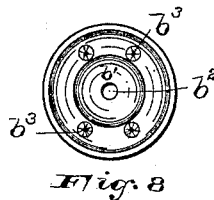
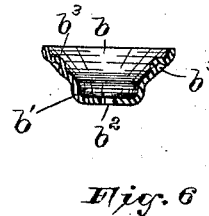
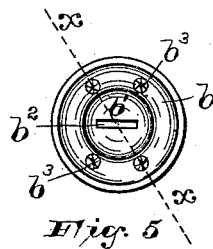
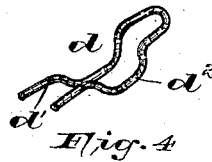
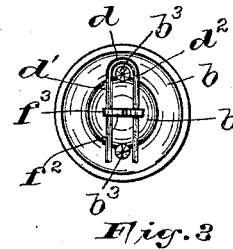
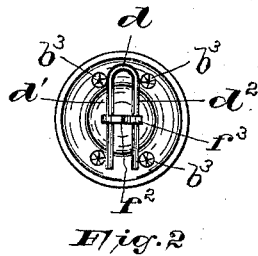
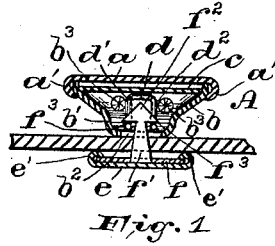


(No Model.)

C. RADCLIFFE.  
BUTTON.

No. 417,941.

Patented Dec. 24, 1889.



WITNESSES:

Marcy Beh. Trusdell  
Sol. Trusdell

INVENTOR:

Charles Radcliffe.

BY Campbell & Co. ATTYS.

# UNITED STATES PATENT OFFICE.

CHARLES RADCLIFFE, OF NEWARK, NEW JERSEY.

## BUTTON.

SPECIFICATION forming part of Letters Patent No. 417,941, dated December 24, 1889.

Application filed May 23, 1889. Serial No. 311,768. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES RADCLIFFE, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Buttons; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in those buttons having a face and back plate united at their peripheral edges, a centrally-arranged perforation in the hub or back-plate, and a separate shoe having a pointed post thereon for forcing the same through the material and adapted to engage with means in the button for securing the parts of the button together.

The invention further consists in providing the hub or back-plate with means thereon to prevent the spring or cross bar from turning within the button, thus causing the latter always to remain in a position directly across the perforation in the back-plate, and thereby allowing the prongs on the post on the shoe to be readily forced between and over and across the spring-arms of the cross-bar without any danger of displacing the same, and thus securing a button all of the parts of which are firmly held together when in wearing position on the material.

Referring to the accompanying sheet of drawings, Figure 1 is a vertical section of my improved button. Fig. 2 is a plan view of the same with the face-plate removed, showing one arrangement of projections or studs punctured into the back-plate to prevent the side movement of the spring cross-bar out of position when the post on the shoe is forced between the arms of the same. Fig. 3 is a view similar to Fig. 2, showing a different arrangement of the projections or studs. Fig. 4 is a perspective view of the spring cross-bar used in connection with my improved button. Fig. 5 is a plan view of the back-plate with the spring cross-bar removed; and Fig. 6 is a section of the same, taken through line *x*, Fig. 5. Fig. 7 illustrates a shoe pro-

vided with a round post, and Fig. 8 is a plan view of a back-plate used in connection with the round post.

In each of the several views similar reference-letters are employed to indicate corresponding parts.

