E. D. SIMONS.

BUTTON.

APPLICATION FILED DEC. 1, 1917.

1,257,642.

Patented Feb. 26, 1918.

Fig. 1.

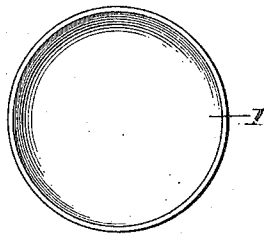


Fig. 3.

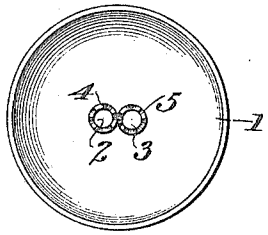


Fig. 2.



Fig. 4.

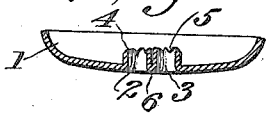


Fig. 5.

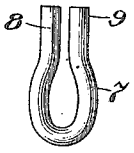


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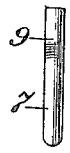


Fig. 7.



Fig. 8.

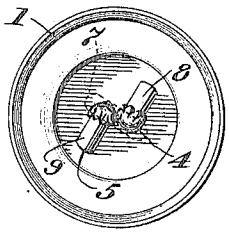


Fig. 9.

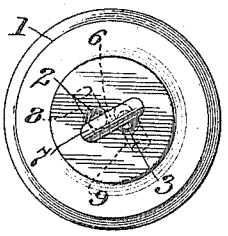


Fig. 10.

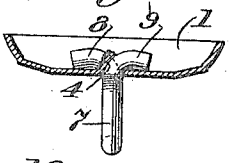


Fig. 11.

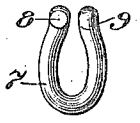


Fig. 12.

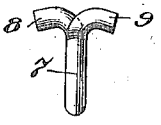


Fig. 13.

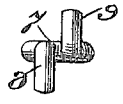
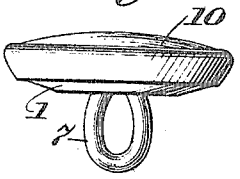


Fig. 14.



Inventor

Ernest D. Simons

by

Wm. N. Sinnickson

Attorney

UNITED STATES PATENT OFFICE.

ERNEST D. SIMONS, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO SCOVILLE MANUFACTURING COMPANY, OF WATERBURY, CONNECTICUT, A CORPORATION OF CONNECTICUT.

BUTTON.

1,257,642. Specification of Letters Patent. Patented Feb. 26, 1918.

Application filed December 1, 1917. Serial No. 204,879.

To all whom it may concern:

Be it known that I, ERNEST D. SIMONS, a citizen of the United States, residing at Waterbury, in the county of New Haven and State of Connecticut, have invented a certain new and useful Improvement in Buttons, of which the following is a full, clear, and exact description.

This invention relates primarily to metal buttons having rigid wire eyes for use in sewing the buttons in place.

A common construction of such buttons has the ends of the wire of the eye passed through a single clean-cut opening in the back of the button and such ends bent at right angles to the eye and then soldered in place so as to prevent the inward displacement of the eye. It is also old to use two separate clean-cut holes in the button back to receive separately the ends of the eye, but in these instances some extraneous means must be used to effect a rigid union of the eye and back.

The object of this invention is to provide a metal button having a wire eye that is rigidly united to the button back without extraneous means.

The invention consists of a button having a metal back in which separate holes for the ends of the wire eyes are pierced and not clean-cut, so that the burs resulting from such piercing may be used instead of solder or other extraneous means to rigidly unite the button and its eye, the ends of the eye being slightly curved out of exact parallelism as and where they enter the holes in the back so as to prevent the further entrance of the eye into the button-head through such holes, and the ends of the eye within the button-head being bent in opposite directions at right angles to the plane of the eye to prevent the outward escape of the eye, the bridge of metal in the back between the holes serving to keep the ends of the eye separated, and the metal (burs) of the back raised by piercing the holes, being closed down upon the bent ends of the eye within the button-head and serving to complete the rigid union of the eye and button-head, as I will proceed now to explain and finally claim.

