

ever, delay in joining until such an invitation is received. They should become members at once by getting in touch with the treasurer.

European members will be entertained in New York during the few days between the date of landing and the opening of the congress at Ithaca. Columbia University has generously agreed to cooperate in this matter.

For any particulars concerning the congress communications should be addressed to C. C. Little, Jackson Memorial Laboratory, Bar Harbor, Maine.

THE NATIONAL ACADEMY OF SCIENCES

At the annual meeting of the National Academy of Sciences, which met in Washington on April 27, 28 and 29, the following officers were elected:

President—Dr. William Wallace Campbell, director emeritus of Lick Observatory.

Vice-president—Dr. David White, U. S. Geological Survey.

Home Secretary—Dr. Fred E. Wright, Geophysical Laboratory of the Carnegie Institution of Washington.

Members of the Council—Dr. W. B. Cannon, George Higginson professor of physiology, Harvard Medical School, and Dr. Roger Adams, professor and head of the department of organic chemistry, University of Illinois.

Professor P. Debye, director of the Institute of Physics at the University of Leipzig, was elected a foreign associate. New members were elected as follows:

Dr. Henry Bryant Bigelow, associate professor of zoology at Harvard University and curator of ocean-

ography at the Museum of Comparative Zoology, director of the Institute of Oceanography at Woods Hole.

Dr. Edwin Broun Fred, professor of bacteriology, University of Wisconsin.

Dr. Edwin Crawford Kemble, associate professor of physics, Harvard University.

Dr. Adolph Knopf, professor of geology, Yale University.

Dr. Robert Harry Lowie, professor of anthropology, University of California.

Dr. Joseph Haines Moore, astronomer, Lick Observatory, Mount Hamilton, California.

Dr. Robert Lee Moore, professor of mathematics, University of Texas.

Dr. Hermann Joseph Muller, professor of zoology, University of Texas.

Dr. George Linus Streeter, director, Department of Embryology, Carnegie Institution of Washington.

Dr. Margaret Floy Washburn, professor of psychology, Vassar College.

At the annual dinner of the academy, over which Dr. Thomas Hunt Morgan presided, the Daniel Giraud Elliot medal for the most meritorious work in zoology or paleontology published during the year was presented to Professor Henry Fairfield Osborn for his monograph on "Titanotheres of Ancient Wyoming, Dakota and Nebraska," the presentation speech being made by Dr. William B. Scott, of Princeton University. The Mary Clark Thompson medal "for the most important services to geology and paleontology" was presented to Dr. E. O. Ulrich, geologist of the U. S. Geological Survey, the presentation speech being made by Dr. Rudolf Ruedemann, state geologist of New York.

SCIENTIFIC NOTES AND NEWS

PROFESSOR HENRY FAIRFIELD OSBORN, president of the American Museum of Natural History, will retire from his office on January 1, 1933, on the completion of twenty-five years of service as president of the museum.

DR. SIMON FLEXNER, director of the Rockefeller Institute for Medical Research, has been elected a corresponding member of the French Academy of Sciences in the section of medicine and surgery. He replaces the late Charles Nicolle, director of the Pasteur Institute in Tunisia.

The doctorate of laws was conferred on May 1, by the University of Michigan, on Dr. James Rowland Angell, president of Yale University. The late James Burrill Angell, father of Dr. Angell, was president of the University of Michigan for forty years.

On the occasion of the installation of Dr. David

Robertson as president of Goucher College, on April 24, the honorary doctorate of laws was conferred on Mrs. Herbert Hoover, in recognition of her work, in collaboration with the President, in translating from the Latin Agricola's "De Re Metallica." Degrees were also conferred on Dr. Winifred Clara Cullis, Sophia Jex Blake professor of physiology in the University of London, and on Dr. Florence Rena Sabin, member of the Rockefeller Institute for Medical Research. Addresses were made by Dr. Robert A. Millikan and by Dr. Cullis.

DR. WALTER DILL SCOTT, president of Northwestern University, and Mrs. Scott, also a graduate of Northwestern University, were the guests of honor at a formal banquet at the Blackstone Hotel, Chicago, on May 1. This banquet celebrated President Scott's tenth year as chief executive of the university, and took place on his sixty-second birthday. Dr. Scott

was previously for twenty years professor of psychology at Northwestern University.

