(No Model.)

H. RÖDELSPERGER.

ARITHMETICAL APPARATUS.

No. 560,651. Patented May 26, 1896.

Fig. 1.

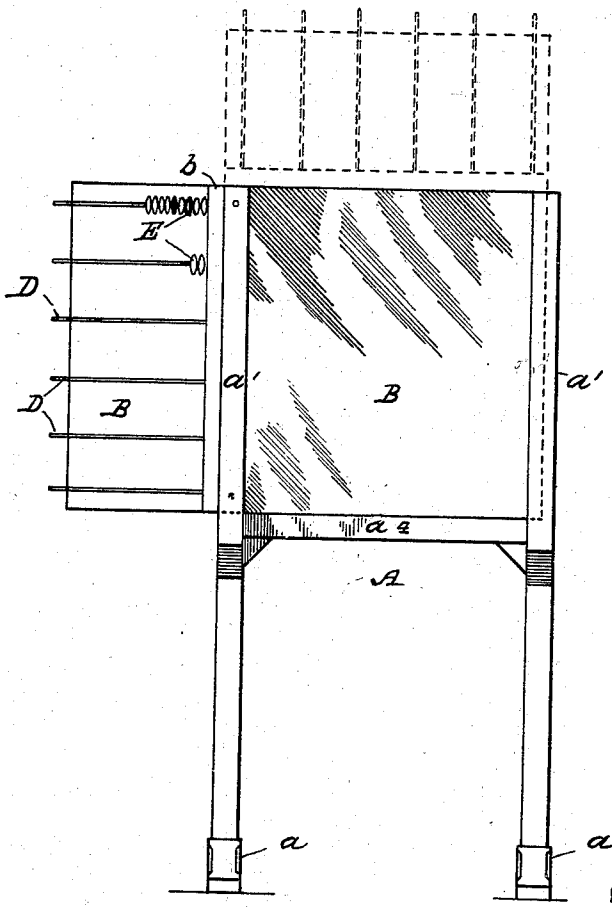


Fig. 2.

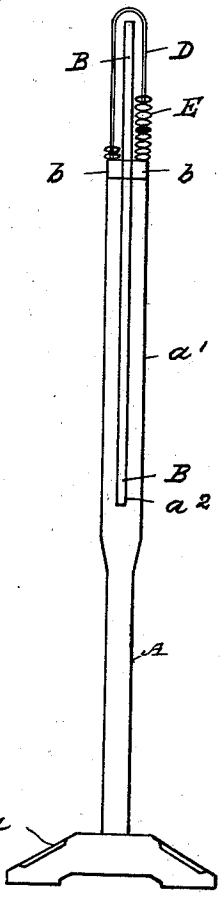
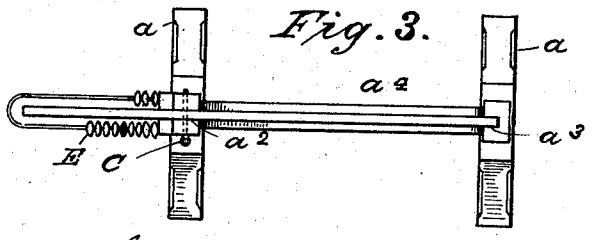


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

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ARITHMETICAL APPARATUS.

SPECIFICATION forming part of Letters Patent No. 560,651, dated May 26, 1896.

Application filed November 11, 1895. Serial No. 568,562. (No model.)

To all whom it may concern:

Be it known that I, HERMAN RÖDELSPERGER, a citizen of the United States, residing at Manchester, in the county of Hillsborough and State of New Hampshire, have invented certain new and useful Improvements in Apparatus for Teaching Rudiments of Arithmetic; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This apparatus is intended for the use of little children, such as are found in the first classes of primary schools, the object of the invention being to provide an apparatus which will be a great aid to teachers of rudimentary arithmetic by giving a child a clear impression of the relative value of figures by an improved use of objects.

The invention consists, broadly or essentially, in the improved construction of a blackboard and its supporting-frame, whereby the former is detachably mounted in the latter, and other novel features, all of which will be fully set forth in the following specification and claim, and clearly illustrated in the drawings which accompany and form a part of the same, of which—

Figure 1 represents a front elevation of my improved apparatus, Fig. 2 being an end elevation and Fig. 3 a plan view.

Similar reference-letters denote corresponding parts in each view.

By arranging the wires upon which the beads or buttons are placed lengthwise upon and covering only a small portion of the blackboard, the remaining portion being practically square, the blackboard may be detachably mounted in a suitable supporting-frame, so as to be readily reversed in a manner to cause the beaded wires to assume either a horizontal or vertical position at one side of or above the frame, and when at one side the beads or buttons are easily set up by a child in groups of twos, threes, &c., while they are being taught addition or multiplication, and after they have learned to form any desired groups with the beads they may then be taught to place the figures representing the same upon the blackboard opposite each group, thus giving them a comprehensive idea of the meaning of figures.

In the drawings, A is a supporting-frame, comprising the feet a, from which rise the uprights a', the upper end of which may be slotted for the reception of a blackboard B, or one may be slotted and the other grooved, as shown at a^2 a^3, respectively, and a cross-bar a^4 located at the bottom of the slots in the uprights.

The blackboard B is made just wide enough to fill the frame A, and considerably longer, so as to project either at one side or at the top beyond or above the said frame, and is provided with cleats b, one on each side, which rest normally against the frame, and the blackboard may be secured in position by a suitable pin C, which passes through a perforation in said frame and one in said blackboard registering therewith.

The wires D are bent so as to pass on both sides of the projecting end of the blackboard B, their ends being secured to the cleats b, and on these are placed suitable beads or buttons E, which may be moved as required from the back to the front of the blackboard, and when the board is placed so that the wires are horizontal the apparatus is so low that the smaller children can easily reach and operate it.

Having described my improved apparatus, what I claim is—

An apparatus for the purpose described, consisting of slotted uprights, an oblong blackboard adapted to rest in said slots in the uprights with its length either horizontal or vertical, the projecting end of said board being provided with cleats extending across its opposite sides, a series of wires secured to said cleats and running from one to the other around the projecting end of the board, beads or buttons loosely mounted upon the wires, and means for fastening the reversible board in the slotted uprights, substantially for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

HERMAN RÖDELSPERGER.

Witnesses:

J. B. THURSTON,

GEO. H. WARREN.