

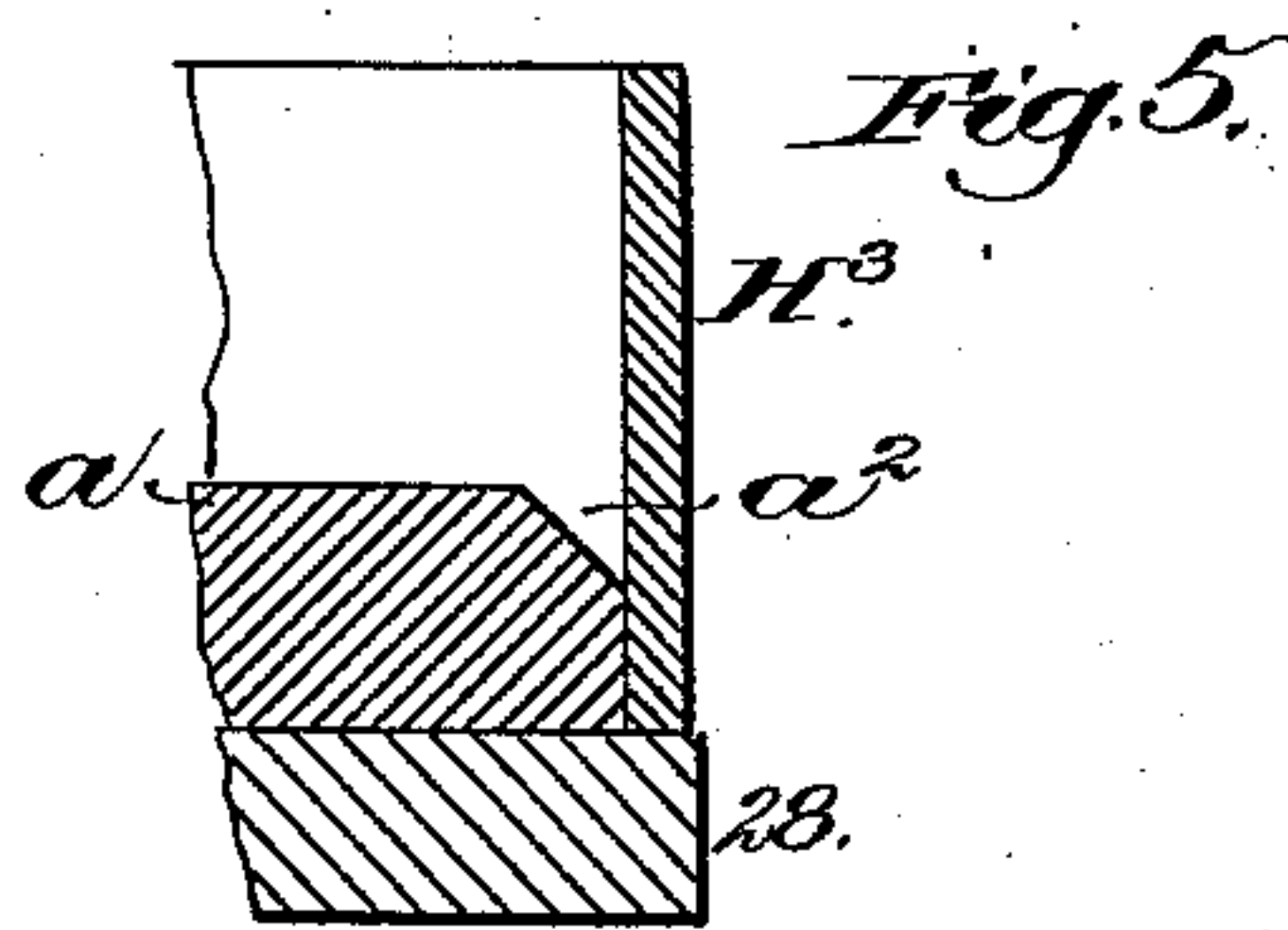