DR. SIEGMUND FREUD, professor of neurology at the University of Vienna, celebrated his seventy-fifth birthday on May 6. A dinner was given in his honor on that day at the Hotel Ritz-Carlton in New York City. Dr. Freud, however, was unable to visit the United States.

DR. CHARLES E. PELLEW, adjunct professor of chemistry at Columbia University from 1897 to 1910, has been readmitted to British citizenship and has taken his seat in the House of Lords as Viscount Exmouth.

THE Royal College of Surgeons has awarded the Jacksonian Prize for 1930 to Edgar S. J. King, of the University of Melbourne, for his essay on "The Pathology of Ovarian Cysts and its Bearing on Their Treatment." The John Hunter Medal and Triennial Prize for 1928-30 was awarded to Mr. Layton, of Guy's Hospital, for his contributions to otology and for his valuable services to the museum, particularly in connection with the Onodi Collection. The Walker Prize for work on the pathology and therapeutics of cancer for 1926-30 was awarded to Sir G. Lenthal Cheatle, and the Cartwright Prize for 1926-30 was awarded to F. W. Broderick, of Bournemouth, for his essay on "The Etiology, Pathology and Treatment of Chronic General Periodontitis."

DR. FAY-COOPER COLE, professor of anthropology at the University of Chicago, has been elected president of the Geographical Society of Chicago.

THE thirty-sixth annual meeting of the Michigan Academy of Science, Arts and Letters was held in Ann Arbor on March 19, 20 and 21. The new officers include Dr. W. B. Hinsdale, professor emeritus of medicine and custodian of Michigan archeology in the University of Michigan Museums, *President*; Professor H. T. Darlington, director of the Botanical Garden at Michigan State College, *Vice-president*. Dr. L. J. Young, associate professor of silviculture, and Dr. E. C. Prophet were reelected secretary and treasurer, respectively.

DR. FRANCIS CARTER WOOD, New York, was elected president; Dr. Edward B. Krumbhaar, Philadelphia, vice-president, and Dr. William H. Woglom, New York, was reelected secretary and treasurer, of the American Association for Cancer Research at its recent meeting in Cleveland.

DR. WALTER RICHARD MILES, professor of experimental psychology at Stanford University, has been appointed professor of psychology at Yale University, where he has been research associate during the past year. Dr. Catharine Cox Miles has been appointed clinical professor of psychology.

DR. JOHN ALBERT KEY, at present assistant professor of clinical orthopedic surgery in the Washington University School of Medicine, has been appointed professor of clinical orthopedic surgery to succeed Dr. Leroy C. Abbott as head of the division of orthopedic surgery in the Washington University School of Medicine.

DR. EDGAR ANDERSON, since 1922 geneticist at the Missouri Botanical Garden and assistant professor at Washington University, St. Louis, has been appointed arborist of the Arnold Arboretum of Harvard University.

THE REVEREND JAMES BERNARD HENRY has been appointed director of the observatory of the University of Santa Clara, California, to succeed the late Jerome Ricard.

DR. ALFRED W. FRANCIS has resigned from Arthur D. Little, Incorporated, to join the research staff of the Vacuum Oil Company in Paulsboro, New Jersey.

MR. CYRIL AINSWORTH has been appointed assistant secretary of the American Standards Association. Mr. Ainsworth, who has been in charge of the association's safety code work during the past year, succeeds Mr. F. J. Schlink, who recently resigned to give full time to the technical direction of Consumers' Research, Incorporated.

Industrial and Engineering Chemistry reports that Dr. T. E. W. Schumann, since January 1 professor of mathematical physics at West Virginia University, Morgantown, has been appointed director of the Fuel Research Board of the Union of South Africa, and will take up his work there in June. Dr. Schumann was educated at the University of Stellenbosch in South Africa and at the University of Göttingen, and subsequently studied at Yale and at Columbia.

THE Committee on Scientific Research of the American Medical Association has awarded a grant to Dr. Maurice L. Cohn, who is collaborating with Dr. H. J. Corper, director of the Research Laboratories, National Jewish Hospital at Denver, Colorado, for the purpose of studying methods of cultivating tubercle bacilli.

DR. J. G. HUTTON, associate professor of agronomy at South Dakota State College, has been appointed chairman of the committee on soil conservation of the American Soil Survey Association.

DR. SAMUEL W. STRATTON, of the Massachusetts Institute of Technology, who has been in Europe, arrived in New York on April 29.

