March 8, 1932. E. D. SIMONS 1,848,580

RESILIENT SNAP FASTENER SOCKET

Filed April 8, 1930

Fig. 1.

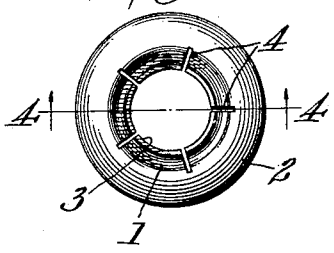


Fig. 2.

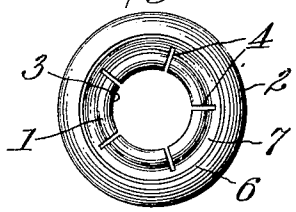


Fig. 3.

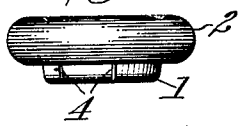


Fig. 4.

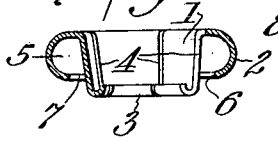


Fig. 7.

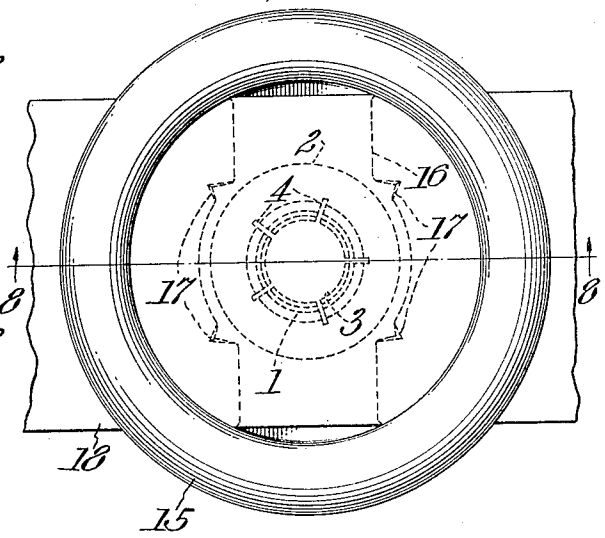


Fig. 5.

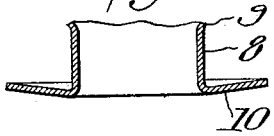


Fig. 8.

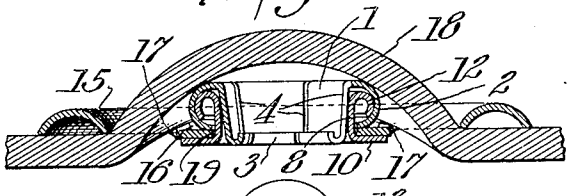


Fig. 6.

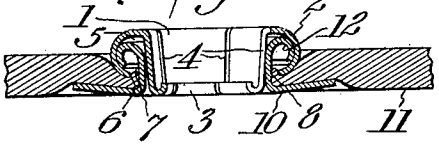




Fig. 9.

Inventor

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By W. F. Finckel

Attorney

Patented Mar. 8, 1932

1,848,580

UNITED STATES PATENT OFFICE

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

RESILIENT SNAP FASTENER SOCKET

Application filed April 8, 1930. Serial No. 442,595.

This invention relates to resilient snap fastener sockets for separable fasteners of the stud and socket type.

The object of the invention is to provide a resilient snap fastener socket so formed of a single piece of sheet metal as to produce an attractive, efficient and more or less ornamental device of simple construction, easy application, and low manufacturing cost.

The invention contemplates a socket and an attaching eyelet, the socket comprising a tubular barrel, tapered from top to bottom and open at both ends and longitudinally slitted to afford resiliency, and a flange formed integrally with the barrel and of a single thickness and rolled back or curved continuously from the barrel to its terminal edge to form a locking chamber of large area for the eyelet, the rolled back flange being of more or less ornamental shape to provide an attractive head or rim of considerable rigidity, 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 top plan view of the socket, Fig. 2 is a bottom plan view thereof, and Fig. 3 is a side elevation thereof. Fig. 4 is a section taken on line 4—4 of Fig. 1. Fig. 5 is an axial sectional view of an eyelet suitable for use in attaching or setting the socket upon an article. Fig. 6 is an axial section of the socket set upon a piece of material. Fig. 7 illustrates the socket of my invention used upon a slide buckle. Fig. 8 is a section taken on line 8—8 of Fig. 7. Fig. 9 illustrates a conventional form of mounted rigid stud member suitable for cooperation with the socket of my invention.

