A. E. PAUL & W. F. PREUSS.

EDUCATIONAL DEVICE.

APPLICATION FILED APR. 12, 1915.

1,148,616.

Patented Aug. 3, 1915.

3 SHEETS—SHEET 1.

Fig. 1.

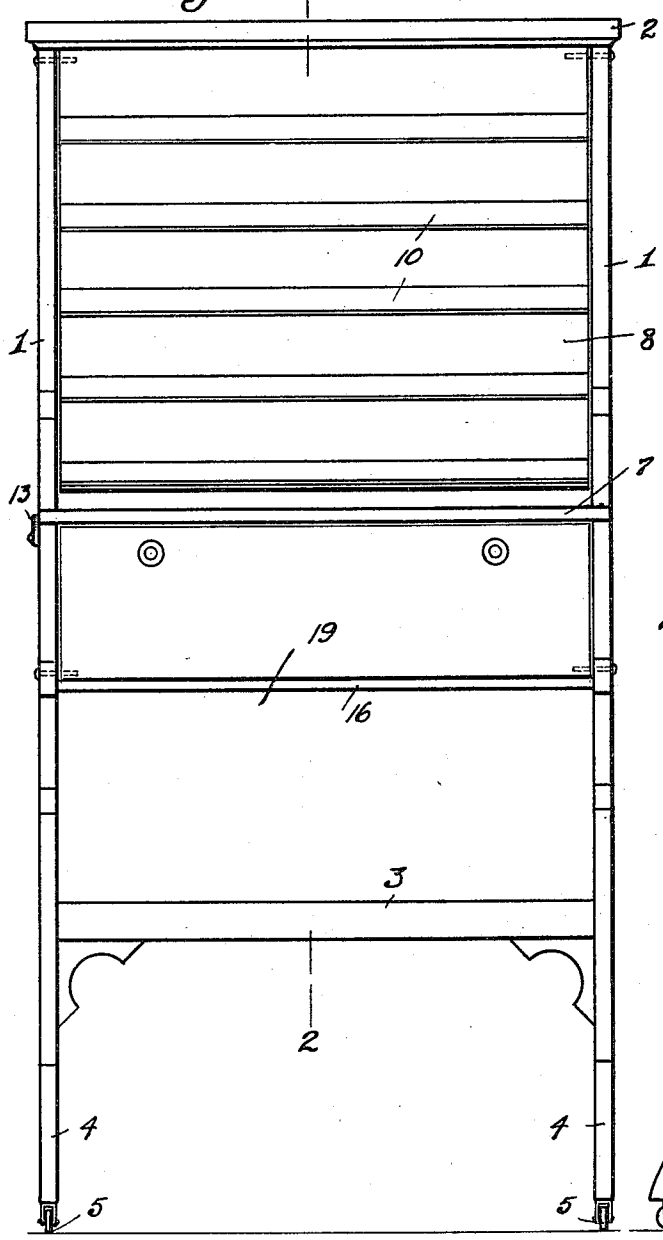
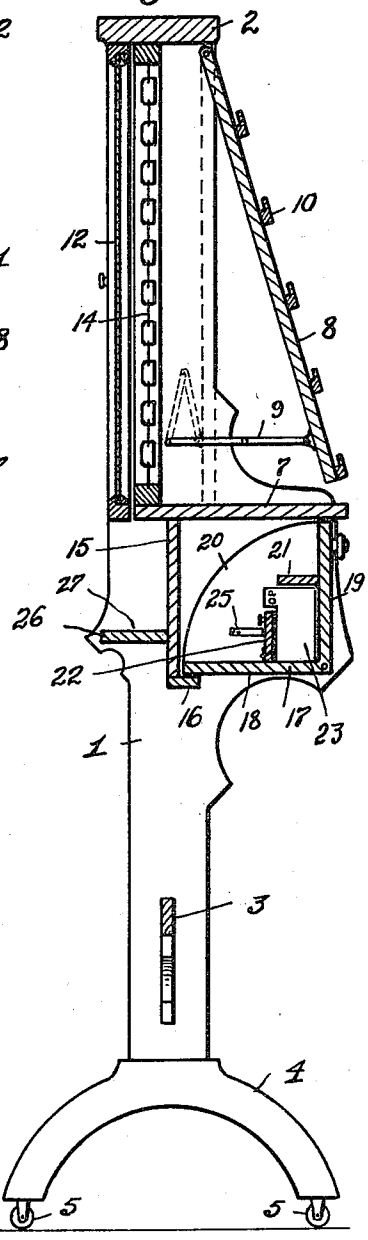


Fig. 2.



