

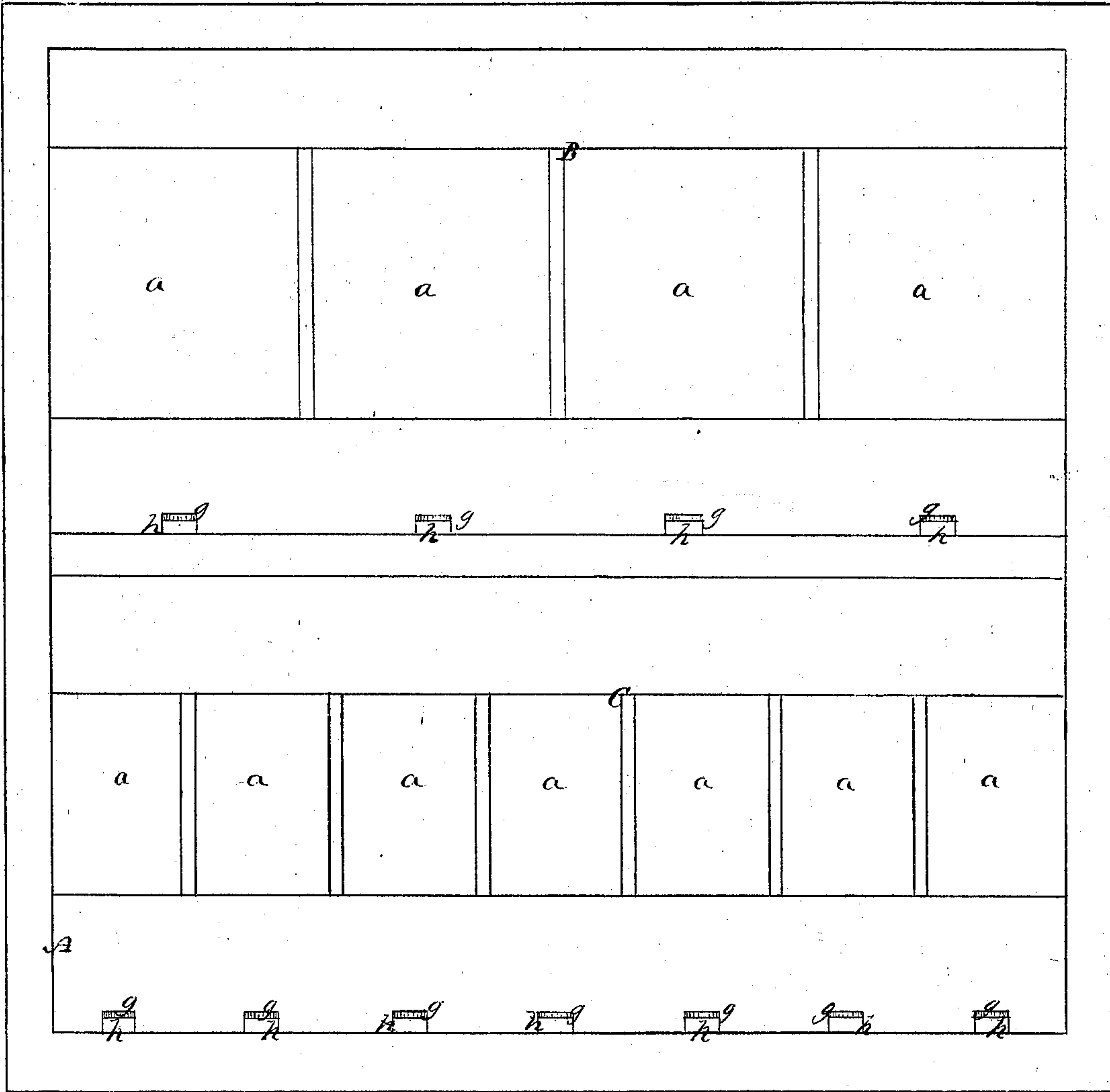
JASON W. HARDIE.

Apparatus for Mounting and Exhibiting Pictures and Alphabets.

No. 124,953.

Patented March 26, 1872.

Fig. 1.



