

(No Model.)

S. R. GROVER.
BUTTON.

No. 360,684.

Patented Apr. 5, 1887.

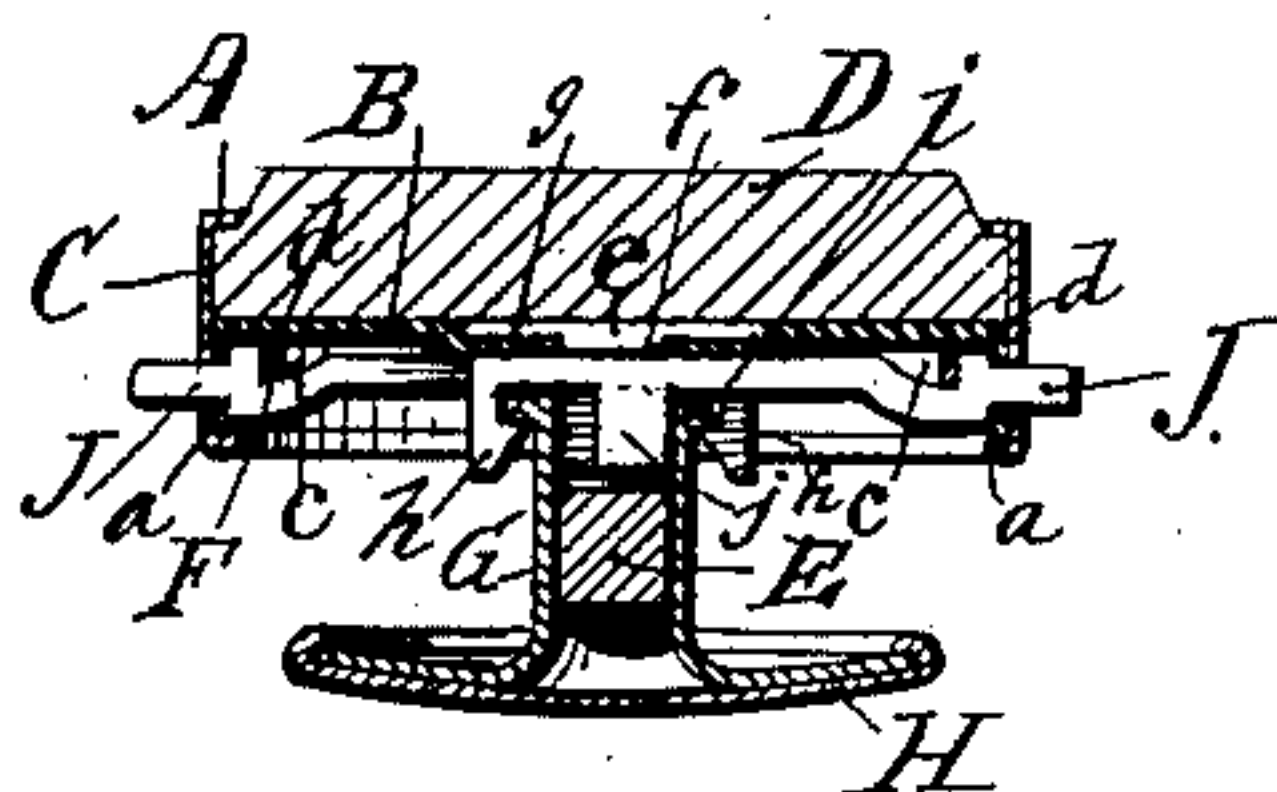


FIG. 1.

