

While not expressing a dogmatic opinion, yet a decided preference for the last view seems justified by the facts; although Wundt has been recently reinforced by reliable results, of which a monograph by Grotenfeldt* may be particularly mentioned.

With this hasty and imperfect exposition the recent work, technically known as Psycho-physics, may be left. At the end of this article we append references to the more important authorities, where abundant information on points necessarily omitted here may be gathered. We now turn to the second great class of problems which arise from external experiment, *i.e.*, those which are concerned with the duration of mental states, and whose investigation constitutes Psychometry.

III. PSYCHOMETRY.

It is only within the last thirty years that anything like exact and scientific efforts have been made to measure the time or duration of mental states. The necessity of some such measurement first arose in astronomy where the most exact determinations of transit and other periods must be made. A source of error in such observations was early seen to be time taken up by the transmission of the excitation of the retina to the brain and the time taken by the impulse given to the hand to record the event, to travel from the brain to the hand. This element of personal equation in astronomical work is elevated to a distinct problem in Psychometry and its conditions are extended to include all mental states which have the physical basis necessary to the employment of physiological experiment. Psychometry is therefore "the science of the duration of mental states."

Before the rise of experiment in this connection, desultory treatment had been given to the comparative rapidity or slowness of our "ideas"; such questions, as to whether all "ideas" were successive or some simultaneous, speculations on the cause of the rapidity of dreams, etc. But being only general descriptions of fact and depending on individual experience and

* Das Webersche Gesetz.