CONTENTS

I: Introduction

		PAGE
1.	*Order of Study*	1
2.	*Function of the Slide Rule*	1
3.	*Description*	1
4.	*Reading the Scales*	4
5.	*Fundamental Principle of the Slide Rule*	9
6.	*Accuracy of the Slide Rule*	13
7.	*The Decimal Point*	20
8.	*Adjustments of the Slide Rule*	25
9.	*Care and Manipulation*	31
10.	*Speed in Operation*	35

II: Multiplication and Division

11.	*General Principles*	36
12.	*Multiplication—Two Factors*	38
13.	*Multiplication—Three Factors*	50
14.	*Multiplication—Any Number of Factors*	59
15.	*Division—Any Number of Factors*	62
16.	*Multiplication-division Combinations*	69
17.	*Mixed Operations*	79
18.	*Summary*	85

III: Squares, Square Roots, Cubes, and Cube Roots

19.	*Numbers Greater than One—Squares and Square Roots*	89
20.	*Numbers Greater than One—Cubes and Cube Roots*	94
21.	*Numbers Less than One—Squares and Square Roots*	99
22.	*Numbers Less than One—Cubes and Cube Roots*	102
23.	*Accuracy of the Square and Cube Scales*	105
24.	*Principle of the Square and Cube Scales*	105

IV: The Log Log Scales

PAGE
25. *Introduction* 107
26. *The LL1, LL2, and LL3 Scales* 107
27. *The LL01, LL02, and LL03 Scales* 123
28. *Negative Exponents* 130
29. *Principle of the Log Log Scales* 133

V: Trigonometric Scales

30. *Introduction* 136
31. *The S and ST Scales—Sines, Cosines, Secants, and Cosecants* 136
32. *The T and ST Scales—Tangents and Cotangents* 141
33. *Functions of Angles of Less than 0°34′(0.57°)* 144

VI: Special Operations

34. *Reciprocals* 149
35. *Proportions* 151
36. *A Series of Numbers Multiplied or Divided by, or Divided into, One Factor* 154
37. *Multiplication and Division Involving* π 157
38. *Multiplication and Division Involving the A, B, and K Scales* 163
39. *Multiplication and Division Involving Trigonometric Functions* 173
40. *Powers of* e*; Hyperbolic Functions* 182
41. *Exponents Involving Roots,* π*, or Trigonometric Functions* 185
42. *Logarithms of Numbers; the L Scale* 189

VII: The Polyphase and Mannheim Slide Rules

43. *Introduction* 194
44. *Multiplication and Division* 194
45. *The CI Scale* 207
46. *The S and T Scales* 213
47. *The L Scale* 223

TABLE OF CONVERSION FACTORS 226

ANSWERS TO PROBLEMS 227

INDEX 239