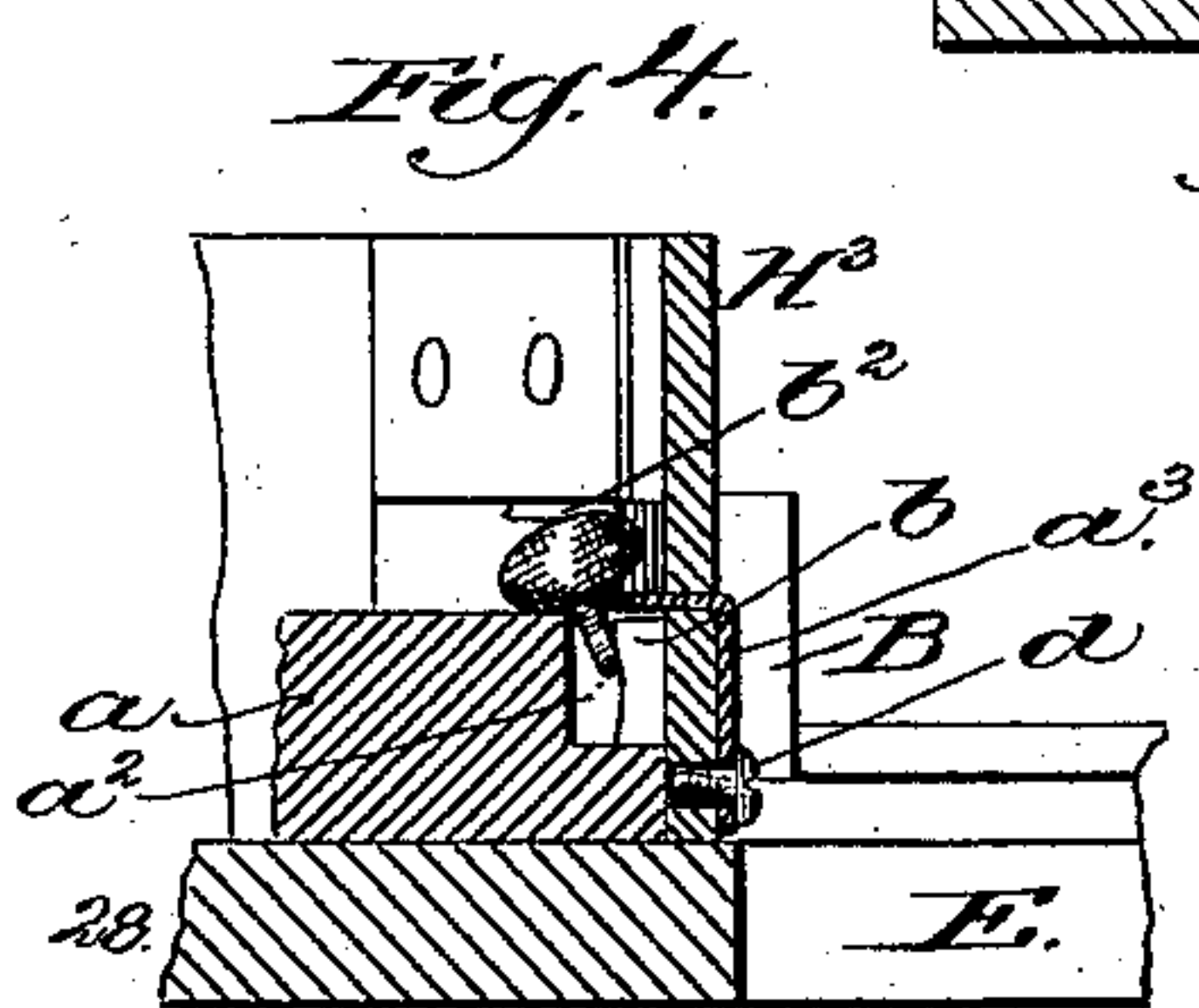
