

MANUAL A

OF

Modern Surveying Instruments

AND THEIR USES

TOGETHER WITH A

CATALOGUE AND PRICE LIST
OF
SCIENTIFIC INSTRUMENTS

ELEVENTH EDITION

MADE BY

The A. Lietz Company

Established 1882

632-634 Commercial Street
SAN FRANCISCO, CALIFORNIA

1911-12

The Slide Rule.

The Slide Rule has been defined as "an instrument for mechanically effecting calculations by logarithmic computation," (Pickworth, *The Slide Rule*), and it is said that "by its aid various arithmetical, algebraical, and trigonometrical process may be performed with ease and rapidity, the results obtained being sufficiently accurate for almost all practical requirements."

The A. W. Faber Calculating Rule consists of a "stock" or "body" about 10 inches in length, $1\frac{1}{4}$ inches in width, and $\frac{3}{8}$ of an inch in thickness; a movable strip or "slide" inserted into the body surfaces level, and a "runner" about one inch square fitted with glass, which, sliding freely the entire length of the instrument, serves to connect the fine graduations of the several scales in the "body" and "slide."

The rule is made of boxwood, with celluloid facings.

A Manual or Book of Instructions of 40 printed pages and 13 diagrams accompanies each rule, explaining the general principles which govern the instrument and furnishing practical illustrations of its usefulness.

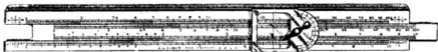


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|------|------------------------------------|--------|
| 1850 | Calculating Rule, 6 in. long..... | \$3.25 |
| 1851 | Calculating Rule, 10 in. long..... | \$3.50 |



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|------|---|--------|
| 1852 | Calculating Rule, 10 in. long, with spring..... | \$4.50 |
|------|---|--------|

1852 Rule has inserted in its body, lateral to the slide, a boxwood adjuster which acts upon the slide like a spring and insures to its movement an even and adequate friction, safeguarding against becoming loose or tight under changes of temperature and atmospheric humidity.



- | | | |
|------|--|--------|
| 1853 | Calculating Rule, with self-adjusting slide and digit indicator..... | \$5.00 |
| 1854 | Calculating Rule, with self-adjusting slide and digit indicator, 20 in. long | 15.00 |

The above rule is made $\frac{3}{8}$ in. longer at either end in order to afford a firmer purchase to the slide and cursor, when operated in those positions.

It is also provided with a ready reference reading mark, for determining the number of digits in a product or quotient; and with digit registering cursor for problems involving more than two factors.

BOUCHER CALCULATOR.

1860

The Boucher Calculator is made in form of a stem-winding watch. Compound calculations can be performed easily by means of the two pointers, operated by the "Stemwinder" and acting simultaneously on both dials.

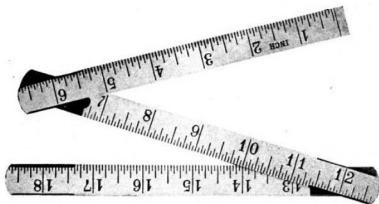
1860	Boucher's Calculator, enameled dial, with directions, each.....	\$8.50
1861	Same as No. 1860, but with silvered dial.....	14.00

RULES.**Sundries for Slide Rules.**

1865	Glass indicator with one hair line (as furnished with rules).....	\$0.50
1866	Glass indicator with two hair lines.....	.70
1867	Glass indicator with decimal pointer.....	1.00
1868	Sole Leather Case for 6 inch Slide Rule.....	.75
1869	Same, 10 inch.....	1.25
1870	Same, 20 inch.....	1.75

Folding Pocket Rules.

Yellow finish, brass tipped, boxwood, with self locking springs and invisible joints.



These Pocket Rules are thin and light, and more convenient than the common joint rules. By a peculiar preparation of the wood, shrinkage is entirely prevented.

1875	2 feet, 4 fold, inches both sides, each.....	\$0.25
1876	4 feet, 8 fold, inches both sides, each.....	.50
1877	6 feet, 12 fold, inches both sides, each.....	.75



GRAND PRIZE

Award

Ribbon



ALASKA-
YUKON-
PACIFIC
EXPOSITION

SEATTLE
1909

