

fungus or bacterial parasites the right-hand column gives the name of the causative agent, for example, mosaic virus, manganese deficiency, irregular water supply, etc. There is one important change in layout as compared with previous lists, this being the fact that the host plants instead of being arranged in groups, such as fruits, vegetables, etc., are now all placed in alphabetical order according to their names as ordinarily used. The result is that there is no need for a host-plant index.

In the case of the more important diseases which are also prevalent abroad, foreign common names from several countries are given in slightly smaller type under the selected British common names. There are an index of authors' names and abbreviations, one of the accepted scientific names of both host plants and parasites, and one of foreign common names of various diseases. Many readers will note and approve the separate index providing common names of diseases in Russian.

This attempt at uniformity in nomenclature of diseases is to be commended in a field where confusion is still too often met with. The fact that changes repeatedly occur in the scientific names of plant disease parasites makes this list doubly important to workers in this subject, and the Committee deserves the thanks of both research and advisory plant pathologists for providing such an up-to-date book of reference. There is no doubt that it will be welcomed by all concerned with plant diseases throughout the British Empire.

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FOOD HABITS

The Origin of Food Habits

By H. D. Renner. Pp. 261. (London: Faber and Faber, Ltd., 1944.) 15s. net.

ALMOST the last habits anyone will give up are his food habits. So the average man is the despair of the dietitians and the Ministry of Food, who wish him to eat what is 'good for him' or what foods are available.

In the matter of food habits there are two sharply divided schools of thought: the one which we may call the 'Marie Lloyd school', which believes that food habits are based upon instinct and that what a man fancies does him good; and the other which considers all food habits conditioned reflexes due to upbringing. Most dietitians belong to the latter school. Any digestible substance which can provide calories, proteins, mineral elements and vitamins they call a food, whether the eater likes it or not. He can, they say, acquire a conditioned reflex for that food by practice, and quote illustrations from the War of 1914-18, when children brought up to eat margarine during the War refused butter when it became available after 1918. They also bring in observations made by explorers and anthropologists such as Stefánsson¹ and Margaret Mead². The 'Marie Lloyd school' retort with Pavlov's own work on the psychic flow of gastric juice evoked by pleasant foods in dogs and the extension of Pavlov's work to man by Carlson. Moreover, there is Carl Richter³, who has brought evidence to bear that Baltimore children behave towards cod liver oil as if guided by need rather than by conditioned reflexes.

The book under review collects evidence which will be used by both schools. The writer, who is rather heavily Teutonic in his handling of the problem, puts

his emphasis on experimental psychology. For example, he thinks that people who are fond of food gobble it because they do not want to fatigue the sensory organs, and that when a food "goes round and round" in the mouth it is because the eater wishes to fatigue his gustatory apparatus for the unwanted food, so that he can swallow it without nausea. Surely simpler physiological explanations will cover both cases?

Though there is much in this book which every person interested in food, whether from gastronomic or dietetic reasons, will disagree with, it is one which every such person should read. It is difficult to sum up its attributes, and perhaps the best way to describe it is to borrow what Dr. Johnson is supposed to have said of the haggis: it is fine confused feeding.

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¹ Stefánsson, "The Friendly Arctic" (Macmillan and Co., Ltd., 1921).

² Mead, "The American Character" (Penguin Books, Ltd., 1944).

³ Richter, "The Harvey Lectures" (Science Press Printing Co., 1943).

PROF. THE SVEDBERG

The Svedberg, 1884-1944

Pp. 732. (Uppsala: Almqvist and Wiksells Boktryckeri A.-B., 1944.) n.p.

IN universities, as in other walks of life, the personal expression of gratitude and appreciation is a rare event, and the means and opportunities of expression both difficult and infrequent. This volume was compiled by colleagues, friends and pupils to celebrate the sixtieth birthday of The Svedberg. If the limitation of war had not been imposed on the compilation, contributions would certainly have come in from all parts of the world.

Svedberg's original work lay in the field of colloid chemistry; but in 1923, as a result of a visit to Wisconsin, his interests were aroused in the possibilities of an ultra-centrifuge. While it is the development of this as an instrument of precision that gained for Svedberg his international reputation as well as a Nobel prize, his interests and activities are in fact much wider. Although he is by title professor of physical chemistry, it is significant that no less than thirty-one of the fifty-six communications in this volume lie in the field of what may now be termed biophysics. Another significant trend emerges in studying this volume—one which doubtless has been accentuated by the War, but which is a real part of the activities of the Institute—namely, the part played by Svedberg and his colleagues in the national economy of Sweden by co-operation with industries to the great advantage both of science and technology.

The volume contains a brief account of the Institute of Physical Chemistry at Uppsala, together with a number of original papers from the various departments of the University. Communications from other universities and high schools, notably the University of Lund, as well as from industrial laboratories are included. The topics dealt with cover a wide field of chemistry and biology, several of them naturally dealing with supercentrifugal, optical and electrophoretic measurements of biological material.

This collection of papers may be regarded as a cross-section of Swedish activities in chemical research during the war period, and any country might well be proud of such work and of The Svedberg, whose influence in and beyond the confines of Sweden has been so profound.

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