

(No Model.)

3 Sheets—Sheet 1.

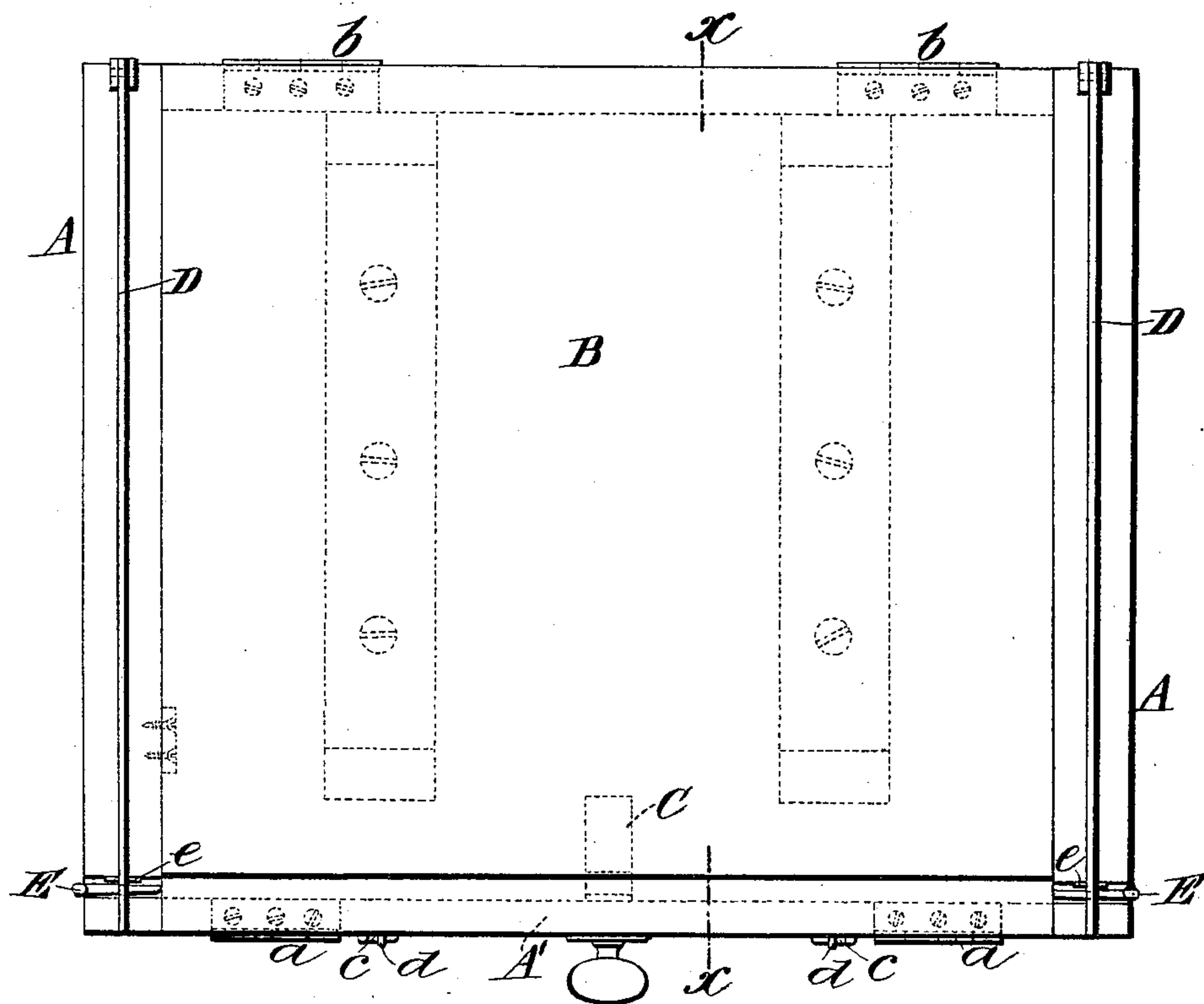
E. DE ZUCCATO.

APPARATUS FOR USE IN PRODUCING COPIES OF WRITINGS, DRAWINGS,
AND THE LIKE.

No. 389,452.

Patented Sept. 11, 1888.

Fig. 1



Witnesses.

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Fig. 2.

