(No Model.)

F. E. HALL.

GLOVE AND GARMENT FASTENER.

No. 484,792. Patented Oct. 25, 1892.

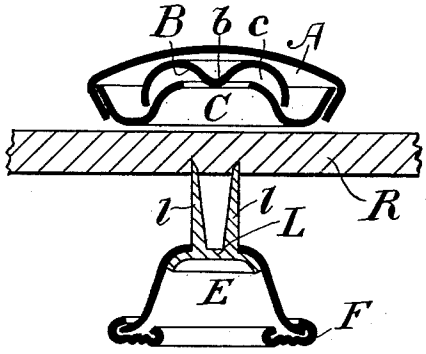

Fig. 1.

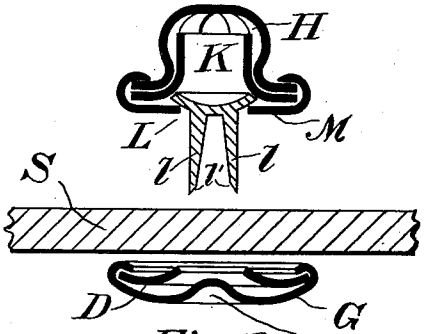

Fig. 3.

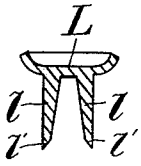

Fig. 5.

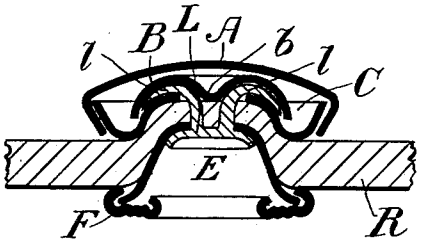

Fig. 2.

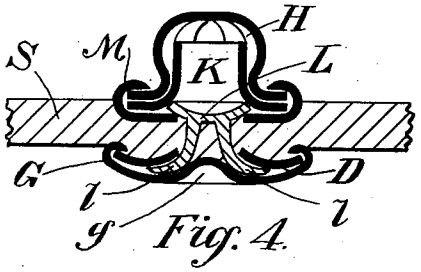

Fig. 4.

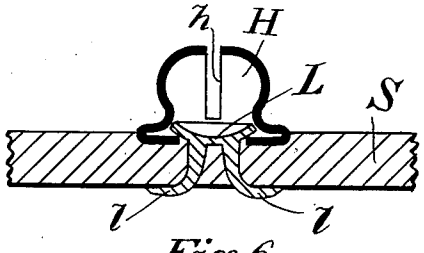

Fig. 6.

Witnesses

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UNITED STATES PATENT OFFICE.

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GLOVE AND GARMENT FASTENER.

SPECIFICATION forming part of Letters Patent No. 484,792, dated October 25, 1892.

Application filed December 7, 1891. Serial No. 414,236. (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 Glove and Garment Fasteners, of which the following is a full specification.

My invention relates to spring or snap button fasteners for gloves and garments; and it consists, mainly, in the manner of riveting or clinching the parts of the fastener to the material. Fasteners of this class consist of two members, a button or stud member mounted on one flap of the glove or garment and a buttonhole or socket member mounted on the opposite flap thereof. Each member is ordinarily sent out to the trade in two parts, which in attaching to the glove or garment are clinched together through the material thereof. To this end one part of each member is ordinarily provided with a riveting portion which passes through the glove material and coacts with certain clinching devices contained in the other part, a common construction being to provide for this riveting portion a tubular eyelet projecting from one part, which eyelet is rolled or turned outwardly by an anvil contained in the opposite part, and thus serves to clinch the two parts together through the material. It often happens that this clinching or outward turning of the tubular eyelet is so slight that the parts are imperfectly held together, so that they become separated when subjected to wear. Such a tubular eyelet cuts out a hole through the glove material, thereby weakening it to some extent, and when clinched together the whole fastener may be turned around in the fabric, thus wearing the hole larger and larger and causing the fastener to become loose. Moreover, when the riveting-eyelet in the buttonhole member is made integral with the stud-inclosing chamber, which is a common construction, it becomes necessary to make the whole chamber of a grade of brass or other metal suitable for clinching, which makes the cost higher than would be necessary were the rivet made separate from the chamber and the chamber itself of cheaper material. In my improved fastener I am enabled to make the stud-receiving chamber of tin or low-grade brass, while I employ a separate two-pronged steel rivet of peculiar shape adapted to be used in both the button and the buttonhole members of the fastener for securing the two parts thereof together. The construction is such that imperfect clinching of the parts is impossible, as the two prongs of the rivet are so far turned outward as to render the separation of the parts impossible. With such a rivet, moreover, none of the material is cut away, but is simply punctured by the two prongs of the rivet, so that the whole fastener when set cannot be turned in the leather and can never wear loose.

The details are as hereinafter set forth.