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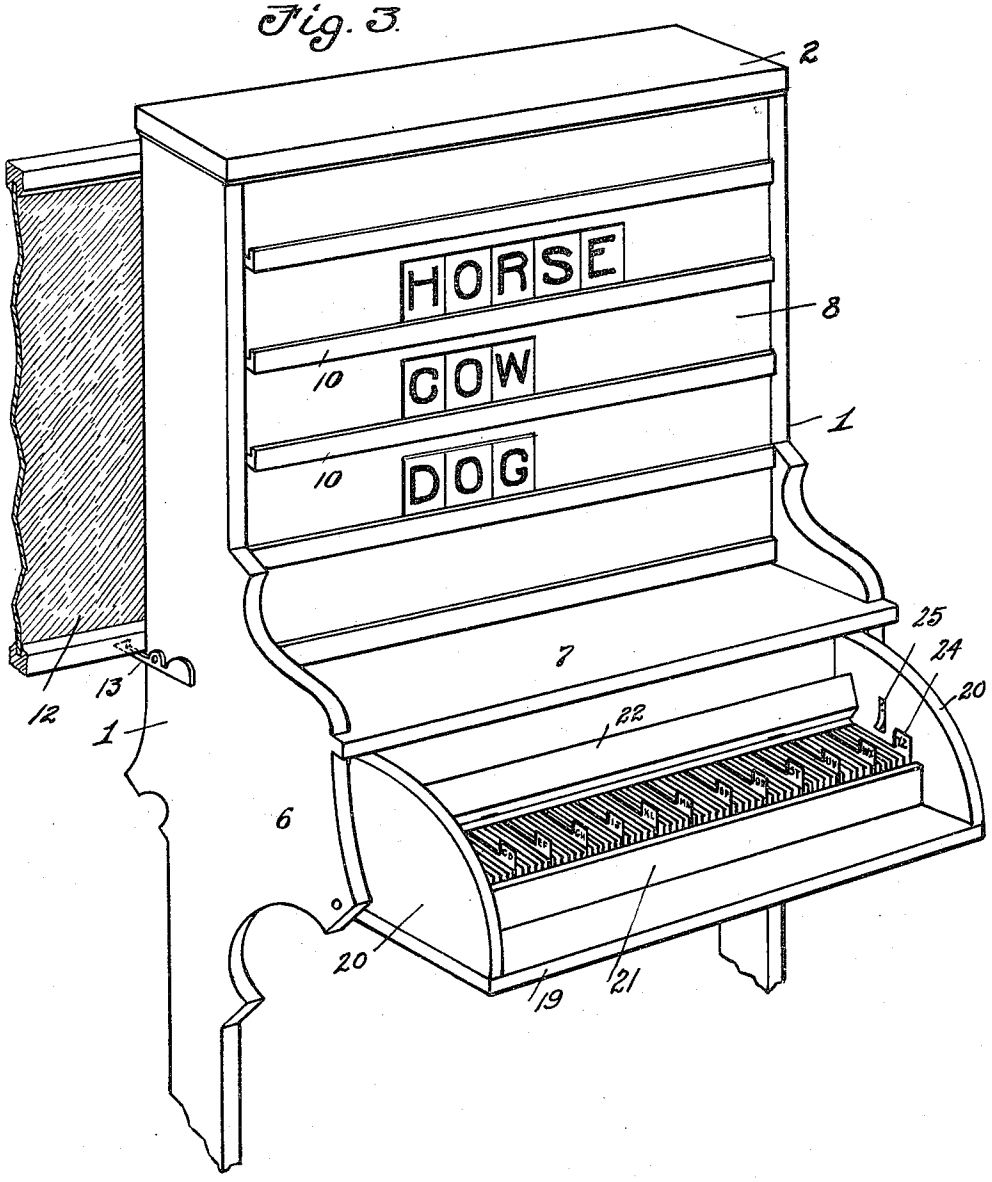
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3 SHEETS—SHEET 2.

Fig. 3.



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3 SHEETS—SHEET 3.

Fig. 4.

