major universities. *Second Session:* Contribution to the training of biologists from the physical sciences and other related disciplines. *Third Session:* The basic educational needs of the biologist. *Fourth and Fifth Sessions:* The specific preparation of biologists for professional specialization (research, teaching, medicine, etc.). The following speakers will take part in the Round Table discussion (Dr. Paul Weiss, University of Chicago, chairman): *From the University of Chicago:* Emmet B. Bay, John M. Beal, William Bloom, Anton J. Carlson, Merle Coulter, Earl A. Evans, Jr., Ralph W. Gerard, Victor Johnson, Wilton M. Krogman, George K. K. Link, Carl R. Moore, William H. Taliaferro and Ralph W. Tyler. *From Other Institutions:* Detlev W. Bronk, University of Pennsylvania; Karl S. Lashley, Harvard University; Dwight E. Minnich, University of Minnesota; Karl P. Schmidt, Field Museum of Natural History; Francis O. Schmitt, Massachusetts Institute of Technology; Edmund W. Sinnott, Yale University; Laurence H. Snyder, Ohio State University; C. V. Taylor, Stanford University, and Benjamin H. Willier, Johns Hopkins University. For further information and reservations, write to the Director of the Fiftieth Anniversary Celebration, The University of Chicago, Chicago, Illinois.

GOVERNOR M. M. NEELY, of West Virginia, dedicated on August 2 the new fluorescent lamp works at Fairmont, W. Va., of the Westinghouse Electric Manufacturing Company, in ceremonies which marked the start of manufacturing operations. The building, erected at a cost of $3,000,000, is a one-story structure, 884 feet long and 240 feet wide. It has no windows. Heat and humidity of the air are regulated by an air-conditioning system which has its source of coolness in subterranean waters of a sealed, abandoned coal mine situated on the 90-acre property. The air is kept free of dust by a precipitron, a Westinghouse device which cleans air by electricity. Fluorescent lights bring artificial daylight into every part of the building. At a dinner in the evening a lecture and demonstration entitled "Horizons of To-morrow" was given by Samuel G. Hibben, of Bloomfield, director of applied lighting for the Westinghouse Company. He illustrated the research work carried out in the laboratory in the various fields of lighting. On a near-by site there is being constructed a glass factory at a cost of $1,800,000.

DISCUSSION

NUTRITIONAL DEFICIENCY AS A FACTOR IN THE ABNORMAL BEHAVIOR OF EXPERIMENTAL ANIMALS

THE albino rat has been observed to exhibit a behavior pattern characterized by epileptoid seizures when subjected to auditory stimulation.[1] Different authors have associated such seizures with a variety of etiological factors,[2] but there can be no doubt concerning (*a*) the important role that nutrition plays in the manifestation of this type of behavior, or (*b*) the effect of auditory stimulation alone as an inciting cause of the seizures.

Recent studies in the laboratory for experimental psychology at the University of Pittsburgh have demonstrated clearly that vitamin B-complex deficiencies and inanition both induce sensitivity to the epileptoid seizures. Specific members of the vitamin B-complex, particularly thiamin (B_1), can effect significant protection at intake levels above those required for growth and reproduction. Paired feeding experiments have been used to avoid possible errors caused by inanition, and although the latter is clearly an important factor in the susceptibility to seizures, pure vitamin supplements and empirical concentrates such as provided by yeast exert an effect in addition to that afforded by pure thiamin.

A comprehensive program of investigation in this field is under way, supported by research grants from the Buhl Foundation of Pittsburgh and from the Williams-Waterman Fund of the Research Corporation of New York. It is evident that the results of such experiments are applicable to the detection and quantitative evaluation of certain nutritional deficiencies of marginal type, where there is physiological injury without external evidence of malnutrition. It is believed that such investigations also point unmistakably toward the need for an increasing degree of attention to the nutritional state of experimental animals that are used in psychological studies. No record of a comparable type of behavior pattern in clinical observations under controlled conditions has come to the attention of the authors, but neurological manifestations of marginal type vitamin B-complex deficiencies have been observed frequently.[3,4]

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[1] Robert A. Patton and Harry W. Karn, *Jour. Comp. Psych.*, 31: 43, 1941; Robert A. Patton, *Jour. Comp. Psych.*, 31: 215, 1941; Robert A. Patton, Harry W. Karn and C. G. King, *Jour. Comp. Psych.* (in press).

[2] N. R. F. Maier, "Studies of Abnormal Behavior in the Rat," Harper, New York.

[3] R. R. Williams and T. D. Spies, "Vitamin B_1 (Thiamin) and Its Use in Medicine," Macmillan, 1938.

[4] R. D. Williams, H. L. Mason, R. M. Wilder and B. F. Smith, *Arch. Int. Med.*, 66: 785, 1940.