

scientific basis of treatment for disorders which are as common as they are obscure.

For a number of years we have possessed definite evidence that the pituitary gland plays a part in the maintenance of sexual life and in the production of the sexual characters of the body. Dr. Blair Bell has carried out a prolonged series of experiments on the pituitary body. His most definite results were obtained by compressing or cutting the stalk of the pituitary gland; in such cases the dogs operated on manifested all those characters which clinicians are familiar with in certain patients. Sexual appetite is lost; the genital glands atrophy; there is an abundant deposit of fat all over the body; the bones become long and slender. He also places on record the notes of a very instructive case—that of a young woman who began to develop certain male characters in face and voice. It was found that her ovaries were of a complex type; in their cortex were true ova, situated in normal follicles; in the centre of the ovaries the tissue assumed a testicular structure, although spermatozoa were not present. It is the examination of such cases which shows how complex are the factors which go to the differentiation of sex. Dr. Blair Bell emphasises the influence of the glandular products on the mental life of the individual. His final conclusion is: *Propter secretiones internas totas mulier est quod est.*

VIGNETTES OF FRIENDS.

Memories. By Edward Clodd. Pp. xi+288. (London: Chapman and Hall, Ltd., 1916.) Price 10s. 6d. net.

MR. CLODD is well known to readers of NATURE as one who has most successfully introduced the discoveries and generalisations of various departments of science to innumerable readers—old and young. In the course of a long and active life he has made friends with a remarkable number of noteworthy people, being richly endowed with the "genius for friendship." One has only to look through the table of contents of his "Memories" to see how the sympathy of the author reaches out to very diverse types, and there is scarcely a name on the list which does not stand for pre-eminence in literature, art, or science. There are constant references to the pleasant Whitsuntide gatherings under Mr. Clodd's hospitable roof at Aldeburgh, where kindred spirits, but of diverse aptitudes, exchange ideas on all imaginable subjects when eating, smoking, walking, or cruising with their skipper-host in the *Lotus*. To some extent the book is a series of reminiscences of talks on such occasions. The fragment of his own autobiography that Mr. Clodd gives as a sort of preface is interesting reading, and affords a clue to the particular direction of his intellectual activity.

Most of the "Memories" are very short—like lantern-slides thrown on a screen to be rapidly

replaced by others. Little is said about Thomas Henry Huxley, but in this case the reader should refer to the author's biography of the biologist. The jottings on Herbert Spencer do not depict the philosopher in a very agreeable light. Concerning Henry Walter Bates we read: "No word of mine can convey the charm infusing the memory of so rare a soul as that which dwelt in Bates. . . . There was a wonderful freshness in all that he said, and a wonderful magnetism in the way he said it." The brief account of Joseph Thomson indicates how much was lost by the early death of a brilliant traveller. The few remarks on Paul B. du Chaillu are of interest, as his early work was erroneously discredited. Andrew Lang has been described as having a "touch of superciliousness in his manner," but Mr. Clodd says "the aloofness was only skin-deep . . . those who came to know him longest learned to appreciate him most. . . . Sometimes he gave offence by the tone of his reviews, the temptation to banter being too great to be resisted. But he bore no malice; and they who submit their wares to the critic must not be too squeamish over the verdict." Samuel Butler "was of the *genus irritabile*. . . . As Chauncey Depew said: 'When once you've stood on your head, the public won't let you stand on your feet.' The truth of this was Butler's irritating experience." The appreciations of Grant Allen, George Meredith, and George Gissing are among the best things in a book replete with shrewd, kindly criticism.

A. C. HADDON.

OUR BOOKSHELF.

Cours d'Hydraulique. By Prof. J. Grialou. Pp. vi+549. (Paris: Gauthier-Villars et Cie, 1916.) Price 20 fr.

THIS volume is designed for the use of advanced students; it embodies the third-year course of lectures delivered by Prof. Grialou at the Lyons Central School. Much of it, naturally, is ground covered by the generality of text-books on the subject, but there are also special sections on particular problems, such as the application of cylindrical co-ordinates to the motion of turbines, the loss of head due to abrupt variation of pipe section, fluid resistance, etc.

Prof. Grialou's treatment is rigorously mathematical, and he explains that he has endeavoured throughout to make constant use of general equations, whether applicable to "perfect" liquids or to liquids characterised by viscosity. He considers that the study of hydraulics has acquired too empirical a character, and that this should be rectified by adhering as closely as possible to theoretical principles.

We certainly agree with him in the desirability of directing the attention of students to the lack of scientific precision in many hydraulic formulæ, but this is in order that too great a degree of accuracy may not be assigned to the numerical results which they give. The conditions attach-