

G. A. KIRCHNER.
Trays for Sewing-Machines.

No. 136,525

Patented March 4, 1873.

Fig. 1.

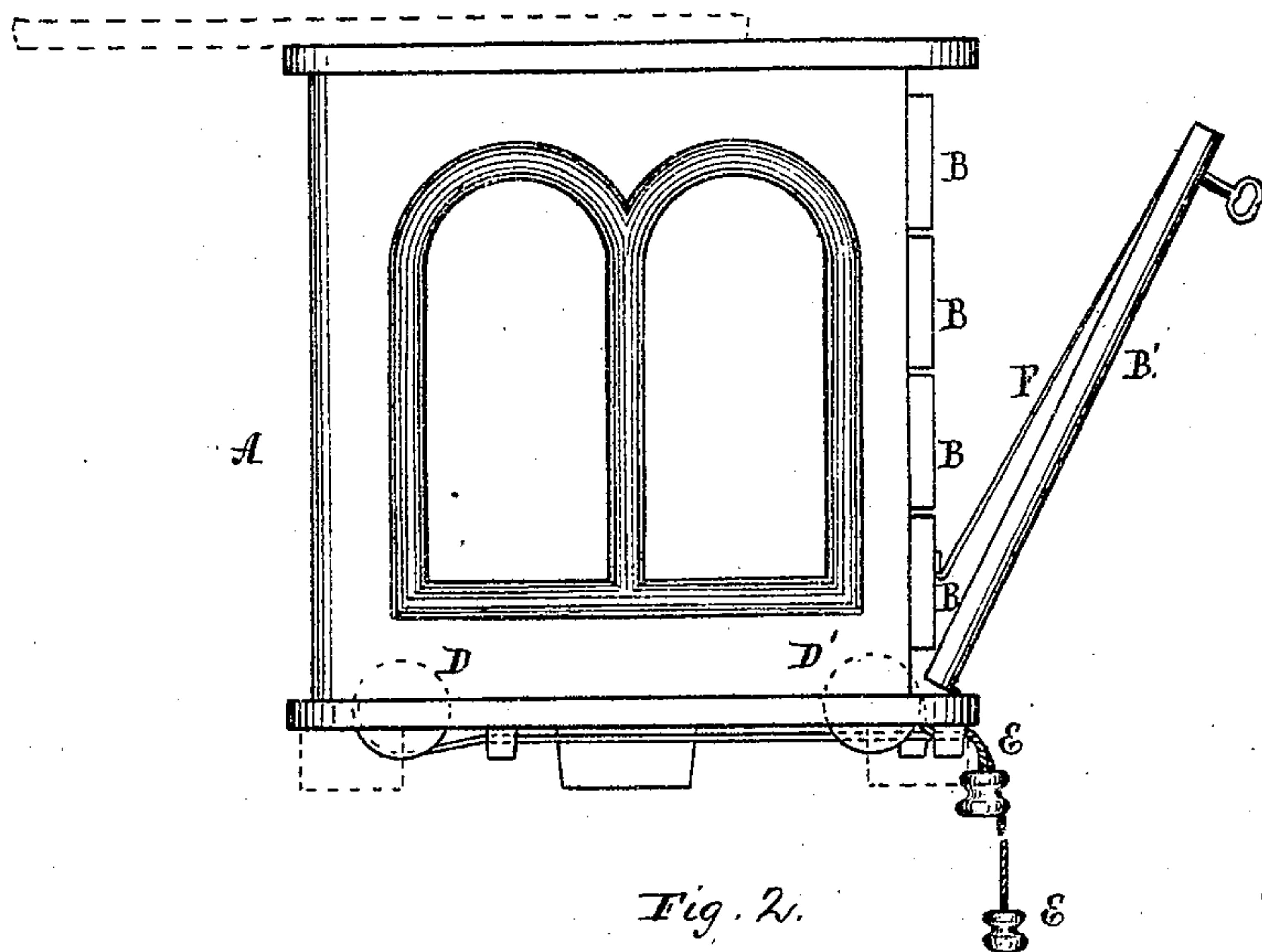


Fig. 2.