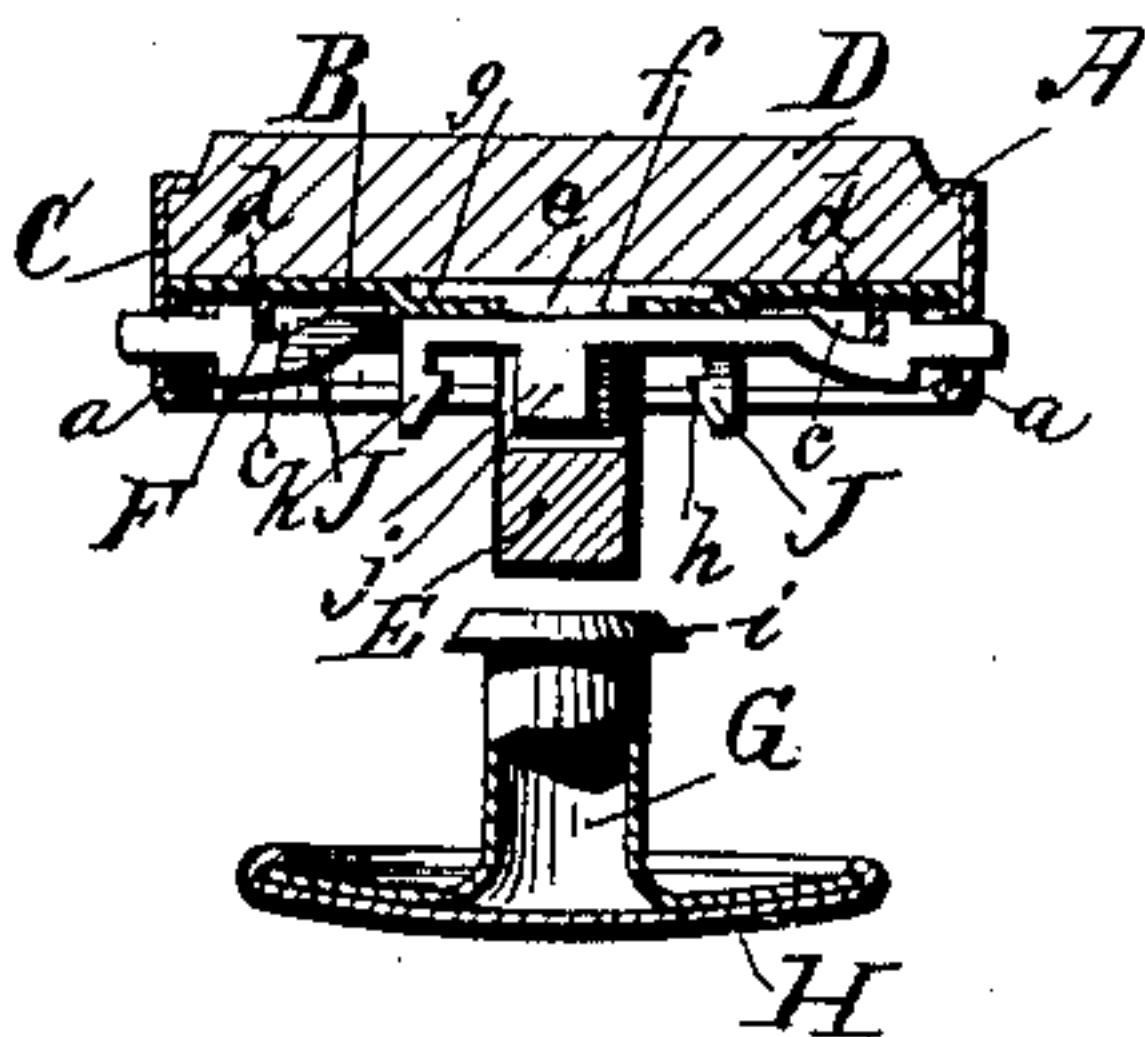


FIG. 2.

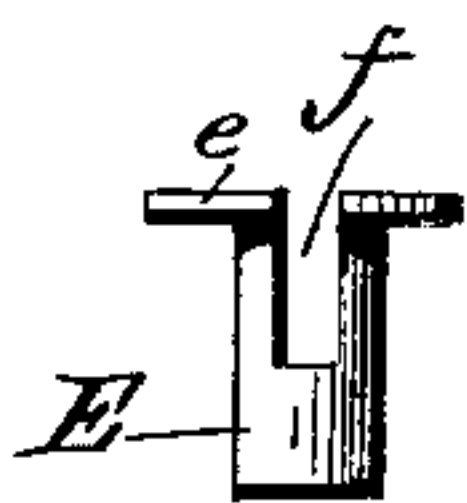


FIG. 5.



FIG. 6.



FIG. 7.

