No. 645,192. Patented Mar. 13, 1900.

E. W. SILSBY.

BUTTON.

(Application filed Apr. 20, 1899.)

(No Model.)

Fig. 1.

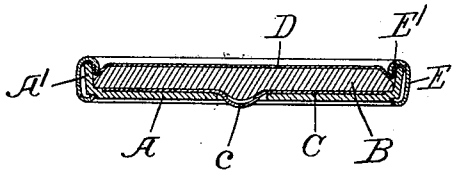


Fig. 2.

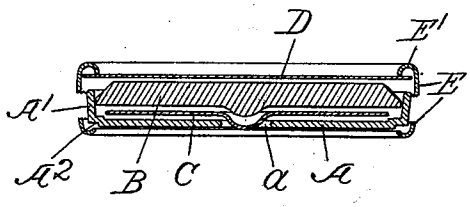


Fig. 3.

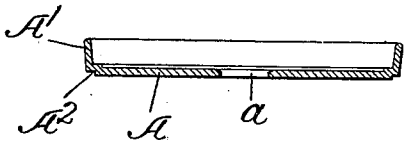


Fig. 4.

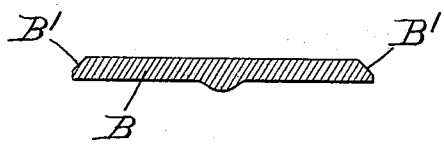


Fig. 5.

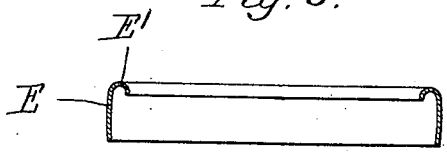
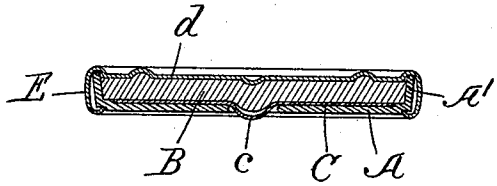


Fig. 6.



Witnesses.
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Jean Elliott

Inventor.
Eugene W. Silsby
by Burton & Burton
his attys.

UNITED STATES PATENT OFFICE.

EUGENE W. SILSBY, OF CHICAGO, ILLINOIS.

BUTTON.

SPECIFICATION forming part of Letters Patent No. 645,192, dated March 13, 1900.

Application filed April 20, 1899. Serial No. 713,718. (No model.)

To all whom it may concern:

Be it known that I, EUGENE W. SILSBY, a citizen of the United States, residing at Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Buttons, which are fully set forth in the following specification, reference being had to the accompanying drawings, forming a part thereof.

In the drawings, Figure 1 is a section made axially through my improved button. Fig. 2 is a section at the same plane as Fig. 1, showing the several parts separated and the binder broken in two, slightly, for convenience of more perfectly distinguishing them. Fig. 3 is a detail section of the back shell. Fig. 4 is a similar detail section of the filling disk or wad. Fig. 5 is a detail section of the peripheral binder, showing it in the form which it would have before being fully clenched, as in completing the button. Fig. 6 is an axial section of the button, similar to that shown in the preceding figures except that the face instead of being made of cloth, as in the other figures, is a continuation of the plastic non-metallic shell which constitutes the peripheral binder.

A is the back shell of my improved button, having the central aperture *a*, through which a tuft *c* protrudes. It is cupped or dished, forming a marginal flange A′, within which the other elements of the button except the peripheral binder are lodged.

B is the filling disk or wad, which is commonly made of pasteboard or like material, which is slightly compressible.

C is the cloth disk which forms the tuft shown protruding at *c* through the aperture *a* of the back shell.

D in Figs. 1, 2, 3, 4, and 5 represents the cloth face of the button, and E is the peripheral binder, which is made of non-metallic plastic sheet material, which spans the flange of the cupped back shell and is clenched onto the same at the back and binds the parts of the button together.

In Fig. 6 the face of the button is formed by the continuation of the peripheral binder, which occupies the place of the cloth in the other figures and is indicated by the letter *d*.