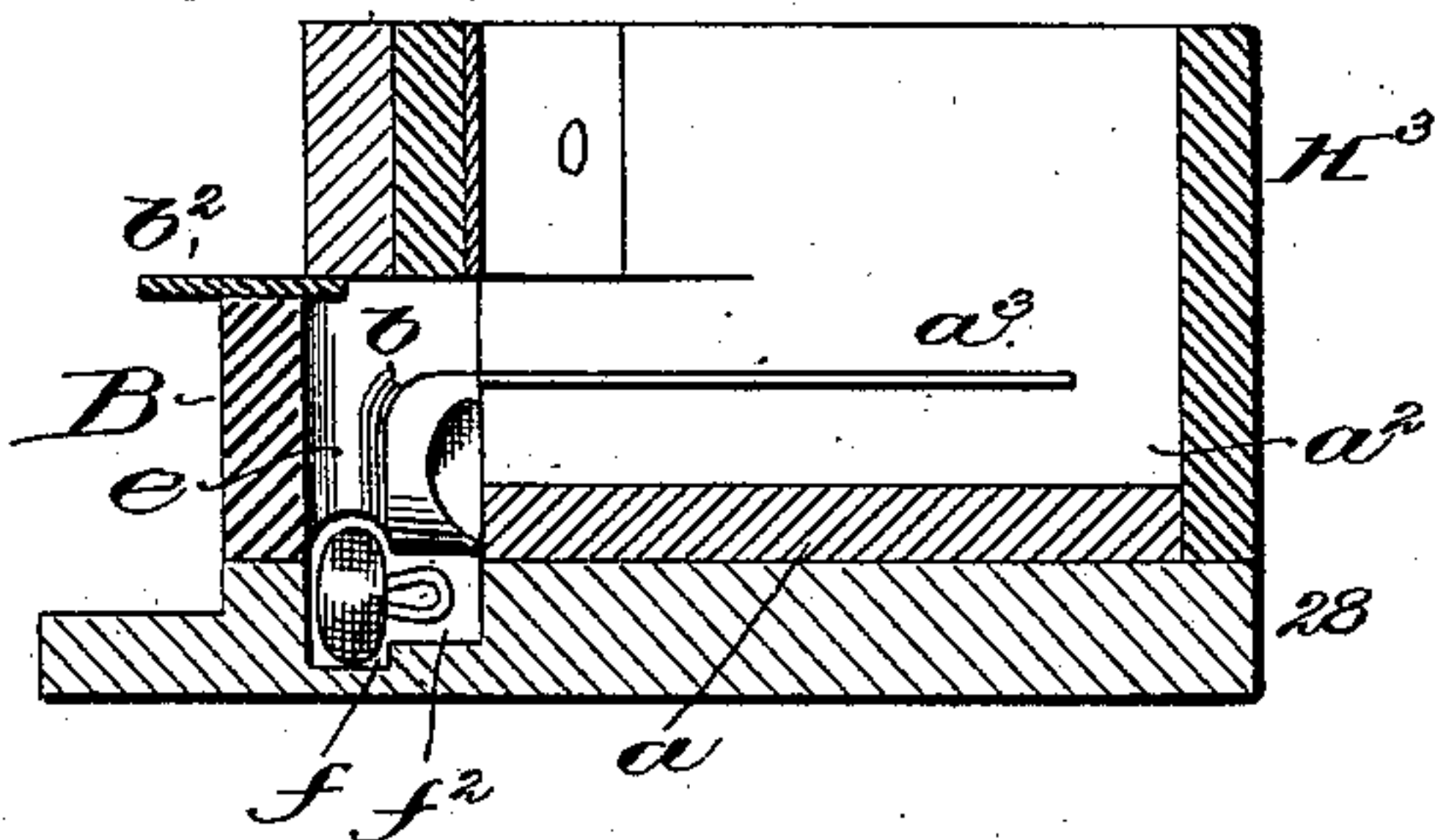
