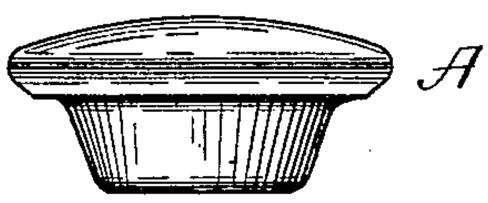
No. 725,699. PATENTED APR. 21, 1903.

C. H. GOODWIN.

FASTENER.

APPLICATION FILED JUNE 28, 1902.

NO MODEL.



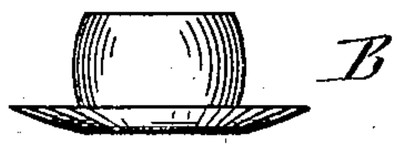
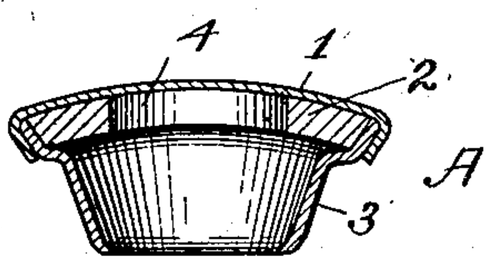


Fig. 1.



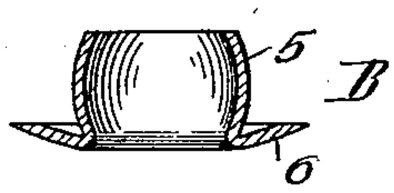


Fig. 2.

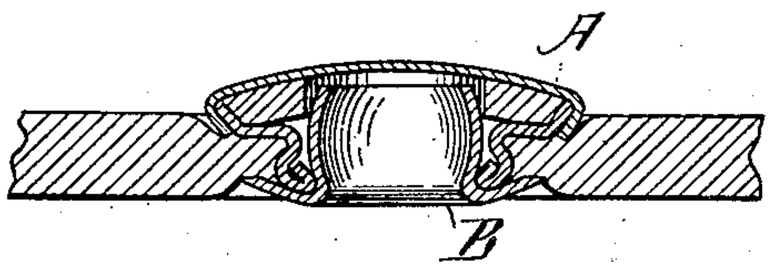
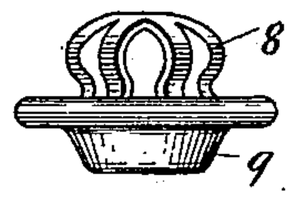


Fig. 3.



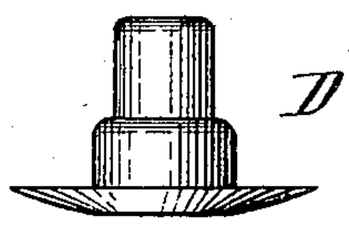
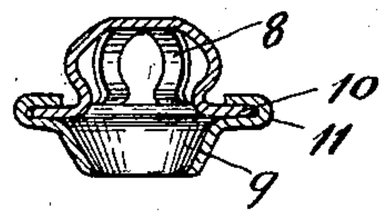


Fig. 4.



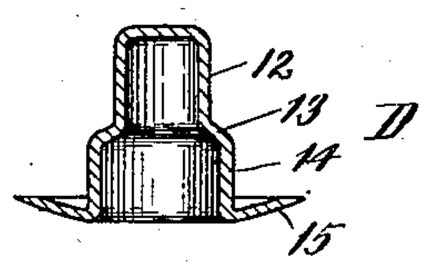


Fig. 5.

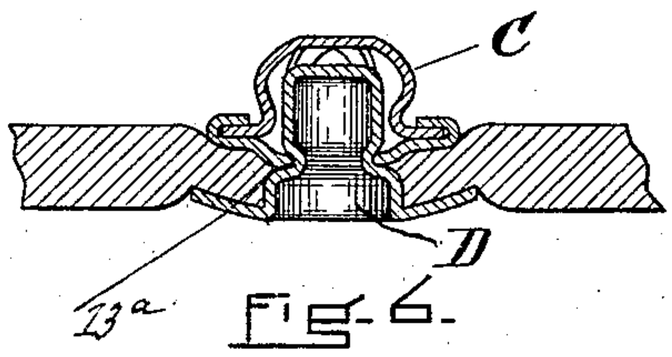


Fig. 6.

WITNESSES

C. H. Flannery

G. A. Holmes

INVENTOR

Charles H. Goodwin

by Wm. B. W. Brown

atty

UNITED STATES PATENT OFFICE.

CHARLES H. GOODWIN, OF WATERBURY, CONNECTICUT, ASSIGNOR, BY MESNE ASSIGNMENTS, TO UNITED STATES FASTENER COMPANY, OF PORTLAND, MAINE, AND BOSTON, MASSACHUSETTS, A CORPORATION OF MAINE.