In both forms of this button the peripheral binder is beaded at the margin of the face, and the flange of the cupped back shell enters the bead and reinforces the same. In both forms also the button is secured together by the peripheral binder, which spans the flange of the cupped back shell and is clenched onto the back of the latter. When this peripheral binder is made, as contemplated in my invention, of non-metallic plastic sheet material, such as celluloid, if it were merely clenched onto the back of the shell without special provision for protecting the edge of the border that edge would be frayed or cracked, so as to produce not only an untidy and crude appearance, but also to make an insecure structure, because the slight ruptures or cracks at the margin, which would be developed by clenching the celluloid onto the metal back, would in time extend and result in the destruction of the peripheral binder and forward face of the button. For this reason in both forms of my button—that is, whether it has a cloth face or a celluloid face—the back shell is formed with an annular rabbet or recess A^2, substantially at the margin of the back—that is, at the base of the flange A′—and the edge of the peripheral binder is seated and clenched into this recess—that is to say, against the shoulder formed thereby. This not only prevents the edge of the plastic celluloid binder from becoming frayed or cracked in forming the button in the machine, but also protects it from wear during the use of the button and produces a button which is not only smooth and finished in appearance, but durable in use. When the button has a cloth face, the pasteboard filler or wad B is depressed or recessed at or near the margin, as seen at B′ B′. When this depression is at the very margin, it constitutes merely a bevel on the forward peripheral edge of the filler; but it is not essential that it should be absolutely at the margin. The cloth-face disk D, applied in front of the filler, extends over this central depression, occupying the space or diameter of the cupped back shell, and the inner edge of the bead E′ of the peripheral binder overhangs the cloth and the depression or, rather, overhangs the margin of the depression, so that when the bead is clenched down upon the cloth face to bind the parts together the edge of the bead bearing on the cloth and pressing it upon the filler draws it down and radially outward into the depression, thereby not only securing it

very firmly and forcing the surplus which is provided in the margin inside the line of grip of the edge of the bead upon the cloth and which preferably extends over the edge of the flange A′ of the cupped shell into the bead and reinforcing the latter and protecting the celluloid from the raw edge of the metal at the upper or forward edge of the flange, but also stretching the cloth very tightly and even radially outward over the filler, thus producing a smooth-faced button and one in which the parts are all very firmly united without the use of any adhesive substance or anything in the nature of a rivet or mechanical fastening other than the mere peripheral binder thus clenched on the parts at front and back.

It will be seen by the term "plastic" as applied to non-metallic sheet materials employed for the clenched binder I do not mean mere soft material in mass adapted to be molded or cast into the form or position required; but, on the contrary, I intend by this term to define sheet material, which, being non-metallic, is nevertheless adapted to be folded or manipulated by the dies employed, so as to be clenched as described in order to bind together the other elements of the button and to retain the form which it is thus mechanically given by virtue of its tenacity and not by virtue of setting or hardening, as the soft material molded into form might do.

I claim—

1. A button having a cupped or flanged and apertured back shell, a tuft-disk adapted to protrude at the aperture, a suitable filling; a face-disk, and a peripheral binder of non-metallic plastic sheet material which spans the flange of the back shell and forms a bead over the edge of the flange and is clenched onto the back of the shell.

2. A button having a cupped or flanged and apertured back shell, a filling disk or wad lodged in the shell and a tuft-disk inclosed between the wad and the back of the shell; a face-disk, and a peripheral binder of non-metallic plastic material which spans the flange of the cupped back shell and forms a bead over the upper edge of the flange and is clenched onto the back of the shell, the shell having an exterior outwardly-facing shoulder against which the rear edge of the binder is clenched.

3. A button having a cupped or flanged and apertured back shell, a filling disk or wad lodged in the shell, a tuft-disk inclosed between the filling-disk and the back of the shell, and a face-disk over the filler; a peripheral binder of non-metallic plastic sheet material which spans the flange of the cupped back shell and forms a bead over its upper edge, the back shell having an annular rabbet or recess in which the edge of the peripheral binder is seated at the back.

4. A button having a cupped or flanged and apertured back shell, a filling disk or wad lodged in the shell, a tuft-disk inclosed between the back of the shell and the filling-disk; a cloth-face disk and a peripheral binder of non-metallic plastic material which spans the flange of the cupped back shell and forms a bead over its forward edge and is clenched onto the back of the shell; the filling-disk being recessed or beveled at the margin on its forward face just within the flange of the back shell, and the peripheral binder having its forward edge clenched down upon the cloth in said recess of the filling-disk whereby the parts are bound together and the cloth-face disk is radially stretched over the filler.

5. A button having a cupped or flanged and apertured back shell, a filling disk or wad lodged in the shell, a tuft-disk inclosed between the back of the shell and the filling-disk; a cloth-face disk; and a peripheral binder of non-metallic plastic material which spans the flange of the cupped back shell and forms a bead over its forward edge and is clenched onto the back of the shell; the filling-disk being recessed or beveled at the margin on its forward face just within the flange of the back shell, the cloth extending over the edge of the back shell, and the peripheral binder having its forward edge clenched down upon the cloth in said recess of the filling-disk whereby the parts are bound together and the cloth-face disk is radially stretched over the filler.

6. A button having a cupped or flanged back shell, a suitable filler and a face-disk of cloth, and a peripheral binder of plastic sheet material which spans the flange of the cupped back shell and forms a bead over its upper or forward edge, the face-disk being extended over such upper edge of the flange and interposed between the same and the bead of the peripheral binder to reinforce the latter and protect it from the edge of the flange.

In testimony whereof I have hereunto set my hand, in the presence of two witnesses, at Chicago, Illinois, this 17th day of April, 1899.

E. W. SILSBY.

Witnesses:
CHAS. S. BURTON,
JEAN ELLIOTT.