

mechanism that works well supplies its own drive, it must not work too well; there must be some stimulus of difficulty. But may it not be argued that when a person loses interest in his work because his task is too easy, his mechanism too good, the reason must be either that the consummatory reaction is not connected with one of the great biological drives, or that he is not the kind of person to whom unsolved problems, that is, mechanisms some of whose parts are still undetermined, are *ipso facto* very strong drives; one who turns always from the familiar to the new task? If he is of this type we may as well say that he is urged by the drive of curiosity, whose biological value is clear. In other words, while special talents, specially good mechanisms, may involve special readiness of their consummatory reactions to be excited, without certain general traits of the personality like energy, curiosity, pugnacity, mere excellence of a mechanism would not suffice for its prolonged and effective use. The reviewer has elsewhere pointed out the possible function of the activity attitude in connection with those intellectual tasks which are only indirectly related to the primitive drives.

Of the many other points for discussion that are suggested by these lectures, there is space to mention but one. Those of us who hold, with the author, that introspection has furnished some scientific results "with such regularity that they command general assent, and probably even the extreme behaviorists in their hearts believe them," will be interested to observe how much of the evidence for Professor Woodworth's contentions is of an introspective character. In his arguments on the nature of human motivation the appeal is constantly to introspection.

MARGARET FLOY WASHBURN

VASSAR COLLEGE

*A Laboratory Outline of Neurology.* By C. JUDSON HERRICK and ELIZABETH C. CROSBY. Philadelphia and London, W. B. Saunders Company. 8 vo. 120 pp.

After many years of teaching experience on the part of the senior author, C. J. Herrick

and E. C. Crosby have produced an excellent laboratory outline of neurology. The outline includes directions for the dissection of the brains of elasmobranchs and of mammals. The directions for the elasmobranchs are especially acceptable for they are accompanied by some much needed and novel diagrams from the unpublished work of Norris and Hughes. In addition to a very clear and well-arranged account of the subject matter, the volume contains abundant references to the literature. The text is arranged so that it may serve for a variety of courses, seven of which are outlined in the introductory chapter. The volume is compact and well printed both as to text and illustrations.

G. H. P.

#### SPECIAL ARTICLES

##### HYGROMETRY IN TERMS OF THE WEIGHT OF A FILM OF GELATINE

I HAVE recently had occasion to reconstruct a form of horizontal torsion balance which I used in 1890 in measuring the absolute viscosity of steel.<sup>1</sup> Even when quite robust, it can easily be made so sensitive that an excursion of over 10 cm. is equivalent to a milligram. It should therefore be available for indicating the absorption of atmospheric vapors on the part of light bodies.

Fig. 1 shows the apparatus, the suitably braced frame being made of strips of tin plate, bent C-shaped in cross section to secure rigidity. The torsion fiber, *ab*, of brass wire, .2 mm. in diameter 35 cm. long, is stretched between vertical screws (around which the end are wound), each provided with a lock nut so that a fixed tension may be imparted to the wire. The pointer, *cd*, also about 35 cm. long and of light varnished wood, is carried at the middle of the tense wire (threaded through a fine hole in the stem and looped around it), with an adjustable screw counterpoise at *e* in the rear. The index at, *d*, plays over a light circular scale of brass, *fh*, which in my apparatus comprehended about 130°, though it

<sup>1</sup> *Phil. Mag.*, XXIX., p. 344, 1890. The change of the electrical resistance of gelatine in relation to hygrometry has been studied by Dr. G. B. Obeare.