C. J. SPOOR & P. A. TRAUTMAN.

EDUCATIONAL DEVICE.

APPLICATION FILED MAY 7, 1917.

Patented June 25, 1918.

1,270,668.

Fig. 3.

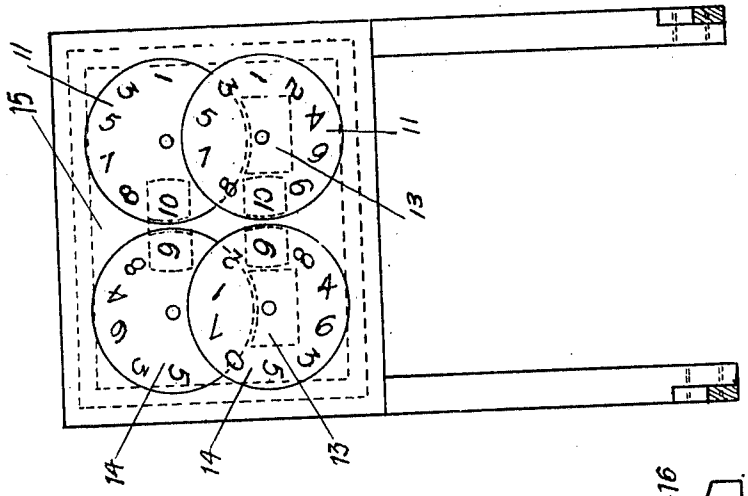


Fig. 2.

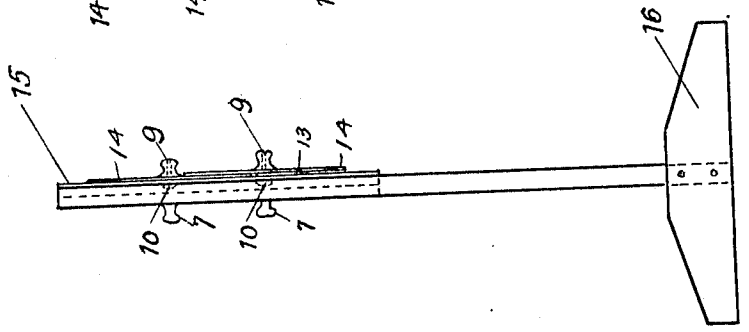
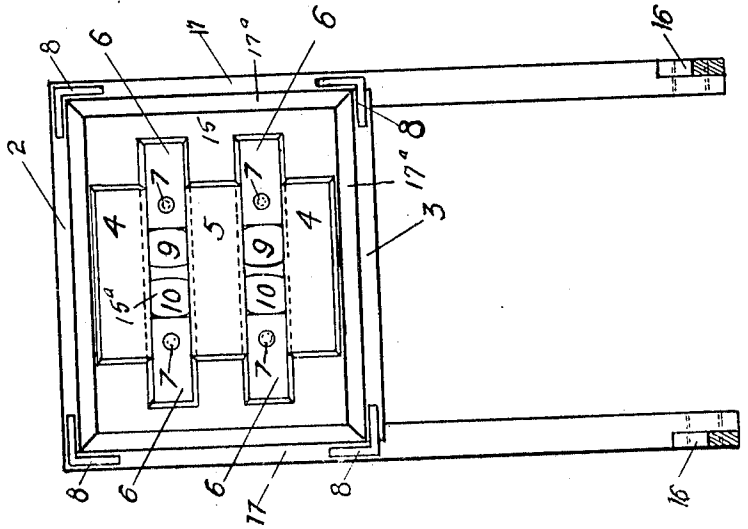


Fig. I.



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UNITED STATES PATENT OFFICE.

CORA J. SPOOR AND PAUL A. TRAUTMAN, OF DES MOINES, IOWA.

EDUCATIONAL DEVICE.

1,270,668. Specification of Letters Patent. Patented June 25, 1918.

Application filed May 7, 1917. Serial No. 167,116.