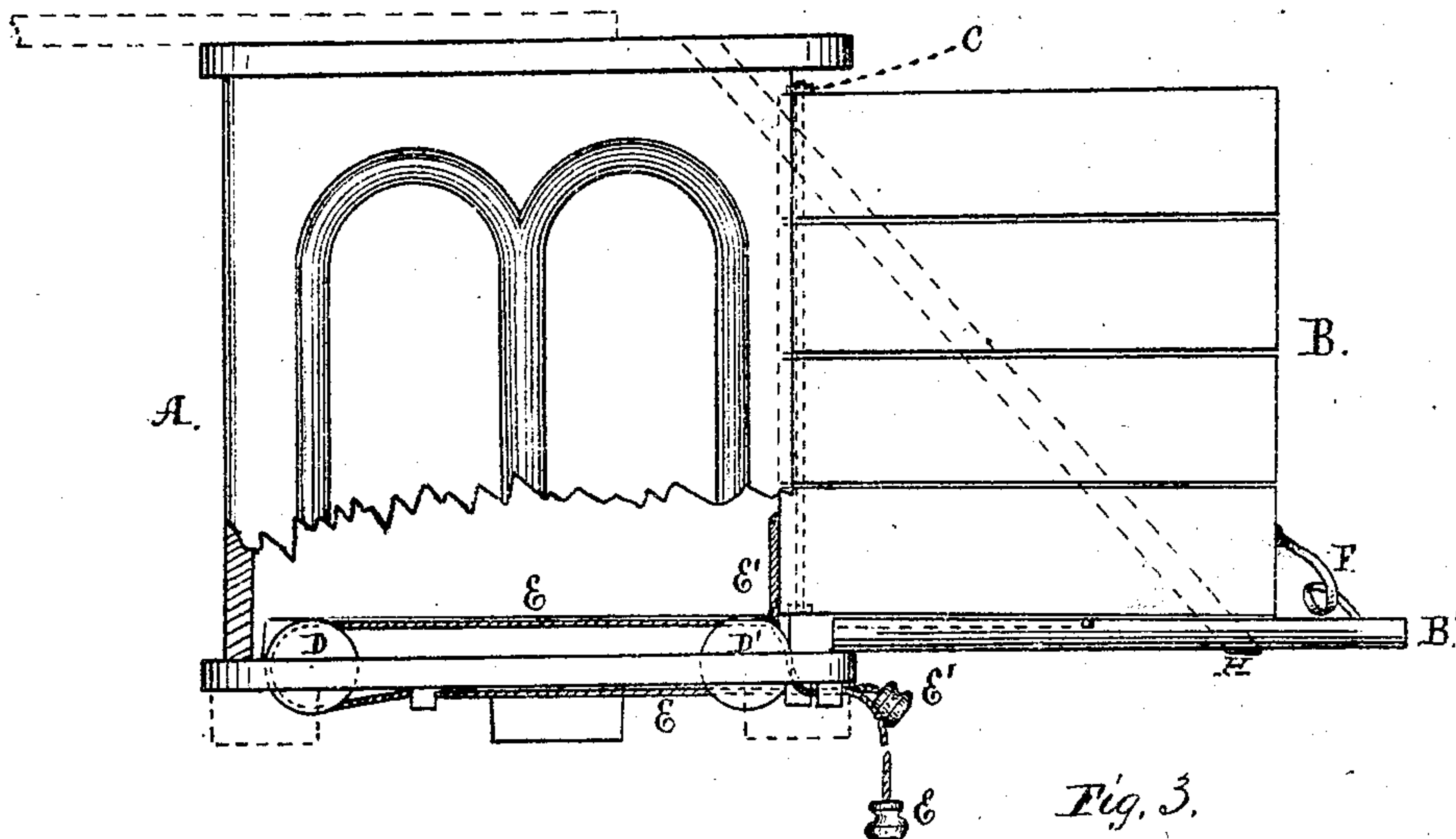