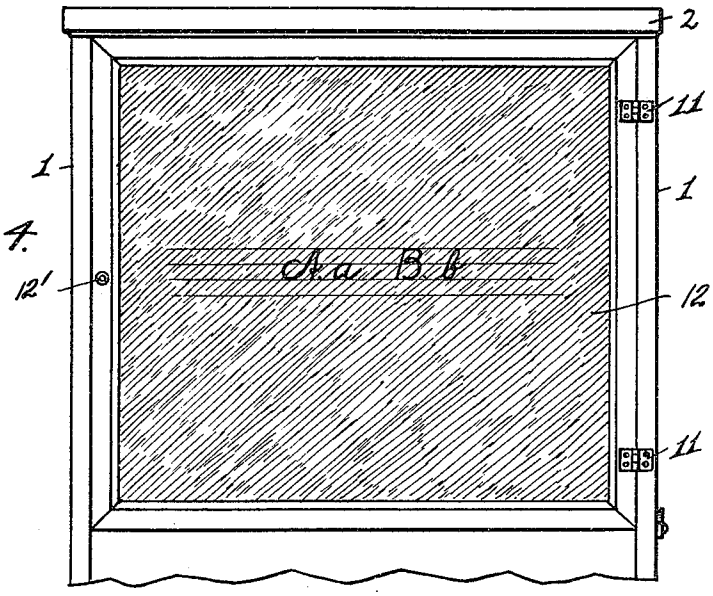
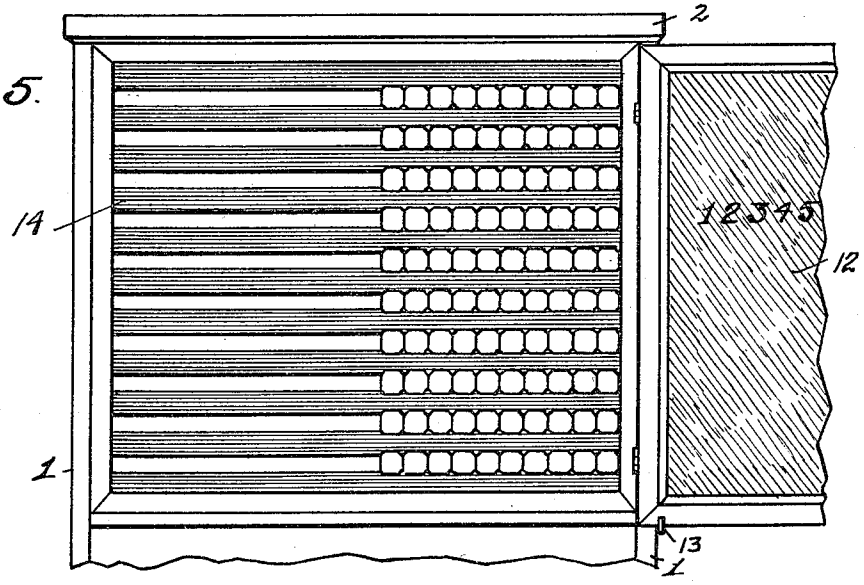


Fig. 5.



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UNITED STATES PATENT OFFICE.

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EDUCATIONAL DEVICE.

1,148,616. Specification of Letters Patent. Patented Aug. 3, 1915.

Application filed April 12, 1915. Serial No. 20,772.

To all whom it may concern:

Be it known that we, AUGUST E. PAUL and WILLIAM F. PREUSS, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Educational Devices, of which the following is a specification.

The invention relates to an educational device comprehending particularly a desk-like structure involving movable parts which in their specific adaptation and coöperation are designed to aid in instruction.

The invention generally stated involves a desk like element adapted for convenient movement to any desirable position and constructed to provide a series of racks for holding any predetermined group or arrangement of numerals or letters, a cabinet section for the reception of cards bearing numerals, letters or other data to be used in the rack, the rear portion of the structure being provided with a movable black-board normally concealing a counting frame or abacus, the black-board being mounted for a particular movement so that it will be used in conjunction with the rack.

The invention in the preferred form of details will be described in the following specification, reference being had particularly to the accompanying drawings, in which:

Figure 1 is a front elevation of the improved educational device. Fig. 2 is a vertical section of the same on the line 2—2 of Fig. 1. Fig. 3 is a broken perspective of the device, the black-board being shown in conjunction to be used with the rack. Fig. 4 is a broken rear elevation showing the upper portion of the device. Fig. 5 is a similar view with the black-board swung to open position to avoid the counting frame.

The improved device comprises a frame like structure involving side boards 1 connected at the upper ends by a top board 2 and near their lower ends by a transverse brace 3. The lower end of each side board is provided with a foot 4 having spaced terminals to insure stability, the said terminals being provided with rollers 5 whereby the device as a whole may be conveniently moved from place to place or adjusted to any desired position. The intermediate portion of the side boards is of increased width about midlength the latter as at 6, and further connected at the portion of increased width by a transverse strip 7 forming a table.

Hingedly supported in the space included between the table top strip 7 and side strips 1 is a rack section 8. The rack being hinged at the upper end to the side strips 1 and, in normal position, filling the space between the top strip, side strips and table. The lower end of the rack section is connected with the side boards by hinged levers 9 adapted when the sections thereof are alined to support the rack section in inclined position as shown in Fig. 2, the breaking of the levers permitting the section to return to normal or vertical position.

