

(No Model.)

W. H. HALSEY.

BUTTON.

No. 309,045.

Patented Dec. 9, 1884.

Fig. 1.

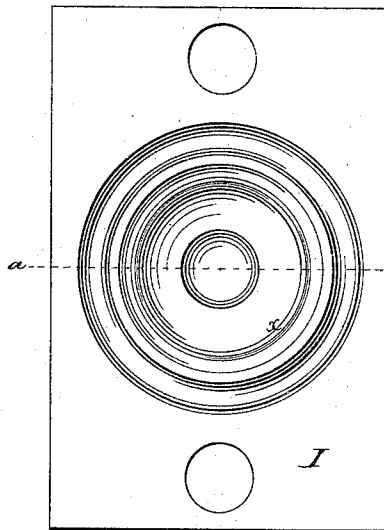


Fig. 3.

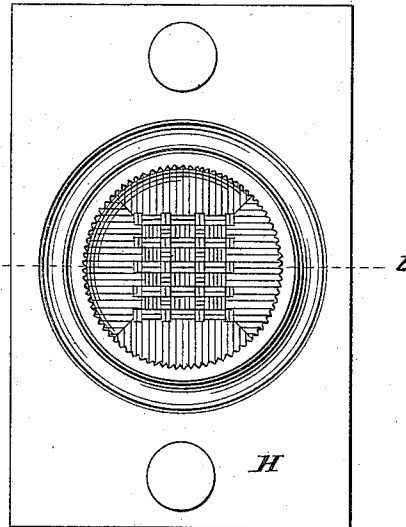


Fig. 2.

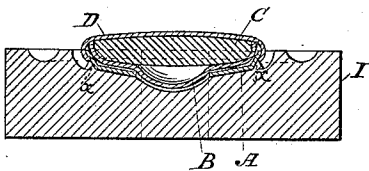


Fig. 4.

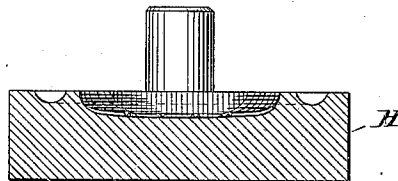


Fig. 5.

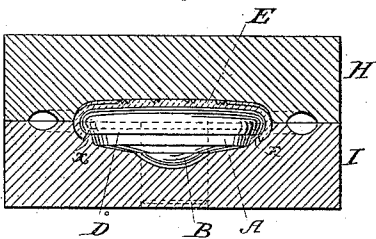
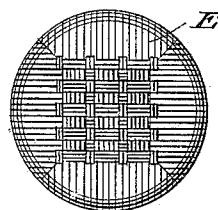


Fig. 6.



WITNESSES:

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UNITED STATES PATENT OFFICE.

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BUTTON.

SPECIFICATION forming part of Letters Patent No. 309,045, dated December 9, 1884.

Application filed September 12, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. HALSEY, a citizen of the United States, and a resident of Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in the Manufacture of Buttons, of which the following is a specification.

The invention relates to an improvement in buttons. Its distinctive novelty consists in the utilization of a plastic material of appropriate character in connection with a metallic cap, a back of metal or other hard substance, and a lining of textile material, as hereinafter more fully described. The back of metal or other hard substance, textile material, and metallic cap are united, after which the plastic material is molded to overlap the cap, whereby a completed button is formed. Any plastic material, which may be successfully molded at a temperature which will not injure the textile material, can be employed. I have used the substance known as "celluloid" with good results, but any other material of a suitable character may be made use of.

In the detailed description hereinafter presented I have described the preferred embodiment of the invention.

In the drawings, Figure 1 is a view of the interior of the lower half of the die; Fig. 2, a central vertical section of same on the line *a a*, the button being shown in position. Fig. 3 is a view of the interior of the upper half of the die. Fig. 4 is a vertical section on the line *b b*. Fig. 5 is a central vertical transverse section through the die, the button being shown in full lines, and the plastic covering in section. Fig. 6 is a top view of the button produced by means of the die, the surface of the button representing silk threads.

A designates the back of the button, composed of metal or other hard substance; B, the lining of textile material; C, the filling, usually of pasteboard; D, the metallic cap, the edges of which are bent or swaged upon the back A, completely inclosing the filling and textile material.

E represents the plastic material, which entirely covers the surface of the cap D, and extends over the edges thereof, preferably down to the back A.

In practice I prefer to unite the back, lin-

ing, filling, and the metallic cap by swaging the edges of the cap to those of the back, so as to hold the parts securely together, after which the covering of plastic material will be applied, as hereinafter set forth.

In the drawings is shown a form of die that may be used to accomplish the application of the covering of plastic material.

H denotes the upper part of the die, which is cut to form the outer face of the plastic covering, and I the lower part, which is cut to receive the under part of the button.

A plan and a section of a part of the die which receives the back, lining, filling, and metallic cap are shown in Figs. 1 and 2. This part of the die is provided with the annular lip *x*, which operates to control the flow of the plastic material, so that it will overlap without covering the metallic back. The construction and position of the lip *x* will be understood by reference to Figs. 1, 2, and 5.

The textile material and other parts having been properly prepared, and by preference united as hereinbefore set forth, are introduced into the lower part of the mold or die, and a piece of plastic material of suitable size placed thereon. The mold, with its contents, is then subjected to heat and pressure, and the completed button thus formed. This process may be varied in unimportant particulars.

Any method of effecting the proper application of the plastic material and its compression while in a heated condition may be employed. The covering of plastic material will, by preference, be of the color of the goods or material to which the buttons are to be attached, and the die will, by preference, be cut to produce an imitation of threaded goods, as shown in the drawings. I contemplate, particularly, the production of buttons which will resemble and can be used as a substitute for buttons covered with silk or other woven fabrics.

In using the term "textile material" it is not to be understood that I limit myself to a material that is actually composed of threads, or is woven.

Under certain conditions felted goods, skins, and similar substances may be used with satisfactory results.

I propose to make the die hereinbefore described the subject of a separate application

for Letters Patent of the United States. For this reason I do not claim the said die herein; but

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A button having a shell of suitable hard material, the face of which is coated with plastic material, and an inclosed lining of textile material, substantially as and for the purpose set forth.

2. The button hereinbefore described, consisting of the parts A, B, D, and E, the part E being of plastic material, substantially as set forth.

3. A button consisting of a shell composed of a cap and back, and having within it a lining of textile material, the face of the button being covered with plastic material.

Signed at New York, in the county of New York and State of New York, this 11th day of September, A. D. 1884.

WILLIAM H. HALSEY.

Witnesses:

CHAS. C. GILL,
HERMAN GUSTOW.