

The author would be well advised to write the promised second volume without reference to Jung's analytical psychology; for the reference to Jung is apt to create confusion and do a disservice to Jung, and incidentally to the author himself.

H. J. JACOBY.

BROADCASTS ON FARMING

'Farming Talks'

By W. S. Mansfield. Pp. 119+8 plates. (Worcester: Littlebury and Co., Ltd., n.d.) 7s. 6d. net.

Farming To-day Broadcasts

Vol. 2. A Series of Agricultural Education and Technical Development Broadcast Talks. Pp. 130+12 plates. (Worcester: Littlebury and Co., Ltd., n.d.) 7s. 6d. net.

THESE two groups of farming broadcasts are presented without alteration in form, a procedure which has both advantages and demerits. For those who did not hear the original talk or discussion, the structure, particularly when dialogue, does not make for easy reading and there are occasional difficulties of meaning. Those who have heard most of the broadcasts—and they will probably be the majority of readers—will be able to recapture the atmosphere and enjoy again the accents of the speakers.

Since 1937 Mr. Mansfield has been a regular and notable contributor to B.B.C. broadcasts on farming topics—he takes part in six of the discussions in the second series of 'Farming To-day'. The talks and discussions of this second volume were given in 1943 and the first quarter of 1944, and are arranged chronologically. About half of the 'Farming Talks' were given before the War, and the remainder nearly all in its first two years. The illustrations in both volumes are well reproduced; their function is decorative, having no special reference to textual matter.

War needs have changed the character of these broadcasts. Mr. Mansfield's earlier talks were aimed at a wider audience; though intended for farmers, they were designed also to interest the townsman in the land and its problems. There are discussions—for example, one with Dr. Sanders on high and low farming—but mainly they are straight talks, with at the end perhaps a short dialogue with his farm bailiff or rat-catcher, for illustrative purposes. In these he succeeds very well in catching something of the spirit of the land. Talking, in 1938, on successful farming, he quotes Xenophon to the effect that the difference between those who succeed and those who do not is a difference not of knowledge but of care in management. To the extent of conceding that knowledge, experience, good land and adequate capital are not enough without character—and especially adaptability to changing conditions—Mr. Mansfield agrees.

Great changes have been forced on British agriculture by war needs; after the War there must be a further change, which, whatever else it may be, will not be a reversion to the conditions of 1939. The war-time broadcasts have been educational and propagandist in character, aiming at spreading new ideas, publicizing the results of agricultural research, and generally supplementing the work of the war agricultural committees.

Some of the contributors to "Farming To-day Broadcasts" are farmers, some are specialists. Welsh

hill land improvement, sugar beet, haymaking, care of machinery and composting straw are among the topics of discussion. Not all the talks are concerned with immediate needs; particularly where livestock are involved (because of their low reproductive rate) there must be long-term planning. There has been a great decline in the sheep population of Britain. Four discussions deal with hill sheep, arable and grassland flocks, and disease, and consider probable sources and methods of management in post-war agriculture. Naturally none of the subjects is treated at any great length.

HYDRAULICS IN THEORY AND PRACTICE

A Treatise on Applied Hydraulics

By Prof. Herbert Addison. Third edition, revised and enlarged. Pp. viii+614. (London: Chapman and Hall, Ltd., 1944.) 32s. net.

PROF. ADDISON explains, in his preface, that his aim in writing this book was to present a compact summary of the fundamental principles of hydraulics and the manner in which they are applied, and he expresses the hope that the book will meet the requirements of three classes of readers—the engineer in practice who desires to keep in touch with modern developments in hydraulics, the general student of engineering and the student who wishes to specialize in the subject and who desires a reliable basis for further study. In these aims he has succeeded admirably.

The first part of the book deals with theoretical principles and the second with practical applications, the whole being extremely well illustrated by diagrams and photographs. A striking feature is the arrangement of the subject-matter; thus the numerous worked examples, and problems for solution by the student, are collected together towards the end of the book and reference is made to them when illustration is necessary. Such arrangement has the advantage that the continuity of the text is not interrupted and, in any section, the student may obtain, in the first instance, a clear and concise statement of the engineering aspect of each problem as a background to his study of the theoretical discussion.

The second part of the book introduces a wide range of applications, including the flow of water in pipes, channels and streams, the control of water, viscous flow, hydraulic turbines, pumping machinery, power transmission and hydraulic measurements.

From the method of presentation there is ample evidence not only of Prof. Addison's breadth of knowledge, but also of his experience as a teacher and his appreciation of the problems which confront the teacher and student alike, in dealing with the complexities of a subject in which it is particularly difficult to apply the results of theoretical investigation to the conditions which prevail in practice.

While this is an excellent text-book for the use of students preparing for university and institution examinations, it is much more than that, for it summarizes the results of modern research, is equipped with a comprehensive bibliography of recent publications, and its descriptions and illustrations refer to up-to-date installations. Civil, mechanical and electrical engineers will find it a most complete and informative book of reference on hydraulic engineering.

J. B. TODD.