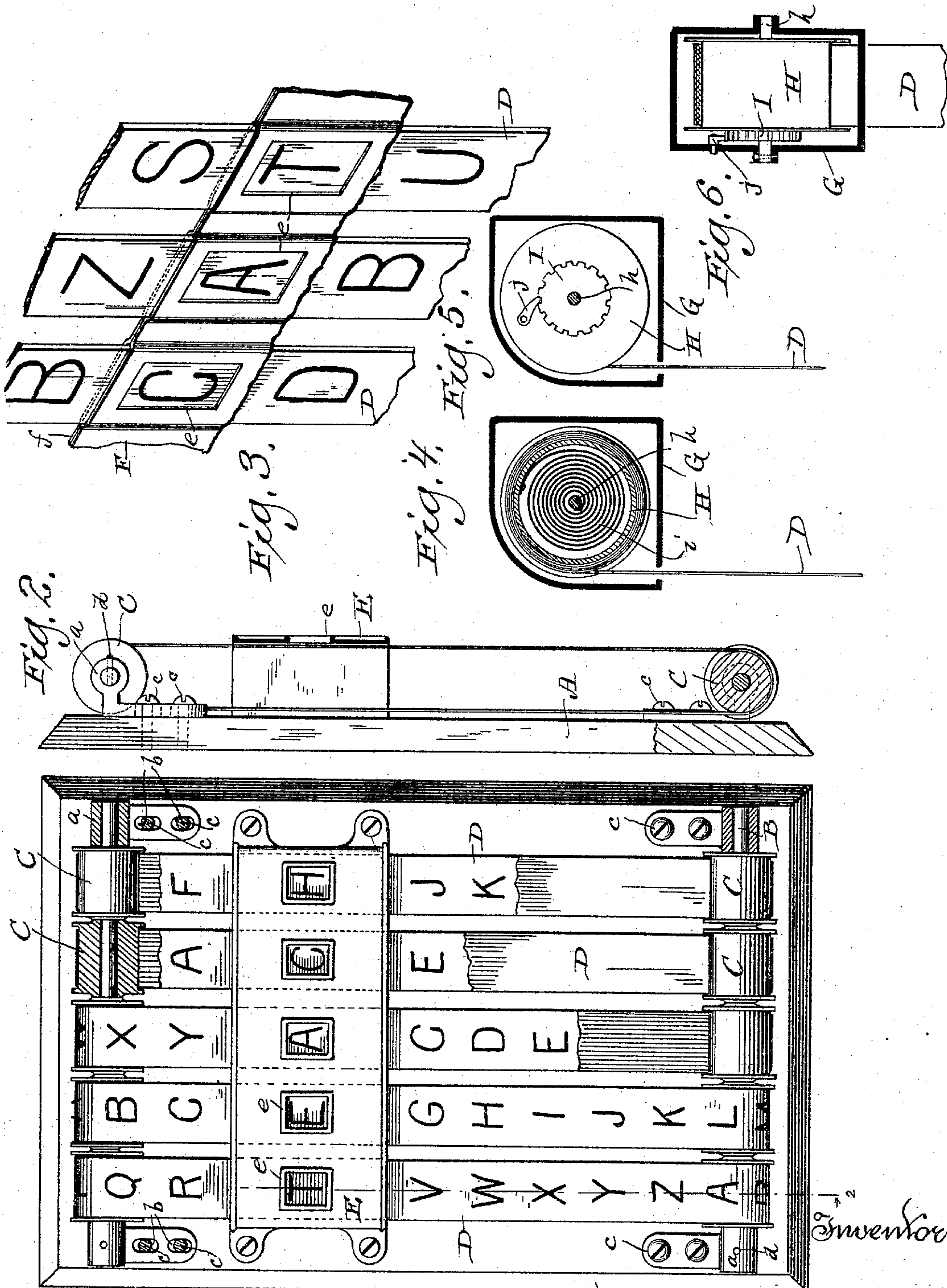


(No Model.)

J. E. VON TASSEL.
EDUCATIONAL APPLIANCE.

No. 500,824.

Patented July 4, 1893.



Witnesses
Geo W Young
N. E. Oliphant

Fig. 1.

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UNITED STATES PATENT OFFICE.

JULIA E. VON TASSEL, OF MILWAUKEE, WISCONSIN.

EDUCATIONAL APPLIANCE.

SPECIFICATION forming part of Letters Patent No. 500,824, dated July 4, 1893.

