

cause of voluntary acts, and states that the intellectual, emotional and volitional processes are all interdependent and of equal importance. He believes that the spontaneous urgency of tendencies to develop is due to the presence of thought images and sense impressions, but that there are ancillary factors, stamps of attention and stamps of vitality, which result in variations of tension. Once motivation is started it is followed up by planning and execution, which indicate future changes and the order in which they are to take place.

This book unfortunately shows the superficial limits of introspective psychology and is not likely to interest the medical psychologist, but it may be of some interest to those studying pure classical psychology; although even those will find little new here. It is well produced, the paper and print are excellent, and the translation is well done.

CLIFFORD ALLEN

### Sequential Analysis

By Prof. Abraham Wald. Pp. xii+212. (New York: John Wiley and Sons, Inc.; London: Chapman and Hall, Ltd., 1947.) 24s. net.

**S**EQUENTIAL sampling methods were developed during the War and remained secret for some time. Accounts of the methods have since been published in statistical journals, and knowledge of them has been fairly widely diffused by lecture and discussion both in the United States and in Great Britain. Hitherto, however, there has been no systematic account in book form of the theory of the subject developed from first principles, and Prof. Wald's book is therefore a very welcome addition to statistical literature.

The book is in three sections. The first opens with the elements of the current theory of testing statistical hypotheses, and develops a general theory of sequential probability ratio tests. The second applies the general theory to special cases such as testing means and variances in sampling from normal variation. The third considers the problem of multi-valued decisions and sequential estimation.

Prof. Wald writes as a mathematician, lucidly and carefully, with an obvious twinge when the necessities of a simple exposition force him to deviate from complete rigour. Practising statisticians will find it useful to study the book in combination with the bound set of reports (*SRG 255*) on applications of sequential analysis issued by the Columbia University Press (see *Nature*, 157, 642; 1946).

M. G. KENDALL

### Recent Advances in Sex and Reproductive Physiology

By Dr. J. M. Robson. Third edition. Pp. xii+336. (London: J. and A. Churchill, Ltd., 1947.) 21s.

**I**N the new edition of Dr. J. M. Robson's work, he has succeeded admirably in bringing the subject up to date, and the book has benefited by the inclusion of references to the more important papers which have appeared since the last edition. This is well seen in the account of the steroids, where it is shown that there is a relation between the chemical structure and the physiological action of all the hormones or hormone-like substances belonging to this class. The account of the probable factors in parturition is also especially interesting. Here the author points out that in various species the response of the uterus to oxytocin increases progressively during gestation and reaches a maximum at par-

turition, and the recent researches of Haterius and Ferguson are duly quoted. The factors concerned in ovulation are also discussed, and the evidence of a pathway from the hypothalamus in the brain to the anterior pituitary through the stalk is referred to. Chapter 10, on "Hormone Production and Excretion" under various conditions, and Chapter 13, dealing with "Clinical Applications", are particularly valuable.

F. H. A. MARSHALL

### Severn Tide

By Brian Waters. Pp. vii+183+16 plates. (London: J. M. Dent and Sons, Ltd., 1947.) 15s. net.

**T**HE title of this book is perhaps slightly misleading. It is not a hydrographical treatise giving all the details of the propagation of the tide in the Severn, with ranges of tide, times of rising and falling, and so forth. Its main object is to relate the activities of the residents on the banks of the river to the flow and ebb of the tide. Nevertheless, the author gives many details regarding the famous Severn bore which are not to be found elsewhere; but these are scattered among many other things. It is as though the author takes the reader on a pilgrimage up and down the river, and in a leisurely way talks with all and sundry, exhibits interest in the details of their lives and occupations, their fishing and their farming, and so on, with intimate touches on how the tide in this river influences their lives.

It is a pleasant book, with much human interest, and it is one of those things which needed to be done, and has been well done. The age of craftsmanship is nearly gone, and the author has recorded many little details (for example, the particular shape of the bend in the handstaff of the lave net, and how such staffs are obtained) which are of interest to those interested in arts and crafts. This book will interest all who know the Severn, whether they be interested in the peculiar problems of navigating a boat with the bore, in fishing, in river lore, or in the intimate details of local life.

A. T. D.

### Bibliography of the Technical Literature on Silk

By Dr. F. O. Howitt. Pp. xxiv+248. (London: Hutchinson's Scientific and Technical Publications, 1947.) 21s. net.

**T**HE book is precisely described by its title. It is the result of a literature survey which Dr. Howitt undertook after his appointment as head of the Silk Section of the British Cotton Industry Research Association in 1936. At that time there was no systematic review of the widely scattered scientific and technological literature on silk, but Dr. Howitt has now made it possible to claim that the literature on silk is better documented than that relating to any other textile fibre. Starting with the cultivation of silk, he proceeds to discuss the properties of raw silk, sericin and fibroin. Then follow chapters on the preparation of nett silk yarns, degumming, weighting, dyeing, weaving, knitting and finishing. The book ends with a survey of testing methods and a brief reference to non-textile uses of silk. So thorough is Dr. Howitt's treatment of his subject—there are 528 references in the fifty-six pages devoted to the properties of fibroin—that reading would have been difficult if the information had not been so well co-ordinated. The author can be congratulated on his contribution to the newer scientific literature on textile materials and processes.

J. B. SPEAKMAN