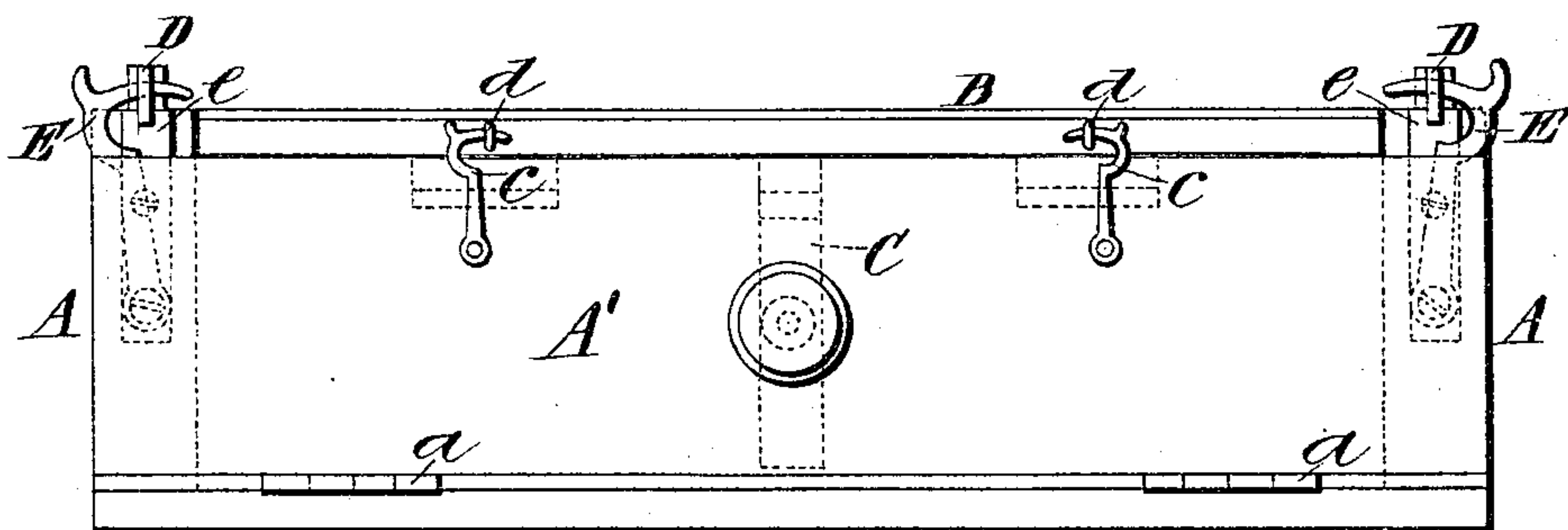
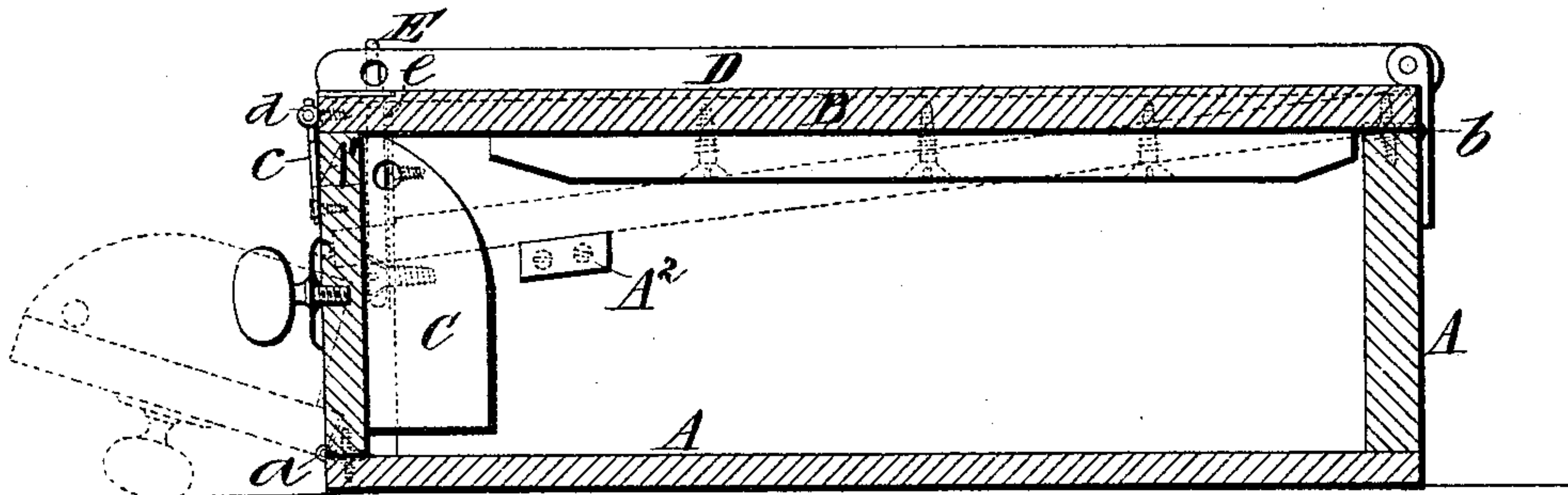


Fig. 3.