Application filed April 11, 1892. Serial No. 428,647. (No model.)

To all whom it may concern:

Be it known that I, JULIA E. VON TASSEL, a citizen of the United States, and a resident of Milwaukee, in the county of Milwaukee, and in the State of Wisconsin, have invented certain new and useful Improvements in Educational Appliances; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to educational appliances, and consists in devices for use in teaching children to spell, as will be fully set forth hereinafter, and subsequently claimed.

In the drawings: Figure 1 is a front elevation of one form of my device, portions thereof being broken away or removed, to better illustrate details of construction. Fig. 2 is a side elevation of the same, partly in section. Fig. 3 is a perspective view of a portion of another form of said device, and Figs. 4, 5, and 6, are detail views of still another form.

In all the various forms of my device, I employ a suitable frame or support, and in connection therewith a series of strips or bands of any suitable material (preferably flexible in its nature) upon which are displayed the letters of the alphabet, arranged either in regular or in any preferred order, said strips being capable of being independently reciprocated so as to expose any letter thereon at a given point, at any time.

I will first describe the form of device shown in Fig. 1. A is a frame of any preferred construction, to which are secured boxes or socket pieces *a a* (made adjustable by means of slots *b b* in their shanks, and screws *c c*) for holding the round rods B, which are prevented from turning in any desired way, as by pins *d*, passing through said boxes and rods. There are two of these rods B, one at the top and another at the bottom of the frame, and each rod is provided with a series of spools or pulleys C, C, around which pulleys are passed the strips D, carrying the letters on their outer surfaces, the strips D in this form of device being in the shape of endless bands or belts. E is a plate covering a part only of the device, secured to the frame A and provided with a series of apertures *e e*, one for each of the strips D beneath, and of a proper size to clearly show one letter on each strip.

In practice, the plate E covers the whole width of the device and is of such height or depth as to leave some considerable space above and below the letters exposed through the described apertures, and between that exposed row of letters, and those other letters exposed on the described strips, above and below said plate, so that the attention of the children may be directed, without confusion, to the row of letters shown through the said apertures, in contrast with said other letters shown above and below said plate E. The frame shown in Fig. 1, is provided with five strips D, and hence any word of five letters (or less) can be spelled therewith, as it is only necessary to turn each strip on its pulleys, until the proper letter (or the space between the letters, if a word of less than five letters is used) shows through the aperture *e* in the plate E. The described adjustment of the boxes or sockets *a* is to take up the slack in the bands or strips D resulting from use.

In Fig. 3, I show a very simple form of my device. F represents a portion of a front plate and *f* a part of a rear plate, the two plates being fastened together by any approved means. These plates can be made of cardboard, the front plate F being provided with apertures *e* for exposing the letters on the strips D, which may be either endless bands, as before, or if preferred single strips of cardboard, celluloid or other suitable material to be moved up and down between the front and rear plates and held by frictional contact therewith, the two plates being held together by stitching, adhesive material, rivets, or any means preferred. The dimensions of the front plate may be of any size necessary to leave some little appreciable space above and below the row of apertures, so that the children will not be confused by the sight of the other letters on the strips, above and below the row of letters to which their attention is directed, and yet so as to leave the said other letters preferably in plain view, that the children may see and understand that all words are made from combinations of those and the other letters, which are before them.

In Figs. 4, 5, and 6, I show detail views of strip-holders G designed to be secured to a

frame in place of the upper rod and pulleys shown in Figs. 1 and 2. Each holder G contains a hollow pulley H, with a rod *h* to which is secured one end of a spiral spring *i* whose
5 other end is secured to said pulley, there being a ratchet wheel I secured to said rod *h* and a pawl *j* on the outside of the pulley, while the strip D containing the letters is secured to the outside of the pulley. I have
10 not deemed it necessary to show the frame and apertured plate in connection with this form of my device, they being of substantially the form already described, and a slight pull on the strip D will serve to lower (or
15 raise) the strip after the well-known manner of operating spring window-shades.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

20 An educational appliance, consisting of a

flat frame or support, axes fixed to such frame, independently movable rollers secured on said axes, strips bearing the letters of the alphabet printed on their outer surfaces, and
25 an independent transverse plate provided with apertures secured on the front of said frame, said plate and apertures being of such a size and so located as to expose the letters printed on said strips above and below said
30 plate and within the apertures thereof, when said strips are properly adjusted, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

JULIA E. VON TASSEL.

Witnesses:

H. G. UNDERWOOD,

H. M. SHELTON.