In the accompanying drawings illustrating the invention, in the several figures of which like parts are similarly designated, Figure 1 is a plan view of the unfinished back of the button, and Fig. 2 is a cross-section thereof. Fig. 3 is a plan view of the back of the button pierced to receive the ends of the wire eye, and Fig. 4 is a cross section thereof. Fig. 5 is an elevation of the eye; Fig. 6 is an edge view thereof, and Fig. 7 is an end view thereof. Fig. 8 is a top plan view of the back of the button with the eye in position; Fig. 9 is an inverted plan view, and Fig. 10 is a cross-section of the same. Fig. 11 is an elevation of the bent eye detached; Fig. 12 is an edge view thereof, and Fig. 13 is a top view thereof. Fig. 14 is an elevation of the finished button.

The cupped back 1 of the button may be produced in any usual way, but instead of making, as heretofore, a single hole for the entrance of the wire eye, or instead of making separate holes for the ends of such eye by punching them out with a clean cut, I pierce the back at two points, as at 2 and 3, leaving the raised metal or burs 4 and 5 intact, and forming the separating bridge 6 between said holes.

The eye 7 may be made of wire bent upon itself to form a loop to receive the attaching threads and the ends 8 and 9; and in applying the eye to the button back these ends are passed through the holes 2 and 3 and bent over at right angles to the plane of the eye, as shown in Figs. 8, 9 and 10, and the burs 4 and 5 are closed down over these thus bent ends, as shown in Figs. 8 and 10.

In the act of uniting the back and the ends of the eye there will be more or less lateral deflection of the ends of the eye between the loop thereof and the back of the button, so that they will obstruct the further inward movement of the ends of the eye, or the displacement of the eye in the button-head and thus assist the closed-down burs in effecting a rigid connection of the eye with the back of the button, without the use of solder or other extraneous means.

The bridge 6 serves to keep the ends of the eye permanently separated, and thus adds to the stability of the union of the eye with the back.

After the back and eye are assembled as described, the cap or face 10 of the button is closed down over the back in any usual way.

The button of this invention is designed

especially for use upon military coats, where, as in army coats, it is subjected to hard usage or service.

By the construction described a very rigid union of the eye and button-head is obtained and the liability of the eye becoming loose in the button-head is reduced to a minimum, if not wholly prevented.

While I have thus explained in detail one embodiment of my invention, it is to be understood that it is susceptible of variation within the scope and purpose of the claims following.

What I claim is:—

1. A button, having a back provided with separate eye-receiving holes pierced therein, and a wire eye having its ends respectively inserted in said holes and bent down upon the back on the inside and clenched thereon by the metal of the back.

2. A button, having a back provided with separate eye-receiving holes pierced therein, and a wire eye having its ends respectively inserted in said holes and bent down upon the back on the inside of the button at right angles to the plane of the eye and clenched by the metal of the back.

3. A button, having a back provided with separate eye-receiving holes pierced therein, and a wire eye having its ends respectively inserted in said holes and bent down upon the inner side of the back at right angles to the plane of the eye and clenched thereon by the metal of the back, the sides of the eye being laterally deflected on the outer side of the back.

4. A button, provided with a metal back having two separate holes pierced therein for the reception of the ends of a wire eye, the metal of the back being raised by the act of piercing and forming burs around the holes, combined with an eye having its ends passed through such holes and bent over upon the back at right angles to the plane of the eye and having the burs closed down over such bent-over ends to clench them.

5. A button, provided with a metal back having two separate holes pierced for the reception of the ends of a wire eye, the metal of the back being thrown up by the act of piercing thereby forming burs around the holes, and a rigid bridge in the back between the holes, combined with an eye having its ends passed through such holes and bent over upon the back at right angles to the plane of the eye and having the burs closed down over such bent-over ends to clench them, the bridge serving to permanently separate the ends of the eye.

In testimony whereof I have hereunto set my hand this 19th day of November, A. D. 1917.

ERNEST D. SIMONS.

Witnesses:
PERCY WARNER,
E. A. HYDE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."

Correction in Letters Patent No. 1,257,642.

It is hereby certified that the name of the assignee in Letters Patent No. 1,257,642, granted February 26, 1918, upon the application of Ernest D. Simons, of New Haven, Connecticut, for an improvement in "Buttons," was erroneously written and printed as "Scoville Manufacturing Company," whereas said name should have been written and printed as *Scovill Manufacturing Company*, as shown by the records of assignments in this office; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 19th day of March, A. D., 1918.

[SEAL.]

R. F. WHITEHEAD,

Acting Commissioner of Patents.

Cl. 24—90.