Sept. 4, 1923. 1,467,279

F. E. WARNER

BUTTON FOR SOFT COLLARS AND OTHER ARTICLES

Filed May 31, 1922

Fig. 1.

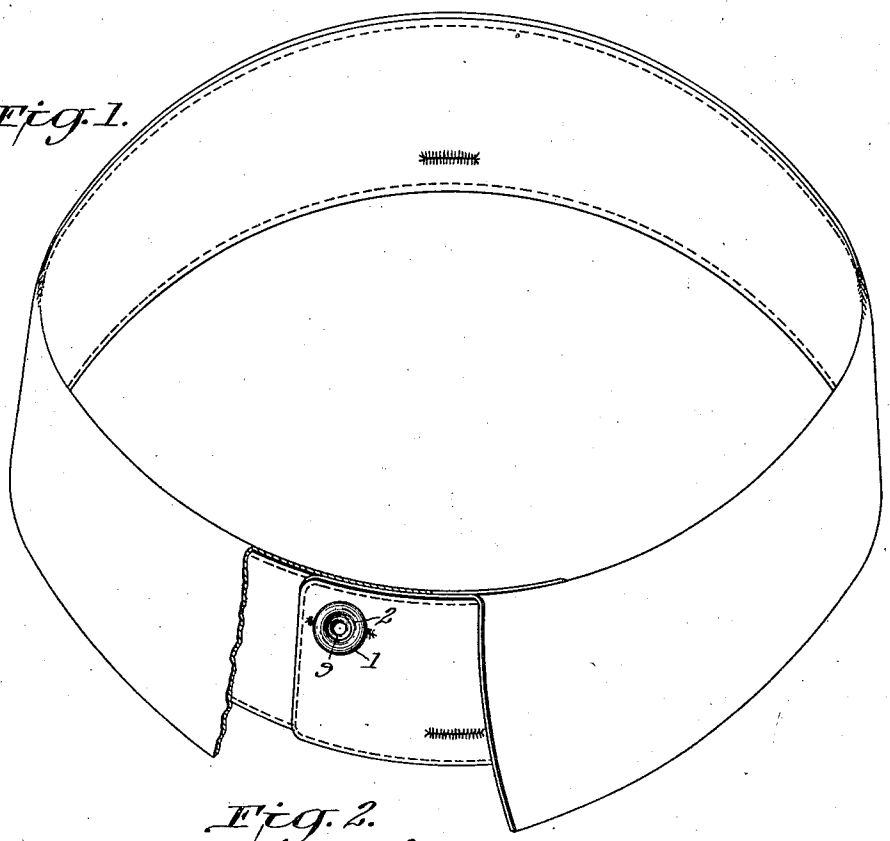


Fig. 2.

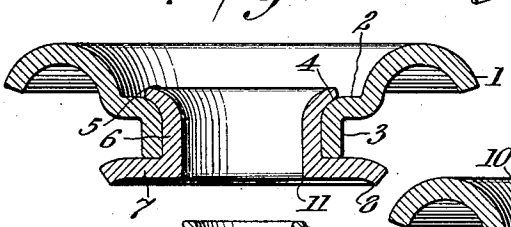
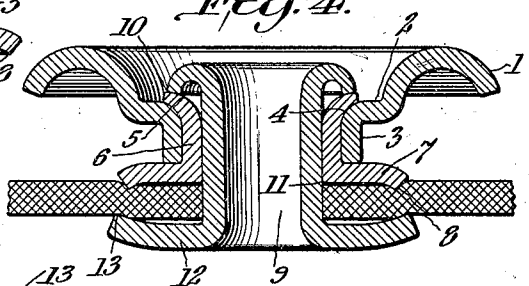


Fig. 4.



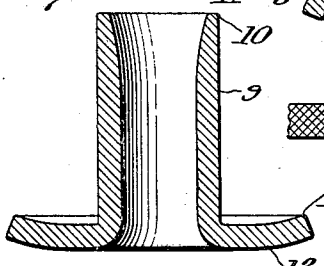


Fig. 3.

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UNITED STATES PATENT OFFICE.

FRANK E. WARNER, OF WATERBURY, CONNECTICUT, ASSIGNOR TO SCOVILL MANUFACTURING COMPANY, OF WATERBURY, CONNECTICUT, A CORPORATION OF CONNECTICUT.

BUTTON FOR SOFT COLLARS AND OTHER ARTICLES.

Application filed May 31, 1922. Serial No. 564,699.

To all whom it may concern:

Be it known that I, FRANK E. WARNER, 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 for Soft Collars and Other Articles, of which the following is a full, clear, and exact description.

The object of this invention is to provide a button for soft collars and other articles, and by this I mean a button such as may be used on collars which are laundered soft, for holding the upper corner of the inserted flap or tab of the collar in proper position beneath the front fold of the collar.

To be of practical advantage in this application, a button must be of relatively small diameter, and relatively flat as regards the distance at which it stands away from the material to which it is attached, so that it will not interfere in the process of ironing, and will not tear the material.

The thickness of materials to which buttons of this character are attached varies somewhat, and this variation in thickness ordinarily requires adjustment of the machine used for setting the buttons upon the material. The construction of the setting eyelet used with the button of this invention obviates the necessity for this change in adjustment of the setting machine.

