

a set of steel acoustic cylinders to be used in determining the nature of sensory response under conditions of normal psychometric situation.

#### ANTHROPOLOGY

Two hundred dollars to Professor A. L. Kroeber, of the University of California, for bibliographical and clerical assistance in connection with an ethnological investigation to determine the culture areas of aboriginal South America.

One hundred and fifty dollars to Miss Helen H. Roberts, of the American Museum of Natural History, for a study of negro folk-music in Jamaica.

#### PHYSIOLOGY AND MEDICINE

One hundred and fifty dollars to Professor Carl J. Wiggers, Western Reserve University, in continued support of his investigation on the physiology of the circulation.

One hundred and fifty dollars to Professor Frank A. Hartman, University of Buffalo, for aid in the study of suprarenal insufficiency, including circulatory, respiratory, temperature, and fatigue changes, as well as possible histological alterations in the ductless glands.

Two hundred dollars to Professor W. E. Garrey, Tulane University, for the purchase of apparatus for hydrogen ion determination.

One hundred and fifty dollars to Professor F. P. Knowlton, Syracuse University, in support of a study of the blood flow and gaseous metabolism in the thyroid gland.

JOEL STEBBINS,

*Secretary Committee on Grants*

URBANA, ILLINOIS

#### SCIENTIFIC NOTES AND NEWS

DR. WILLIAM CROCKER, associate professor of botany in the University of Chicago, has been appointed director of the newly founded Thompson Institute for Plant Research at Yonkers, New York. He will enter on his work next autumn. The board of trustees of the new foundation will consist of three business men and three scientific men. Professor John M. Coulter, head of the department of botany at the University of Chicago, and Raymond F. Bacon, of the Mellon Institute of Pittsburgh, will be two of the scientific men, and these two will select the third.

THE nomination made by ex-President Wilson, not confirmed by the Senate before

adjournment, of Rear-Admiral E. R. Stitt to the position of Surgeon-General of the Navy, succeeding Rear-Admiral Braisted, retired, has been sent again to the Senate by President Harding.

HONORARY membership in the Chemists' Club of New York City was conferred upon four American and four foreign chemists at the dinner commemorating the tenth anniversary of the opening of its present home at 52 East Forty-first Street. The foreign chemists were Dr. Giacomo Giamician, professor of general chemistry at the University of Bologna, Italy; Dr. Henri Louis Le Chatelier, professor at the Collège de France and at L'Ecole des Mines; Dr. Ernest Solvay, of Brussels, Belgium, founder of the ammonia-soda process, and Sir Edward Thorpe, professor of chemistry emeritus of the Imperial College of Science and Technology, South Kensington, England. The Americans were Dr. John Uri Lloyd, of Cincinnati, former president of the American Pharmaceutical Association; Dr. William Henry Nichols, of New York, former president of the American Chemical Society, the Society of Chemical Industry and the Eighth International Congress of Applied Chemistry; Dr. Edgar Fahs Smith, of Philadelphia, President of the American Chemical Society and until recently provost of the University of Pennsylvania, and Dr. Edward Weston of Newark, N. J.

DR. FRANK WIGGLESWORTH CLARK and Dr. H. S. Washington have been elected foreign members of the Geological Society of London.

THE following fifteen candidates have been selected by the council of the Royal Society to be recommended for election into the society: Dr. W. E. Agar, Dr. F. W. Aston, Professor W. L. Bragg, Dr. W. T. Calman, Dr. A. Church, Professor G. Dreyer, Professor W. H. Eccles, Dr. J. C. G. Ledingham, Mr. C. S. Middlemiss, Professor K. J. P. Orton, Dr. J. H. Parsons, Professor J. C. Philip, Dr. A. A. Robb, Sir E. Tennyson D' Eyncourt, and Mr. G. Udny Yule.

THE council of the Chemical Society has awarded the Longstaff medal to Professor J. F.

Thorpe. The presentation was made at the annual general meeting on March 17.

LIEUTENANT EUGENE F. DU BOIS has been given the Navy cross "for distinguished service in the line of his profession while attached to the *U. S. Submarine N-5* upon the occasion of a collision between that vessel and the *Charles Whittemore*.

PROFESSOR A. A. MICHELSON, head of the department of physics at the University of Chicago, has been appointed exchange professor at the University of Paris. His course of lectures will be on the general subject of "Physics" and will be given in the French language. The sixth Guthrie lecture in connection with the Physical Society of London, was delivered on March 11 by Professor Michelson, whose subject was "Some recent applications of interference methods."

