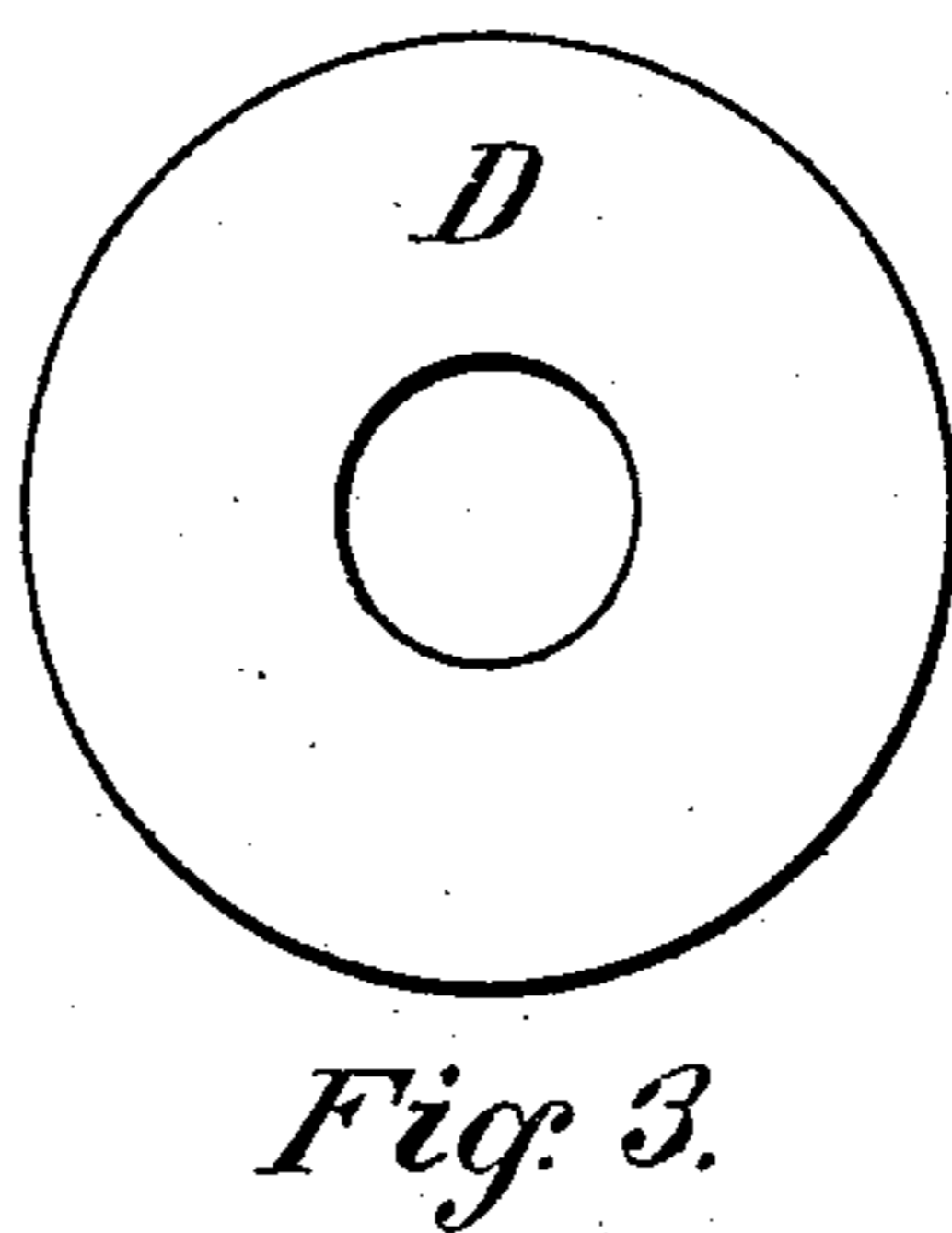
