(No Model.)

F. S. DE LANO.

APPARATUS FOR TEACHING SPELLING.

No. 342,076. Patented May 18, 1886.

Fig. 1.

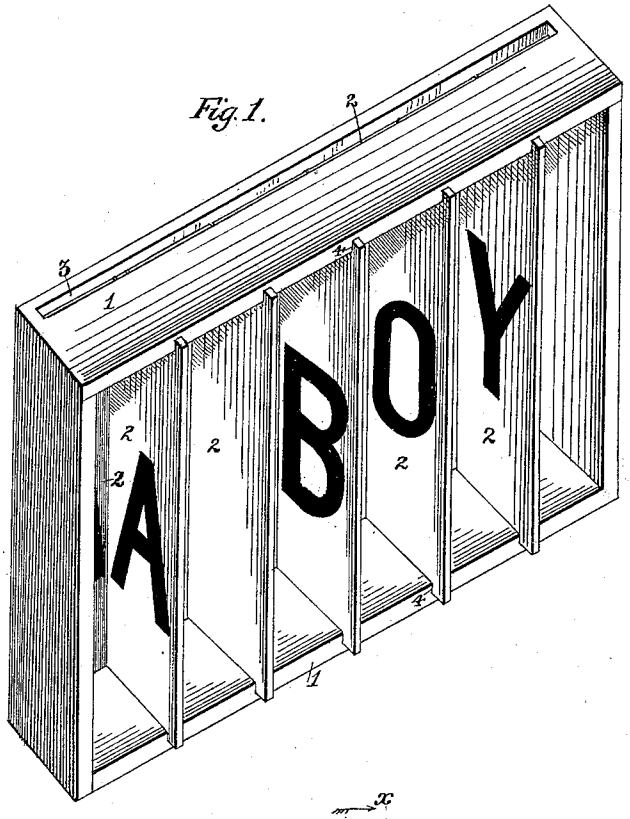


Fig. 4.



Fig. 2.

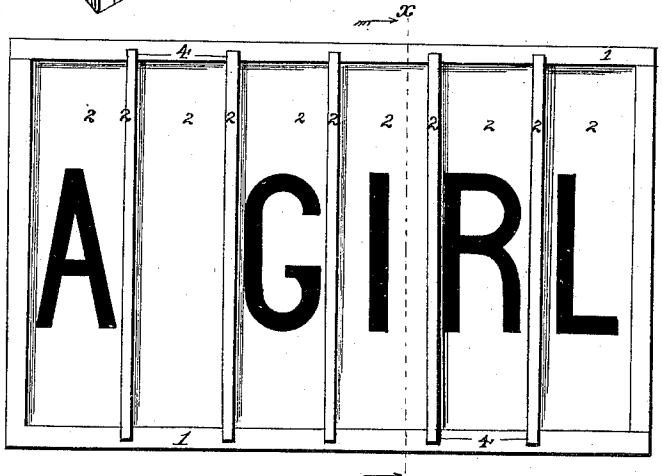
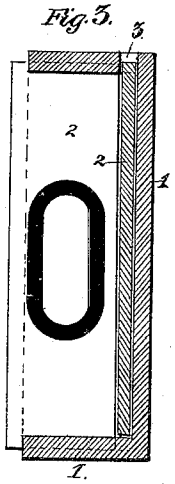


Fig. 3.



Attest:
Geo. W. Fillmore
C. W. H. Brown.

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Frank S. DeLano
by F. B. Brock
Atty

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

FRANK S. DE LANO, OF TOLEDO, OHIO, ASSIGNOR OF ONE-HALF TO ANTHONY KRAUS, OF SAME PLACE.

APPARATUS FOR TEACHING SPELLING.

SPECIFICATION forming part of Letters Patent No. 342,076, dated May 18, 1886.

Application filed February 9, 1886. Serial No. 191,271. (No model.)

To all whom it may concern:

Be it known that I, FRANK STANLEY DE LANO, a citizen of the United States, residing at Toledo, in the county of Lucas, State of Ohio, have invented certain new and useful Improvements in a Kindergarten Spelling-Box, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to educational appliances.

The object of the present improvement is to provide improved means for the education of children by the kindergarten or other analogous method.

A further object of the invention consists in its adaptation as a toy.

