

(No Model.)

B. S. FREEMAN, Jr.
BUTTON.

No. 335,803.

Patented Feb. 9, 1886.

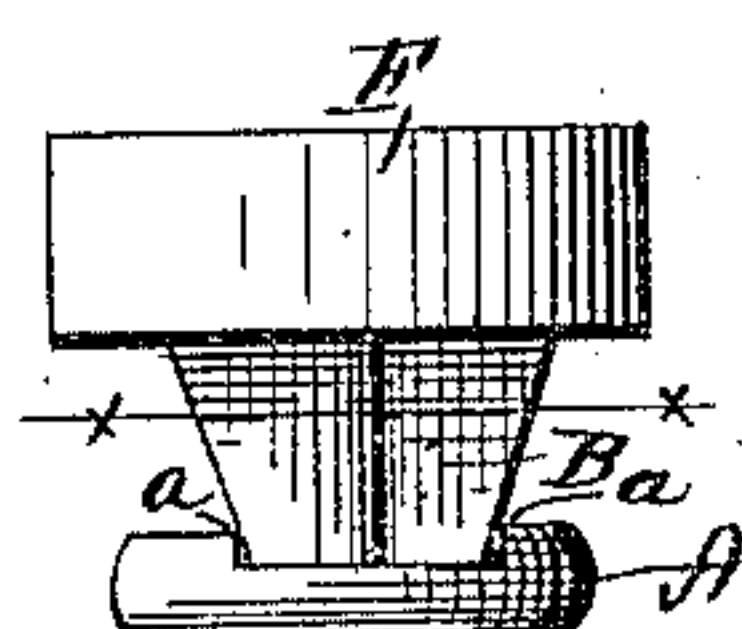


FIG. 1.

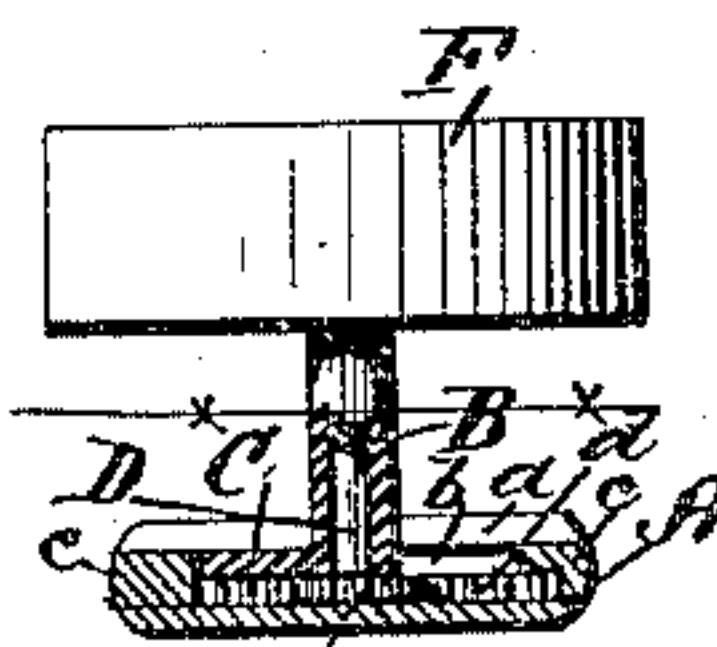


FIG. 2.