FASTENER.

SPECIFICATION forming part of Letters Patent No. 725,699, dated April 21, 1903.

Application filed June 28, 1902. Serial No. 113,571. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. GOODWIN, a citizen of the United States, residing at Waterbury, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Fasteners, of which the following is a full specification.

My invention relates to that class of separable fasteners used on gloves, clothing, and other articles and having a stud or male member and a socket or female member; and it consists in certain new and useful features of construction, hereinafter set forth.

Referring to the accompanying drawings, Figure 1 shows in elevation the two parts of the socket member of my improved fastener as they are commercially sold. Fig. 2 shows the same in section. Fig. 3 shows in section the completed socket member attached to the material of a glove or other article. Fig. 4 shows in elevation the two parts of the stud member of my improved fastener as they are commercially sold. Fig. 5 shows the same in section. Fig. 6 shows in section my completed stud member attached to any material.

As shown in the drawings, the socket member consists of the cap A and socket-chamber B. The cap A, I preferably make of three pieces—the shell 1, the filler 2, and the gripping-collet 3—assembled as shown in Fig. 2. The gripping-collet 3 has the form of an inverted truncated cone, with its base resting within the shell 1 and attached thereto by the inwardly-turned edge of the shell. The filler 2 is inclosed within the base of the cone 3, as shown, and preferably has the central aperture 4. This filler may be made of paper, india-rubber, or other suitable material, and the purpose of such filler is to give strength and support to the shell 1.

My socket-chamber B has the spherical-shaped gripping-chamber 5, with the flange 6 at one end, both ends being open and of smaller diameter than the central portion. The dimensions of the socket-chamber B and the gripping-collet 3 are so proportioned that the conical end of the gripping-collet 3 will just slip over the largest diameter of the spherical socket-chamber 5, and when the two pieces are suitably pressed together, with the material between them, the conical gripping-collet 3 is crimped or contracted about the smaller diameter of the socket-chamber next to the flange, and thus the two parts are firmly riveted together, forming the socket member of my fastener. By making the upper end of the socket-chamber contracted its entrance into the gripping-collet 3 is facilitated, thus allowing the fasteners to be set more rapidly and accurately.

The stud member of my fastener consists of the stud C and shouldered attaching-eyelet D. The stud I preferably make as shown, having the struck-up spring-stud 8 and the gripping-collet 9. This last-named piece has the form of an inverted truncated cone, inclosing in its base 11 the base 10 of the stud 8 and having the conical gripping portion 9 extending downwardly, as shown. The attaching-eyelet D has the flange 15, the shank 14, the shoulder 13, and the contracted portion 12, which is just sufficient in size to enter the contracted end of the gripping-collet 9.

When the two parts are suitably pressed together with any material between them, the gripping-collet 9 slips over the contracted portion 12 of the attaching-eyelet until it strikes the shoulder 13, after which the continued pressure contracts the opening of the conical collet 9 by pressing it inward and upward and forcing a groove 13^a in the attaching-eyelet D, so that it grips the attaching-eyelet D, as shown in Fig. 6. Were it not for the shoulder 13 if the attempt were made to set my stud member on material of any thickness the gripping-collet would simply slide down over the attaching-eyelet, but would not be contracted, as the thickness of the material would prevent its striking the flange 15. By means of the shoulder 13 I am enabled to rivet my stud member securely to material of any desired thickness, and the gripping will take place at the shoulder 13 whatever distance it may be from the flange 15.

I claim—

1. In a fastener, a stud member, having a conical gripping-collet provided with a cen-

tral opening to admit the attaching-eyelet, in combination with an attaching-eyelet having a shoulder against which the edge of the central opening bears to compress the attaching-eyelet and hold the stud member to the material.

2. A stud member consisting of a struck-up resilient stud, a conical gripping-collet secured to the stud and having a central opening for an attaching-eyelet, in combination with an attaching-eyelet having a reduced upper portion, an enlarged lower portion, an intermediate shoulder and a base-flange, said stud member being secured to the material by forcing the attaching-eyelet into the central opening in the gripping-collet, substantially as described.

3. In a fastener, a socket member comprising a cap or shell, a conical gripping-collet, a spherical socket-chamber inserted within the collet and secured to the material, in combination with a stud member comprising a stud, a gripping-collet having a central opening, and a shouldered attaching-eyelet, said stud member being secured to the material by forcing the attaching-eyelet into the gripping-collet, substantially as described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 17th day of June, A. D. 1902.

CHAS. H. GOODWIN.

Witnesses:
ELROY HEADLEY,
JAMES H. VREELAND.