

## Book Reviews

**The Adrenal Cortex and Intersexuality.** By L. R. Broster, Clifford Allen, H. W. C. Vines, Jocelyn Patterson, Alan W. Greenwood, G. F. Marrian and G. C. Butler. First edition, 1938. Pp. 240. 15/- net. London, Chapman and Hall.

This book contains matter which few doctors dealing with difficult sexual problems can afford to miss. Even indirectly the same to some extent holds. Parents, teachers, ministers of religion, directors of national affairs, when brought into touch with sexual troubles, may refer to the doctor. Too often, however, ignorance leading to bitterness and antagonism, characterises the attitude even of those whose outlook is ostensibly that of the scientist. This book is a systematic, directed and withal fruitful and human attempt to combat the ignorance which leads to this unhappy state of affairs.

At the outset Dr. Broster deals with the clinical and surgical aspects of the adreno-genital syndrome. This syndrome, which is essentially bisexual in nature, is characterised by the appearance of male secondary features in the female, with a corresponding retrogression of the female sexual characteristics and functions. As is to be expected, the earlier in life the onset of the cortico-adrenal lesion, which is responsible for this condition, the more marked the results, and the less amenable to treatment. On the other hand in the most favourable cases unilateral adrenalectomy, the surgical procedure which Broster describes, enabled him even to reverse the changes.

The best results obtained in the secondary or post-pubertal cases, when the pathological changes followed upon a period of normality. The primary or post-pubertal cases, in which the largest adrenals occurred, only yielded good results when operation was performed as soon as possible after the recognition of the condition, or at least before the onset of puberty when the main symptoms had appeared. Thirty-three detailed case histories place the reader in a good position for estimating the justice of the conclusions to which Dr. Broster's clinical and surgical experience lead him, namely that the adreno-genital syndrome results from certain pathological changes in the secretion of the adrenal cortex.

In the next section Dr. Clifford Allen deals with the psychological aspect of the question. This is a matter of importance. Recent advances in psychopathology show that psychological factors have a definite bearing upon the development and control of human sexuality. A thorough psychiatric examination, whose outline he gives in the text, forms the basis upon which Dr. Allen founds his conclusions. Case histories add their quota to the vividness and interest of the section, at the same time that they support Dr. Allen's conclusions. He holds that sexuality is a complex dependent upon the inter-relation of endocrine and psychological factors: mutually stimulating, either the one or the other may be at fault. A sound and adequate clinical examination alone can determine the type of therapy which any one particular case requires.

Dr. H. W. C. Vines, in the third section of this book, describes the Poinceau-Fuchsin stain. This stain has a particular colouration effect upon the cortical cells of those adrenals in which adrenalectomy had been performed for virilism. On the basis of the research which this staining made possible Dr. Vines comes to the conclusion that in normal sexual development the adrenal cortex plays the part of an accessory sex gland, secreting both androgenic and oestrogenic hormones, under the control of the pituitary throughout life. At puberty the gonad-pituitary mechanism is superimposed upon the adreno-pituitary mechanism. The occurrence in the female during early foetal life of a short period of androgenic and heterosexual development, and the absence of a corresponding oestrogenic period in the male, accounts, in Dr. Vines' opinion, for the greater frequency of hetero-sexual changes in the female as compared with the male sex. He goes on to discuss the relation of pseudo-hermaphroditism, adolescent virilism, pituitary basophilism and cortical carcinoma to a mechanism in which the gonads play a passive and the adrenal cortex and pituitary an active part.

The biochemical investigation of the urine, which Drs. Patterson and Greenwood undertake, represents the natural development of the previous studies. When these investigators began their experiments four years ago, the capon method of assay of male hormone

was already established as a reliable measure of androgenic activity. It remained for these workers to devise an extraction method suitable for differentiating typical virilism cases (with symptoms of masculinisation in the female) from the normal female in respect of hormone activity. Discovery of such a method, details of which are given, enabled them to find in the urine of eleven cases of adrenal virilism "free" male hormone. This substance absent from normal female urine, is only present in small amounts in normal male urine. They found in addition an excessive amount of "bound" or "conjugated" hormone in cases of virilism. This substance, which is present in normal male urine, is present in only small amounts in normal female urine. In no case of virilism was there any grossly abnormal amount of oestrogenic hormone found in the urine. The authors then discuss the origin and nature of the male and female hormones. Acknowledging the highly speculative aspects of their views, they stress the intrinsic interest of the subject, at the same time that they point to the great amount of research which this approach opens out.

Professor Marrian and Dr. Butler discuss a substance, "triol", which they have isolated from the urine of cases of virilism. Since examination of a large number of other urine samples from normal men and women revealed no trace of this compound they suggest that it is specifically related to the pathological activity of the adrenal gland.

The above resumé of the work done by different specialists in their own particular field on the subject of the relation of the adrenal gland to sexuality, suffices to show the important results which may be obtained by such team-work. This particular example marks a definite step forward in the field of medicine. Moreover, as Sir Walter Langdon Brown says in the foreword, this subject does not concern medicine alone. Abnormal sex development not only causes a degree of suffering incommensurate to the physical abnormality, it also causes a degree of injury beyond the individual immediately concerned. The health and well-being of the community also enters into the question. This particular book has, therefore, many points of interest. Illustrating the way in which the combined attack of medical, surgical, psychological, histological and biochemical methods is able to accomplish

research work of particular value, it also points the way to further progress.

HILDA WEBER.

**Manual of Psychiatry and Mental Hygiene.**

By Aaron J. Rosanoff. Seventh edition, 1938. Pp. 1,024. 37/6 net. London, Chapman and Hall.

This, the seventh and latest edition of Rosanoff's Manual of Psychiatry, is a worthy successor of this well-known and much-read textbook. In view of the author's aims, maintained throughout successive editions, this is no light praise. In his own words the purpose of the book is the representation of material met with in the psychiatric clinic and the methods best fitted for dealing with it. These considerations in turn explain the many changes in the text. The noteworthy progress in psychiatry and allied fields since the appearance of the previous edition, some eleven years or so ago, has necessitated a considerable enlargement and much rearrangement of material. In connection with this new matter special mention may be made of the work on the relation of the various encephalides, of the avitaminoses and other nutritional disorders to the etiology and pathogenesis of many common neuro-psychiatric conditions. The improved methods of treating Syphilis, the recent findings in brain physiology, Pavlov's laboratory investigations and findings, are other subjects which are detailed. The study of the inter-relation of social and economic factors and their connection with the development of the individual and vice versa, further illustrates the wide range of subjects which the manual covers.

Dr. Rosanoff explicitly recognises that no individual working in this field can write a textbook upon the basis of his own experience alone. He has not hesitated, therefore, to incorporate important researches and views of other workers in their own words where this has conduced to clarity and vividness. In the field of psychotherapy, for example, though he himself stresses the importance of suggestion as a therapeutic factor, he recognises the value of Freud's work, and quotes from him at length. Otherwise, however, except for some words referring to Adler, he makes little reference to other workers in this field. It is to be hoped that a future edition will repair this omission.