THE Rumford Committee of the American Academy of Arts and Sciences has recently made the following appropriations: To Professor P. W. Bridgman, of Harvard University, \$400 in aid of his research on the thermal and optical properties of bodies under high pressure; to Professor Paul F. Gaeher, of Wells College, \$250 in aid of his research on the specific heat of tungsten.

THE Carnegie Institution of Washington has appropriated \$750 for the support of the work of Dr. S. J. Holmes, professor of zoology in the University of California, on the factors of evolution in man.

MR. EDWIN KIRK, who resigned from the U. S. Geological Survey in April, 1920, to do private work in South America, has been reinstated as geologist with the Survey.

PROFESSOR EDWARD KREMERS has returned to active service in the University of Wisconsin, after a semester's leave of absence spent largely on historical studies.

PROFESSOR E. W. D. HOLWAY, of the University of Minnesota, and Mrs. Holway, have returned from a year's exploration of the western slopes of the Andes in search of plant rusts. They went southward about as far as the island of Chiloé and northward to Quito,

a range of forty degrees of latitude. Over a thousand numbers were secured, in most part supplemented by phanerogamic specimens of the hosts. The collection is notable for its large proportion of grass rusts.

DR. F. GOWLAND HOPKINS, professor of biochemistry at the University of Cambridge, will deliver the ninth Harvey Society lecture at the New York Academy of Medicine on Saturday evening, April 2. His subject will be "The chemical dynamics of muscle." Sir Walter Fletcher, secretary of the Medical Research Committee of Great Britain, will deliver a Harvey lecture on April 16.

THE following Mayo Foundation lectures have recently been delivered: President Ray Lyman Wilbur, of Leland Stanford University, "Botulism"; Dr. J. Whitridge Williams, professor of obstetrics in and dean of Johns Hopkins Medical School, "A critical review of twenty-one years' experience with Cesarean section"; Dr. G. Carl Huber, professor of anatomy, University of Michigan, "Experimental observations on bridging nerve defects."

DR. EDWARD C. FRANKLIN, professor of organic chemistry at Stanford University, will give a series of three lectures on the "Ammonia system of acid bases and salts," at the University of Wisconsin, on May 2 and 3.

A COURSE of twelve lectures on petroleum geology and the engineering phases of petroleum development was delivered during March at Harvard University by Frederick G. Clapp. Mr. Clapp also lectured before the Geological Conference in Cambridge, on "A geologist's trip through China."

DR. CHARLES A. SHULL, head of the department of botany of the University of Kentucky, has received an invitation from Dr. E. J. Russell, director of the Rothamsted Experimental Station at Harpenden, England, to present a paper on "Osmotic Phenomena" as related to soil moisture, before the Faraday Society at its next annual meeting at London in May. The meeting of the Faraday Society will be devoted this year to a symposium and general discussion on "Physico-chemical Problems relating to the Soil." The subject

will be presented in four sections, Soil Moisture, Organic Matter, Adsorption and Colloidal Phenomena; the general discussion being opened by Dr. Russell.

DR. FRANK W. GUNSAULUS, since 1892 president of the Armour Institute of Technology, died in Chicago on March 17, aged sixty-five years.

THE death is announced of Louis Compton Miall, F.R.S., till 1907 professor of biology at the University of Leeds, at the age of seventy-nine years.

EMILE BOURQUELOT, professor of pharmacy in the University of Paris, has died at the age of sixty-eight years.

THE fourteenth annual meeting of the Illinois State Academy of Science will be held at the Southern Illinois State Normal University, Carbondale, on April 29 and 30. Papers will be presented in the following subjects: (1) Biology and Agriculture; (2) Chemistry and Physics; (3) Geology and Geography; (4) Mathematics and Astronomy; (5) Medicine and Public Health; (6) Psychology and Education. The address of the retiring president will be "The Illinois Ozarks," and invitation addresses will be given on subjects concerned with southern Illinois. The afternoon and evening programs will be of a popular character and complimentary to the citizens of Carbondale.

THE American Association of Pathologists and Bacteriologists, the American Society for Cancer Research, the American Society of Immunologists and the International Association of Medical Museums (American and Canadian Sections) will meet in Cleveland from March 24 to 26.