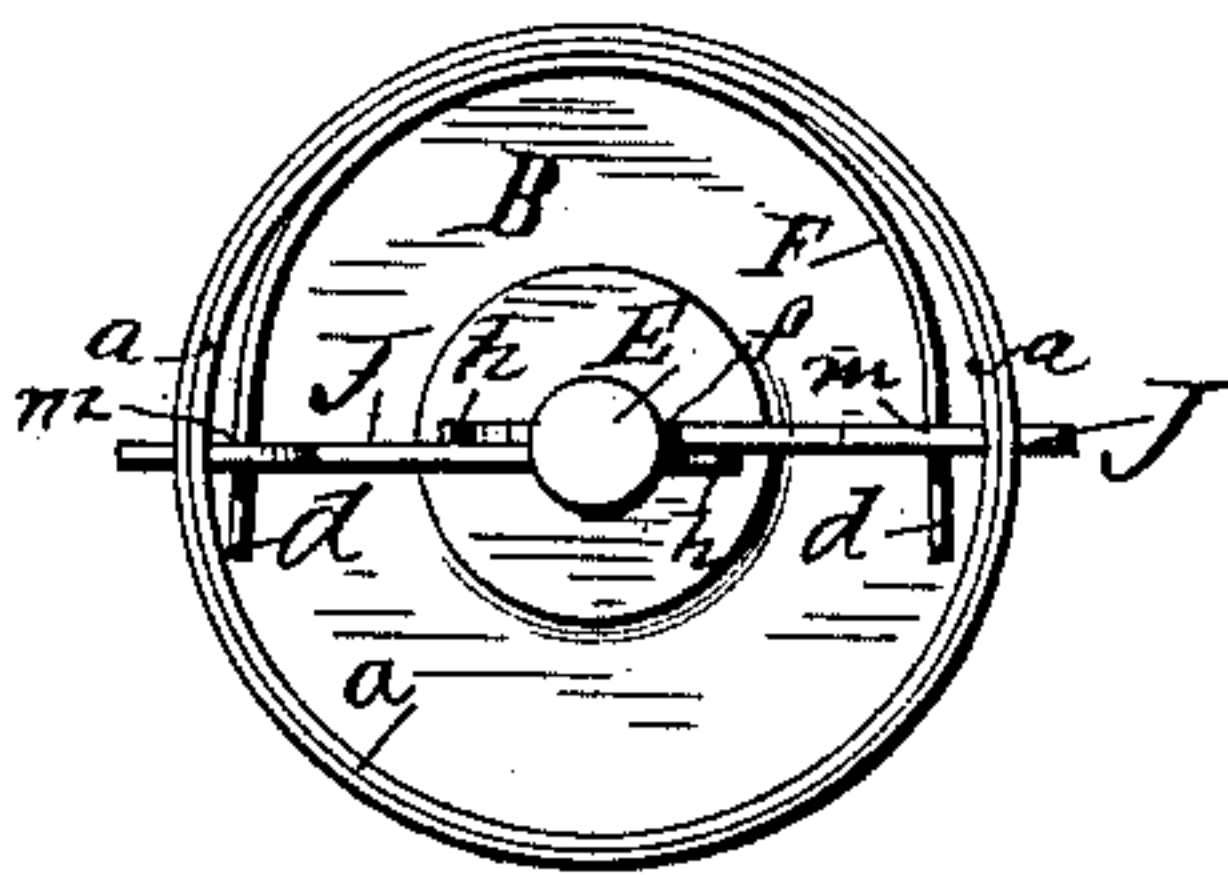


FIG. 3.



FIG. 4.

WITNESSES:

Chas. F. Schuch
Billie A. Eager

INVENTOR:

Stilman R. Grover
per S. Scholfield
Attorney.

UNITED STATES PATENT OFFICE.

STILLMAN R. GROVER, OF ATTLEBOROUGH, MASSACHUSETTS, ASSIGNOR TO
W. H. WILMARTH & CO., OF SAME PLACE.

BUTTON.

SPECIFICATION forming part of Letters Patent No. 360,684, dated April 5, 1887.

Application filed September 19, 1885. Serial No. 177,621. (No model.)

To all whom it may concern:

Be it known that I, STILLMAN R. GROVER, of Attleborough, 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 head of the button is made separable from the hollow post and shoe; and it consists in the improved construction and arrangement of the several parts of the button, as hereinafter fully set forth.

Figure 1 is a central vertical section taken in the line of the push-bars and showing the button-head as locked to the shoe. Fig. 2 is a similar section showing the head of the button separated from the shoe. Fig. 3 is a plan view of the under side of the button, showing the spring which serves to operate the push-bars of the button. Fig. 4 is a plan view of the outspread spring, which, when bent in semicircular form, serves to operate the push-bars. Fig. 5 is a separate elevation of the post of the button-head, showing the slot in the same. Fig. 6 is a separate central section of the back plate, showing the recess for receiving the slotted flange or head of the button-head post. Fig. 7 is a separate side elevation of one of the push-bars.

