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CRUSH-PROOF BUTTON

Filed March 7, 1942

Fig. 1

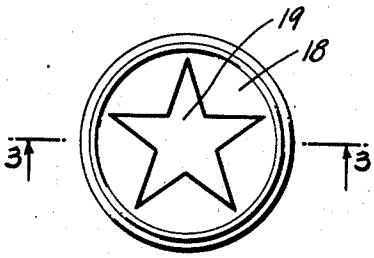
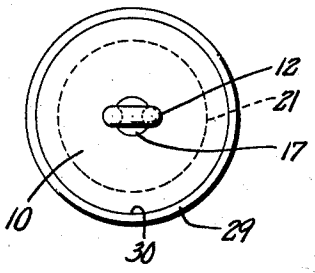


Fig. 2



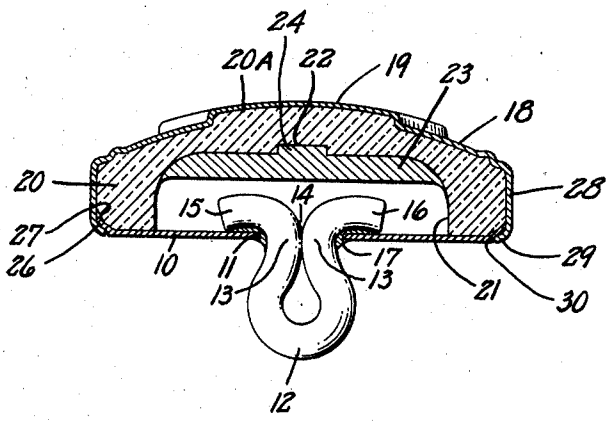


Fig. 3

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CRUSHPROOF BUTTON

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6 Claims. (Cl. 24—113)

This invention relates to buttons, and more particularly to a crush-proof button having a hollow metal shell which is strongly reinforced by an interior plastic filler.

One object of this invention is to provide a crush-proof button of the above nature which also has an interior lead disk to increase the weight of the button.

Another object is to provide a crush-proof button of the above nature which will be simple in construction, inexpensive to manufacture, easy to install and manipulate, compact, ornamental in appearance, and very efficient and durable in use.

With these and other objects in view, there has been illustrated on the accompanying drawing one form in which the invention may be conveniently embodied in practice.

In the drawing:

Figure 1 is a top plan view of a crush-proof button embodying the invention.

Figure 2 is a bottom view of the same.

Figure 3 is a sectional view, on a larger scale, taken along the line 3—3 of Figure 1, looking in the direction of the arrows.

Referring now to the drawing in which like reference numerals denote corresponding parts throughout the several views, the numeral 10 indicates a flat metal back plate, preferably of brass, having a central aperture 11 for embracing a wire looped eye 12 which is used to attach the button to a garment.

The wire eye 12 is provided with a pair of neck portions 13, 13, the inner sides of which are in abutment at the point 14, and said eye also has a pair of outwardly bent legs 15 and 16 located on the inner side of the metal back plate 10.

The legs 15 and 16 and the exterior surfaces of the necks 13, 13 are rigidly secured to the inside and outside surfaces of the metal back plate 10 by a ring of solder 17 surrounding the aperture 11.

The button is also provided with a hollow metal cap 18, also preferably of brass, and having a convex top surface into which a suitable design 19 is pressed so as to present an embossed outer surface and a grooved inner surface, as clearly shown on Figure 3 of the drawing.

In order to reinforce the button and render it substantially crush-proof, the interior cavity thereof is provided with a circular filler insert 20 of molded plastic material, such as "Bakelite," said insert having a convex top surface 20A provided with an embossed design identical with the design 19 impressed in the top of the cap 18, whereby said filler insert 20 and cap 18 may be interfitted so as to prevent relative rotation therebetween.

The filler insert 20 is provided with a rear circular recess 21 provided with a central circular socket 22 for receiving a circular lead disk 23 having an upstanding circular centralizing nib 24 which is adapted to fit snugly within said socket 22.

As will be clearly seen from Figure 3 of the drawing, the lead disk 23 is provided with a flat rear surface which terminates a short distance from the upper portions of the outturned legs 15 and 16 of the wire looped eye member 12. The lead disk is located at the center of gravity of the button and serves to closely simulate the effect of a solid uniform or dress button.

