

(No Model.)

F. E. HALL.
BUTTON.

No. 496,408.

Patented May 2, 1893.

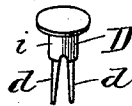
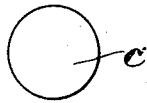


Fig. 2.

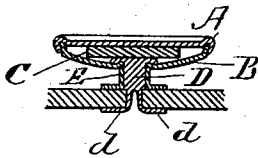


Fig. 1.

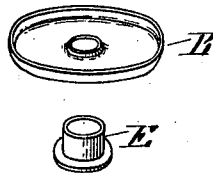


Fig. 3.

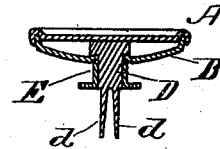


Fig. 4.

WITNESSES

E. A. Gilman
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INVENTOR

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UNITED STATES PATENT OFFICE.

FRANK E. HALL, OF NEWTON, MASSACHUSETTS, ASSIGNOR TO THE CONSOLIDATED FASTENER COMPANY, OF PORTLAND, MAINE.

BUTTON.

SPECIFICATION forming part of Letters Patent No. 496,408, dated May 2, 1893.

Application filed September 10, 1892. Serial No. 445,538. (No model.)

To all whom it may concern:

Be it known that I, FRANK E. HALL, a citizen of the United States, residing at Newton, in the county of Middlesex and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Buttons, of which the following is a full specification.

My invention consists of a metallic button to be mechanically secured to the material by riveting, and constructed in the manner hereinafter described in detail.

Referring to the accompanying drawings, Figure 1 shows a section of the button secured to the material. Figs. 2 and 3 show details of button. Fig. 4 shows a section of the button, slightly modified, and ready to be riveted to the material.

A is the cap of the button head; it is slightly dished, and its outer edge is clinched in and around the upwardly-projecting edge of the collet or connecting-piece B. This collet has a central hole of sufficient size to allow the shank, but not the head, of the peculiarly-shaped rivet D to pass through. This rivet D is divided into three sections of different diameters; the flat head, the shank *i*, and the riveting portion *d d*, the largest, medium, and smallest diameters respectively.

E is an eyelet, the upwardly-projecting shank of which embraces tightly the downwardly-projecting shank *i* of the rivet. The shank of the eyelet E forms the neck of the button and embraces between its upper edge and the cap of the rivet, the inner edge of the collet B. The flange of the eyelet E forms a continuation of the shoulder on the rivet and rests on the top surface of the material when the button is in place.

Between the top of the rivet D and the under surface of A I preferably place a washer C, which transmits the pressure directly to the rivet while the button is being set up, and

also gives stiffness to the button when in place. This same result is accomplished, as shown in Fig. 4, by doing away with the washer C and elongating the head of the rivet D so that it bears directly against the under side of A.

In order to secure the button to the material it is held by a suitable die and pressed down upon the material, beneath which is placed a suitable anvil. The prongs of the rivet pierce but do not cut the material, are deflected outwardly by the anvil, and are clinched on the under side firmly securing the button to the material and also preventing its being twisted around.

The rivet D firmly holds together the button, supports the top, forms the shank of proper size, and gives an attaching portion of a size and strength especially desirable for its purpose. The great strain that buttons of this kind are subject to, makes it important that they have the greatest possible strength, and that they be adapted to cloth of various thickness. The stud rivet D used in this button, consists of a solid head with attaching prongs, made by cutting out, or removing portions of the solid shank, and is made of malleable steel, while the other parts are made of sheet metal.

I claim—

A button consisting of a head "A," and collet B, a supporting flanged rivet D held between the head and collet formed into a shank of reduced diameter and provided with malleable steel attaching prongs substantially as described.

In witness whereof I have hereunto set my hand.

FRANK E. HALL.

Witnesses:

L. H. FAWCETT,
E. H. GILMAN.