The invention consists in a button for soft collars and other articles, comprising a head having a shank and a recessed face, and an intervening shoulder, a foot piece having an upstanding barrel of a diameter to fit snugly within the shank and its leading end adapted to be turned over and clinched upon the shoulder within said recess to fixedly unite the head and foot piece, and a setting eyelet provided with a flange and a tube, the tube being of such diameter as to snugly fit within the barrel of the foot piece and its leading end adapted to be clinched upon the clinched end of the barrel, the circumferential edge of the flange of the eyelet being slightly turned toward its tube and capable of being deformed or flattened downwardly to accommodate materials of different thicknesses, 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 perspective view of a soft collar broken away at front, showing my button in place thereon. Fig. 2 is an axial vertical section of the button head and foot piece assembled; Fig. 3 is an axial vertical section of the setting eyelet, and Fig. 4 is an axial vertical section showing the button set upon a piece of material, these last three views showing the parts greatly enlarged.

The drawing shows the invention applied to an open-face button, comprising a head having a rolled edge 1 and a central recess 2 terminating in a shank 3 and a shoulder 4 upon which is clinched the upper end 5 of the barrel 6 of a foot piece 7, the outer circumferential edge of which is turned away from its barrel slightly as at 8. It will be noted that the distance between the face of the button and the back of the foot piece is relatively short, thereby providing a button which lies substantially flat upon the material to which it is attached and presents little if any obstruction when the article to which the button is applied, is ironed.

The shank 3 of the button is of relatively small diameter so as to prevent, as much as possible, spreading of the buttonhole through which it passes, and is in fact no larger than the shank formed on an ordinary sewed-on button by the threads with which it is sewed.

The setting eyelet 9 may be and preferably is of the self-piercing type, and the leading end of its tube 10 cooperates with the relatively sharp inner circumferential edge 11 of the foot piece 7 in piercing the material to which the button is attached. The flange 12 of the eyelet is slightly turned toward its tube at its circumferential edge, as at 13, and is of greater diameter than the diameter of the foot piece so that while a firm grip is obtained upon the material upon which the button is set, between the oppositely turned edges of the foot piece and the eyelet flange, no tearing or cutting of the material will result. Moreover, by turning the edge of the eyelet flange I produce a flange which is partly deformable, so that in case materials of different thicknesses are used with the button, the flange of the eyelet may be deformable downwardly to accommodate additional thickness of material instead of making necessary change in adjustment of the machine used for setting

the buttons upon such material of added thickness. This deforming or flattening out of the flange of the eyelet is made possible by the fact that a flat setting die is used instead of one having a face which conforms to the under face of the eyelet flange.

By forming the button head with a recess 2, I provide a space below the plane of the outer surface of the button head within which the clinched end of the eyelet may lie, thereby presenting a substantially smooth surface to an iron or the like.

It will be noted that the shank of the button head is cylindrical and open at its bottom, and that the barrel of the foot piece is also cylindrical and of a length substantially equal to the length of the shank whereby a double thickness at the shank of the button is provided of relatively great strength, and, consequently, crushing of this shank and possible flattening of the button by accident or rough handling to such an extent as to impair its usefulness, is practically precluded.

It will be noted, also, that the button has a relatively large foot piece, and eyelet flange, thus affording a large bearing and attaching surface and making unlikely tearing out of the button even when set upon frail material, such as relatively thin silk or linen, because of the consequent relatively large amount of the material grasped within the circumference of the foot piece and setting flange and the attendant remoteness of the circumferential gripping edges of these parts from the hole pierced through the material for the passage of the eyelet in setting.

I do not wish to be understood as limiting my invention to the exact details of construction and arrangement of parts herein shown and described, as it is obvious that various departures may be made therefrom within the spirit of the invention and the scope of the appended claims.

What I claim is:—

1. A button for soft collars and other articles comprising a head having a shank, a shoulder in said head, and a foot piece provided with a barrel coextensive with and fitting within said shank, the leading end of said barrel being turned over and clinched upon said shoulder to fixedly unite said head and foot piece.

2. A button for soft collars and other articles, comprising a head having a rearwardly extending shank, a shoulder in said head, and a foot piece having a barrel coextensive with and of less diameter than the shank and adapted to fit within the shank, the leading end of said barrel being clinched upon said shoulder to fixedly unite said head and foot piece.

3. A button for soft collars and other articles, comprising a head having a rearwardly extending shank, a shoulder within said head, and a foot piece having an upstanding barrel of such outside diameter as to closely fit within said shank and of a length substantially coextensive with the shank, the leading end of said barrel adapted to be clinched upon said shoulder to fixedly unite said head and foot piece.

4. A button for soft collars and other articles, comprising a head having a shank extending rearwardly therefrom, a shoulder in said head adjacent to said shank, and a foot piece having an upstanding barrel of a diameter to snugly fit within said shank and in length substantially equal to the length of said shank, the leading end of said barrel being clinched upon said shoulder to fixedly unite said head and foot piece.

5. A button for soft collars and other articles, comprising a head provided with a rearwardly extending shank and a shouldered recess, a foot piece having a barrel snugly fitting within said shank and clinched upon said shoulder, and a setting eyelet adapted to fit snugly within said barrel and to be clinched upon the clinched end of said barrel to set the button upon said material.

6. A button for soft collars and other articles, comprising a head having a shank and a shouldered recess, a foot piece having a barrel snugly fitting within said shank and substantially coextensive therewith and having its leading end clinched upon said shoulder, and a setting eyelet having a flange and a tube, said tube adapted to fit within said barrel and be clinched upon the clinched end thereof and said flange having an inturned circumferential edge deformable downwardly for the purpose specified.

In testimony whereof I have hereunto set my hand this 29th day of May, A. D. 1922.

FRANK E. WARNER.

Witnesses:

PERCY WARNER,

PAUL E. FENTON.