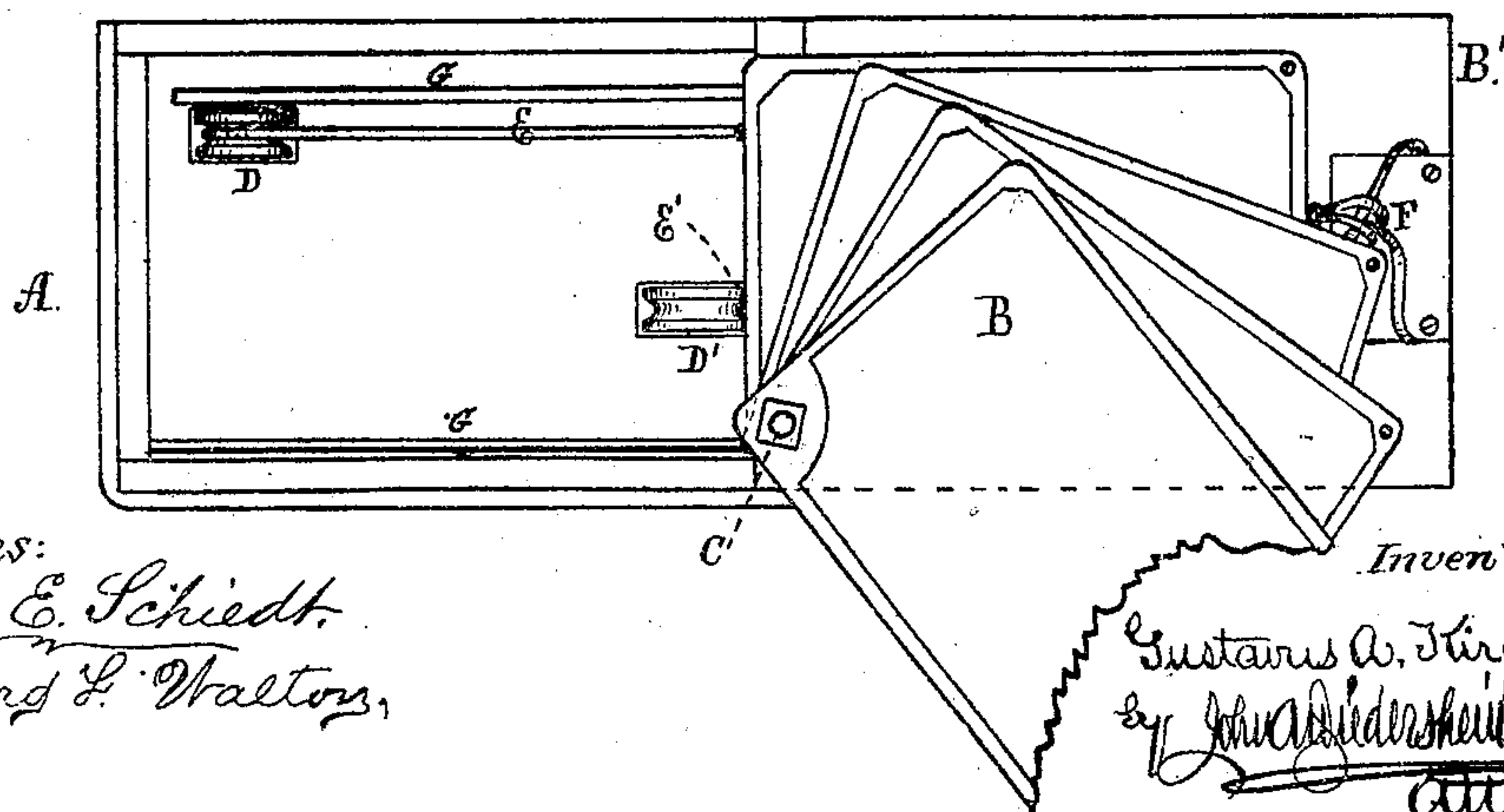


