

A. H. GREENEBAUM.  
SNAP FASTENER SOCKET AND TOP.  
APPLICATION FILED MAR. 23, 1911.

1,041,619.

Patented Oct. 15, 1912.

Fig. 1.

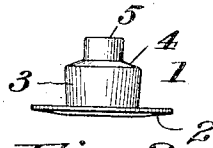


Fig. 2.

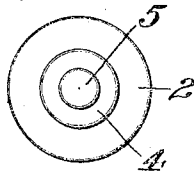


Fig. 7.

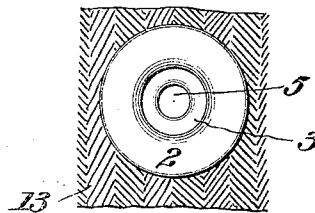


Fig. 8.

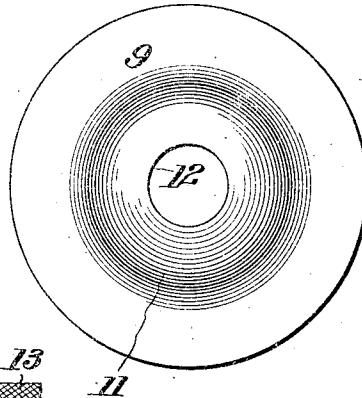


Fig. 6.

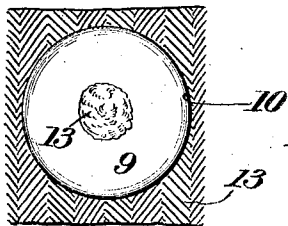


Fig. 3.

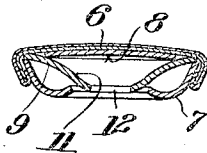


Fig. 9.

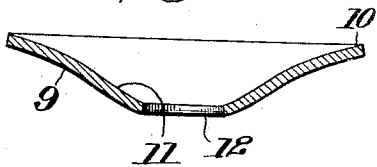


Fig. 4.

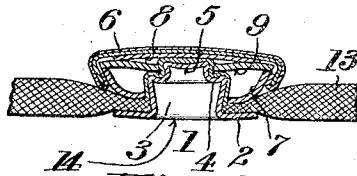
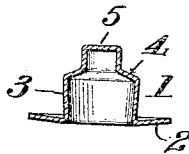


Fig. 5.

Inventor

Abraham H. Greenebaum

by *W. H. Finckel*

Attorney

Witnesses

*C. M. Walker*  
*Lillie M. Perry*

# UNITED STATES PATENT OFFICE.

ABRAHAM H. GREENEBAUM, OF BALTIMORE, MARYLAND, ASSIGNOR TO ALMA MANUFACTURING COMPANY OF BALTIMORE CITY, OF BALTIMORE, MARYLAND, A CORPORATION OF MARYLAND.

## SNAP-FASTENER SOCKET AND TOP.

1,041,619.

Specification of Letters Patent.

Patented Oct. 15, 1912.

Application filed March 23, 1911. Serial No. 616,434.

### *To all whom it may concern:*

Be it known that I, ABRAHAM H. GREENEBAUM, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented a certain new and useful Improvement in Snap-Fastener Sockets and Tops, of which the following is a full, clear, and exact description.

One main object of this invention is to provide a snap fastener socket for use especially on textile fabrics, and more particularly knitted goods, such as mufflers, and other elastic fabrics, where owing to the tendency of the goods to stretch, it is difficult to apply the socket so securely as to prevent it from pulling out of the goods.

In those sockets or snap fasteners where a hole has to be made in the goods for the attachment of the fastener, the perforation of the goods serves to increase the tendency of the fastener and goods to part or separate under strain. If the goods were carried bodily intact into the fastener cap by the application thereto of the attaching device, a certain clumsiness would result, and more or less difficulty encountered in setting the fastener. To avoid these several objections, and at the same time to provide a fastener whose hold on the goods will be sufficiently firm to practically insure the retention of the fastener in place under ordinary strains of use, I provide a cap having an interior riveting plate, made with a centrally arranged concavo-convex projection which is centrally perforated from the convex side so as to avoid a sharp cutting or shearing edge at that place, and thereby permit the goods to be stretched and carried up more or less intact into the cap by the cap-attaching socket of peculiar formation, so that the goods are gripped between the cap and the tip of the nipple of the socket, and also between the edge of the hole in the riveting plate and the base of the nipple, and also between the back of the cap and the flange of the socket, all as I will proceed now more particularly to set forth and finally claim.