The invention, broadly stated, may be said to consist of a frame adapted to receive and hold a number of adjustable and interchangeable letters, numerals, or other characters in such position that, when viewed from one point, an idea or word may be conveyed, and when viewed from another point or points another idea may be expressed, either bearing a direct sequence to the first idea or sentence, or not.

Figure 1 represents a perspective view of a frame and letters, to which I have applied my invention, the frame-cover being removed. Fig. 2 is a plan view of the same. Fig. 3 is a sectional view of the frame and letters, taken through the line *x x* of Fig. 2, looking in the direction of the arrow. Fig. 4 is a perspective view of one of the letter-slides.

The same parts in the different figures are indicated by the same figures of reference.

1 represents the frame for holding the letter-slides 2. This frame or box is preferably made of rectangular form. It may be made, however, of various shapes, as will be obvious. It comprises four sides and a back, and is intended to be provided with an ordinary cover (although none is shown) to protect it while not in use.

3 is a slit or slot in one side of the box, through which any of the series of letter-slides 2 desired may be inserted or withdrawn in forming a word or sentence. These letter-slides lie against the back or bottom of the box, and they might, moreover, be inserted sidewise, instead of lengthwise, through an opening at the left side of Fig. 1, by providing a suitable slot.

A series of grooves, 4, are formed in opposite sides of the frame for the purpose of receiving any of the letter-slides, but in a position at right angles to those inserted through the slot 3.

The letter slides or slats 2 are preferably of the same dimensions throughout the whole series, so that they may be freely interchanged from positions in the back of the box to those at right angles in the grooves 4. The grooves 4 need not necessarily be formed at precisely right angles to the back of the frame, but such construction is preferred.

The back or bottom of the frame or box may be dispensed with where suitable provision, in the shape of a slide-rack, is made to keep the slides 2 in place.

Some of the series of letter-slides are blanks, to correspond to spaces between words or other characters, and all of the lettered slides have the same character or letter printed or impressed on both sides of each slide. Only one side of a slide 2 may have a character placed thereon, however, if desired.

The letters intended to be inserted in the back of the frame might all be printed on a single slide of the same dimensions as the frame, a different idea being arranged on each side thereof. In fact, all obvious changes in the disposition and arrangement of my improvement are held to come within the scope of my invention. Some of these changes have already been described.

Another modification consists in inserting the slides (at right angles to the back of the box) endwise through a series of slots in the side of the frame, and providing the front of the frame with a glass.

The box shown in the drawings is quite small; but it may be made to hold any practical number of slides. For instance, a usual size which I have made contains grooves for fourteen slides and a like space for slides at the back of the box. With such a box is furnished about seventy or seventy-five slides or slats, embodying the necessary assortment of characters for conveying ideas.

It is designed that the sentences or words

upon the back of the box shall generally be associated with the idea expressed by the slides arranged within the grooves. Thus, where the slides upon the back are arranged to read "A Good Boy," those within the grooves express a thought suggested thereby, as "is obedient" or the like.

The letters on the back are read by looking directly or squarely at the front of the box. The letter-slides in the grooves, are read by turning the box sidewise in either direction. The latter position is shown in Fig. 1, the former in Fig. 2.

If desired, the back of the frame itself may have the characters printed permanently upon it, for use either with or without the removable letters in the back.

The sides of the frame parallel to the slides in the grooves may be dispensed with should it prove expedient.

Having described my invention, what I claim as new is—

1. A box or frame provided with a back or bottom having letters or other characters printed thereon and a series of removable slides having characters thereon, arranged within the frame at an angle to the frame-back, as set forth.

2. A box or frame provided with a removable back or bottom having characters printed or impressed thereon and a series of slides having characters thereon, arranged within the frame at an angle to the back frame, as set forth.

3. A box or frame provided with a series of removable character-bearing slides or slats in the back thereof and a series of character-bearing slides arranged within the frame at an angle to the back, essentially as set forth.

4. A box or frame, a slot in the frame in the rear thereof, a series of grooves at substantially right angles to the slot, and a series of character-bearing slides for insertion in the grooves and slot, all in combination, as set forth.

5. A box or frame provided for the interchangeable insertion of two series of slides at substantially right angles to each other, in combination with a series of interchangeable character-bearing slides, as described.

6. A box or frame provided for the insertion of slides at substantially right angles to each other, in combination with a series of interchangeable character-bearing slides, each having the same character impressed on both sides thereof.

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

FRANK S. DE LANO.

Witnesses:

W. A. DEFOREST,

JAMES BLAKELY.