UNITED STATES PATENT OFFICE.

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GARMENT AND OTHER FASTENER.


Application filed March 22, 1918.

To all whom it may concern:

Be it known that I, RAYMOND J. McBREEN, a citizen of the United States, residing in the borough of Brooklyn, city of New York, county of Kings, and State of New York, have invented certain new and useful Improvements in Garment and other Fasteners, of which the following is a specification.

The object of this invention is to produce a low-cost composite fastener of the push connection type, provided with a desirable and efficient spring.

In the accompanying drawings forming a part hereof and illustrating my invention in the best form now known to me,

Figure 1 is a plan of a double-lobed blank from which the receiving member is preferably formed.

Fig. 2 is a plan of a sheet-metal spring removed and constructed for reception and release of the head and shank of an entrant member.

Fig. 3 is a cross-section, at a line corresponding to line 3–3 of Fig. 1, of the folded blank and spring assembled.

Fig. 4 is a view of one form of entrant member.

The two members above illustrated are adapted to be sewn to goods.

Fig. 5 is a view corresponding to Fig. 1, but with the spring in place and provided with a tubular extension for passage through goods.

Fig. 6 is a dimetric sectional view of the receiving member made from the blank shown in Fig. 5 and provided with a button-head, and in assemblage with a stud.

Fig. 7 is a bottom plan view of the stud shown in Fig. 6 and having clenching prongs for attaching it to goods.

Referring to the drawings, the receiving member or socket is formed preferably but not necessarily, from one piece of metal shown as a double-lobed foldable blank, one lobe 1 having a central hole 2 through it and being partially flanged at 3. The other lobe 4 forms a cover and is dimensioned to fit within the flange 3 to form a chambered structure. The two lobes are united by an intermediate, integral, rectangular, bendable portion 5 by the bending of which the two lobes are brought into flatwise opposition with a spring-receiving space between them. When so bent, the rectangular portion 5 forms one side of the socket as a flange supplementary to flange 3. This receiving member is preferably polygonal for a reason stated below. Prior to the arrangement of the two lobes or sides of the device to form a chambered structure, a thin flat metal spring, preferably of blue steel, is located within the flange 3. This spring is formed with a central opening 6. Its marginal portion adjacent the opening is numerously slit at 7 to form resilient points 8 which project inwardly over the hole 2. The outer margin of the spring is preferably formed with upturned lugs 9 which abut against the flange 3 and are engaged by the cover lobe 4 to hold the spring in place. Between the upturned lugs 9 the metal of the spring is cut away to expose the thread-eyes 10 formed around the outer margin of the device in both the bottom and cover so that this device or receiving member can be sewn to goods. The described construction leaves the resilient points 8 free to flex freely outward or inward as required; and this form of spring is very durable.

The entrant member shown in Fig. 4 is a stud having a rounded head 11 which is adapted to be forced into and out of the receiving member through the central opening 5 of the spring. It has a reduced shank 12 and a base flange provided with thread-eyes.

When this invention is to be made in a form that permits the two members to be clamped instead of sewn to goods, the lobe or cover 4 is formed with a central tubular projection 14 for passage through goods a. In assemblage its free end passes through a hole in the bottom 15 of a chambered button, and impinging on an opposed upsetting anvil 16 has its free end margin spread out between the anvil and the opposed margin of its receiving hole in the button-bottom, as described and claimed in my application Serial No. 293,891, of even date herewith, filed March 22, 1918. Any suitable cover 17 may be provided for the button-head the function of which here is to serve as a goods clamp, and incidentally as an ornament.

The clamped stud shown in Fig. 7 is like 105 the stud shown in Fig. 4 except that instead of having thread-eyes, its base flange is formed with projecting clenching points 18 for passage through goods wherein they may be upset and clenched as on the goods 19 y at 19 as in Fig. 6.

The polygonal shape of the receiving and
entrant members is advantageous because when they are applied with aligned straight edges aligned with edges of the goods, they afford a readily accessible distance for insertion of a thumb or fingernail for separating them. In small sized circular fasteners only a very little peripheral distance is accessible for such a purpose.

A feature of my invention shown in Fig. 6 forms the subject-matter of my divisional application, Serial No. 240,131, filed June 15, 1918.

Various changes in construction may be made without departure from this invention.

What I claim is:

1. A fastener comprising a receiving and an entrant member, each attachable to goods, the receiving member having a flat sheet-metal spring formed with a stud-head-and-shank receiving opening; and said spring having upturned marginal projections between flat opposed portions of the member, and a stud having a reduced shank.

2. A fastener comprising a stud and socket each attachable to goods, the socket comprising a pair of integral lobes united by a bent edge wall-forming portion, one of the lobes being formed with an upstanding marginal edge-wall-forming flange to which the bent portion is supplementary; one of the lobes having a central opening; and a flat sheet-metal spring formed with a central stud-head-and-shank receiving opening opposed to the central opening of the lobe, and means for holding the spring in place.

3. A fastener comprising a stud having a polygonal base and a chambered socket comprising a pair of polygonal lobes flatwise opposed, spaced apart, and united by a bent-up integral rectangular portion, one of the lobes having a polygonal upturned flange extending part way around it, the bent-up rectangular portion being supplementary to said flange and completing it; one of the lobes having a central stud-receiving opening; in the chamber of the socket a flat sheet-metal spring confined in place by its margins, the spring having a central stud-head-and-shank-receiving opening of a diameter less than the diameter of the opening in the lobe; and the non-flanged lobe fitted edgewise within the flange of the opposed lobe.

In testimony whereof I have hereunto set my hand this 14th day of March, 1918.

RAYMOND J. McBREEN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."