"CONCISE"

CIRCULAR SLIDE RULES

No. 32

WITH

PERPETUAL CALENDERS

CONCISE

MANUFACTURED BY

CONCISE CIRCULAR SLIDE RULE CO., LTD.

EDOGAWAKU, TOKYO, JAPAN

A. How to use perpetual calendar.

Set the month to the number of chronological years in a frame, then you will read all the weeks of that specific month.

White figures with the black frames in the chnonological table indicate leap Years. As to leap January and February, set white Jan. and Fed. in the black frames to the numbeu of the chronological table.

B. How to read graduations.

Graduations (scales)on this computer are callcd logarithmic scales. The graduations on the outer disc are read clockwise from the figure 1 printed in white with a blak frame. Cutting of the graduations is not even, but when you pay attention, you can read them as you read graduations on a ruler.

These graduations indicate all the numerical value. but all the digits are not taken into consideration for the computer, for example the graduation 1.8 indicates either 18 or 180 and 0.018.

C. How to get digits.

Digits are made out to some extent on the basis of a common sense view in the daily actual calculation. Generally, the digit of a solution is made out by a rough calculation, and this is compared with the solution obtained by the calculation.

This is the method of getting digit.

D. Multiplication.

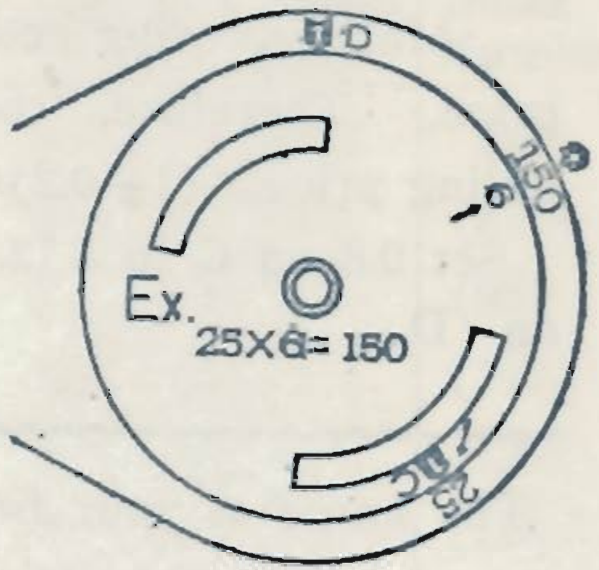
Example: $25 \times 6 = 150$

Set 1 on the inner disc (here in after calls c) to 25 on the outer disc (here in after calls D) and the answer 150 on D can be obtained against 6 on C.

Example: $25 \times 2 = 50$, $25 \times 5 = 125$

$25 \times 7 = 175$

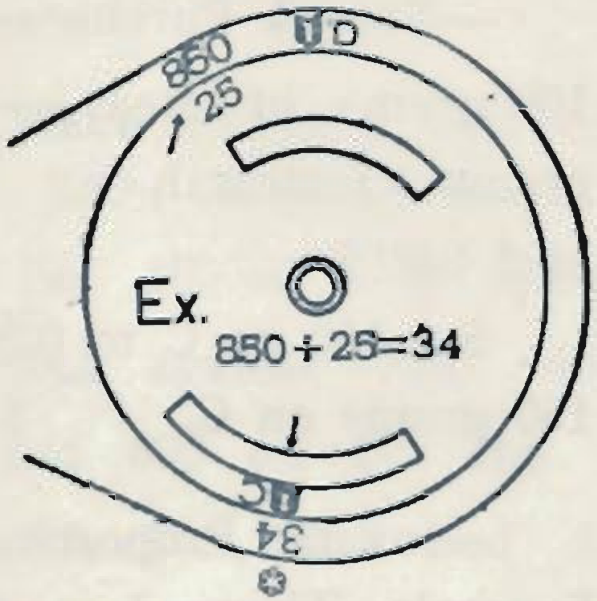
Set 1 on C to 25 on D, then against 2, 5, 7, on C, the answers 50, 125 and 175 can be obtained on D respectively.



E. Division.

Example: $850 \div 25 = 34$

Set 25 on C to 850 on D, then against 1 on C read 34 on D.



F. Mixture of Multiplication and Division.

When multiplication and division are mixed together, you can of course do them one by one continuously, but we have a simpler method for speeding up the calculation. In such a case. you may first divide them multiply.

Example: $\frac{3 \times 6}{5} = 3.6$

Set 5 on C to 3 on D, then against 6 on C read the answer 3.6 on D.

G. Examples of Various Calculations.

—Conversion — Example: 1 *lb* = 0.4536 kg

Outer disc (Scale D)	kg	(20.4)	(28.6)	(68)	56.25
Inner disc (Scale C)	*lo*	45	63	150	15

In the above example "*lb*" is set on C and "kg" on D. Set 1 on C to 0.4536 and read 20.4 on D against 45 on C.

—Index Number—

Index Numbers of production capacity based on January. Set 1 on C to 280 on D, then read the answers on C against 245, 266, 322, 336, 350 respectively.

Month	Production capacity	Index Number
1	280 sets	100
2	245	(87.5)
3	266	(95)
4	322	(115)
5	336	(120)
6	350	(125)

—Percentage—

	Amount of Money	Percentage
A	$ 350	(18.4)
B	$ 450	(23.7)
C	$ 500	(26.3)
D	$ 600	(31.6)
Total	1,900	100

Make the total sum of parts.
350+450+500+600=1,900

Set 100 on C to 1,900 on D, then against 350, 450, 500 and 600 on D, the answers 18.4, 23.7, 26.3 and 31.6 can be obtained on C.

—Proportion (Proportional Division).—

Example: Divide $ 3200 into 4 at the rate of 1 : 1.5 : 2.5 : 3. Make the total sum of parts. 1+1.5+2.5+3=8.

Set 8 on C to the total number 3,200 on D and read 400, 600, 1,000 and 1,200 on D.

—Sale & Purchase—

100 grams of meat·····$ 0.20. What is the price of 150 grams of meat ? How many grams of meat can we buy at $ 5.00 ?

Set 100 on C to 0.20 on D and read $ 0.30 on D against 150 grams on C. $ 5.00 on D from 2500 grams on C.

—Inverse Proportion.—

Example There is a job 6 men complete in 14 days. How many days will it take for 8 men to finish the job ?

Set 8 on C to 6 on D, then against 14 on C read 10.5 on D.

(Ans. 10.5 days.)

—Calculation of Rate. Profit and Loss.—

Example : Commodity at $ 120.00 cost price. What is the selling price of 25% up of the cost ?

25% increase of cost price·····selling price.

Therefore, the selling price is 1.25 times of cost price (1+0.25)=1.25. Set 1 on C to $ 120.00 on D. and against 1.25 on C read $ 150.00 on D.

Example : There is a commodity at $ 120.00 manufacturing cost. At what price should this commodity be sold in order to include 20% profit for the selling price ?

Manufacturing cost is the 20% decrease of the selling price. Therefore, the manufacturing cost is 0.8 times of the selling price. (1−0.2)=0.8

Set 0.8 on C to $ 120.00 on D, then 1 on C indicates $ 150.00 on D,

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The name of your firm can be imprinted on our scale. This item can be an ideal promotional give - away.