

A NEW experimental and research station at Chesham, Herts, England, has been opened by Lord B. Edisloe, Parliamentary secretary to the Ministry of Agriculture. The new building contains an entomological laboratory and a laboratory for the treatment of plant soils. There is also a fireproof room on the roof for the storage of experimental records and a demonstration room where discoveries made at the station may be demonstrated to a large number of growers. The building has been erected at a cost of £4,800, of which £2,800 has been contributed by the ministry of agriculture. The remainder has been guaranteed by horticultural growers.

ALL branches of the German electrical industry will be represented by exhibits at the Technical Fair to be held at Leipzig, Germany, from August 30 to September 9. The German manufacturers at this time will display their latest developments in all types of equipment, including motors and generators, transformers, insulating material, electric railway equipment, measuring instruments, small farm plants and industrial machinery.

A NATIONAL exposition on health, social welfare and physical training is to take place in Dusseldorf, in 1926, under the auspices of the National Government and with the cooperation of the state governments and various private organizations. The purpose of the exposition is to point out to the German people the importance of proper care of the health, to enable them to meet their obligations in Germany and outside of it. More than 1,000 specialists in various fields are engaged in arranging for the exposition.

ACCORDING to a cable to the *New York Times*, the Oxford University Press has issued the first volume of a "World List of Scientific Periodicals." It has been found that more than 24,000 periodicals publishing results of scientific research existed in the world between 1900 and 1921. Each periodical was subjected to a severe test before including it in the list, and it was found that the entire 24,000 periodicals listed publish regularly or occasionally contributions to scientific knowledge which ought not to be overlooked. A second volume of the report soon to appear will tell at what libraries the different scientific periodicals are obtainable. The investigation was conducted by a British joint board of scientific societies, aided by a grant from the trustees of the Carnegie United Kingdom Trust.

A SURVEY of air transportation is to be undertaken jointly by the Department of Commerce and the American Engineering Council.

UNIVERSITY AND EDUCATIONAL NOTES

PLANS to erect a medical center at the University of Pittsburgh, at a cost of \$14,000,000, have been announced recently by the university's medical committee. Agreements have been perfected to include the Presbyterian, Children's, Elizabeth Steele Magee, Montefiore and the Eye and Ear Hospitals in a group to be operated in conjunction with the university's fifty-two story cathedral of learning.

THE corner-stone of the \$1,500,000 physics building of Columbia University was laid on August 7. It will be a twelve-story structure and will be ready for occupancy in September, 1926.

THE new hospital at the University of Michigan, which has been under construction for the last five years at a cost of \$3,500,000, was opened on August 10.

IN accordance with recent legislation, the University of Kansas, the Kansas State Agricultural College and the three state teachers' colleges on July 1 passed under the control of a non-salaried board of regents of nine members, appointed by the governor. The first board comprises three members for one-year terms, two for two years, two for three years and two for four years, and their successors will regularly be appointed for four-year terms.

HAROLD S. BOARDMAN, dean of the college of technology, has been made acting president of the University of Maine, to take the place of Dr. Clarence C. Little, who recently resigned to accept the presidency of the University of Michigan.

DR. CASWELL A. MAYO, formerly dean of the Queen City College of Pharmacy, Cincinnati, has been appointed dean of the New Jersey College of Pharmacy.

JOHN YOUNGER, consulting engineer, has been appointed head of the department of industrial engineering at the Ohio State University.

At the University of Colorado, Dr. Ralph Garfield Mills, of the Northwestern University Medical School, has been appointed professor of pathology and head of the department of pathology, and Dr. Ivan Hall, of the University of California, professor and head of the department of bacteriology.

At the University of Idaho, Dr. Irving H. Blake, associate professor of biology at the University of Maine, has been elected to the associate professorship of zoology, taking the place of Professor R. A. Muttkowski, who is now head of the department of biology at Detroit University. Dr. Howard B. Stough, Ph.D. (Harvard), will fill the new position of assistant professor of zoology.

DAVID B. CHISHOLM, teaching fellow in geology and mineralogy at Syracuse University for the past two years, has been appointed instructor in geology and mineralogy at Colgate University.

Dr. FLOYD DE EDS has been appointed assistant professor of pharmacology at the Stanford University Medical School.

DUGALD C. JACKSON, JR., assistant professor of electrical engineering at Duke University, has been placed in charge of the department of mechanical and electrical engineering at the new Speed Scientific School of the University of Louisiana.

PROFESSOR T. TURNER has been elected dean of the faculty of science at the University of Birmingham, in succession to Professor F. W. Burstall.

E. A. SEAGAR has been appointed to the post of lecturer in tropical sanitation and hygiene, established by the International Health Board, in the Imperial College of Tropical Agriculture, Trinidad.