Fig. 3.



Witnesses:

Jacob E. Schiedt.
Willard L. Walton,

Inventor:

Gustavus A. Kirchner.
By *John A. Biedersheim* Attys.

UNITED STATES PATENT OFFICE.

GUSTAVUS A. KIRCHNER, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN TRAYS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. 136,525, dated March 4, 1873.

To all whom it may concern:

Be it known that I, GUSTAVUS A. KIRCHNER, of the city and county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Trays or Boxes for Sewing-Machines; and I do hereby declare the following to be a full, clear, and exact description thereof, sufficient to enable others skilled in the art to which my invention appertains to fully understand, make, and use the same, reference being had to the accompanying drawing making part of this specification, in which—

Figures 1 and 2 are face views of the device embodying my invention, the same being, respectively, partly and fully opened or extended, and portion thereof broken away. Fig. 3 is a top view thereof, partly broken away.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to a receptacle which is attached to or suspended from any proper portion of a sewing-machine table; and consists in a series of sliding boxes or trays jointed to each other so as to have axial motions, and all adapted to be moved into or removed from a casing designed for the purpose. It also consists in the door of the casing, adapted to support the trays when withdrawn from the casing. It also consists in a spring secured to the door for assisting the outward sliding movements of the tray and the closing of the door. It also consists in means for withdrawing and returning the series of trays.

Referring to the drawing, A represents a casing or cabinet, which is designed to be attached to or suspended from the top of the table of a sewing-machine, or other proper portion thereof, in order to be within convenient reach of the operator, and B' represents a door, which is hinged to the casing so as to open on the side thereof. B represents a series of trays or boxes for the reception of articles of use and convenience in sewing, which trays are arranged one above the other, and attached to each other by means of a rod or pin, C, which passes through the corners thereof, and permits an axial movement of said trays for access to any one of them, as seen in Fig. 3. These trays are designed to move together as one in and out of the casing A at

the side thereof, on which the door B' is arranged, and being drawn out to slide on said door, and when drawn to full extent to rest thereon, the door thus becoming the support of the trays. The lower tray is formed with a tongue, which enters a corresponding groove in the door, for guiding the trays in their outward movements and limit the extent of withdrawal. On the bottom of the casing A there are journaled two grooved wheels or pulleys, D D', which are arranged near opposite ends of said bottom, and in connection therewith there are employed cords E E', both of which are connected to the lower tray, and of which the cord E passes around the rear pulley D, then below the bottom of the casing, and to the side thereof under the door B'. The cord E' passes over the forward pulley D', and then down in front thereof to the side of the casing under the door B', so that both cords may be within convenient reach of the operator. F represents a spring, whose ends are, respectively, attached to the free end of the door B' and the lower tray of the series B, said spring being constructed of any suitable material and secured in any well-known manner. On the bottom of the casing there are placed ways G, which elevate the trays so that they are guided onto the door B' and clear the pulleys D D'.

The operation is as follows: When it is desired to withdraw the trays, (the door B' being unlocked, but closed,) the operator pulls the cord E', the power of which is transferred to the trays, and the latter begin to move out of the casing; but in doing so they strike and press the closed door near its lower or hinged end. As the motion of the trays continues, the spring F resists the opening of the door B'; but, as soon as the trays fully cross the portion over or about the hinges or joint of the door, the latter drops rapidly, and the spring, having been distended, immediately contracts, and thus quickly draws the trays out of the casing on the door B', where they are accessible, as has been stated. To return the parts, the trays are folded or properly brought together, and the cord E pulled so as to draw in the trays. The door remains horizontal until the trays just clear the hinges or joint, and the spring is meanwhile distended. Then the

door is permitted to rise; the spring contracts and quickly throws up the door, whereby the trays are again inclosed.

A strap, H, shown in dotted lines in Fig. 2, may be arranged with the casing and door to sustain the latter when the trays are supported thereon.

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

1. The series of jointed trays B, adapted to slide as one in and out of the casing A, in combination with mechanism for imparting the sliding movements to said series of trays, substantially as and for the purpose set forth.

2. The combination, with the casing A and sliding trays B, of the door B', arranged on

the side of the casing, whereby the trays are permitted to slide on the door, and be supported thereon when withdrawn from the casing, as set forth.

3. The combination, with the casing A, door B', and sliding trays B, of the spring F, operating to withdraw the trays and close the door, in the manner set forth.

4. The combination, with the casing A and sliding trays B, of the cords E E', applied and operating as set forth.

The above signed by me this 3d day of December, 1872.

GUSTAVUS A. KIRCHNER.

Witnesses:

JOHN A. WIEDERSHEIM,
JOHN KIRCHNER.