minoru Mashino, a research chemist in the Tokyo Imperial Industrial Research Laboratory, has been awarded the medal for "special merit in research" of the Society of Chemical Industry, Japan, for his work on the proteins of the soya bean.

DR. CARL R. MOORE, professor of zoology at the University of Chicago, has been made chairman of the department of zoology, succeeding Dr. C. M. Child, who will become professor emeritus on October 1.

DR. GUY-HAROLD SMITH will assume the chairmanship of the department of geography at the Ohio State University on October 1. He will succeed Professor C. C. Huntington, who has retired on the occasion of completing twenty-five years service to the university. He has been chairman of the department since it was organized in 1922 and will continue as professor of geography.

PROFESSOR JAMES E. RICE, head of the poultry department of the New York State College of Agriculture at Cornell University since its establishment in 1905, has retired from active service.

PROMOTIONS at the University of California School of Medicine include Dr. Edward L. Munson, to a professorship of preventive medicine, and Dr. Keene O. Haldeman, to an assistant clinical professorship of orthopedic surgery.

PROFESSOR GEORGE LYNN CROSS, of the University of South Dakota, has accepted an appointment to the staff of the department of botany at the University of Oklahoma. In addition to other work he will have charge of courses in plant anatomy and morphology, heretofore taught by Dr. A. S. Foster, who has joined the staff of the University of California.

DR. PAUL R. BURKHOLDER, formerly of the Buffalo Museum of Natural History and this past year a National Research Fellow at Columbia University, has been appointed a member of the staff of the department of botany at Connecticut College, New London. Dr. Harriet Creighton, instructor in cytology at Cornell University, has been appointed to an instructorship.

AT the Massachusetts State College, Ronald L. Mighell, assistant research professor of farm management, has been made acting head of the department of farm management. Dr. Nathan Rakieten, of New Haven, last year Porter fellow in physiology of the American Physiological Society, has been appointed instructor in physiology.

DR. WALTER M. FUCHS, formerly professor at the Technische Hochschule, Aachen, Germany, was recently appointed research professor at Rutgers University.

DR. PAUL HARTECK, of the University of Berlin, has been appointed professor of physical chemistry at the University of Hamburg.

PROFESSOR F. N. MOWDAWALLA, who recently resigned his appointment as professor of electrical technology in the Indian Institute of Science, Bangalore, has been appointed principal and professor of electrical engineering of the University College of Engineering, Bangalore.

HARRY ALFRED NOYES, research chemist and food technologist of the New Rochelle, N. Y., Research Laboratory, has been appointed managing director of the Applied Sugar Laboratories.

ACCORDING to *Industrial and Engineering Chemistry*, A. H. Maude has resigned his position as chemical engineer with the Atmospheric Nitrogen Corporation and has accepted a similar post with the National Aniline and Chemical Company at Buffalo, N. Y. Mr. Maude was formerly chemical engineer with the Rubber Service Laboratories Company, Nitro, W. Va.

DR. ROBERT A. H. MACKEEN, assistant professor of pathology and bacteriology on the Dalhousie University Faculty of Medicine, Halifax, Nova Scotia, and assistant pathologist for the province, has been appointed director of the Bureau of Laboratories of the Province of New Brunswick.

DR. ENRIQUE BELTRAN, professor of zoology at the University of Mexico, was appointed to the directorship of the newly created Instituto Biotecnico which is devoted to routine and research work in the field of agriculture, forestry, animal husbandry and fisheries.

PROFESSOR BERNHARD ZONDEK, formerly head of the department of gynecology of the Charity Hospital

in Berlin, has been appointed to direct the departments of obstetrics and gynecology of the Hadassah-Rothschild Hospital at Jerusalem.

IN the reorganization of the Southern Forest Experiment Station, V. L. Harper has been placed in charge of silvicultural research in the naval stores region of the southeast, and H. G. Meginnis in charge of erosion-streamflow investigations now largely concentrated in the Mississippi bluffslands. W. G. Wahlberg has been transferred from forest management investigations to forest economics in place of A. E. Wackerman, recently resigned, and his place has been taken by E. W. Gemmer. Roy A. Chapman, who has been on special assignments, has been given charge of work in forest measurements.

The Experiment Station Record states that at the Washington College and Experiment Station, Rex E. Willard, head of the department of farm management and agricultural economics, has leave of absence for one year to become regional director of the Pacific Northwest Planning Division of the Agricultural Adjustment Administration. His territory will include Washington, Oregon and Idaho, with headquarters at Washington College.

ELDON B. ENGLE, assistant professor of soils at the University of Nebraska, has been given a year's leave of absence to accept a position with the Soil Erosion Service, U. S. Department of the Interior. Harold Hedges, research associate in rural economics, has also been granted a year's leave of absence, beginning on July 1, for the purpose of acting as secretary of the Bank for Cooperatives at Omaha.