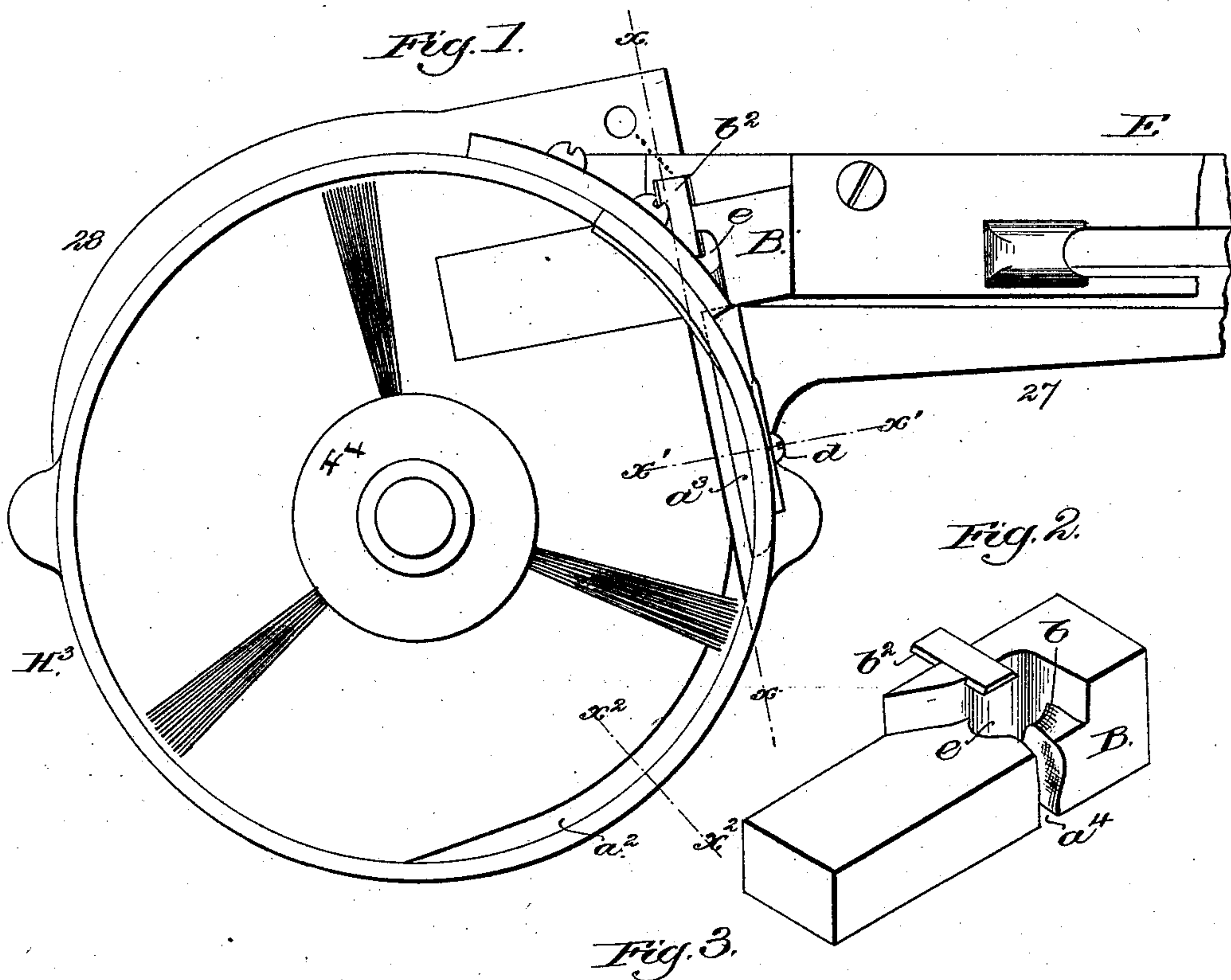
(No Model.)