DR. CHARLES A. SHULL, professor of plant physiology at the University of Chicago, is spending the spring quarter carrying on research and lecturing at the Oregon State Agricultural College at Corvallis.

LEAVE of absence from Harvard University for the first half of the next academic year has been granted to Dr. Roland B. Dixon, professor of anthropology and curator of ethnology, and for the second half year to Dr. Walter F. Dearborn, professor of education and director of the psycho-educational clinic.

THE Gehrman Lectures at the University of Illinois will be given on May 12, 13 and 14 by Dr. Alice Hamilton, of Harvard University, on "Recent Advances in Industrial Toxicology." Adolph Gehrman was professor of bacteriology and hygiene at the University of Illinois from 1894 to 1918 and died in 1920. The lectureship was endowed by his family and the lectures are given each year on some phase of hygiene and public health.

THE sixteenth Mellon Lecture of the Society for Biological Research, of the School of Medicine, University of Pittsburgh, was delivered on April 23 by Dr. Florence R. Sabin, member of the Rockefeller Institute for Medical Research. Her subject was "Status of the Cellular Reactions in Tuberculosis." This lecture is given each year through the generosity of Mr. R. B. Mellon, who has provided an endowment fund, enabling the society to invite some eminent investigator in the medical sciences.

DR. EDWARD STARR JUDD, of the Mayo Foundation, Rochester, Minnesota, president-elect of the American Medical Association, gave the first address of the Mayo lectureship in Surgery of Northwestern University Medical School at the Murphy Memorial on April 22, on "Fundamental Problems Associated with Disease of the Biliary Tract." This lectureship was endowed by Dr. Charles H. Mayo, Rochester, for the advancement of education and learning in surgery. Every fifth year the lecture is to be given by a foreign physician, the intervening four lectures to be given by American surgeons.

PROFESSOR K. FREUDENBERG, of the department of carbohydrate chemistry at the University of Heidelberg, delivered a series of lectures on organic chemistry at Iowa State College on April 24 and 25.

DR. GEORGE K. BURGESS, director of the Bureau of Standards, delivered on April 18 a lecture before the Royal Canadian Institute on "The Bureau of Standards."

DR. R. A. MILLIKAN, of the California Institute of Technology, was the Chapel speaker at Iowa State College on April 19 and lectured the following day on "Cosmic Rays."

THE Edgar F. Smith birthday lecture will be delivered in the Harrison Laboratory of Chemistry of the University of Pennsylvania on May 22, at 4 o'clock. The lecturer will be Professor N. V. Sidg-

wick, of Oxford University. His subject will be "Atomic Cohesion"—a consideration of the forces by which atoms are attached in molecules, and molecules to one another in crystals, under different conditions.

DR. CHARLES N. FREY, director of the Fleischmann Laboratories, New York City, recently addressed the Purdue chapter of Sigma Xi on "Vitamins, a New Industry."

THE St. Louis University Sigma Xi Club held on April 30 a symposium on "The Structure of Matter" which was taken part in by James I. Shannon, S.J., professor of physics; Leonard F. Yntema, professor of chemistry; Franklin E. Poindexter, instructor in physics; Fred W. Laird, instructor in chemistry, and James A. McWilliams, S.J., professor of cosmology.

THE one hundred and seventy-first regular meeting of the American Physical Society will be held at the California Institute of Technology, Pasadena, from June 15 to 20, in affiliation with Section B of the American Association for the Advancement of Science. The Monday, Tuesday and Thursday sessions are to be devoted to symposiums of invited papers. On Wednesday the American Physical Society is invited to attend a session of invited papers arranged by the Astronomical Society of the Pacific in affiliation with Section D of the American Association. The regular meetings of the Physical Society for the reading of submitted papers will then come on Friday and Saturday.

REPRESENTATIVE workers in mollusks at a meeting of the Academy of Natural Sciences of Philadelphia have organized the American Malacological Union for the purpose of promoting the science and furthering the interests of students and collectors. Dr. Norman W. Lermond, curator of the Maine Academy of Science, was chosen as one of two secretaries and Dr. C. W. Johnson, curator of the Boston Society of Natural History, was elected treasurer. The new organization is planned to take the place of the former American Association of Conchologists, which has been inactive for a number of years.