In the accompanying drawings, A is the head of the button, which is formed with a back plate, B, and a rim, C, which incloses the back plate, and also the stone D. The back plate, B, is provided with a downward flange, *a*, which is perforated at the opposite sides, in order to receive the outer ends of the push-bars J J. The push-bars are provided on their upper edges with a notch, *c*, which is adapted to receive the projecting spur *d* of the spring F. The post E, which is shown in elevation in Fig. 5, is provided with a thin flange or head, *e*, and is also provided with a downwardly-extending slot, *f*, which divides the head C into two equal portions, the push-bars J J being arranged to operate within the lower portion of the said slot. The slotted post E is secured to the back plate, B, by means of the flat circular recess *g*, struck in the back plate, in conjunction with the superposed stone D; or, instead of the stone D, a flat plate, or an extension of the metallic rim C, to form

a cap, will serve the purpose. The attachment of these parts to each other serves to leave a circular chamber between them, adapted for the reception of the slotted head or flange *e* of the post E. The post E may thus be secured to the head of the button without the employment of solder.

The push-bars J J are each provided at their inner ends with hooks *h*, which are adapted to catch over the projecting rim or flange *i* of the hollow post G of the shoe H, the said hollow post being adapted to cover the slotted post E of the button-head. The push-bars are provided with the downwardly-projecting guide *j*, which is made integral with the push-bar, and which serves to prevent a twisting action upon the push-bar when the head or shoe is being separately rotated.

In putting the several parts of the button-head together, the slotted post E is first inserted into the central perforation of the back plate, B, so that the slotted head *e* of the post E will rest within the flat circular recess *g* of the back plate. The stone D is then applied to the face of the back plate, and secured thereto by means of the rim C, as usual in such buttons. The push-bars J J are then inserted in their proper working position by passing the same side by side through the slot *f* of the post E to an extreme backward position, and thence forward and outward, so as to insert the forward ends of the push-bars in the perforations made for the reception of the same in the flange *a* of the back plate, B. The flat spring F is now bent in semicircular form, and the projecting spurs *d* at its opposite ends are inserted into the notches *c* of the push-bars J, the notched edges of the said push-bars being turned toward the under face of the back plate, and when the spurs *d* at the ends of the spring are so entered, and the bend of the spring F brought within the flange *a*, as shown in Fig. 3, the shoulders *m* of the spring, which press against the side of the push-bars, will serve to hold the spring in its proper working position within the button-head, and by this means the button-head will be rapidly put together without soldering.

I am aware that the shoe has been removably secured to the head of a button by means of spring-operated push-bars, which are ar-

ranged to clamp the exteriorly-flanged solid post of the shoe, the head of the button being made without a post, as shown in English Patent No. 152 of 1880. I am also aware that
5 spring-operated push-bars supported in a transversely-slotted guide, separate from the central post of the button-head, have been employed for engagement with the exterior flange of the hollow post of the shoe, as shown in Letters Patent of the United States No. 234,933.
10 I am also aware that spring-operated push-bars have been arranged in a slotted hollow post, to engage interiorly with perforations made in the hollow post of the shoe, as shown
15 in United States Patent No. 237,980; but said patents do not show a shoe provided with a hollow post having an exterior flange for engagement with the inwardly-directed hooks of the push-bars, which first pass through and
20 are supported by the slotted button-head post; neither do they show a separately-formed button-head post which is secured to the back plate without riveting or solder; neither do

they show a push-bar having an integral enlargement separate from the hook, which operates as a guide in a slotted post, as in my invention. 25

I claim as my invention—

In a button, the combination, with the rim C and perforated back plate, B, provided with 30 the recess *g* on its upper side, of the post E, provided with the slot *f* and slotted flange *e*, fitting the chamber formed by the recess *g* of the back plate, the push-bars provided with an inwardly-directed hook, *h*, integral guide *j*, 35 and notch *c*, the spring F, provided with the retaining-shoulders *m*, and the shoe H, having a hollow post, G, provided with the flange *i*, for engagement with the inwardly-directed hooks of the push-bars, substantially as described. 40

STILLMAN R. GROVER.

Witnesses:

FRANK I. BABCOCK,
E. B. BULLOCH.