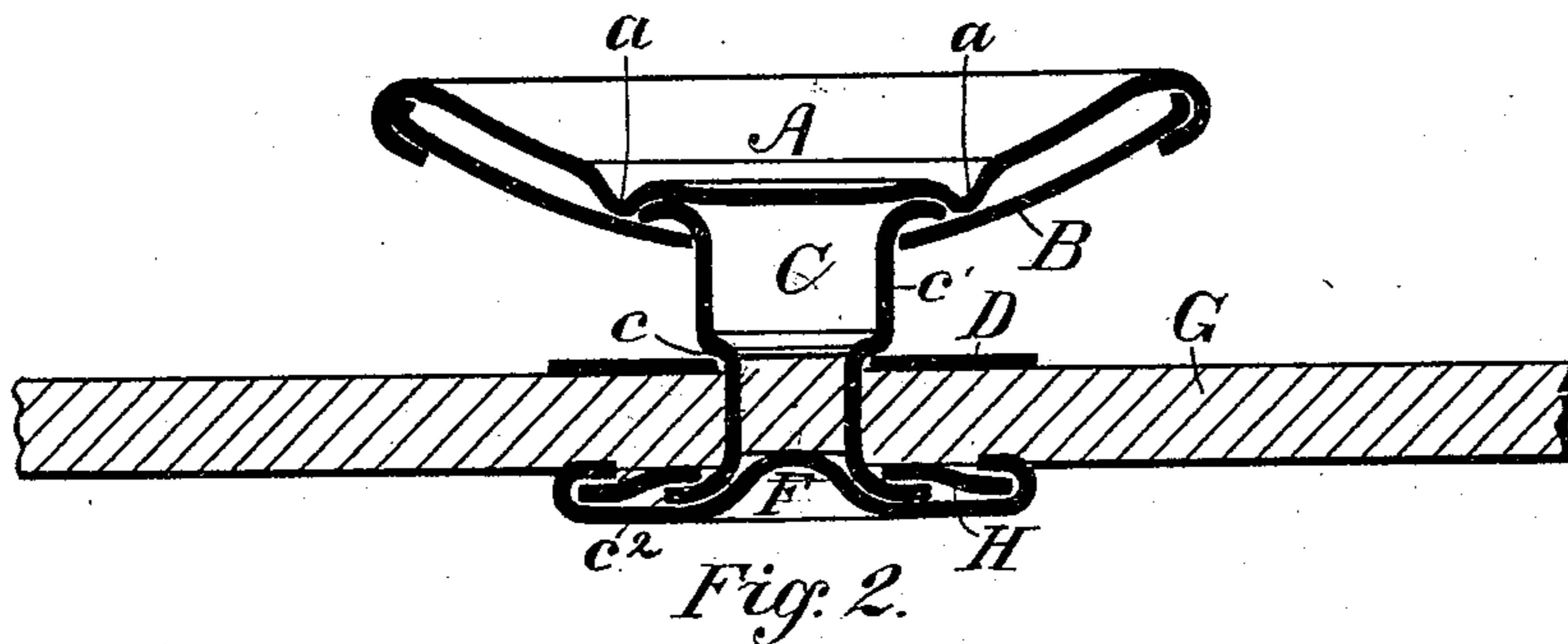