THE American Dairy Science Association for the first time will hold its annual meeting on the Pacific Coast. It will meet in July, with the division of dairy industry of the University of California as the host. Dr. H. B. Ellenberger, head of the department of dairy industry, University of Vermont, is president of the association, and R. R. Graves, chief of the division of breeding, feeding and management investigations, Bureau of Dairy Industry, U. S. Department of Agriculture, is secretary-treasurer. The program committee consists of Dr. C. L. Roadhouse, head of the division of

dairy industry, University of California; Professor H. P. Davis, chairman of the department of dairy husbandry, University of Nebraska, and Professor M. Mortensen, head of the department of dairy industry, Iowa State College. This year's meeting will consist both of a formal program for the presentation of papers reporting recent progress in the dairy industry, and tours in the states of California, Oregon and Washington. The meeting will open on July 7 with a preconvention tour from Los Angeles. The formal program for the presentation of papers will be at the College of Agriculture, University of California, at Davis, on July 14. From Davis the tour will be continued northward into Oregon and Washington.

THE Eighth International Congress of Photography will be held at Dresden from August 3 to 8, the last day in Berlin. It has been organized by a committee composed of members of the German Committee of the "Commission Permanente des Congrès Internationaux de Photographie," of representatives of the "Deutsche Gesellschaft für Photographische Forschung," and of the "Deutsche Kinotechnische Gesellschaft." Professor Albert Einstein has consented to be honorary chairman and will open the congress with a lecture. During the congress general lectures will be given on the progress made in various departments of photography and cinematography. There will be special papers in four sections. It is proposed that on the last day of the congress the members shall have the opportunity of attending the making of a talking film at the Ufa studios at Neubabelsberg near Potsdam.

WE learn from the *British Medical Journal* that during the International Colonial Exhibition in Paris this coming summer there will be held a Congress of Tropical Medicine and Hygiene from July 22 to 31, under the presidency of Professor Tanon, who occupies the chair of hygiene in the Paris Faculty of Medicine. The subjects to be discussed include infant and child welfare; the anopheles and stegomyia problems; questions of food, drinking water, and intestinal parasitic diseases in tropical countries; emigration and the exclusion of epidemic diseases at ports; leprosy; the campaign against syphilis, and trypanosomiasis. Two days will be devoted to aviation in its public health aspects; Dr. Charles Richet will preside over this section, and there will be a special demonstration of various kinds of equipment. Attention will also be devoted to the French colonial health resorts. There will be a large number of official receptions and excursions to places of interest.

THE Society for the Prevention of Blindness has established a quarterly journal, *The Sight-Saving Re-*

view, which will unite the scientific, educational, industrial and social forces striving to prevent blindness and conserve vision throughout the United States. The editor is Lewis H. Carris, and there is an editorial board consisting of Mary Beard, assistant director, International Health Division, Rockefeller Foundation; E. V. L. Brown, M.D., professor of ophthalmology, Rush Medical College; A. J. Chesley, M.D., Health Commissioner of the State of Minnesota; Charles L. Close, manager, Bureau of Safety, Sanitation and Welfare, the U. S. Steel Corporation; Gladys Dunlop, supervisor of braille and sight-saving classes of Detroit; Mary V. Hun, chairman, New York State Commission for the Blind; Edward Jackson, M.D., emeritus professor of ophthalmology, School of Medicine, University of Colorado; Albert B. Meredith, professor of education, New York University; A. L. Powell, manager, Eastern Office, Nela Park Engineering Department, General Electric Company; C. O. Sappington, M.D., director, Industrial Health Division, National Safety Council; William F. Snow, M.D., general director, American Social Hygiene Association; William H. Wilmer, M.D., director, Wilmer Ophthalmological Institute, Johns Hopkins University; Thomas D. Wood, M.D., professor of health education, Teachers College, Columbia University.

A PORTION of the summit of the Cascade Range and other scenic country has been added to Mount Rainier National Park. In addition to enriching the natural scenic features of the park and greatly increasing its educational features, this boundary change simplifies administration, protection and development of the park. It affords a natural boundary on the east, based on topographic conditions, and includes as the east park gateway Chinlook Pass, which affords an unusually spectacular entrance. Through it will run the new road connecting Yakima and Seattle. A factor in the addition to the park was the need for including in it the only feasible location for the new road to be built by the National Park Service to connect up with the new state highway on the east. All other possible locations were found to be excessively expensive. In all, a total of approximately 34,000 acres of land was added on the south and east boundaries.

