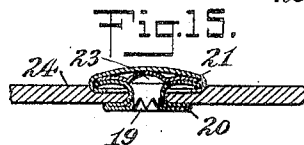
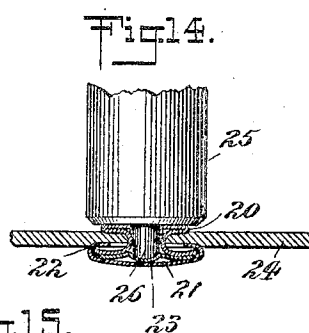
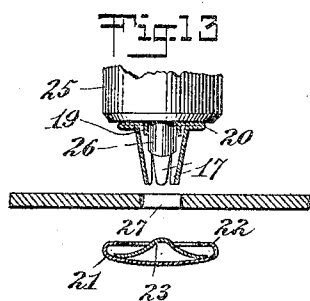
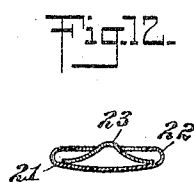
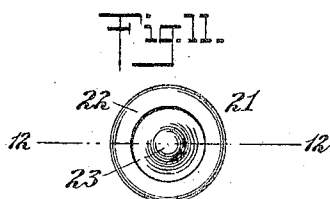
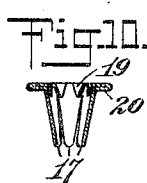
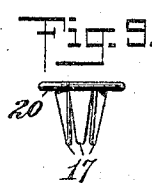
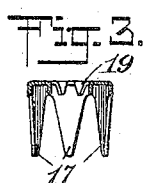
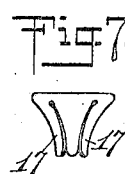
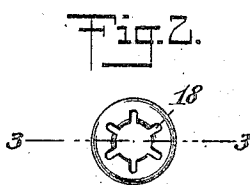
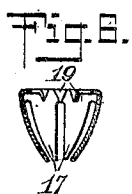
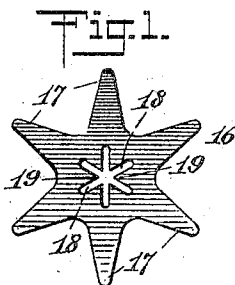


No. 821,008.

PATENTED MAY 22, 1906.

F. R. WHITE.
GLOVE FASTENER.

APPLICATION FILED JUNE 29, 1905.



WITNESSES:
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UNITED STATES PATENT OFFICE.

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GLOVE-FASTENER.

No. 821,008.

Specification of Letters Patent.

Patented May 22, 1906.

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To all whom it may concern:

Be it known that I, FRANKLIN R. WHITE, a citizen of the United States, and a resident of Waterbury, in the county of New Haven and State of Connecticut, have made and invented certain new and useful Improvements in Glove-Fasteners, of which the following is a specification.

My invention relates to an improvement in the socket member of a ball-and-socket fastener adapted for use in connection with gloves, suspenders, umbrellas, &c., and more particularly to that kind or character of socket wherein is employed a fastening-eyelet having formed thereon or attached thereto a stud-engaging piece and a cap containing a cone for spreading or upsetting the end of the eyelet to fasten or attach the same to the cap. Heretofore when the socket member has been so constructed—that is, with an upsetting or spreading cone—the eyelet has usually been formed with straight walls and of large diameter in order to admit the ball therein, thereby necessitating the formation of a comparatively large hole in the material for the passage of the fastening-eyelet through it. In many classes of work the flaps of the glove, for instance, are matched up, and a hole of proper size for the ball-attaching eyelet is made simultaneously through both flaps. As the socket-eyelet is comparatively large, it necessarily follows that the opening in the respective flap must in some way be made larger—as, for instance, by forcing a bodkin through the same or by recutting.

The object of my invention is to overcome the necessity of making one hole larger than the other and to so construct the socket member that the cone located in the cap-piece after performing its function of spreading or upsetting the end of the eyelet may be forced backwardly or inwardly within the cap or otherwise so distorted as to prevent its interfering with the stud member when the latter is assembled with the socket and allowing the eyelet, preferably of cone shape, to be made comparatively small or of such size as will allow of its passage through a hole in the material of similar size to the hole formed for the accommodation of the ball-attaching eyelet.

With these and other ends in view the in-

vention consists in certain novel features of construction and combinations of parts, as will be hereinafter fully described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view of the star-shaped blank from which the fastening-eyelet is formed. Fig. 2 is a top plan view thereof in its first stage of formation. Fig. 3 is a sectional view of the same, taken on the line 3 3 of Fig. 2. Fig. 4 is a plan view of the eyelet in its second stage of formation. Fig. 5 is a view in side elevation of the same, and Fig. 6 a sectional view taken on the line 6 6 of Fig. 4. Fig. 7 is a view in side elevation of the eyelet in its third stage of formation, and Fig. 8 a sectional view of the same. Fig. 9 is a view in side elevation of the completed eyelet, and Fig. 10 a sectional view of the same. Fig. 11 is a bottom plan view of the cap-piece. Fig. 12 is a sectional view of the same, taken on the line 12 12 of Fig. 11. Fig. 13 is a view, partly in section and partly in elevation, of the eyelet and cap prior to being assembled, the eyelet being shown attached to the setting-tool. Fig. 14 is a similar view after the cap and eyelet have been assembled. Fig. 15 is a sectional view of the finished socket-piece.