Referring to the accompanying drawings, Figure 1 shows, in section, the two main parts of the buttonhole member of a fastener embodying my invention in position for being clinched together with the material of the glove or garment between them. Fig. 2 shows the complete buttonhole member mounted in place on the material. Fig. 3 shows the two main parts of the button member adapted to engage with said buttonhole member, said parts, with the material on which they are to be mounted, being shown in proper relative position for clinching together. Fig. 4 shows the complete button member with parts clinched together. Fig. 5 shows, in section, the rivet; and Fig. 6 shows a modified form of button.

E is the stud-receiving chamber, which may be made of tin or low-grade brass, and, as shown in the drawings, has a flaring mouth over which is clinched the flanged stud-grasping lip F, preferably of brass.

The rivet portion consists of a separate flanged two-pronged rivet L, preferably made of steel in the shape shown in Fig. 5. The head or flange of the rivet is dished or concaved, while the two prongs *l*, which are flat and taper slightly from the head to the ends thereof, are beveled or faced off at *l'* on the inner faces thereof, so that when they come in contact with a convexly-rounded anvil they will spread or roll outwardly. The top of the chamber or socket E is provided with an opening of such size that the rivet L may be driven or forced therein and is held tightly when

once in place, the curve of the head or flange of the rivet conforming to the inner curve of the chamber top, as shown in Fig. 1.

The pieces E, F, and L, put together in the manner described, constitute one main part of the buttonhole member. The other part, or that which rests above the material R of the glove, has a cover A, which contains suitable anvil and retaining devices for acting on the prongs of the stud.

As shown, C is a doubly-flanged retaining-piece, around the outer flange of which the cover A is rounded in, while B is an anvil-piece having the central rounded anvil-nipple *b*, said anvil-piece being interposed between the pieces A and C, leaving a space *c*, within which the prongs of the rivet turn. The two parts of the buttonhole member being forced together between suitable dies, the prongs *l* are driven through the material S, simply puncturing said material like needles without removing any of the same, thereby differing from the tubular eyelet ordinarily employed, which cuts out quite a large hole in the material, thereby weakening it in many cases considerably. The beveled portion *l'* on the prongs *l* meeting the curved anvil-surface of the piece B cause said prongs under continued pressure to spread widely outward within the retaining-space *c*, holding the parts firmly together, as shown in Fig. 2, beyond any possibility of being pulled apart or being turned in the material.

Referring to the button member, I have shown in Figs. 3 and 4 one form of flanged resilient stud H, adapted to engage with the chamber or socket E of the buttonhole member, which is unresilient. Within the stud H is the supporting-eyelet K with its flange against the bottom of the flange of the stud H. The rivet L is placed with its flange against the bottom of the eyelet K, and the parts K, H, and L are held together by the collet M. The clinching and retaining part in this case consists of the anvil-piece G, provided with the central nipple *g*, the outer portion of the anvil-piece being clinched in around the retaining-washer G, and the two main parts of the button being clinched together in a similar manner to the parts of the buttonhole member.

It is immaterial to my invention which member of the fastener is resilient. If the stud be unresilient instead of the socket, a resilient socket must be employed, in which case the lip F may be slit or cut to give the desired spring. In either case the body of the socket E may be made of tin or cheaper metal, while the lip F only need be made of brass, since the lip is the only part of the chamber that comes in contact with the stud. A simpler form of stud H, provided with the cut slit *h*, is shown in Fig. 6, wherein the flange of the stud is bent inward directly under the flange of the rivet L, while the prongs *l* of the rivet are rounded out on the under side of the glove material S without the employment of a washer. This manner of turning the prongs of the stud directly against the glove material may be advantageously used when the said material is very thick and heavy. In the stud the concavity of the rivet-head is useful when the edge of the rivet-head comes opposite the rolled-in neck of the stud all around, as shown in Figs. 3, 4, and 6, as it acts in such a case to greatly strengthen the stud during the process of clinching the parts together.

I claim—

1. The buttonhole member of a spring-fastener assembled in two parts, one of which consists of a stud-receiving bell-shaped socket, provided with a stud-grasping flanged lip, and having a separate flanged two-pronged rivet attached thereto, while the other part consists of a cover provided with an anvil and retaining-pieces, substantially as described.

2. A spring-button-fastener member provided with a separate flanged rivet L, having a concave head and two wedge-shaped prongs *l* faced off at *l'* on the inner faces thereof, substantially as described.

3. A spring-button fastener consisting of a stud member and a socket member, the stud member consisting of a flanged stud provided with a separate two-pronged flanged rivet and the socket member consisting of a socket provided with a separate flanged two-pronged rivet and a cover provided with an anvil and retaining-pieces, substantially as described.

In witness whereof I have hereunto set my hand.

FRANK E. HALL.

Witnesses:
WM. B. H. DOWSE,
ALBERT E. LEACH.