The socket shown particularly in Figs. 1 to 4, comprises a barrel 1 and a flange 2. The barrel is tapered from top to bottom, is open at both ends and is provided at its lower edge with an inturned rounded lip 3. Slits 4 of a number sufficient to impart to the barrel the desired resiliency, are formed longitudinally thereof. The flange 2, which is integral with the barrel 1 and of a single thickness, is rolled back or curved continuously from the barrel to its terminal edge to provide a locking chamber 5 of large area for an attaching or setting eyelet. This rolled back flange also may form an attractive ornamental head or rim. The terminal edge 6 of the flange lies adjacent and in relatively close proximity to but separated from the lower portion of the barrel, thus forming an annular opening 7 between it and the exterior of the barrel, for the passage of the shank of the attaching eyelet into the locking chamber.

As the attaching member or element of the socket I provide an eyelet (Fig. 5) having a hollow or tubular shank 8 slightly flared at its leading end 9 and provided with a base or flange 10. The shank 8 has an internal diameter greater than the external diameter of the barrel 1 of the socket for a purpose hereinafter explained.

In attaching the socket to an article, say a piece of cloth as indicated at 11, Fig. 6, the socket is arranged upon one side thereof and the eyelet upon the other side with its leading end 9 registering with the annular opening 7 of the socket. Upon the application of setting pressure to the two parts, the shank of the eyelet is pressed into the locking chamber and is upset or rolled outward thereby and clinched against the curvilinear inside of flange 2 as shown at 12, Fig. 6, within the chamber 5.

Due to the difference in diameter of the barrel 1 and shank 8, hereinbefore referred to, sufficient space is left between these parts when the socket is affixed to an article to permit resilient action of the barrel to admit the head 13 of a stud member past the lip 3, the resiliency of the barrel causing it to embrace the neck 14 of the stud member after the head has been inserted.

Although the socket may be applied to flexible material, such as cloth, as shown in Fig. 6, it is equally well adapted to be used in combination with metallic or other rigid or relatively rigid materials or articles.

As one such application, I have shown in Figs. 7 and 8 its association with a slide buckle 15. This buckle has a cross-bar 16 provided with prongs or teeth 17 to position it upon a strap or the like 18 and the cross-bar is apertured, as shown at 19, Fig. 8, to receive the

socket. The complemental stud may be applied to another portion of the strap 18, as shown in Fig. 9.

It will be noted that whether the socket is applied to cloth, as shown in Fig. 6, or to metal or other rigid or relatively rigid material as shown in Figs. 7 and 8, the end of the barrel 1 preferably does not extend below or past the flange or base 10 of the eyelet but is confined within it and is thus protected against crushing, distortion and other injury. Obviously, to the end that this protection may be afforded, the shank 8 of the eyelet will be of a length sufficient to provide adequate clinching within the locking chamber 5 and at the same time not permit the end of the barrel 1 to project outside of the base or flange 10. To this end eyelets having shanks of a length to accommodate the thickness of the particular material to which the socket is to be applied will be furnished.

Various changes and modifications are deemed to be within the spirit of the invention and the scope of the following claims.

What I claim is:—

1. A snap fastener socket, comprising a tapered barrel open at both ends and plurally slitted and having an inturned rounded lip to provide a resilient stud-engaging element, a flange integral with said barrel and rolled back in a continuous curve from the barrel to the terminal edge of said flange so that its terminal edge lies in relatively close proximity to the exterior of said barrel to thus provide a locking chamber of large area, said terminal edge providing a support for the socket upon an article to which it is to be attached and said barrel and said terminal edge providing between them an annular opening for the passage of the shank of an attaching eyelet, said shank being rolled outwardly against the flange and clinched within said chamber against said flange to affix said socket to said article, the inturned rounded lip being located within the confines of the attaching eyelet.

2. A snap fastened socket and an attaching eyelet, said socket comprising a tapered barrel plurally slitted and having an inturned rounded lip to provide a resilient stud-engaging element, and a flange integral with said barrel and of a single thickness of material and rolled back in a continuous curve from the barrel to its terminal edge so as to provide a locking chamber of large area, the terminal edge of said flange lying in relatively close proximity to the stud-engaging portion of said barrel and adapted to support said socket upon an article to which it is to be attached and providing between it and said barrel an annular opening, and said eyelet having a tubular shank of greater interior diameter than the exterior diameter of said barrel at its stud-engaging portion, said shank adapted to surround said barrel and pass into said locking chamber through said annular opening and be rolled outwardly against the interior curved surface of said flange to affix said socket member to an article, the relative diameters of said barrel and shank permitting resilient expansion of said barrel when a stud is inserted therein and withdrawn therefrom, the inturned rounded lip being located within the confines of the attaching eyelet.

In testimony whereof I have hereunto set my hand this 7th day of April, A. D. 1930.

ERNEST D. SIMONS.

CERTIFICATE OF CORRECTION.

Patent No. 1,848,580. Granted March 8, 1932, to

ERNEST D. SIMONS.

It is hereby certified that the residence of the patentee in the above numbered patent was erroneously described and specified as "New Haven, Connecticut", whereas said residence should have been described and specified as Cheshire, Connecticut; 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 5th day of April, A. D. 1932.

M. J. Moore,
Acting Commissioner of Patents.

(Seal)