Witnesses,

R. D. O. Smith
 & P. M. J. Paul

Jason W. Hardie,
 By his Attorney,

J. S. Brown.

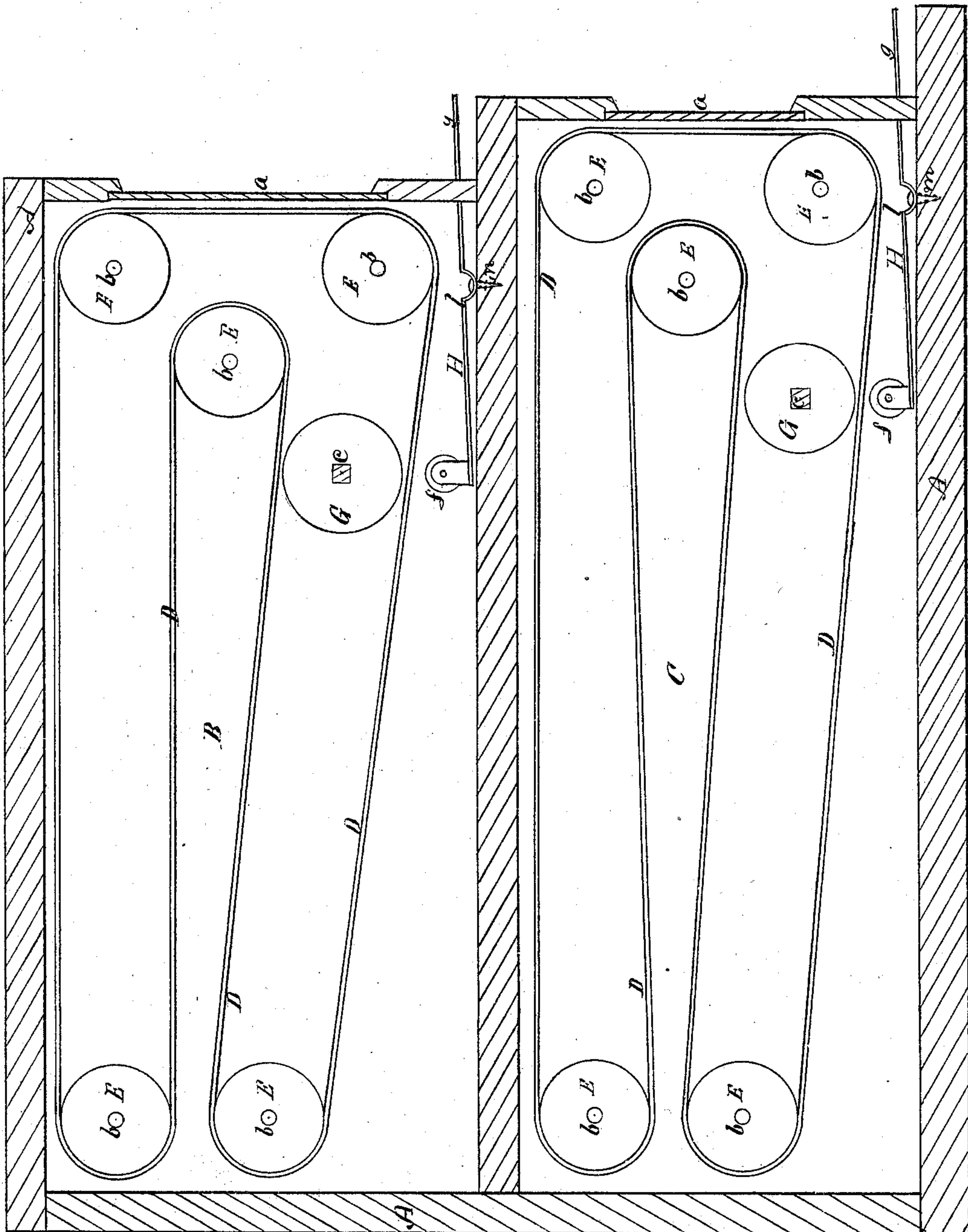
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Fig. 2.



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UNITED STATES PATENT OFFICE.

JASON W. HARDIE, OF NEW YORK, N. Y.

IMPROVEMENT IN APPARATUS FOR MOUNTING AND EXHIBITING PICTURES, &c.

Specification forming part of Letters Patent No. 124,953, dated March 26, 1872; antedated March 11, 1872.