L. D. HAWKINS & E. WOODWARD.

BUTTON FEEDING APPARATUS.

No. 298,201.

Patented May 6, 1884.



Witnesses.

John F. C. Prentiss
Henry Marsh.

Inventors.

Lorenzo D. Hawkins and
Erastus Woodward
by Crosby & Gregory attys.

UNITED STATES PATENT OFFICE.

LORENZO D. HAWKINS, OF STONEHAM, AND ERASTUS WOODWARD, OF SOMERVILLE, MASSACHUSETTS, ASSIGNORS TO JOSEPH DAVIS, BENJ. F. SPINNEY, AND CHAS. A. COFFIN, ALL OF LYNN, MASSACHUSETTS.

BUTTON-FEEDING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 298,201, dated May 6, 1884.

Application filed November 26, 1883. (No model.)

To all whom it may concern:

Be it known that we, LORENZO D. HAWKINS, of Stoneham, county of Middlesex, State of Massachusetts, and ERASTUS WOODWARD, of Somerville, county of Middlesex, State of Massachusetts, have invented an Improvement in Button-Feeding Apparatus, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object a novel construction of apparatus by which to feed buttons into a button-conductor, our invention being adapted to machines for setting or attaching buttons to boots and shoes and other articles, and is an improvement on the machine represented in our application No. 94,977, filed May 15, 1883, to which reference may be had.

Figure 1 represents in top view the button-receiver and part of the button conductor or chute. Fig. 2 is a detail showing the outlet of the receiver. Fig. 3 is a section of Fig. 1 on the dotted line $x x$; Fig. 4, a section of Fig. 1 on the dotted line $x' x'$, and Fig. 5 is a section on the dotted line $x^2 x^2$.

The case of the button-receiver H^3 , brush or agitator H^4 , and the conductor E and its grooved bottom plate, 27, are substantially as in our said application, and the agitator will be rotated in the same manner and by like devices, all as therein shown. The bottom plate 27 of the conductor is extended, as at 28, to form a nearly circular plate or portion upon which to rest and attach the side walls of the button-receiver and its bottom plate a . The bottom plate a has a groove, a^2 , along one edge of it, into which the buttons collect, and along which they are swept or moved by the agitator H^4 , and as the buttons reach the front end of the shelf or projection a^2 their shanks enter the space between one wall of the groove and the edge of the said shelf, as in Fig. 4. The buttons whose shanks enter the space below the edge of the shelf are swept along right side up, and their shanks enter the throat a^4 in the block B , which is provided with a nearly vertical passage e , which is immediately over a groove, f , made in the part 28 of the bottom plate 27 of the chute. The block B has a shoulder, b , the

end of which is so shaped, substantially as shown in the drawings, that the buttons, as they arrive at the shoulder, tip over upon their edge and descend edge first through the passage e , which is shaped substantially like the head of the button in vertical section, and the buttons drop into the groove f , and their shanks rest above the part f^2 , as shown in Fig. 4, and roll down the chute or conductor, as in our said application, to its delivery end, where the buttons are taken off singly. The top plate of the chute is made in skeleton form to enable the buttons to be seen and to avoid friction upon their upper edges. The block B has an adjustable slide, b^2 , to prevent the possibility of the buttons jumping up from the shoulder b , and to adapt the size of the passage between the cover and shoulder to the size of the button-head.

We claim—

1. The button-receiver provided with groove a^2 , and the chute or conductor, combined with the block, having a throat for the entrance of the shanks of the buttons, a shoulder, and a passage, e , in communication with the groove in the said chute, the buttons falling edgewise from the said shoulder and dropping on their edges into the chute to roll down the same, substantially as described.

2. The button-receiver having a groove in its bottom, and the shelf or projection located along one side of the same to support part of the button-head, as shown, combined with an agitator or brush to move the buttons, along with their shanks, below the said shelf, and with a block having a throat, substantially as described, adapted to turn the button over upon its edge and effect its entrance edgewise into the groove of the chute, as set forth.

3. In a button-feeding apparatus, the block B , provided with a throat and shoulder and passage e , combined with a slide or projection, b^2 , to more or less cover the passage e , substantially as shown and described.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

LORENZO D. HAWKINS.
ERASTUS WOODWARD.

Witnesses:

JOS. P. LIVERMORE,
B. J. NOYES.