The outer edge of the metal back plate 10 is provided with an upwardly bent rim flange 26 which is seated in a beveled annular recess 27 formed on the filler insert 20.

The hollow cap 18 is provided with a cylindrical rearwardly extending skirt section 28, the rear edge of which is in-turned at 29 and tightly fitted into a shoulder 30 formed on the rim 26 of the rear plate 10 to form a smooth flush joint.

One advantage of the present invention is that the raised design on the button cap 18 will be reinforced by the underlying interfitted filler insert 20, and will thus be prevented from being pressed inwardly or dented during use.

A further advantage is that the cap will remain fixed in a position with respect to the looped eye 12 and it cannot rotate out of said position due to the tightly interlocking rims of the metal back plate 10 and the front cap 18 of the button.

While there has been disclosed in this specification one form in which the invention may be embodied, it is to be understood that this form is shown for the purpose of illustration only, and that the invention is not to be limited to the specific disclosure, but may be modified and embodied in various other forms all the modifications and embodiments coming within the scope of the following claims.

Having thus fully described the invention, what is claimed as new and for which it is desired to secure Letters Patent is:

1. In a crush-proof button, a hollow metal shell having a convex metal cap, said cap having a design impressed into the surface thereof, an apertured flat back plate, a wire looped eye having outturned ends fitted into the aperture of said plate, a convex reinforcing filler insert of small density fitted within the interior of said

shell and having a design embossed thereon identical with the design on said cap and interfitted therewith to prevent said cap from being dented inwardly during use, and a lead disk fitted within a cavity formed at the rear of said filler insert and located at the center of gravity of said button.

2. In a crush-proof button, a hollow shell having a convex front cap section, an apertured flat back plate, a wire looped eye having outturned ends fitted into the aperture of said plate, a convex reinforcing filler insert of small density fitted within the interior of said cap and having an embossed upper portion interfitted with similar outwardly-pressed grooves of the same design on the upper portion of said cap, and a disk of high density fitted within a cavity in the rear of said filler insert, said disk having a centralizing nib fitted within an upstanding socket formed in the upper portion of the cavity of said filler insert.

3. In a crush-proof button, a hollow shell having a convex front cap, an apertured flat back plate, a wire looped eye having outturned ends fitted into the aperture of said plate, a convex reinforcing filler insert of low specific gravity fitted within the interior of said shell and having an embossed upper portion interfitted with outwardly-pressed grooves of the same design formed on the upper portion of said cap, said insert having a rear cavity, and a disk of high specific gravity fitted within said cavity, the legs of said eye member being rigidly soldered to the inside and outside surfaces of said back plate.

4. In a crush-proof button, a hollow shell having a convex front cap, an apertured flat back plate, a wire looped eye having a pair of necks fitted into the aperture of said plate and having a pair of outturned ends located inside of said plate, a convex reinforcing filler insert fitted within the interior of said shell and having an embossed upper portion interfitted with outwardly-pressed grooves of the same design formed on the upper portion of said cap, and means to interlock said front cap and back plate to prevent relative rotation therebetween.

5. A reinforced metal and plastic button including a hollow front cap open at its rear end, a plastic insert fitted within said cap and having a cavity at the rear portion thereof, a flat metal back plate fitted within the rear of said shell and abutting against the edges of said insert, and a looped wire eye member having outturned legs located within said cavity and having a pair of intermediate necks projecting through an aperture in the center of said back plate, the legs and necks of said eye member being soldered to said back member to prevent relative rotation between said eye member and said back plate, the edges of said top cap and metal back plate being interlocked to form a flush exterior surface and serving to prevent relative rotation of said front cap and back plate.

6. In a crush-proof metal and plastic button, a hollow front cap having a raised design impressed into the upper surface thereof, said cap having a depending cylindrical skirt, an apertured flat back plate interfitted and interlocked with said skirt to prevent relative rotation of said cap and back plate, a garment-attaching eye secured to said back plate, a filler insert of molded plastic material fitted within said front cap and having a design embossed thereon, said cap having a design identical with that on said insert outwardly impressed into the surface thereof and interfitted therewith, said filler insert serving to reinforce said cap from becoming inwardly dented during use and preventing relative rotation of said cap and back plate.

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