To all whom it may concern:

Be it known that we, CORA J. SPOOR and PAUL A. TRAUTMAN, citizens, respectively, of the United States and the Dominion of Canada, and residents of Des Moines, in the county of Polk and State of Iowa, have invented a certain new and useful Educational Device, of which the following is a specification.

The object of our invention is to provide an educational device of comparatively, simple, durable and inexpensive construction, comprising a supporting frame having at the upper portion thereof a plurality of disks arranged opposite sight openings for displaying through the sight holes various indicating characters represented on the disks.

With this and other objects in view our invention consists in the construction, arrangement and combination of the various parts of the device, whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in our claim, and illustrated in the accompanying drawings, in which:

Figure 1 shows a front elevation of our improved device, the base member being shown in section.

Fig. 2 shows a side elevation of the same, and

Fig. 3 shows a rear elevation.

In the accompanying drawings, we have used the reference numeral 16 to indicate generally a pair of spaced base members. Secured to the base members are upright standards 17 connecting at their upper ends with a cross member 2 and between their ends by a cross member 3 spaced below the member 2. The upper portion of the uprights 17 and the cross members 2 and 3 form a substantially rectangular frame, the inner edges of the front faces of which are beveled at 17ª as shown in Fig. 1.

Secured to the back of said frame is a plate 15. Mounted on said plate is a series of disks 14, arranged substantially as shown in Fig. 3.

Extended through the plate 15 for each disk is a plate 10, rotatably mounted and supported on the disk, as shown in Fig. 2, and having on its rear end a handle 9, whereby the disks may be rotated. The lower disks overlap the upper disks, as shown in Fig. 2, for saving space, and we have, therefore, mounted on the plate 15 between the lower disks and said plate spacing members 13. The disks 14 have on their front and rear surfaces indicating numerals or the like, as shown. The numerals on the back are arranged to correspond with the numerals on the front.

Mounted on the front face of the plate 15 near the upper and lower portions thereof are spaced guide blocks 4, having their adjacent edges beveled from their outer surfaces inwardly and toward the plate 15.

Spaced substantially midway between the guide blocks 4 is a guide block 5 having its edges adjacent to the blocks 4 beveled inwardly and toward the plate 15.

Slidably mounted between each block 4 and adjacent the block 5 are two cover plates 6 having handles 7 for convenience in sliding the plates 6.

The plate 15 is provided with suitable sight openings 15ª preferably arranged in horizontal pairs adjacent to each other, as shown in Fig. 1 and adapted to be covered by the cover plates 6.

The parts are so arranged that in the practical operation, of our improved device, any or all of the sight openings 15ª may be closed by means of the cover plates 6. The teacher stands back of the device and rotates the disks 14 to position for bringing any desired numeral or indicating character opposite the respective sight openings 15ª, for making any desired combination or variety of combinations of the numerals for mathematical exercises.

It will be seen that by adjusting the cover plates 6 a vast number of combinations of numerals may be made, and that in either of the upper or the lower sight openings there may be displaced any combination of numerals from 0 to 109.

Some changes may be made in the construction and arrangement of our improved invention without departing from the essential features and purposes therof, and it is our intention to cover by this application any modified forms of structure which may be included within the scope of our claim.

We claim as our invention:

An educational device comprising a plate, a pair of disks rotatably mounted on said plate on the rear surface thereof, said disks having corresponding indicating characters on their front and rear surfaces adjacent to their edges, said disks being so arranged that their peripheries at one point are ad-

jacent to each other, a second pair of disks rotatably mounted on the rear surface of said plate, below the respective disks of the first pair, having corresponding indicating characters on their front and rear surfaces, handles on said disks, said plates having openings whereby the adjacent portions of each pair of disks may be viewed from the front of the plate, and adjustable cover members on said plate, each being adapted in one position of its movement to cover the visible portion of one of said disks.

Des Moines, Iowa, April 24, 1917.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."