To all whom it may concern:

Be it known that I, JASON W. HARDIE, of New York, in the county and State of New York, have invented an Improved Apparatus for Mounting and Exhibiting Pictures and Alphabets; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing making part of this specification—

Figure 1 being a front elevation of the apparatus; Fig. 2, a vertical section of the same, cutting from front to back.

Like letters designate corresponding parts in both of the figures.

The nature of my invention consists in an improved arrangement of endless bands, on which the alphabets or pictures are shown so as to attain the utmost degree of compactness and exhibit several alphabets or sets of pictures in a small space; also, in a very simple, cheap, and effective device for moving several alphabet or picture-bands, separately or together, by a revolving roller, substantially as herein specified.

Let A represent the box or case in which the pictures or alphabets of letters are exhibited, there being four endless bands of pictures and seven bands, each containing a full alphabet of letters, shown. The pictures are arranged in a compartment, B, and the letters in a separate compartment, C, of the case. The mechanism of both is the same; and the case may contain either pictures or alphabets solely, in one or more sets. First, in describing the arrangement of the alphabets, as many endless bands D D are placed side by side as there are alphabets to be shown, so that by them any word containing no more than that number of letters can be spelled thereby, and any desired number of bands may be employed in a case of corresponding width. The endless bands D D are passed around a series of loose rollers, E E E E E, two of which are in front, one vertically over the other, at a sufficient distance therefrom to exhibit on each band a letter on the vertical part of the band, between the rollers; and there is a window or plate of glass, a, in the front side of the box or case, directly before this part of each band. Two more of the loose rollers are at the rear of the case, and a fifth roller is located near the front rollers, behind and between them,

substantially as represented in Fig. 2, which clearly shows how a long endless band is arranged in a short space, there being four duplications of it in the drawing; and the duplications may be increased in number, if desired, by increasing the number of rollers. These rollers turn freely on fixed wires or shafts b b b b b, respectively. There are as many free and independent loose rollers on each shaft as there are bands placed side by side, so that each band moves independent of the others, and all remain stationary till caused to move by the device now to be described. Between two of the duplications of the endless bands is situated a roller, G, parallel with the shafts of the loose rollers E E E E E and out of contact with either duplication, but in close proximity to one—the lower one—as represented. This roller is fixed on a shaft, c, which has bearings in the sides of the box or case, and to one projecting end of which is attached a crank, d. Ordinarily, when the roller G is revolved, it has no effect on any of the endless bands. But a simple device is employed for instantaneously coupling any of the bands to it, either separately or two or more at the same time, as follows: Directly under the roller G, and immediately under each endless-band duplication below the said roller, is located a small friction-roller, f, mounted on the inner end of a lever, H, the other end, g, of which projects outward through an opening, h, in the front of the case, far enough to be easily touched and moved by the fingers. The inner end of each lever, with its roller, overbalances the outer end thereof, and ordinarily rests on the bottom of the case, just out of contact with the endless band above. But by gently depressing the outer end g of the lever the roller f is moved upward against the endless band and presses the same against the driving-roller G, which, being then turned, moves the endless band along as far as desired, so as to bring any letter of the alphabet into position behind the glass a. On removing the hand from the lever H the inner end thereof immediately falls away from contact with the endless band and uncouples it from the driving-roller. The latter may be roughened or covered with some soft or frictional material, so as to secure the adhesion of the endless band thereto when in contact with it. Since simplicity and cheap-

ness are important objects aimed at in this invention, the levers H H are well made, of simple strips of sheet metal, as shown, each having a curved or semicircular bend, *l*, near the middle, to form a fulcrum bearing therefor, down through a hole in which bend a simple tack or small nail, *m*, driven and fitting loosely, keeps the lever in position without impeding the vibration of the same. The same construction and arrangement of endless bands, loose rollers, driving roller, and coupling-levers are used for the pictures, as above described, for the alphabets.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The arrangement of the endless bands D D in duplications, side by side, upon separate loose rollers E E E E E, substantially as and for the purpose herein specified.

2. The single driving-roller G, arranged so as to move all of the endless bands in the compartment, singly or any number of them together, substantially as herein specified.

3. The levers H H for coupling the endless bands to the driving roller, arranged and operating substantially as herein specified.

4. The construction and arrangement of the levers H H, with the curved bends thereof, for bearings, and secured in place by simple tacks, pins, or nails *m m*, driven through the bends, substantially as and for the purpose herein specified.

JASON W. HARDIE.

Witnesses:

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