Secured upon the outer face of the rack section are a series of racks 10, preferably L-shaped strips arranged to space a portion thereof from the face of the section to provide receiving racks. Hinged to one of the side strips 1 at the rear edge thereof, as at 11 is a two-faced black-board 12, the same preferably fitting within the space between the side strips and top strip and held therein by any desired form of catch as 12′. The black-board is hinged so as to swing completely back so that its operative or drawing surfaces are supported to one side of the strip 1 to which it is hinged, presenting said drawing surfaces both toward the front and rear of the device, as clearly shown in Figs. 3 and 5. A latch 13 is adapted to cooperate with the lower edge of the board to hold it in such position when desired.

Between the side strips immediately in rear of the black board is a counting frame or an abacus 14 the construction of which is usual and needs no detail explanation.

Pendant from the table 7 and near the rear edge of the latter is a partition 15 having a forwardly projecting ledge 16, at its lower end.

Pivotally mounted in the space below the platform and in advance of the partition 15 is a cabinet 17, having right angle walls 18 and 19 connected by curved side sections 20. The cabinet is pivotally mounted between the side strips 1 and is of such dimension that when in closed position the free edge of the wall 18 rests upon a ledge 16 while the free edge of the wall 19 abuts the underside of the table 7. In this position the cabinet forms with the parts on the table a box like structure.

Projecting inwardly from the front wall 19 of the cabinet is a partition 21, forming

with said front wall and the adjacent portion of the bottom wall 18 a card receiving tray.

Hinged to the bottom wall 18 of the cabinet is a holding strip 22 having a dimension transverse said strip somewhat less than the similar dimension of the tray, the strip being mounted in such position that when said strip is in operative position, that is at right angles to the bottom wall 18 of the cabinet, the strip will fold down upon the cards 23 arranged in said tray and prevent their being removed. The space between the free edge of the strip 22 and the partition 21 forming what is in effect the forward wall of the tray, is sufficient to permit of the table or index cards, such as shown at 24, to be used, the index projections of such cards extending through the space thus provided. Leaf spring strips 25 are secured to the side walls 20 of the cabinet so as to engage in rear of the holding strip 22 and hold the latter in card facing position, these strips being readily displayed to permit movement of the holding strip into the position shown in Fig. 3, whereupon the cards are readily accessible.

A ledge 26 projects rearwardly from the partition 15 below the table 7, providing a space 27 for the reception of chalk, black-board erasers and other desired material for use in the device.

Form the above description taken in connection with the drawing it will be obvious that the improved device provides a means materially assisting in educational purposes, particularly for the younger children. The cabinet may be turned down into operative position as shown in Fig. 3 and after removing the holding strip any card selected in accordance with the index or otherwise may be removed for positioning in the rack to spell words or if the cards are of the pictorial character to show different pictures. In this use the black-board may be turned into the position shown in Fig. 3 and held by the latch 13, and used by the child or teacher to reproduce the work on the rack or to complete the work or for any other desired purpose, it being particularly understood that in this position one of the operative surfaces of the black-board is visible from the front of the desk structure, that is to say, one operative surface of the black-board and rack are in sight at the same time. The black-board when open exposes the counting frame for use. The device as a whole may be turned to any position or at any angle or moved to any convenient place in desired uses thereof.

What is claimed is:

1. An educational device involving a desk-like structure having a rack section, racks thereon, a blackboard movably mounted in rear of the rack section, and a counting device housed within the structure between the blackboard and the rack section.

2. An educational device involving a desk-like structure having a rack section, racks thereon to receive and support cards, and a blackboard movably mounted in rear of the rack section, said blackboard being adapted to be moved to expose its operative surface toward the rack section.

3. An educational device involving a desk-like structure having a rack section, racks thereon to receive and support cards, a card cabinet mounted for swinging below the rack section, a blackboard adjustably mounted in rear of the rack section, and a counting device housed within the structure between the blackboard and the rack section.

4. An educational device involving a desk-like structure having a swinging rack section, racks thereon to receive and support cards, a black-board hinged to the structure opposite the rack section, said black-board being adapted to be swung to expose its operative surface toward the swinging rack.

5. An educational device involving a desk-like structure having a swinging rack section, racks thereon, a card cabinet mounted for swinging below the rack section, a blackboard having hinged connection with the device in rear of the rack section, and a counting device housed within the structure between the black-board and rack section.

In testimony whereof we affix our signatures in presence of two witnesses.

AUGUST E. PAUL.
WILLIAM F. PREUSS.

Witnesses:
H. J. HEYNE,
H. A. BORCHERS.

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