

CONTENTS.

	PAGE
Introductory	5
The Mathematical Principle of the Slide Rule	6
Notation by Powers of 10	8
The Mechanical Principle of the Slide Rule	9
The Primitive Slide Rule	10
The Modern Slide Rule	12
The Notation of the Slide Rule	14
The Cursor or Runner	17
Multiplication	19
Division	24
The Use of the Upper Scales for Multiplication and Division ..	26
Reciprocals	27
Continued Multiplication and Division	28
Multiplication and Division with the Slide Inverted.. .. .	30
Proportion	31
General Hints on the Elementary Uses of the Slide Rule ..	36
Squares and Square Roots	37
Cubes and Cube Roots	40
Miscellaneous Powers and Roots	45
Powers and Roots by Logarithms	45
Other Methods of Obtaining Powers and Roots.. .. .	47
Combined Operations	49
Hints on Evaluating Expressions.. .. .	52
Gauge Points	53
Examples in Technical Calculations	56
Trigonometrical Application	74
Slide Rules with Log-log Scales	84
Long-Scale Slide Rules	92
Circular Calculations	98
Special Types of Slide Rules.. .. .	107
Slide Rules for Specific Calculations	112
Constructional Improvements in Slide Rules	116
The Accuracy of Slide Rule Results	118
The Solution of Algebraic Equations	120
Screw-cutting Gear Calculations	122
Gauge Points and Signs on Slide Rules	124
Tables and Data	126
Slide Rule Data Slips	131