THE American Engineering Council has joined with the National Association of Manufacturers, the American Patent Law Association, the American Chemical Society and the National Research Council in a movement to bring about reforms in the United States Patent Office. Conditions in the office, according to a statement issued by the council, are such as to menace seriously American industry and invention. A committee on patents has been

appointed by the executive board of the council to prosecute a nation-wide campaign for the betterment of the patent office situation. This committee, as announced by President Hoover, is headed by Edwin J. Prindle, of New York, who represents the American Society of Mechanical Engineers on the council. The other members of the committee are J. Parke Channing, of New York, secretary, representing the American Institute of Mining and Metallurgical Engineers; Charles A. Terry, of New York, vice-president of the Westinghouse Electric and Manufacturing Company, representing the American Institute of Electrical Engineers; C. A. P. Turner, Minneapolis, American Society of Civil Engineers; Corydon T. Purdy, New York engineer, and Horace V. Winchell, mining geologist of Minneapolis, American Institute of Mining and Metallurgical Engineers; Dr. D. S. Jacobus, vice-president of Willcox & Babcock Company, American Society of Mechanical Engineers, and Frank H. Waterman, electrical expert of New York City, American Institute of Electrical Engineers.

THE Lord President of the Council of Great Britain has appointed an Interdepartmental Committee on Patents to consider the methods of dealing with inventions made by workers aided or maintained from public funds, whether such workers be engaged as research workers or in some other technical capacity. The committee is to outline a scheme to give a fair reward to the inventor, and thus encourage further effort while protecting the national interest. Among the members of the committee are Dr. H. H. Dale, F.R.S., head of the department of biochemistry and pharmacology of the Medical Research Council.

At the Springfield meeting of the Association of Land-grant Colleges officers were elected as follows: *President*, H. L. Russell, of Wisconsin; *Vice-president*, Howard Edwards, of Rhode Island; *Secretary-treasurer*, J. L. Hills, of Vermont; and members of the executive committee, R. A. Pearson, of Iowa, chairman; W. M. Riggs, of South Carolina, W. E. Stone, of Indiana, A. R. Mann, of New

York, and F. B. Mumford, of Missouri. For the various sections the officers are as follows: Agriculture, Dean Mumford, chairman; W. F. Handschin, of Illinois, vice chairman, and W. H. Chandler, of New York, secretary; engineering, C. R. Richards, of Illinois, chairman, and R. L. Sackett, of Pennsylvania, secretary; and home economics, Edna L. Skinner, of Massachusetts, chairman, and Mildred Wiegley of Minnesota, secretary. For the three subsections of the section of agriculture, R. L. Watts, of Pennsylvania and C. D. Jarvis, of the U. S. Bureau of Education were chosen chairman and secretary, respectively, in resident teaching; F. S. Harris, of Utah and T. P. Cooper, of Kentucky, chairman and secretary in experiment station work; and H. J. Baker, of Connecticut and J. A. Wilson, of Oklahoma in extension work.

UNDER the auspices of the American Ophthalmological Society, the Ophthalmic Section of the American Medical Association, and the Academy of Ophthalmology and Oto-Laryngology, an International Congress of Ophthalmology will be held in Washington, D. C., April 18-22, 1922. The officers of the temporary organization are as follows: *President*, Dr. George E. de Schweinitz, Philadelphia; *Vice-president*, Dr. Edward Jackson, Denver; *Secretary* and *Treasurer*, Dr. Luther C. Peter, Philadelphia; *Chairman of Committee on Organization*, Dr. Edward C. Ellett, Memphis, Tenn.; *on Scientific Progress*, Dr. Edward Jackson, Denver; *on Finances*, Dr. Lee M. Francis, Buffalo; *on Arrangements*, Dr. William H. Wilmer, Washington, D. C., and *on Membership and Credentials*, Dr. Walter R. Parker, Detroit.

THE *Experiment Station Record* reports that plans are under way for a laboratory building for chemical, bacteriological and other research work of the Netherlands Institute of Animal Nutrition, and it is hoped to complete the structure in about two years. An annex to the laboratory is being built for immediate occupancy. This is a one-story structure about 117 by 62 ft., with basement and attic, and will be known as the vitamin laboratory. The main floor contains several offices and

laboratories, but consists largely of quarters for mice, rats, monkeys, rabbits, fowls and guinea pigs. Special facilities are to be provided for keeping many of the animals in open warrens during the day, for disinfecting cages, and otherwise maintaining the best of hygienic conditions. The library is on the attic floor where considerable storage space is also available.