In the accompanying drawings illustrating the invention, in the several figures of which like parts are similarly designated, Figure 1 is an elevation of the attaching socket detached. Fig. 2 is a bottom plan view thereof. Fig. 3 is a cross-section of the cap or top. Fig. 4 is a cross-section of the

socket. Fig. 5 is a cross-section of the cap or top and the socket assembled or set upon a piece of goods. Fig. 6 is a top plan view of the fastener attached and with its cap or top cover-piece removed. Fig. 7 is a bottom plan view of the attached fastener. Fig. 8 is a bottom plan view, on a larger scale, of the riveting plate detached, and Fig. 9 is a cross-section thereof.

The socket proper, which is also the attaching medium, is designated 1, and is shown in detail in Figs. 1, 4 and 5. This socket comprises a base flange 2, a barrel 3 rising from the base and constituting the stud-engaging and receiving member, a shoulder 4 and a relatively wide nipple 5 rising from this shoulder. It is of prime importance in this invention that neither the nipple nor the shoulder should have edges which would cut or break the goods and hence these parts are rounded off and smooth. The result is that the nipple simply displaces the threads of the goods where they are parted at all and stretches and carries the goods along with it as it enters the cap or top.

The cap or top comprises a cover 6, a collet 7, having a rounded and smooth back, an anvil 8 and a non-shearing riveting plate 9, these parts being held together by closing the cover over the collet in any ordinary way. The riveting plate is of peculiar and novel formation, and consists of a circular piece whose extreme outer edge 10 is substantially flat, with a central concavo-convex projection 11 provided with a central hole 12. In order to avoid a shearing edge or bur on the convex side of this plate where the nipple enters, I punch the hole through from this convex side in the direction of the concave side, and thus leave a relatively smooth surface. Furthermore, the hole 12 is enough larger in diameter than the nipple to avoid a crushing, cutting, or shearing action of the nipple and the hole's edge on the goods carried by the nipple into and through this hole in the act of setting the fastener upon an article. Thus, while the goods are stretched, they are not designedly or desirably crushed, cut, or sheared, but are carried up substantially if not quite intact.

In the act of setting the fastener, the cap is placed upon one side of the goods

and the socket piece placed opposite to it on the other side, in suitable tools, and pressure exerted to force the two together, so that the nipple enters the hole 12 in the riveting plate and the edge of the hole rests upon the shoulder 4, and then by further pressure the riveting plate recedes within the top and flattens out, as seen in Figs. 5 and 6, and the tip of the nipple meeting the anvil 8, said nipple is more or less broken down so as to grasp the riveting plate between itself and the shoulder 4, with the goods gripped between the tip of the nipple and the anvil, and between the riveting plate and the shoulder, and between the flange 2 and the collet or back of the cap, as shown in Fig. 5. As indicated in Fig. 6, which is drawn from a specimen in actual use, the goods over the nipple are substantially uncut.

As shown in Fig. 5, the mouth 14 of the socket is narrower than the chamber above it, and the socket is rigid, and thus this form of the invention is designed for use with a spring stud; but obviously the invention is not limited to this one form of construction.

The flattening out of the riveting plate 9 is clearly shown in Fig. 5; and in this figure it is also shown how the body 3 of the attaching device extends within the collet and up into the cap. As also shown in Fig. 5, the construction affords a very flat, compact socket, especially suitable for use on mufflers and similar wearing apparel.

As shown especially in Figs. 5 and 7, by the construction described, the back of the goods is entirely clear of any broken threads.

What I claim is:—

1. A snap fastener socket and top, said socket having a rounded and smooth nipple,

a barrel having a rounded and smooth shoulder, and a base flange, a rounded collet, and a riveting plate within the top, the said top closed about the plate and collet, said plate having a central concavo-convex projection perforated from its convex side and thereby presenting a smooth non-shearing edge, so that when set the goods are gripped between the socket and top at three places, namely, between the nipple and top, between the shoulder and plate, and between the base flange and collet without cutting out the goods.

2. In a snap fastener socket and top, the socket member having a nipple provided with rounded, smooth and non-shearing edges, a barrel having a rounded, smooth and non-shearing shoulder, and a base flange, and the top member having a rounded collet and a riveting plate arranged within it, said plate provided with a substantially flat outer edge, a central concavo-convex projection, and a smooth edged non-shearing central hole of considerably greater diameter than the nipple, so that when the socket and top members are set the plate tends to flatten out, engages the socket member between its shoulder and nipple and said nipple is broken down, thereby gripping the goods interposed between the socket and top at three places, namely, between the nipple and top, between the shoulder, nipple and plate, and between the base flange and collet, without cutting out the goods.

In testimony whereof I have hereunto set my hand this 22nd day of March A. D. 1911.

ABRAHAM H. GREENEBAUM.

Witnesses:

H. KERNGOOD,  
NATHAN KRAHT.