

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	13
The Cursor or Runner	16
Multiplication	19
Division	23
The Use of the Upper Scales for Multiplication and Division	26
Reciprocals	27
Continued Multiplication and Division	27
Multiplication and Division with the Slide Inverted	30
Proportion	31
Table of Conversion Factors	33
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	48
Hints on Evaluating Expressions	51
Gauge Points	53
Examples in Technical Calculations	55
Trigonometrical Applications	74
The Solution of Right-angled Triangles	79
The Solution of Oblique-angled Triangles	80
Practical Trigonometrical Applications	81
Slide Rules with Log-log Scales	84
Long-scale Slide Rules	91
Circular Calculators	96
Special Types of Slide Rules	105
Slide Rules for Specific Calculations	110
Constructional Features of Slide Rules	112
The Accuracy of Slide Rule Results	114
The Solution of Algebraic Equations	115
Screw-cutting Gear Calculations	117
Gauge Points and Signs on Slide Rules	118
Recent Developments in Slide Rule Design	119
Tables and Data	122
Slide Rule Data Slips	127