

physicists who can not take quite this view with respect to our more firmly fixed theories of physics; probably the majority of metaphysicians would not acquiesce. It may be that some day reality will consist merely of conventions, or it may be that the pendulum will again swing to the other side and make the conventions real. At any rate much will still be spoken and written on both sides of the question.

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The Slide Rule. An Elementary Treatise. By J. J. CLARK. Technical Supply Company, Scranton, Pa., and New York. 62 pp.

ONE familiar with algebra and logarithms usually needs little instruction in the use of the slide rule. He needs only practice in reading results accurately and expeditiously. On the other hand a person ignorant of logarithms finds the mastery of the instrument a more difficult task. The author of this booklet directs his attention to the wants of the latter class. His aim is to give directions for the use of the slide rule, so simple and explicit that any pupil with a fair knowledge of arithmetic can understand them. In this laudable purpose the author has been eminently successful. The booklet is a model of clear exposition.

The author confines his attention to two slide rules, the Mannheim rule and the Rietz rule. The term "Mannheim rule" has become generic. The Mannheim type is now used more than any other for ordinary purposes, and is manufactured by many firms in different countries. The name Rietz is attached to a specific rule, manufactured by the firm of Albert Nestler in Lahr, Baden. The Rietz rule is one of the very numerous rules with the Mannheim arrangement of the lines *A*, *B*, *C*, *D*, to which one or more other lines are added (in this case the *E* line for cube root, etc.). Just why this Rietz rule should have been selected out of a very large number of similar domestic and foreign makes is not quite evident.

The author gives nothing on the history of the slide rule. It is perhaps just as well that no attempt should have been made in this line. Only very recently have I been able to settle the long-disputed question as to the inventor of the straight-edge slide rule.* Mr. Clark gives in his book just

* "History of the logarithmic slide rule," Engineering News Publ. Co., New York, 1909.