DISCUSSION AND CORRESPONDENCE

THE NOMENCLATURE OF THE VITAMINES¹

THE results of modern vitamine research seem to render certain important changes in the nomenclature imperative, and in this connection the following designations are suggested.

First of all, it seems advisable at this stage to separate the active substances, known under the name of vitamins, into two groups, one group which contains nitrogen and is unstable to the action of alkalies to be designated as vitamins, with the original spelling retained, and another group, which does not contain nitrogen and is stable to the action of alkalies, to be designated as vitasterols.

These new designations would keep before our eyes the fact that these two groups have been developed by the same thought and by the same methods of investigation and at the same time state that we deal here with two entirely different chemical groups. The work of Steenbock, Sell and Buell,² Takahashi³ and Dubin and Funk⁴ on cod liver oil suggests very strongly that the active substances which interest us here are entirely free from nitrogen and belong to the group of sterols, without, however, being identical with the ordinary cholesterol. It is being agreed on now that the substance curative of xerophthalmia and that one of rickets are not identical and should be called by a different name. The facts recently brought

out by Steenbock⁵ and Hess⁶ and their collaborators that a number of oils can acquire antirachitic potency by exposing them to the ultra-violet rays, can not be construed against the existence of a specific antirachitic substance in cod liver oil, egg yolk a. s. f. The fact that even chemically pure cholesterol can be activated in the above described manner fortifies us in the assumption that these substances belong to the group of sterols. Hess, Weinstock and Helman⁷ found recently the activation of cholesterol. Cholesterol thus radiated apparently failed to show any chemical changes except a better penetration of the shorter ultra-violet rays. We have been also working on the subject, before this publication appeared, and so far were unable to detect any chemical changes produced by the rays. It is, however, likely that chemical change is being produced by these means.

The recent work on reproduction and possibly lactation by Evans and Bishop,⁸ Mattill and Carman⁹ and Sure¹⁰ suggests the existence of a new vitasterol, which we will designate with the letter F'. This substance is also being found in the lipid soluble fraction and possibly can be genetically connected with the hormone of the sexual gland, belonging, as it seems, also to the sterol group.

If we return now back to the vitamine group, we have here substances like vitamine B, vitamine D (promoting the growth of yeast), which according to the work of Funk and Dubin,¹¹ Lash Miller¹² and Eddy, Kerr and Williams¹³ are composed probably yet of complexes. The vitamine C remains in this class, and we may expect here a new representative, namely, vitamine P, the antipellagra principle. The existence of the latter is strongly suggested by the work of Goldberger and Tanner,¹⁴ in confirmation of the early hypothesis of the author regarding the cause of pellagra. Goldberger and Tanner have found this principle in yeast and have proved in the same time that the accepted thesis of the curative power of animal proteins, like casein, is due to an impurity, as was already suggested by the experimental work of

⁵ Steenbock, *SCIENCE*, 60, 224, 1924; Steenbock, Black and Nelson. *J. Biol. Chem.*, 61, 405, 1924, 62, 209, 1924.

⁶ Hess and Weinstock, *J. A. M. A.*, 83, 1845, 1924. *Proc. Soc. Exp. Biol. Med.*, 22, 5, 1924. Hess, Weinstock and Helman, *ibid.*, 22, 76, 1924. Hess and Weinstock. *J. Biol. Chem.*, 62, 301, 1924.

⁷ Hess, Weinstock and Helman, *Proc. Soc. Exp. Biol. Med.*, 22, 227, 1925.

⁸ Evans and Bishop, *SCIENCE*, 56, 650, 1922.

⁹ Mattill and Carman, *J. Biol. Chem.*, 61, 729, 1924.

¹⁰ Sure, *ibid.*, 62, 371, 1924.

¹¹ Funk and Dubin, *Proc. Soc. Exp. Biol. Med.*, 19, 15, 1921.

¹² Lash Miller, *SCIENCE*, 59, 197, 1924.

¹³ Eddy, Kerr and Williams, *J. Amer. Chem. Soc.*, 46, 2846, 1924.

¹⁴ Goldberger and Tanner, *U. S. Publ. Health Rep.*, 40, 54, 1925.

¹ From the Department of Chemical Hygiene, State School of Hygiene, Warsaw, Poland.

² Steenbock, Sell and Buell, *J. Biol. Chem.*, 47, 89, 1921.

³ Takahashi, *Proc. Jap. Chem. Soc. J. Chem. Soc. Jap.*, 43, 828, 1922.

⁴ Dubin and Funk, *Proc. Soc. Exp. Biol. Med.*, 21, 139, 458, 1923-24. *J. Metab. Res.*, 4, 461, 467, 1923.