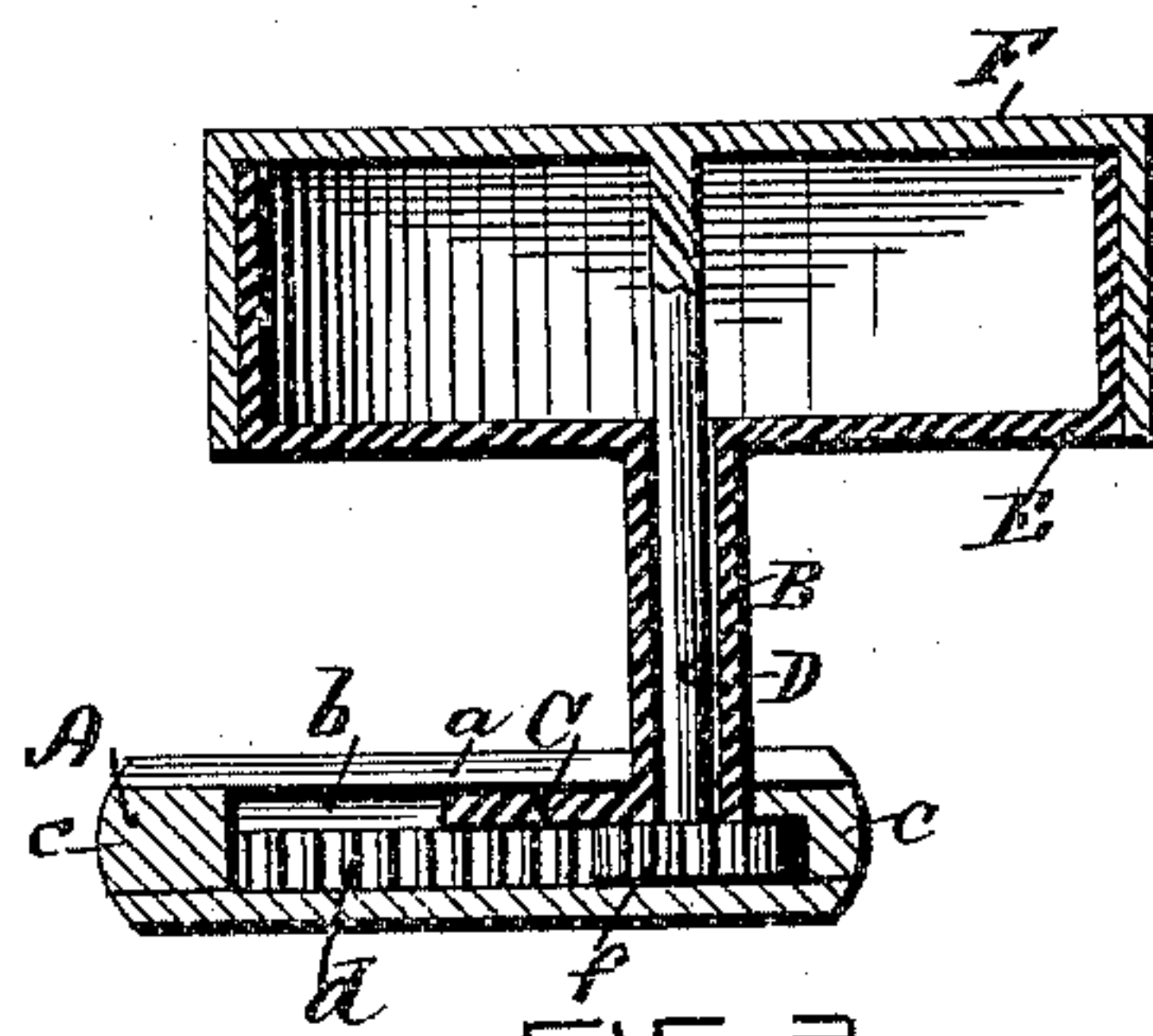


FIG. 3.

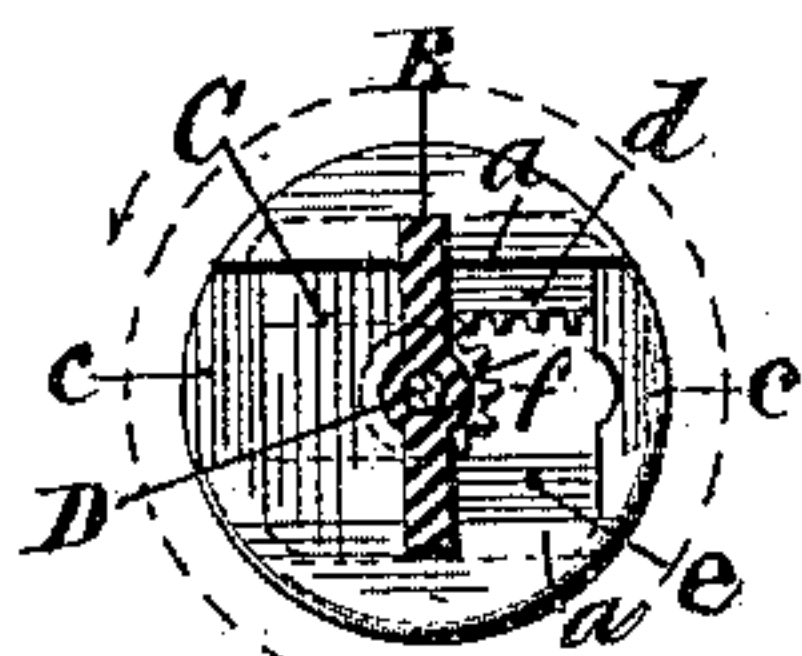


FIG. 4.

