

(No Model.)

C. RADCLIFFE.
BUTTON.

No. 417,940.

Patented Dec. 24, 1889.

Fig. 1.

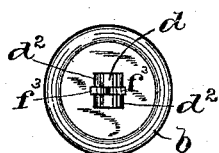
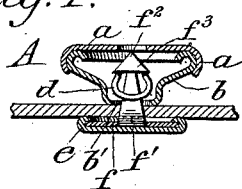


Fig. 2

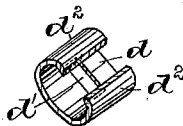


Fig. 3

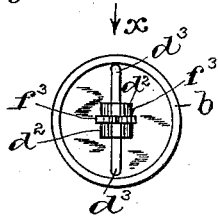


Fig. 4

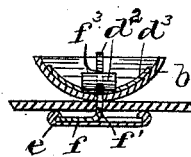


Fig. 5.

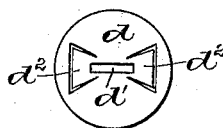


Fig. 7.

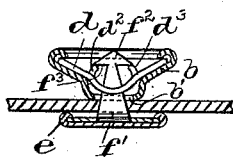


Fig. 6.

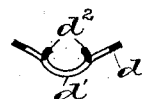


Fig. 8.

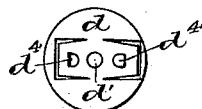


Fig. 10.

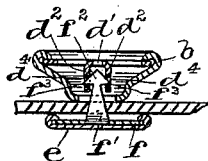


Fig. 9

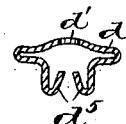


Fig. 11.

WITNESSES:

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INVENTOR:

Charles Radcliffe

BY *Campbell & Co.* ATTY'S.

UNITED STATES PATENT OFFICE.

CHARLES RADCLIFFE, OF NEWARK, NEW JERSEY.

BUTTON.

SPECIFICATION forming part of Letters Patent No. 417,940, dated December 24, 1889.

Application filed March 19, 1889. Serial No. 303,913. (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 an improvement in buttons known as "self-fastening" buttons, which improvement is illustrated in an application contemporaneous herewith, in which the main parts of the button are the same, but the means for locking or securing the shoe to the hub or back-plate differ in construction and constitute the principal features of novelty of the invention.

The present invention is shown in the accompanying sheet of drawings, in which similar letters of reference are employed to indicate corresponding parts.

Figure 1 represents a vertical section of the improved button. Fig. 2 is a plan view of the locking parts, and Fig. 3 is perspective views of a perforated spring-plate. Fig. 4 is a plan view of a modified form of spring-plate arranged within the hub or back-plate of the button; and Fig. 5 is a section through line *x*, Fig. 4. Fig. 6 is a vertical section of a button, showing still another form of spring-plate. Fig. 7 is a blank from which said spring-plate is formed, and Fig. 8 is a cross-section of the plate. Fig. 9 represents a form of button in which the spring-plate is arranged above the barbed head of the post on the shoe. Fig. 10 is a blank of said spring-plate shown in Fig. 9, and Fig. 11 is a section of still another form of spring-plate.

In the several views described in the above, A represents the button, *a* the face-plate, which is secured to the hub or back-plate *b* by means of the overlapping edges *a'* in the ordinary manner. The hub or back-plate *b* is provided in the bottom thereof with a per-

foration *b'*, above which is arranged the spring-plate *d*, preferably U-shaped, as is illustrated more especially in Figs. 1 and 3, and which is provided with a slot or perforation *d'*, corresponding in shape to the slot or perforation *b'* in the hub or back-plate. As has been stated, the spring-plate *d* is bent U-shaped, having arms or tongues *d²*, which are arranged diametrically across the opening *b'* in the hub or back-plate, and with which prongs *f³* on the head *f²* of the post *f'* engage, and thereby firmly secure the top part of the button to the shoe *e* when arranged or attached on the material. It is evident that the post may be struck up directly on the shoe *e*, or on a separate plate *f*, which may be secured to the shoe in any well-known manner.

To hold the spring-plate *d* in position when arranged across the perforation in the hub or back-plate, I may provide the spring-plate with a number of metal strips or tongues *d³*, which extend out from the plate and by means of which the spring-plate is firmly secured between the overlapping edges of the hub or back plate.

Instead of forming the spring-plate as illustrated in Figs. 1 and 3, I may use a metal blank, which is circular and perforated in the center to allow the insertion of the head on the post therethrough, and on each side of said perforation the lips or tongues *d²* are turned up, as indicated in Figs. 6 and 8. When used in this manner, the spring-plate is placed in the bottom of the hub or back-plate, similar to the arrangement of the plate shown in Figs. 1 and 2, *et seq.*, and as described; but the parts may be reversed, as will be clearly understood from Figs. 9 and 11, in which this arrangement of the spring-plate within the hub or back-plate is illustrated. When used in this manner, the spring-plate *d*, provided with the arms or tongues *d²*, is reversed, the arms on said plate extending downward and being provided with perforations *d⁴* *d⁴* therein to receive the prongs *f³* *f³* on the post *f'*, as will be clearly understood from Fig. 9.

In Fig. 11 is shown still another form of construction of the spring-plate, in which the tongues or arms *d²* are turned up, as at *d⁵* *d⁵*, in order that the prongs *f³* on the head *f²* of

the post f' may engage with the edges of said arms in a manner similar to that shown in Fig. 1.

Having thus described my invention, what I claim is—

1. A button consisting of a slotted hub or back-plate, a face-plate secured thereto, a U-shaped spring-plate arranged within said hub or back-plate and having a centrally-arranged slot therein, arms formed integrally on said spring-plate, said arms extending up therefrom in a plane at right angles to the longest diameter of the slot in said spring-plate, and a shoe having a flat and pointed post thereon adapted to be forced through the material and to enter said slots in the back-plate and the spring-plate, said post having means thereon adapted to engage with and extend at right angles across and catch over the upwardly-extending arms, substantially as and for the purposes set forth.

2. The herein-described button, consisting of a face-plate a , a hub or back-plate b , having a perforation b' centrally arranged in the recessed portion of the back-plate, a spring-plate d , having a perforation d' therein, and arms d^2 , formed integrally on said plate, and a shoe e , having a plate f and a post f' thereon provided with prongs f^3 , adapted to engage with said arms d^2 on the plate d , within the back-plate of the button, substantially as and for the purposes set forth.

In testimony that I claim the invention set forth above I have hereunto set my hand this 15th day of March, 1889.

CHARLES RADCLIFFE.

Witnesses:

FREDK. C. FRAENTZEL,
C. SMITHERS.