Referring to the drawings, Fig. 1 shows the blank 16, from which the attaching-eyelet is formed, the same consisting of a single piece of sheet metal and in the form of a six-pointed star, the central portion thereof forming the flange 20 of the finished eyelet and the points 17 the cone-shaped hub or barrel of the eyelet. The central portion of the blank 16 is formed with the slots 18 radiating from the center, the metal points 19, contained between the slots, forming the resilient or elastic stud-engaging piece of the finished article.

By means of suitable dies (not shown) the blank 16 is struck up into the shape as illustrated in Figs. 2 and 3—that is, the points 17 of the star-shaped blank are turned downwardly, as are also the points 19, the latter forming inwardly-turned spring-teeth. The article is then shaped as shown in Figs. 4, 5, and 6, the points 17 being brought closer together, after which it is shaped as illustrated in Figs. 7 and 8, during which operation said points 17 are brought still closer together. In the final operation is formed the flange 20, as illustrated in Figs. 9 and 10, the result be-

ing the formation of a cone-shaped eyelet having a split barrel and provided on its larger end with the flange 20 and resilient or yielding stud-engaging teeth, the whole being
5 formed of a single piece of metal.

In Figs. 11 and 12 I have illustrated a cap-piece consisting of a cap proper, 21, provided with the inwardly-turned flange 22 and containing the cone-shaped disk 23, the latter
10 being adapted to spread or upset the end of the fastening-eyelet outwardly and under the flange 22 for securing the parts together, the material 24 being clamped between the flanges 20 and 22, as illustrated in Fig. 14.

In assembling the parts a tool 25 is employed, having formed thereon the lug or projection 26, the latter being slightly longer than the diameter of the ball or stud to be
15 employed in connection with the socket and which lug 26 extends into the tapered eyelet, the spring-teeth 19 securely holding the eyelet thereon during the operation of assembling the parts, as clearly illustrated in Fig. 13. By suitable means (not shown) the tool
20 25 carries the tapered eyelet through the opening 27 in the material 24, on the opposite side of which latter is located the cap-piece, and the smaller end of the split tapered eyelet being pressed or forced against the cone
25 23 will readily yield and separate, thereby locking or securing the eyelet to the cap-piece, as clearly illustrated in Fig. 14. The pressure being continued, the lower end of the lug or projection 26 will force inwardly
30 the apex of the cone 23, bending, shaping, or distorting the same, as illustrated in Figs. 14 and 15, thereby affording sufficient room for the reception of the ball or stud member. From the foregoing it will be understood that
35 by thus crushing or inwardly bending the cone after it has performed its function of spreading the end of the fastening-eyelet, which would otherwise extend into the mouth or entrance of the socket, room is provided for the ball or stud member in a comparatively short and small fastening-eyelet,
40 the latter requiring but a small hole or opening in the material for its passage.

Having fully described my invention, what
45 I claim as new, and desire to secure by Letters Patent, is—

1. A fastener of the character described constructed with a cap-piece having an inturnd flange, a cone-disk contained within
50 the cap-piece between the inner wall thereof and said flange and having its marginal edge located within said flanged portion, and an eyelet the end of which is spread within the cap-piece by said cone, the end of the eyelet

being also spread within the cap-piece and 60 confined between the inturnd flange thereof and the cone-disk, and the center of said cone being bent inwardly into the cap-chamber.

2. A fastener of the character described constructed with a cap-piece having an inturnd flange, a cone-disk contained wholly
65 within the chamber of the cap-piece and having its marginal edge contained within the inturnd portion of the cap-piece, and a tapered eyelet, the end of which is spread within the chamber of the cap-piece and confined
70 between the inner wall of the inturnd flange and the cone-disk, said cone-disk having its central portion capable of spreading the end of the eyelet, and of being substantially bent inwardly. 75

3. The socket member of a ball-and-socket fastener consisting of a cap-piece having an inturnd flange, a cone-disk within the chamber of the cap-piece and having its marginal
80 edge confined within the said inturnd portion of the cap-piece, and a split eyelet of tapered form the end of which is spread within the cap-piece between the flange thereof and said cone-disk, the latter being subsequently
85 bent inwardly, said eyelet having a central opening provided with yielding stud-engaging members.

4. The socket member of a ball-and-socket fastener, consisting of a hollow cap-piece having
90 an inturnd flange adapted to clamp one side of the material, said cap-piece containing within its chamber a cone, and an eyelet fashioned from a disk having radial points and having a perforate center with slots radiating therefrom, said points subsequently
95 bent to form a tapered split hub and to be spread within the cap-piece by said cone, and the metal between the radial slots at the center being bent inwardly substantially parallel
100 with the axis of the hub to form yielding stud-engaging means.

5. In the socket member of a ball-and-socket fastener, the combination with a cap-piece containing a cone, a tapered split eyelet, the upper smaller end of which is spread
105 within said cap-piece by said cone, the latter being subsequently bent inwardly, the lower larger end of said eyelet being flanged and bent inwardly to form a yielding stud-engaging piece, substantially as described. 110

Signed at Waterbury, in the county of New Haven and State of Connecticut, this 21st day of June, A. D. 1905.

FRANKLIN R. WHITE.

Witnesses:

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JAY H. HART.