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(No Model.)

3 Sheets—Sheet 3.

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Fig. 4.

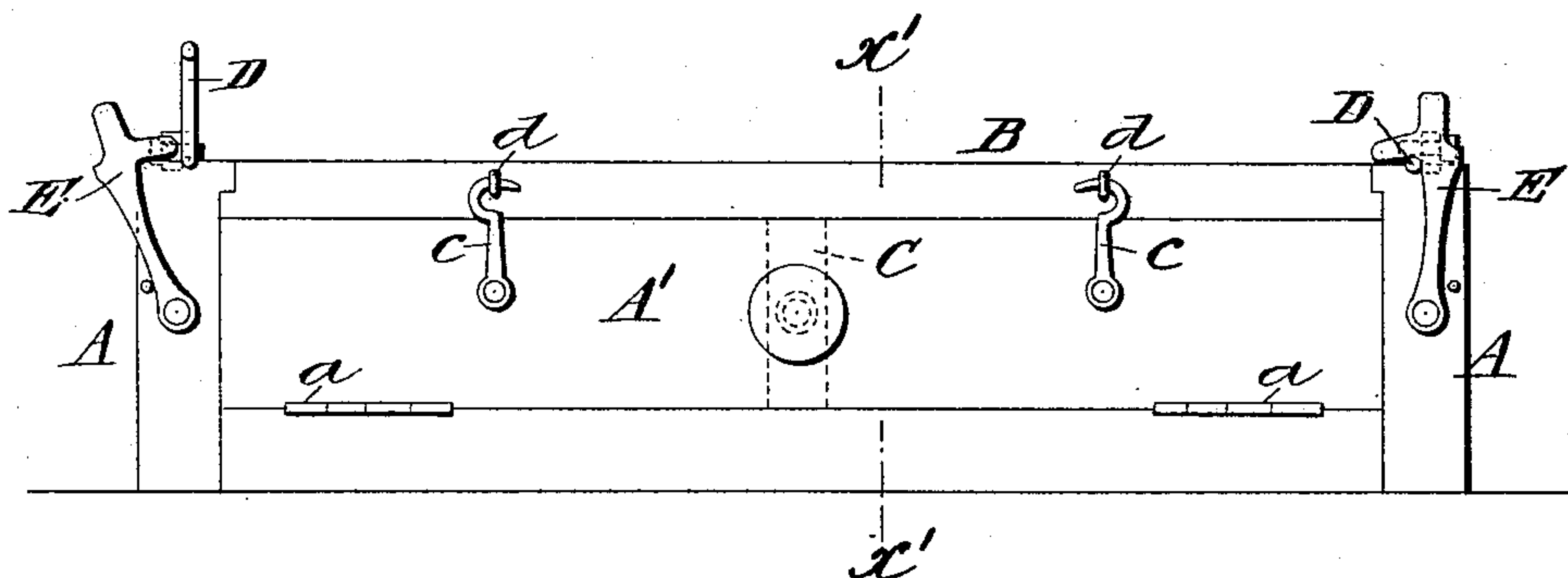
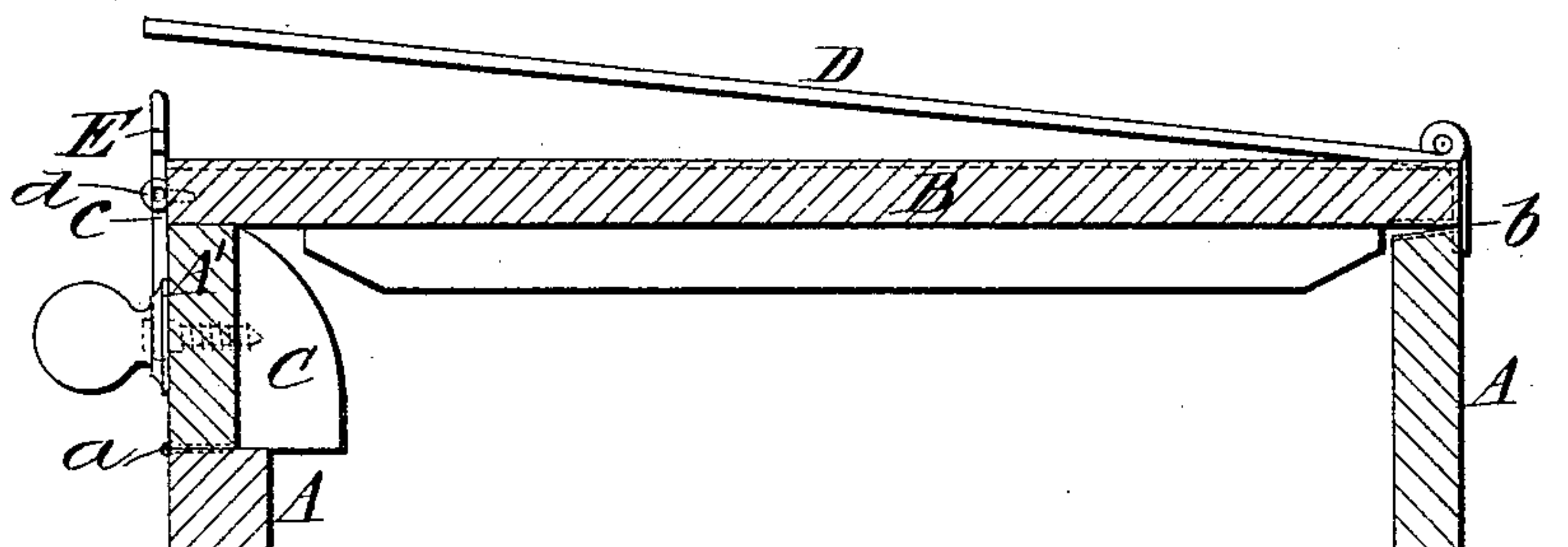


