(No Model.)

G. E. ADAMS.

CLASP.

No. 489,891. Patented Jan. 10, 1893.

Fig. 1.

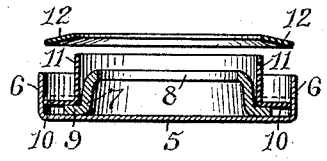


Fig. 2.

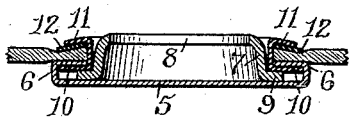


Fig. 3.

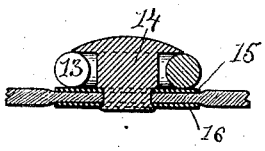


Fig. 4.

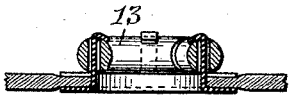


Fig. 5.

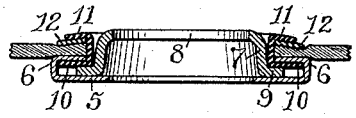
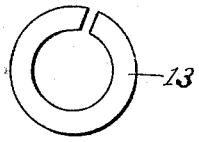


Fig 6



WITNESSES:

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UNITED STATES PATENT OFFICE.

GEORGE E. ADAMS, OF PROVIDENCE, RHODE ISLAND.

CLASP.

SPECIFICATION forming part of Letters Patent No. 489,891, dated January 10, 1893.

Application filed August 9, 1892. Serial No. 442,554. (No model.)

To all whom it may concern:

Be it known that I, GEORGE E. ADAMS, of the city of Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Clasps; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

This invention has reference to improvements in spring-clasps for securing the parts of an article together, or for securing separate articles together.

The object of the invention is to produce a cap, or case, for a two-part clasp, which will be extremely flat while being adapted to be firmly secured to the material.

The further object of the invention is to produce a spring-stud which will be adapted to engage the inner portion of the cap to hold the two parts of the clasp together against any ordinary side strain.

The invention consists in the peculiar construction of the various parts forming the cap and the means for securing the same to the material, together with the novel combination and arrangement of these parts.

The invention further consists in the peculiar features of construction and the novel combination of the parts forming the spring-stud and the means for securing the same to the material, as will hereinafter be more clearly described and pointed out in the claims.

Figure 1 represents a cross-sectional view of the parts of which the cap is composed. Fig. 2 represents a similar view of the parts assembled in place and secured around a perforation in the material. Fig. 3 represents a cross-sectional view of the spring-studs secured to a piece of material. Fig. 4 representing a similar view of a modified form of the stud. Fig. 5 represents a view of the cap showing the perforated shell. Fig. 6 is a top plan view of the split ring removed from its holder.

Similar numbers and letters of reference designate corresponding parts throughout.

In the drawings 5 indicates a thin metal-shell having an annular-rim 6 bent up therefrom; within this shell is placed the conical engaging-ring 7 having the inwardly-curved edge 8 and the outwardly-extending flange 9, and resting on this flange 9 is the outwardly-extending flange 10 of the affixing-rim 11, the rim 6 of the shell 5 being turned inward over the edge of the flange to secure the same and the ring 7 within the shell. When the cap is to be secured to a piece of material a perforation is first made of the size of the rim 11, this rim is then inserted in the perforation and a slightly-convex bearing-ring 12 is placed over the same, the edges of the rim 11 are then turned down over the bearing-ring, as is shown in Fig. 2 of the drawings, firmly securing the cap to the material. It is evident that the thickness of this cap need only exceed the thickness of the spring-stud by the space occupied by the bottom of the shell 5 and this may be reduced, if desired, by perforating the center of the shell 5 to allow the central portion of the stud to pass through the same, as is shown in Fig. 5 of the drawings.

The clamping-stud is formed of a split ring 13 made of round spring-wire the ends of which are slightly separated as shown in Fig. 6 to allow of the slight contraction thereof; this ring 13 may be secured to the material A in a variety of ways to allow of its slight expansion and contraction,—I prefer, however, to use a headed stud 14 having a rounded head to direct the movement of the edge 8 of the engaging-ring 7 toward the circumference of the ring 13 the rounded outer surface of which is engaged by the edge 8. The shank of the stud 14 is contracted to form a shoulder against which the bearing-ring 15 rests, the material A being held between this ring and that marked 16 over the back of which the end of the stud-shank is riveted. The ring 13 may, however, be held in a setting similar to that shown in Fig. 4 of the drawings and having means for securing the same to the material.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:—

1. In a clasp cap or case for co-operating with a spring stud, the combination with the engaging ring 7 having the edge 8 forming the opening to the cap or case and having the flange 9, of the outer shell having the annular flange underlying the fabric or material and embracing the flange of the engaging ring and the affixing rim having a flange con-

fined by the flange of the outer shell, and with its upper edge turned outward over the fabric or material at approximately the level of the edge 8 of the engaging ring, whereby a cap of approximately the thickness of the fabric or material is provided substantially as described.

2. In a clasp, in combination, the shell 5 having the rim 6 the engaging-ring 7 having the flange 9 located within the shell, and the affixing-rim 11 having the flange 10 resting on the flange 9, the rim 6 being turned inward over the flange 10, as and for the purpose described.

3. In a clasp, the combination of a stud formed of a contractible split ring, a setting for holding said ring, and a cap or case adapted to inclose said ring and bear against its exterior surface; substantially as described.

4. In a clasp, the combination of a stud formed of a contractible split ring, a setting passing through the ring for holding the same, and an engaging device having an orifice of smaller diameter than the diameter of the split ring when expanded; substantially as described.

In witness whereof I have hereunto set my hand.

GEORGE E. ADAMS.

Witnesses:
HENRY J. MILLER,
M. F. BLIGH.