Feb. 5, 1952 F. A. BALLOU, JR 2,584,828

BUTTON BACK

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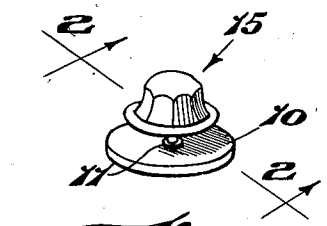


Fig. 1.

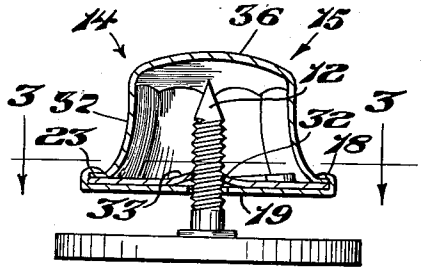


Fig. 2.

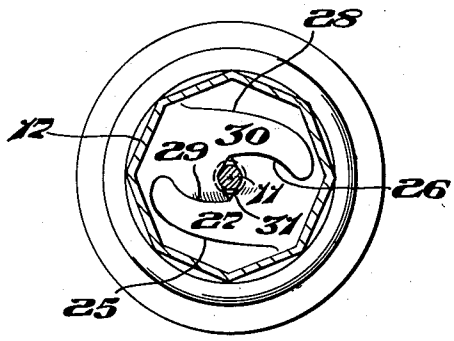


Fig. 3.

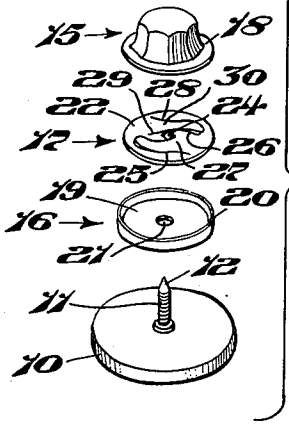


Fig. 4.

INVENTOR.

Frederick A. Ballou, Jr.

BY

Barlow & Barlow

Attorneys

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BUTTON BACK

Frederick A. Ballou, Jr., Providence, R. I., assignor to B. A. Ballou & Co., Incorporated, a corporation of Rhode Island

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1 Claim. (Cl. 24—105)

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This invention relates to a securing device for the post of a button, such as might be applied to a lapel button.

One of the objects of this invention is to provide a device which will engage the threaded post of a button to secure it against being pulled through the fabric upon which it is mounted.

Another object of this invention is to provide a device which may be easily and quickly locked in position on the post, but which may be removed from the post only by an unscrewing action.

Another object of the invention is to provide a device which will provide a minimum number of parts, thus reducing assembly operations.

Another object of the invention is to provide a guard for the post which is secured, thus preventing the point of the post or stud from being exposed to abraid the flesh or garment of the wearer.

With these and other objects in view, the invention consists of certain novel features of construction, as will be more fully described and particularly pointed out in the appended claim.

In the accompanying drawings:

Figure 1 is a perspective view of the securing device or button back of this invention mounted upon a post;

Figure 2 is a sectional view on line 2—2 of Figure 1;

Figure 3 is a sectional view on line 3—3 of Figure 2; and

Figure 4 is a perspective exploded view of the various parts which enter into the construction of the device which is the subject of this invention.

In proceeding with this invention, I provide a button back formed of three parts comprising an inverted cup part, the closure plate therefor, and a spring plate which is locked by the two other parts and supported by the closure plate. The spring plate is provided with slits to form spring arms which will engage a threaded post and permit the back to be pressed onto the threaded post by an axial movement but removed therefrom only by relative rotation.

With reference to the drawings, the button is designated generally 10 with a threaded post or stud 11 extending therefrom which is pointed as at 12 at one end. The button back, which is the part to be assembled therewith, is designated generally 14 and comprises an inverted cup-shaped part 15, a closure plate therefor 16, and a spring clutch plate 17, all as shown in perspective in Figure 4.

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The inverted cup part 15 has an end wall 36 and side walls 37 which are arched inwardly and formed with flat surfaces in the form of an octagonal cross section so as to provide a good grip for the fingers. At the edges of the side walls 37, there is a flange 18, as shown in Figures 2 and 4, which extends outwardly from the side walls 37.

The outer plate or closure plate comprises a wall 19 with an upstanding rim 20, as shown in Figure 4, with a central hole 21 in the plate 19.

The spring plate which forms a clutch or provides the gripping action is a disc 22 having an outer periphery of a size substantially that of the flange 18 so as to fit within the flange 20 of the closure member 16. This flange 20 is then rolled inwardly as at 23 in Figure 2 so as to lock the plate firmly in position between the flange 18 and the plate 19 at its outer peripheral edge.

The plate 22 is also provided with an opening 24 centrally thereof which will register with the opening 21 and from this opening, the plate is slit as at 25 and 26 to form a finger 27 and at 28 and 29 to form a finger 30. These fingers 27 and 30 are opposed and provided with an opening which may be diamond-shaped, as shown at 31 in Figure 3 which will snugly fit about the post 11 which it is to grip. The edges of these fingers 27 and 30 are deflected away from the plate 19 as at 32 and 33 (see Figure 2) so as to provide a guiding edge for the point 12 as it is inserted and also so as to tend to move to close the hole 31 should the post be urged outwardly of the button back. The offset of the finger 27 at 32 will be different from the offset of the finger 30 at 33 in a differential amount which will be the pitch of the threads which are to be engaged. Some flexing of these edges will be permitted to accommodate threads of different pitches.

The arrangement is such that the button back may be pressed onto the stud 11, but cannot be removed therefrom axially except by combining the axial movement with a rotary movement of the button back relative to the shank or threaded post. It is essential that the post be threaded in order that the back may be removed. This device would form a permanent attachment on a nonthreaded post.

I claim:

A securing device for a threaded post comprising a hollow member having a closed cup-shaped part and an outer plate across the mouth of the cup with an opening therein through

which said post may extend, a spring plate supported by said outer plate and securely held in said member at its outer peripheral edge, said spring plate having a central opening registering with the opening in the outer plate with opposed edges for engaging the post and opposed generally radially extending fingers formed from the stock of said spring plate by slitting from said edges of said opening to provide narrow junctures with the plate at points spaced radially outwardly from said central opening with the edges of the fingers at the opening deflected away from the outer plate different distances, and at an angle to the plane of the plate corresponding to the pitch of the threads of the posts to be accommodated, the differential of said distances being substantially the pitch of the threads of the post to be accommodated.

FREDERICK A. BALLOU, JR.

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