F. R. WILCOX, extension specialist in marketing for the College of Agriculture, University of California, has been elected permanent chairman of the California Prune Control Board. The board administers the marketing agreement and license covering all handlers of California prunes.

DR. OLIN WEST, Chicago, secretary of the American Medical Association, addressed a scientific session of the Idaho State Medical Association, meeting at Lewiston on September 7. He also spoke at the annual banquet in the evening.

DR. JAMES BRYANT CONANT, president of Harvard University, has returned after spending two months in Europe.

THE leave of absence of L. E. Call, dean of the division of agriculture and director of the Kansas State College and Experiment Station, has been extended to December, in order that he may continue to serve as president of the Federal Land Bank at Wichita.

PROFESSOR WILLIAM H. STEVENSON, vice-director of the Agricultural Experiment Station at the Iowa

State College, has been appointed delegate of the United States at the autumn meeting of the International Institute of Agriculture in Rome. Dr. Rexford G. Tugwell, Assistant Secretary of Agriculture, has been designated as alternate delegate.

CURATOR FRANK E. LUTZ and E. L. Bell, of the American Museum of Natural History, and two volunteer assistants spent the summer in southwestern Colorado and northern Arizona for the purpose of collecting and making observations upon the insects of the region. Their work took them to the bottom of the Grand Canyon and to the tree-line near the tops of near-by mountains.

TEMPLETON CROCKER is leaving San Francisco on September 15 on the *Zaca* for a scientific expedition to southeastern Polynesia, accompanied by Dr. H. L. Shapiro, Dr. James P. Chapin and Francis L. Jaques, all from the American Museum of Natural History. The itinerary is expected to include the Marquesas, Tuamotus, Tahiti, Rapa, Mangareva, Pitcairn Island, Easter Island and several islands off the coast of South America, as well as the Galapagos Islands. Dr. Chapin and Mr. Jaques will collect material for habitat groups of oceanic birds, while Dr. Shapiro will continue his studies of Polynesian peoples. The Pitcairn Islanders will be a particular object for his genetic researches on the descendants of the mutineers of the *Bounty*.

THE nineteenth annual meeting of the Optical Society of America will be held from October 18 to 20 at the National Bureau of Standards, Washington, D. C. In addition to the usual program of papers contributed by members on their own initiative, the meeting will include the following special features: (1) An exhibition of instruments and products in which the application of optical principles plays an important part in their design, construction or use. The exhibit will be in the same building in which the meetings are held and will be open one evening as well as during the day; (2) an evening visit to the Naval Observatory with an opportunity to inspect its equipment and in particular the new Ritchey-Chrétien 40-inch photographic reflector; (3) a session devoted to "Optics of Astronomical Instruments."

THE Genetics Society of America held a meeting at the Marine Biological Laboratory, Woods Hole, on August 22 and 23. In the absence of the presiding officers, Professor John H. Gerould acted as chairman for the morning sessions at which sixteen papers were read. There was an attendance of about seventy-five, of whom forty-one were members of the society. Wednesday afternoon was devoted to informal discussion with twelve demonstrations of genetic and cytological material. Much interest centered about conditions in the egg bearing on genetic problems. About seventy attended the shore dinner and beach party at Sippiwisset. The symposium on Thursday afternoon on "Genetics and Development," with Professor E. G. Conklin presiding, consisted of papers by Drs. Emil Witschi, B. H. Willier, J. L. Cartledge and P. W. Whiting. The Marine Biological Laboratory arranged programs of interest to geneticists on evenings preceding and following the meetings of the society.

THE eighth Congress of the French Societies of Oto-Neuro-ophthalmology, which was to have been held at Barcelona this year, has been postponed to next Easter, when it will probably be held at Nice.

WEEKLY lectures in the sciences underlying the practise of horticulture will be resumed on October 1 in the course for professional gardeners given by the New York Botanical Garden. Advance registrations will be received by Dr. Forman T. McLean, director of the course, at the New York Botanical Garden. The original aim of this course was to give proper training to the younger gardeners at the institution. Its scope was later extended. Enrolment is restricted, however, to those who have had several years of continuous and successful experience with plants. A knowledge of the common garden and greenhouse subjects is assumed for each student. Most of the lectures are given by the staff of the New York Botanical Garden, all of whom volunteer their services. First-year men study the structure, relationships, habits, functions and classification of plants. Laboratory work is included in the second half year. The subjects of the advanced courses include soils and fertilizers, entomology, plant pathology and the breeding of plants for new varieties.

DISCUSSION

ORIGIN OF ASPHALTS, OIL, NATURAL GAS AND BITUMINOUS COAL

CELLULOSE and other carbohydrates, together with sufficient alkaline materials such as limestone, magnesite, dolomite, zeolite, etc., yield at higher tempera-

ture (230° C. and more) in the presence of water a plastic material—"proto product"—containing aliphatic, naphthenic and aromatic substances. Nitrogen and sulfur can be introduced easily into the proto product. This proto product gives on incomplete