THE new School of Public Health and Tropical Medicine at the University of Sydney has passed through its first year with considerable success according to a report in the *British Medical Journal*. The activities of the school include not only instruction and research in tropical medicine and public health, but also special education in school and building hygiene. Altogether 158 students attended during the year. Of these, 9 were medical graduates, 39 were medical undergraduates, 11 were students of

social hygiene, 9 were architectural students and 90 were graduate school teachers. Three diplomas in tropical medicine and two in public health were granted. The course in tropical medicine occupies a period of three and a half months, and corresponds closely to those of London and Liverpool. The faculty of medicine in the university has recognized the importance of the school by appointing its director, Dr. Harvey Sutton, professor of preventive medicine. This is the first chair in Australia in this branch of medicine. A hookworm and filariasis survey of Norfolk Island was undertaken during the month of January, 1931, completing the hookworm survey of the Australian Commonwealth, Papua and the Mandated Territory of New Guinea. This work, which was conducted for a period by the Rockefeller Institute in collaboration with the Commonwealth Government, has been carried on by the Commonwealth Health Department.

THE German Hygiene Museum at Dresden, which sponsored the International Hygiene Exhibition last year on the occasion of the opening of its new building, reports, according to *Museum News*, that 7,200,000 people visited the exhibition from May 15 to October 1, 1930. In view of the world-wide interest, the directors have decided to repeat the exhibition during the same period in 1931. Many of the foreign governments are enlarging their exhibits and it is said that the participation of the United States Government seems to be assured. In the museum itself the exhibits dealing with the health of the mother and child have been amplified and the exhibits on biology and comparative anatomy have been completely revised and enlarged. In anticipation of the exhibition, the museum has opened offices in several cities throughout the world. The American office is in charge of Dr. R. Woerner, at 1880 Broadway, New York City.

DISCUSSION

CRYSTALLINE PEPSIN OF NORTHROP

THE comprehensive investigation of Dr. Northrop on the crystalline pepsin prepared by him justifies the conclusion of the protein nature of this enzyme and makes probable the individuality of the crystalline substance. Its low isoelectric point stands out as the most characteristic property of the substance from the physicochemical view-point. It seemed to us of importance to detect some purely chemical characteristics of the crystalline pepsin, and with the consent of Dr. Northrop such an investigation was undertaken in this laboratory.

In course of the study of the products of hydrolysis of the crystalline pepsin which is now in progress, a peculiarity was found in the composition of this protein which differentiates it from any other protein, namely, the extremely small content of the basic components. Thus, the twice crystallized material contained only 4.65 per cent. of its total nitrogen in the form of basic substances. The significant feature, however, is that the material crystallized five times contained only 3.3 per cent. of its total nitrogen in the form of basic nitrogen.

The conclusion to be drawn, then, is that the crystalline pepsin, in the main, is an individual protein but it probably contains a small admixture of an extraneous protein. We are endeavoring to prepare the crystalline material free from the impurity.

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VITAMIN D IN WHOLE CORN

IN *SCIENCE* of January 23, 1931, Harris and Bunker¹ reported irregularity in the development of rickets in rats fed on diet No. 2,965 of Steenbock and Black.² The authors suggested that this may have been due to the presence of antirachitic factor in the corn contained in the diet.

It is true that of a group of rats fed on the same batch of diet No. 2,965 containing freshly ground whole corn, one or more animals occasionally fail to develop rickets, at least in the usual period of observation. This also holds true for diet No. 3,143 of McCollum,³ if administered in the form in which it is usually prepared. But most investigators of experimental rickets have attributed this rather unusual occurrence either to a large store of antirachitic factor in such animals or to partial or complete inanition which interferes with the development of the disease. Another possibility that must always be ruled out is the contamination of the cage by a minute amount of very potent antirachitic substance (irradiated ergosterol) that may have been used in a previous experiment. Most investigators of the subject have now had this untoward experience. I am of the opinion that a fourth very likely explanation is the settling out of the calcium carbonate of the diet so that, as consumed by the animal, it does not have the high ratio of Ca to P which is a necessary condition for the production of rickets by this diet. Even if the diet is thoroughly

¹ R. S. Harris and J. W. M. Bunker, *SCIENCE*, 73: 95, 1931.

² H. Steenbock and A. Black, *J. Biol. Chem.*, 64: 263, 1925.

³ E. V. McCollum, N. Simmonds, P. G. Shipley and E. A. Park, *Am. J. Hyg.* 1: 492, 1921.