ology. Probably less is known about functions of the normal cerebral cortex than about any other organ in the body. This is mainly due to the anatomical complexity of intracortical connections and intimate associations with other parts of the nervous system.

This account of the cerebral cortex is based largely on the author's own studies, in which he has developed to an elegant perfection the technique of the isolated cortical slab with intact blood supply but devoid of neural connections with either surrounding cortex or deep structures. His use of this technique has produced a frame of reference differing basically from two others widely employed in the last decade—the one recording the action potentials of large cell populations in intact cortex, the other involving unit recording within a cell population with the assumption, often tacit, that the population is histologically and geometrically homogeneous.

Although these slabs show no spontaneous activity under light anesthesia, they respond with a prolonged "burst" discharge to single shocks. The author presents a detailed account of cellular behavior during the burst. The physiologist's interest in this, as in posttetanic potentiation, hinges on the search for neural mechanisms which might explain the observed plasticity of cerebral functions, the spontaneous activity, and the possibility that prolonged changes induced by a few stimuli may bear on the problem of memory.

The latter part of the book is devoted to problems of memory. Here, with the vast gulf that is fixed between the fields of physiological and psychic phenomena, and where only the brave may venture to bring forth even so little as a personal credo, the author maintains an admirable objectiveness without pretence to an encompassing view of the brain-mind relationship.

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Bibliography of Food. A select international bibliography of nutrition, food and beverage technology and distribution, 1936–56. E. Alan Baker and D. J. Foskett. Academic Press, New York; Butterworth, London, 1958. xii + 331 pp. $11.

Baker and Foskett have compiled a large bibliography about an extensive field in a useful way.

Literature, mostly that which has appeared since 1936 but not including individual articles in periodicals, is listed by area of information in the broad field of "food." The literature is further classified by type of publication (for example, bibliography and abstracting journal), and by informational content (for example, technology, distribution and marketing, vitamins and proteins).

An interesting and useful aspect of the bibliography is the occasional annotation of an entry by the compilers.

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Thudichum, Chemist of the Brain. David L. Drabkin. University of Pennsylvania Press, Philadelphia, 1958. 309 pp. Illus. $5.

"There should be laboratories of research established in all large hospitals. In these, the purely chemical diseases, no less than the diseases caused by microorganisms, should be investigated." These remarkably prophetic words were delivered by Thudichum, the first professor of chemical pathology at St. Thomas', in his presidential address before the West London Medical-Chirurgical Society. That was in 1883, just after the identification of the tubercle bacillus and a decade before the discovery of the relationship of the pancreas to diabetes. The names of Koch and Minkowski are well known to every student of the medical sciences, but Johann Ludwig Wilhelm Thudichum, who somehow foresaw the future contributions of biochemistry to medicine and who developed the modern science of neurochemistry, is all but forgotten.

This book, by David Drabkin, himself a worthy successor to Thudichum in modern "chemical pathology," fulfills admirably its purpose of recognizing the achievements of this great man. It does more than that. With a charming literary style which makes it difficult to lay the book aside, the author traces the life and times of Thudichum by means of descriptions of a personal pilgrimage to Büdingen, his birthplace, or a tea with his daughters in his last home in London, whither he had immigrated in 1854 when his participation in the unsuccessful liberal revolution of 1848 had made his continued stay in Germany uncomfortable. From his daughters, his manuscripts, his letters, even his obituaries, we learn much about the sources of his creativity, his nonconformity, the intensity and precision with which he pursued his classical studies on the chemistry of the brain, the versatility he possessed in his encyclopedic knowledge of cookery and wines, his dedication to truth, and his impatience with authoritarianism. Not all of these qualities endeared him to his colleagues, as we learn from one patronizing obituary: "His scientific achievements seldom if ever realized the expectations which had been formed with regard to them. He must, nevertheless, be regarded as an original explorer . . . and it is by no means improbable that some of his investigations may yet bear important fruit." To read the bombastic attacks by Hoppe-Seyler or by Gamgee, two of the outstanding chemists of that time—attacks which, besides being hostile were utterly groundless—is an interesting lesson in humility.

As the author writes in his prologue, "This is not the biography of one man alone, nor the story of one time. It is the struggle of a creative mind for fulfillment." He has appropriately underlined the universality of Thudichum and his problems and tells the colorful story of his life in somewhat less than two hundred pages of interesting narrative. The remainder of the book consists of references, documentation, and appendices for special study.

This book should be of value not only to physicians, biochemists, and neurochemists, and to the general reader interested in the history of science, but also to those alert to, or concerned with, the problem of scientific creativity.

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Advances in Enzymology. And related subjects of biochemistry. vol. XIX. F. F. Nord, Ed. Interscience, New York, 1957. v + 457 pp. Illus. $9.85.

The editor has departed from usual custom in publishing two volumes instead of one during 1957. Volume 19 contains five outstanding reviews which are so detailed and extensive in their coverage of the literature that each one might be called a monograph in its own right. Unfortunately for certain American readers, two of the five chapters are in foreign languages but are well worth the trouble of translation.

In "Enzymic aspects of photosynthesis," Vishniac, Horecker, and Ochoa have done an excellent job of correlating diverse information on photosynthesis. They do especially well in their consideration of the role of carbohydrate metabolism and enzymes of carbon dioxide fixation in photosynthesis. The light-dependent reactions are covered less extensively because relatively little is known about them.

H. S. Mason, in his chapter on "Mechanisms of oxygen metabolism," contributes a remarkable achievement in his classification of oxidizing enzymes into the three categories of transferases, mixed-function oxidases, and electron-transfer oxidases. In addition, he pre-