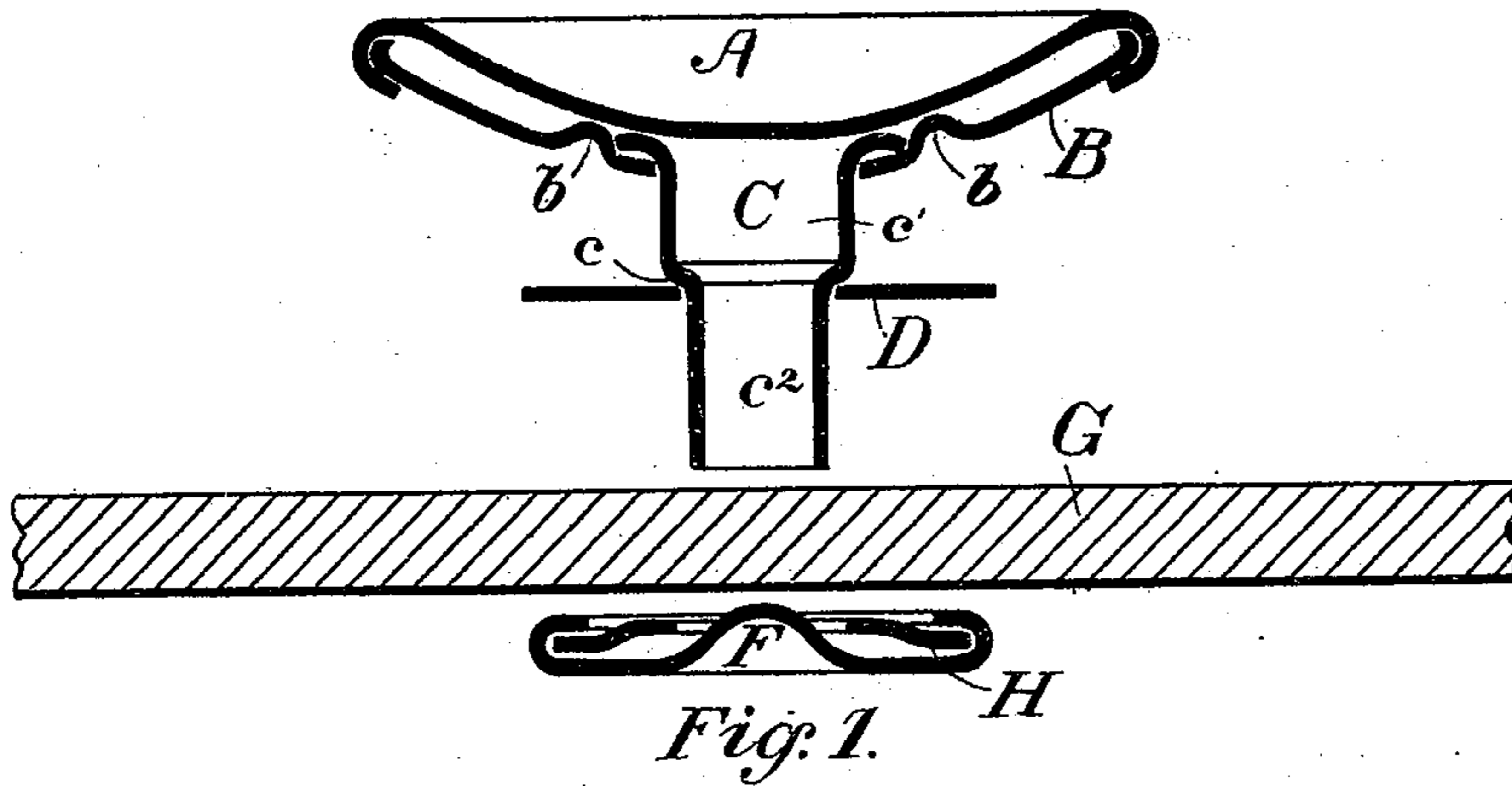