In the drawings, A represents the button. *a* is the face-plate, and *b* the back-plate, which are united at the edges thereof by lapping the edges *a'* of the face-plate over the back-plate, as indicated in Fig. 1. The back-plate is formed with a deep hub or recess *b'*, having a centrally-arranged perforation *b<sup>2</sup>* therein, and diametrically across the same is arranged a spring cross-bar *d*, provided with arms *d'* and *d<sup>2</sup>*, which are bent so as to conform with the back-plate and the recess therein, as illustrated in Fig. 4. Between said arms *d'* and *d<sup>2</sup>*, as in Fig. 3, or on the sides of the arms of the spring cross-bar, as in Fig. 2, are formed projections or studs *b<sup>3</sup>*, thrown up on the inner side of the back-plate, which serve to hold the cross-bar in place and prevent the displacement of the same by a jar or otherwise, and which also act to guide the workman in placing the bar *d* in its proper position directly across the slot or perforation in the hub. A plate or disk *c*, of pasteboard or metal, may be arranged within the back-plate directly above the cross-bar, as in Fig. 1, to further help to secure the bar *d* permanently within the hub and back-plate; but the same may be dispensed with, if desirable, as is evident.

As will be seen from Fig. 1, the shoe *e* is provided with a post *f'*, extending up therefrom, having an arrow-shaped or pointed head *f<sup>2</sup>* thereon provided with projections or prongs *f<sup>3</sup>*, as shown. If desirable, the post *f'* may be struck up on a metal disk *f*, which is firmly secured to the shoe *e* by the overlapping edges *e'* on the same.

When the spring-bar *d* is placed in position between the projections *b<sup>3</sup>* in the back-plate, the face-plate *a* is secured to the back-plate, and the parts are ready to be attached to the material.

The shoe is secured to the back of the material by forcing the pointed post *f'* through the same, which is readily accomplished, without first puncturing the material, by means of a needle, as has been the custom heretofore, and the barbed head on the post is inserted

through the slot or perforation in the back-plate, the points  $f^3$  on the head  $f^2$  spreading the spring-arms  $d'$  and  $d^2$  apart and catching across the same, as is clearly shown in Fig. 1, thereby firmly securing the parts of the button together, and all possibility of the button becoming detached from the garment is avoided.

The great advantage in this button is its simplicity of construction, and the result attained in the manufacture of a metallic button which is strong and durable.

By arranging the projections or studs on the back-plate, as indicated, two advantages are attained which form the essential features of the present invention: first, that of preventing the spring-bar from being forced out of its proper place in the hub in the back-plate, and, second, they serve to guide the workman in properly placing the bar within the button, as has been stated in the above.

In lieu of providing the hub in the back-plate with a slot and employing a flat post I may provide the shoe  $e$  with a round post, as in Fig. 7, and use the back-plate with a round hole. (Shown in Fig. 8.) In the herein-described button, however, the flat post is preferable to the round post, thereby avoiding the necessity of first puncturing the cloth for the insertion of the post therethrough.

Having thus described my invention, what I claim is—

1. A button consisting of a perforated back-plate, a face-plate secured thereto, a U-shaped spring-bar provided with arms  $d'$  and  $d^2$ , arranged within the back-plate across the opening or perforation therein, projections or studs  $b^3$ , formed or struck up on the inner side of the back-plate to prevent the side movement of the spring-bar, and a shoe provided with a post thereon, having a pointed head adapted to engage with and catch across the arms of said spring-bar, for the purposes set forth.

2. In a button, the combination, with a shoe provided with a disk  $f$ , struck up from a blank, with a post  $f'$  thereon, having a pointed head  $f^2$ , provided with prongs  $f^3$ , of a button A, consisting, essentially, of a face-plate  $a$ , secured to a perforated back-plate  $b$  by means of overlapping edges  $a'$  on the face-plate, and projections or studs  $b^3$ , struck up on said back-plate for securing the spring  $d$  within said back-plate, bent, as shown, and having arms  $d'$  and  $d^2$ , with which the prongs on the head engage, for the purposes set forth.

In testimony that I claim the invention set forth above I have hereunto set my hand this 20th day of May, 1889.

CHARLES RADCLIFFE.

Witnesses:

FREDK. C. FRAENTZEL,  
DAVID J. WEBB.