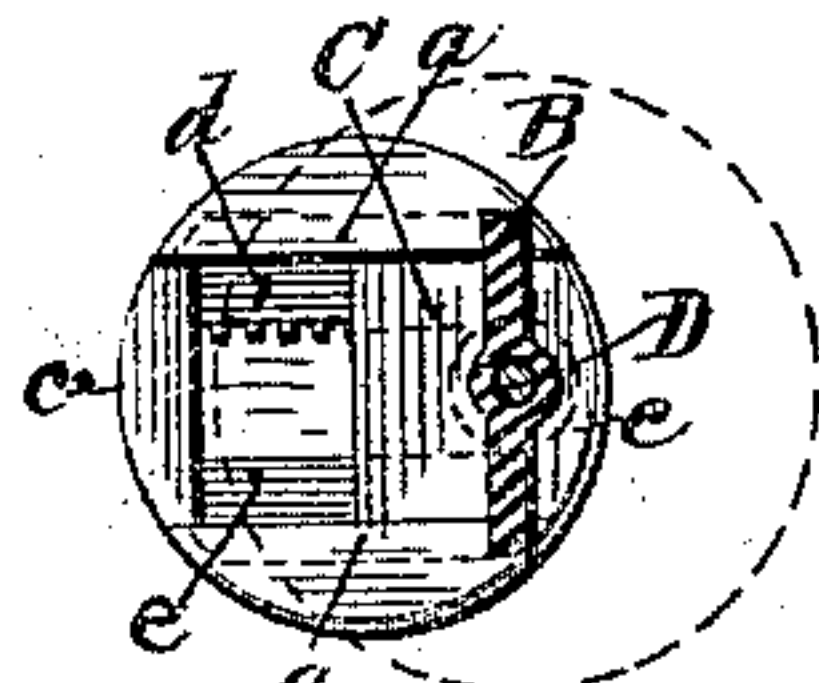


FIG. 5.