(No Model.)

F. E. HALL.
BUTTON.

No. 496,357.

Patented Apr. 25, 1893.



Witnesses
Albert E. Leach
E. H. Gilman.

Inventor
Frank E. Hall
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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. 496,357, dated April 25, 1893.

Application filed October 22, 1890. Serial No. 368,927. (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 an improved button for garments, &c., adapted to be secured mechanically to the material by means of a riveting eyelet projecting downward from the head of the button. This riveting eyelet is shouldered to contain a washer, the cloth or other material to which the button is secured being firmly held between this washer on the top surface and the part of the device into which the eyelet is clinched on the bottom. Ordinarily in buttons of this class, that are secured mechanically to cloth by riveting, any accidental compression arising from any cause, as from stepping upon the head of the button, causes it to become loose and decreases its firm grip upon the material. One of the objects of my invention is to obviate this difficulty so that any compression on the button tends rather to increase than to decrease its hold upon the goods.

Referring to the accompanying drawings Figure 1 is a sectional view showing the two main parts of the button as they are assembled together before being attached to the material. Fig. 2 shows in section the button in place on the material, and Fig. 3 is a plan view of the washer.

The head of the button is preferably made as shown in two pieces consisting of the cover A and the collet B. The shank of the button is formed by the large portion c' of the eyelet C. This eyelet is passed through an opening in the collet B being held by its flange between said collet and the depressed top of the cover A, the outer edge of which is clinched in and around the collet in the manner shown in Fig. 1. If it is desired to have the cover of the button flat on top instead of concave, it is simply necessary to interpose a filling of any kind between the top of the cover and the collet, the edge of said cover being as before clinched around the collet. The body of

the clinching eyelet C is contracted at c^2 , making the shoulder c the part c^2 of reduced diameter being the portion that passes through the cloth or other material and is clinched.

D is the washer, the central opening of which is of a size to slip over the reduced portion c^2 of the eyelet, the washer resting, when in place, against the shoulder c . The pieces A, B, C, and D thus constructed and put together constitute the part of the button above the material.

The part which rests on the under surface of the material is preferably made in two pieces consisting of the flanged anvil piece F, and the retaining piece H around the outer edge of which the flange of the anvil piece is turned.

As shown in Fig. 1 the top of the rounded anvil piece F is substantially on a level with the rounded up top of the retaining piece H when the two pieces F and H are clinched together. In other words the rounded anvil head of the piece F does not protrude perceptibly above the piece H. The two main parts of the button being placed one on each side of the material G in the position shown in Fig. 1, they are pressed together between suitably shaped dies with the result that the sharp downwardly projecting portion c^2 of the clinching eyelet coacts with the rounded portion of the anvil piece F to automatically shear a hole through the said material the material during the clinching resting directly upon the top of the retaining piece H. The eyelet passing thus through the material and meeting the rounded anvil F is pressed outward and clinched under the retaining piece H, the material being firmly held between the washer D on the top surface and the pieces F and H on the under.

In order to guard against the rounding out of the flange of the eyelet C between the pieces A and B of the button head during the process of clinching, I provide one or the other of said pieces with a depression such that the flange of the eyelet bears against the ridge thus formed and can spread out no farther. Any further rounding out of the flange of the eyelet C would shorten the shank of the button, which would thus be objec-

tionable. In Fig. 1 I have shown the collet B provided with the circular depression *b* and in Fig. 2 the cover A provided with the depression *a* either of which serves the same purpose in acting as a stop to the flange of the clinching eyelet C and causes the parts of the button to rivet firmly together.

Instead of making the pieces B and C in separate parts as shown, I may if desired make the two pieces integral in one; or what is the same thing, make the flange of the eyelet C much wider and have the cover A clinch directly around it, thus doing away with the collet B.

It will be seen that any accidental compression of the parts after the button is set only acts to drive the mouth *c*² of the clinching eyelet still farther under the retaining piece and thus to increase rather than decrease the firmness of the hold of the button on the material.

I claim—

1. A button made in two parts in combination one of which parts consists of a button head, a shank-forming flanged clinching eyelet held by its flange within said head and provided with the shoulder *c* and a washer bearing against said shoulder, while the other part consists of a flanged anvil piece and a retaining piece connected with said anvil piece, the rounded head of the anvil piece being practically level with the top of the retaining piece whereby the two parts of the button may be clinched together beneath the material by pressure and automatically cut a hole through the material to which they are secured, substantially as described.

2. A button consisting of the combination

with a downwardly projecting shank-forming shouldered clinching eyelet of a cover, having a depressed top and a collet provided with an interior ridge, said cover and collet being clinched together on either side of the flange of the eyelet, a washer bearing against the shoulder of the eyelet on the top surface of the material, and suitable anvil and retaining pieces on the under surface of the material substantially as described.

3. A button consisting of the combination with a downwardly projecting shank-forming shouldered clinching eyelet of a cover provided with the interior ridge *a*, and a collet clinched to said cover and resting on the opposite side of the eyelet flange from the cover, a washer bearing against the shoulder of the eyelet on the top surface of the material and suitable anvil and retaining pieces on the under surface of the material substantially as described.

4. A button having a head provided with a downwardly projecting cutting eyelet in combination with a flanged anvil piece and a retaining piece clinched to said anvil piece, the rounded head of the anvil piece being practically level with the top of the retaining piece whereby the parts of the button automatically cut their own hole through the material to which it is secured by the pressure of clinching the parts together, substantially as described.

In witness whereof I have hereunto set my hand.

FRANK E. HALL.

Witnesses:

E. H. GILMAN,

ALBERT E. LEACH.