Fig. 5.



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By

James L. Norris.
Att'y.

UNITED STATES PATENT OFFICE.

EUGENIO DE ZUCCATO, OF LONDON, ENGLAND.

APPARATUS FOR USE IN PRODUCING COPIES OF WRITINGS, DRAWINGS, AND THE LIKE.

SPECIFICATION forming part of Letters Patent No. 389,452, dated September 11, 1888.

Application filed February 2, 1888. Serial No. 262,703. (No model.) Patented in England April 5, 1887, No. 5,067.

To all whom it may concern:

Be it known that I, EUGENIO DE ZUCCATO, a subject of the Queen of Great Britain, and a resident of London, England, have invented
5 new and useful Improvements in Apparatus for use in Producing Copies of Writings, Drawings, and the Like, (for which I have obtained a patent in Great Britain, No. 5,067, bearing date April 5, 1887,) of which the fol-
10 lowing is a specification, reference being had to the accompanying drawings.

My invention is designed to improve the construction and increase the efficiency of apparatus of the kind or class described in the
15 specification of former Letters Patent granted to me and dated February 4, A. D. 1879, No. 211,877—that is to say, apparatus for holding stencils during the operation of producing copies or fac-similes of writings, drawings,
20 or the like by the process set forth in the said former specification. Such apparatus as hitherto constructed comprises a frame having connected thereto by means of hinge-joints two metal bars, which fit into grooves in the
25 said frame for the purpose of stretching and holding the stencil thereon. The said frame is, moreover, provided with hooks for securing the said bars in their grooves. A board or slab is arranged between the said metal
30 bars and serves for supporting beneath the stencil the sheet of paper on which the copy or fac-simile is to be produced. This board or slab is connected at one of its edges by means of hinge-joints to the aforesaid frame,
35 and is supported at its opposite edge by a lever pivoted to the said frame and provided with a handle, whereby it may be turned upon or about its pivot. By turning the said lever in one direction the said board may be low-
40 ered or inclined to permit the introduction of the paper between the same and the stencil, and by turning the said lever in the reverse direction the said board may be raised to bring the paper into contact with the under
45 surface of the stencil.

According to one part of my present invention I adapt apparatus of the kind or class above mentioned for holding or containing the india-rubber scraper, the bottle of ink, and other
50 articles required in the process of producing the copies or fac-similes. For this purpose I

make the said apparatus in the shape of a box, the stretching-frame forming the sides and the hinged board or slab serving as the lid of the said box. By this means I am en-
55 abled to dispense with the box which has heretofore been supplied for containing the frame or stencil-holding apparatus and the scraper and other articles required for use therewith. I thus reduce the cost of the entire apparatus
60 and make the same very compact.

