The Slide Rule as an Aid in Calculating, R. G. Blaine, 6th Edition, 1946

The book seems to have been originally published in 1907 under the title, "Some Quick and Easy Methods of Calculating. A Simple Explanation of the Theory and Use of the Slide Rule, Logarithms, etc., with Numerous Examples Worked Out." A 7th edition of the book was published in 1952. As is often the case, even though the text was revised multiple times, it was not brought up to date. It is for this reason that we have a text published as late as 1946 or 1952, take your pick, which such distracting anachronisms as a description of the cursor as "... a late addition to the rule...".

The book was intended for individual study by those in commerce, engineering, or the mechanical trades, with no prior experience with the slide rule. It assumes the reader has at least a standard secondary school background in algebra and trigonometry. In the Preface to the first edition of the book, the author expresses his belief that most failures to learn the use of the slide rule lie in "... the want of a clear perception of the elementary principles on which the rule is constructed and the attempt to follow, by rote, instructions the reasons for which are not clearly understood." Accordingly, the text provides not only a standard discussion of logarithms and the logarithmic basis of slide rule operations, but many fully discussed examples, of increasing difficulty, over a wide range of application fields.

The scale set used in the standard Mannheim-type: C, D, A, B, S, L, T. Reversed scale operations are discussed. Perry's "new form of slide rule with Log-Log scale" (labeled 'E') is discussed. No specific rules or manufacturers are recommended, although the Section entitled, "Circular Slide Rules" provides instructions for use of the Stanley-Boucher pocket-watch style rule and the Fuller cylindrical rule.

There are 48 pages of fully-worked out examples in the areas of mensuration, mechanics, engineering, hydraulics, and electricity. The text provides a 4-place table of logarithms and a well constructed six page index.

This book is very useful for providing a historical picture of slide rule teaching, applications, and practice at the beginning of the 20th century.

Additional editorial note: In keeping with the book's extended title, "The Slide Rule As An Aid in Calculating With a Short Description of Some Other Labor-Saving Methods...", the first chapter is entitled "Contracted Arithmetic Methods" and shows a faster method of performing some mathematical operations such as multiplication and division. It is mildly interesting but would have best served as an Appendix since it has nothing to do with slide rule operation. A Publisher's note in the text indicates that this section will be removed in subsequent editions of the book.

Steve K. Seale, 2013