

(No Model.)

R. T. MARTIN.  
NUMERAL FRAME.

No. 279,263.

Patented June 12, 1883.

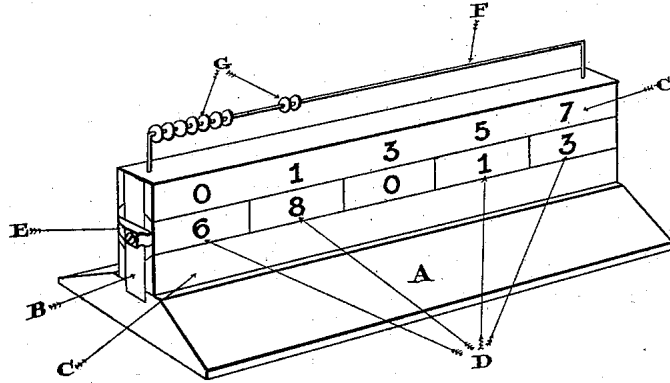


Fig. 1.

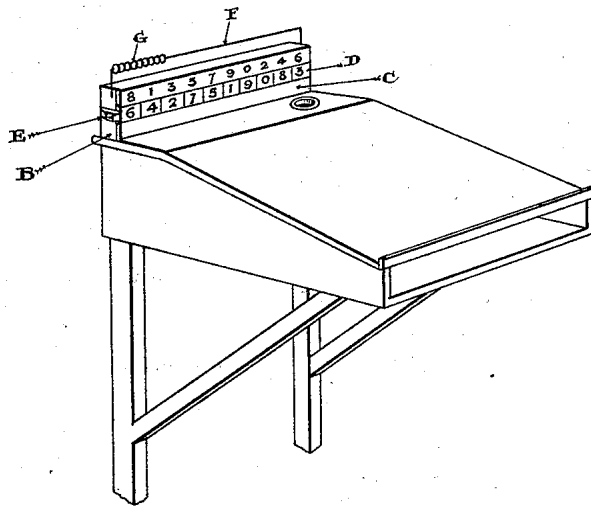


Fig. 2.

Witnesses.

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# UNITED STATES PATENT OFFICE.

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## NUMERAL-FRAME.

SPECIFICATION forming part of Letters Patent No. 279,263, dated June 12, 1883.

Application filed May 15, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT T. MARTIN, a citizen of the Dominion of Canada, residing at 26 Montague Place, in the city of Toronto, in the Province of Ontario, have invented a new and useful Calculator or Numeral-Frame, of which the following is a specification.

The object of the invention is to provide an educating-toy for children; and it consists, essentially, in a grooved frame having marked upon its face figures representing the digits. Above the said frame a number of balls are strung upon a wire, and within a groove formed in the frame slide a series of dovetailed blocks, each of which has marked upon its face one of the digits. By moving the series of blocks in one direction and placing the liberated block from one end back into the groove step by step, a perfect addition-table is made, while by moving any number of balls away and counting those remaining a subtraction-table for beginners is obtained.

In the accompanying drawings, Figure 1 is a perspective view of the device merely as a toy; and Fig. 2, a similar view, showing the device attached to an ordinary school-desk.

Referring to the drawings, A represents the base-plate, having a longitudinal bridge-piece, B.

C are cleats or strips nailed or otherwise secured on either side of the bridge-piece B, and forming on either side thereof a dovetailed groove, in which the dovetailed blocks D are adapted to slide. Upon the upper of these cleats, on either side, are marked the digits, only five being shown in Fig. 1, and each of the blocks D is marked with one of the digits, as shown. The blocks may be locked in position, with any desired arrangement thereof, by means of a button, E.

F represents the wire, secured to the top of the bridge B, upon which are strung the balls G.

It will be observed that the symbols on the blocks D are each below a particular digit on the cleat. Each two may therefore be added together or subtracted, and by loosing the button E and forcing the series to the right or left a complete change is made. It will also be seen that as the grooves between the cleats are open at both ends, a block may be readily removed from one end of the groove and placed in the other end, whereby the blocks may be more readily adjusted in the desired position than where the grooves are closed at one end, or are connected with other grooves through which a block has to be moved before it can be placed in the other end of the groove from which it was taken. The addition of the buttons will be found to be a great convenience, as by their use the blocks can be easily and quickly secured in the grooves. This construction will not only produce a toy for amusement, but prove a valuable educator.

What I claim as new is—

The educational toy herein described, consisting of the bar A, the bridge B, the cleats C, secured thereto to form a dovetailed groove open at both ends, the upper cleat upon either side being marked with the digits, the dovetailed sliding blocks D, each marked with a particular digit, the button E, wire F, and balls G, as and for the purposes specified.

ROBERT T. MARTIN.

Witnesses:

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