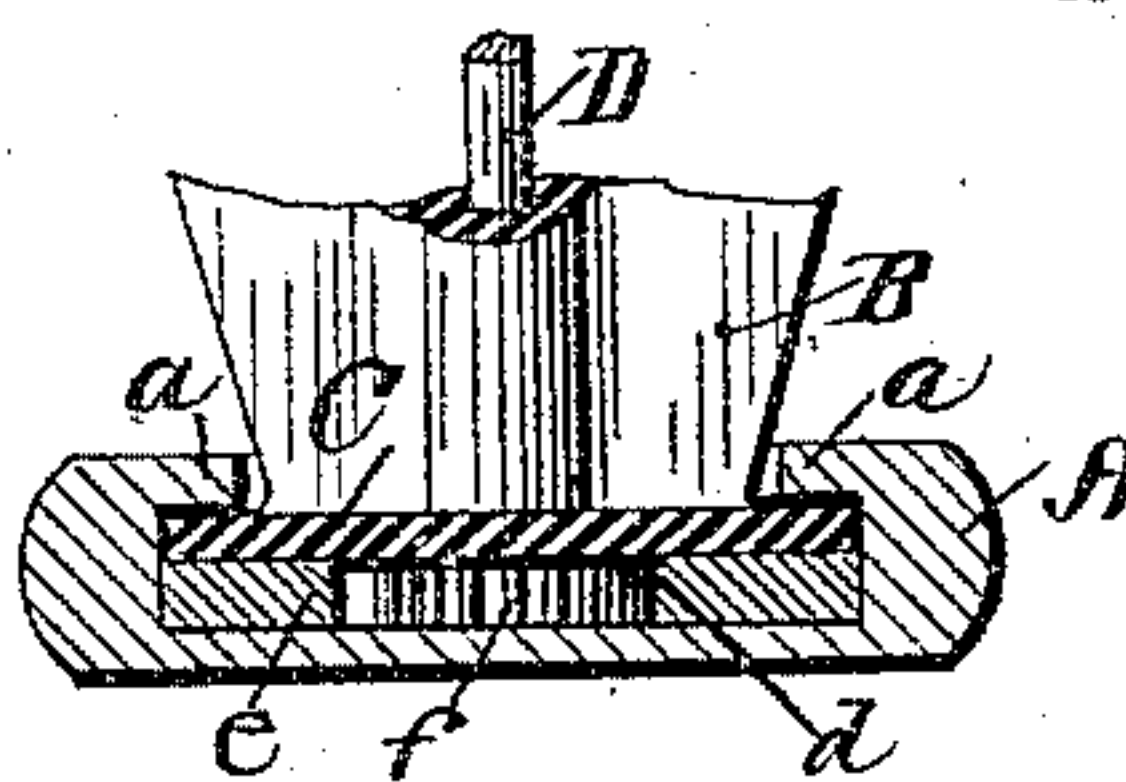


FIG. 6.

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BENJAMIN S. FREEMAN, JR., OF ATTLEBOROUGH FALLS, MASSACHUSETTS.

BUTTON.

SPECIFICATION forming part of Letters Patent No. 335,803, dated February 9, 1886.

Application filed August 18, 1885. Serial No. 174,757. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN S. FREEMAN, Jr., of Attleborough Falls, in the county of Bristol and State of Massachusetts, have invented a new and useful Improvement in Buttons, of which the following is a specification.

My invention relates to that class of buttons in which the shoe is made to assume an eccentric position with regard to the post, for the purpose of inserting the same into the button-hole, or for removal therefrom, and in which the movement of the shoe is effected by the partial revolution of the head of the button; and it consists in the improved construction and arrangement of the parts, as hereinafter fully set forth.

Figure 1 is a side elevation of the button and post. Fig. 2 is a side elevation of the button and edge view of the post, partially in section, the shoe being shown in its locking position. Fig. 3 is an enlarged vertical section of the button, showing the shoe in its position for insertion or disengagement. Fig. 4 is a horizontal section taken in the line *xx* of Fig. 2. Fig. 5 is a similar section showing the shoe in the position shown in Fig. 3. Fig. 6 is an enlarged detail section of the shoe when in its locking position.

In the accompanying drawings, A is the shoe of the button, which is secured to the post B by means of the laterally-projecting slide C, located at one side of the lower end of the post, and the overlapping slide-ribs *aa* of the shoe. The groove *b*, formed in the shoe for the reception of the slide C, is closed at its ends by means of the pieces *c c*, and the shoe will thus be made capable of a limited movement upon the slide. At one side of the lower portion of the groove *b* in the shoe, and below the edge of the slide C, is secured the toothed rack *d*, a corresponding smooth bar, *e*, being secured at the opposite side of the groove *b* under the edge of the slide. The

post B is made in laterally-elongated form and hollow at its central portion, in order to receive the shaft D and form a bearing for the same, and to the lower end of the shaft D is secured the pinion *f*. The post B is provided with the hollow circular head E, over which and attached to the shaft D is loosely placed the cap F, by the proper rotation of which the shoe may be operated as required for detachment or insertion into the button-hole.

Whenever the shoe is held centrally with the laterally-elongated post, as shown in Fig. 2, then by holding the post stationary and turning the cap F in the required direction the action of the pinion *f* and rack *d* will cause the shoe to be thrown to one side by a sliding movement upon the slide C, as shown in Figs. 3 and 5, and when the shoe is in this position it can be readily inserted into the button-hole, when by reversing the movement of the cap F the shoe will be brought back to its central position, and be thus firmly locked to the button hole. Instead of the cap F, other suitable means may be employed for operating the shaft D and pinion *f* to slide the shoe.

I claim as my invention—

1. In a button, the combination of the laterally-sliding shoe, the rack and pinion for operating the same, the guide for the shoe, the post, the rotary head, and the shaft, substantially as described.

2. In a button, the combination of the laterally-sliding shoe, the rack and pinion for operating the same, the guide for the shoe, the hollow post, the shaft extending through the same, and means for rotating the said shaft, substantially as described.

BENJAMIN S. FREEMAN, JR.

Witnesses:

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