THE Association of British Chemical Manufacturers, as reported in the *British Medical Journal*, is circulating a memorandum on the present position of the fine chemical industry. The facts and arguments are on similar lines to those in the pamphlet issued from the Society of Chemical Industry. It is stated that British chemists, as a result of the stimulus imparted by the war, have brought the manufacture of the chemicals used in research and in photography, and of certain synthetic perfumes and essences, to the verge of commercial success, while the manufacture of drugs has made immense strides, and would have made greater had not the Order in Council prohibiting the importation of drugs been set aside by the Sankey judgment. The hope is expressed that the Key Industries Bill, which has been promised as a government measure of the new session, may do for fine chemicals what has already been done for dyestuffs by the act recently passed; that is to say, that some protection may be granted to the manufacturers of fine chemicals until they have consolidated a position which has been hardly won and which is still precarious. The insecurity arises from the fact that there are circumstances, including the great priority of organization, and also the present state of the exchanges, which favor the German laboratories. The national importance of this industry in peace and war is pointed out, and it is also stated that, excluding coal-mining, the fine chemical industry yields the highest net value of output per person employed.

As a result of the recommendations of the Wisconsin Chapter of the American Engineering Society, a bill has been introduced in the Legislature of Wisconsin providing for the registration of engineers, chemists, metallur-

gists and land surveyors. The proposed act calls for the registration of all members of these professions who practise their profession in the state of Wisconsin. It is understood, however, that only those persons whose practise of their profession involves the public health and safety will be affected by this law. In order to receive a certificate of registration an engineer or chemist must present evidence that he is fully qualified to practise his profession, and that he is of good character and repute, that he is at least twenty-five years of age and that he is a citizen of either the United States or Canada. The following—under the provisions of the proposed act—will be considered as evidence of the professional qualifications: 1. Ten or more years of active engagement in the profession. 2. Graduation, after a course of not less than four years, in chemistry, from a reputable college, and an additional four years of active engagement in the profession. The act provides for a board to apply the provisions of the act, for penalties in case of presentation of fraudulent evidence to obtain a certificate, and for penalties for those who practise fraud or deception in the practise of their profession.

#### UNIVERSITY AND EDUCATIONAL NEWS

By the will of Daniel Baugh a legacy of \$150,000 has been left to the Jefferson Medical College of Philadelphia, to be used for the salary of the professor of anatomy and director of the Daniel Baugh Institute of Anatomy and Biology. J. Parsons Schaeffer, M.D., Ph.D., is the present occupant of these positions. Mr. Baugh was a trustee of the Jefferson Medical College and made generous gifts to it, including an institute of anatomy.

The graduate school of Yale University has been authorized to confer the degree of doctor of philosophy for work in clinical medicine, and in pharmacology and toxicology.

The University of Alabama, cooperating with the U. S. Interdepartmental Social Hygiene Board, has established a department of hygiene, with Dr. Hiram Byrd as director.

DR. ELIOT BLACKWELDER, of Denver, Colo., formerly associate professor of geology in the University of Wisconsin, has been appointed lecturer on geology at Harvard University.

DR. E. W. SCRIPTURE, formerly of Yale University and the medical school of Columbia University, has been appointed to the faculty of the University of Hamburg for the summer semester, where he will lecture on English philology and experimental phonetics.

#### DISCUSSION AND CORRESPONDENCE THE PREGLACIAL OUTLET OF LAKE ERIE

Two or three months ago an item went the rounds of the newspapers to the effect that in digging for the locks on the new Welland Canal, at Thorold, ten or twelve miles west of Niagara Falls, the workmen had uncovered evidence of the existence there of the long-looked-for preglacial outlet from Lake Erie into Lake Ontario. Partly for the sake of verifying this, I chose to spend my vacation at St. Catharines, two or three miles north of Thorold. Thorold is on the brink of the escarpment of Niagara limestone overlooking the Ontario basin and 330 feet above the surface of the lake. St. Catharines is at the base of the escarpment, nearly down to the level of the lake. At Thorold, as well as at various other places along the escarpment, there is a slight incision made by a small stream which poured over the escarpment in preglacial times. But it does not extend far. What was shown in the excavation for the Welland Canal was simply the edge of the escarpment where it had been rounded off by glacial action without lowering it to any extent. It is interesting and important to note that the movement of ice was here from north to south, almost at right angles to the escarpment. The workmen reported that at a low level just north of the escarpment a great quantity of bowlders was found, which would seem to be something of the nature of a moraine. As the ice met and overcame the edge of the escarpment it was occasionally deflected into a minor incision, but after it mounted the escarpment a long level sur-