According to another part of my present invention I make the front portion of the box movable and connect the same by means of
65 hinge-joints to the bottom of the box, and I provide the said front portion with one or more curved projections or cams on its inner side. The front edge of the aforesaid board or slab rests upon these projections or cams,
70 which are so formed that by turning the said front portion upon its hinges in one or the other direction the said board may be raised or lowered for the purposes above specified. By constructing the apparatus in this manner
75 I am enabled to dispense with the aforesaid lever.

In the accompanying drawings, Figure 1 is a plan; Fig. 2, a front elevation; and Fig. 3, a transverse section on the line $x x$, Fig. 1. Fig. 4 is a front elevation illustrating a modifica-
80 tion of my said invention; and Fig. 5, a transverse section on line $x' x'$, Fig. 4.

Like letters indicate corresponding parts throughout the drawings.

A is the box or stretching-frame, the front
85 part, A', of which is pivoted at a .

B is the board or slab for supporting the stencil. This board or slab is connected by
90 hinge-joints at b to the box A and forms the lid of the said box.

C is the projection or cam on the inner side
95 of the front part, A', of the box A.

D D are the bars for stretching and holding the stencil.

E E are the hooks for securing the said bars
100 in their grooves.

The front part, A', of the box A is provided with hooks c , adapted to engage with eyes d , fixed in the board or lid B, which extends
105 over the part A', as shown in Fig. 3. Other suitable means may, however, be provided for fastening the lid of the said box when closed.

In using my improved apparatus the bars D are turned back and a stencil formed as described in my said former specification is placed upon the box or frame A, and is stretched
 5 and secured thereon by means of the said bars. The front part, A', of the box is then turned down and the board or lid B thus lowered or inclined, as shown in dotted lines in Fig. 3, and a sheet of paper is placed upon the said
 10 board or lid. The part A' is then turned upward, thereby raising the said board or lid by means of the projection or cam C and bringing the paper into contact with the under surface of the stencil. A copy or fac-
 15 simile may then be produced upon the said sheet of paper in the manner described in my said former specification, after which the front part, A', of the box is again turned down to permit the removal of the said sheet and the
 20 insertion of a fresh sheet of paper.

Stops A² are sometimes provided on the box A to support the lid B when inclined as above described.

To provide for effectually preventing lateral
 25 displacement of the bars D, I sometimes employ slotted or notched metal pieces e, which are secured to the ends of the box so that they extend upward above the same, and so that the bars D, when in their grooves, will fit into the
 30 slots or notches in the said metal pieces e, as shown in Fig. 2. In other cases I make the front portion of the box with extensions at each end thereof, which extensions project above the top of the box and are formed with
 35 vertical slots or grooves, and I make the bars D of such length that their free ends will fit into the said slots or grooves when the said bars are in the grooves in the box A.

The hinges of the lid B are so made that the
 40 said lid may be opened to permit the placing

of the scraper, the bottle of ink, and other articles in the box.

The apparatus is, in some instances, constructed, as shown in Figs. 4 and 5, with a frame
 45 substantially as described in the said former specification, the front portion being hinged and provided with a projection or cam, substantially as and for the purpose herein specified, and the lever described in the said former
 50 specification being dispensed with.

By my present improvements the operation of producing the copies or fac-similes is greatly facilitated and the entire apparatus can be made more compact and produced at a
 55 lower cost than heretofore.

What I claim is—

1. An apparatus for the production of fac-similes of writings, drawings, or the like, consisting of the box-frame A, the stencil-supporting lid B, hinged at one edge to the frame
 60 and adapted to swing downward and upward, a front board, A', and swinging stretching-bars D, hinged at one end for holding the stencil, substantially as described.

2. The combination of the box-frame A, the
 65 stencil-supporting lid B, hinged at one edge to the frame and adapted to swing down into the box, a front board, A', hinged at its lower edge to the frame and having a projection, C, on its inside to raise the lid, and means, sub-
 70 stantially such as described, for holding the stencil above the hinged lid.

In testimony whereof I have hereunto signed my name in the presence of two subscribing witnesses.

EUG. DE ZUCCATO.

Witnesses:

W. R. LOWMAN,
 A. STANLEY.