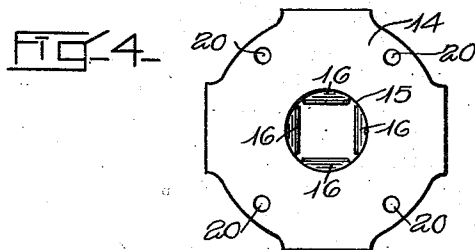
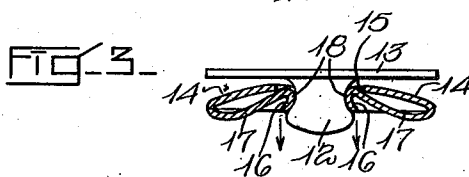
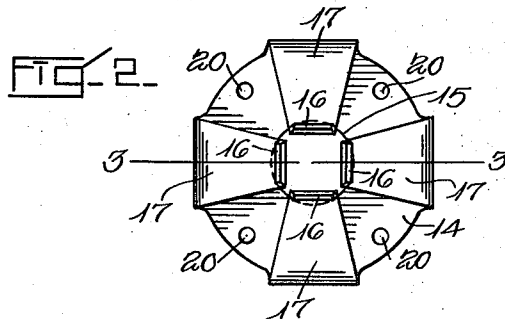
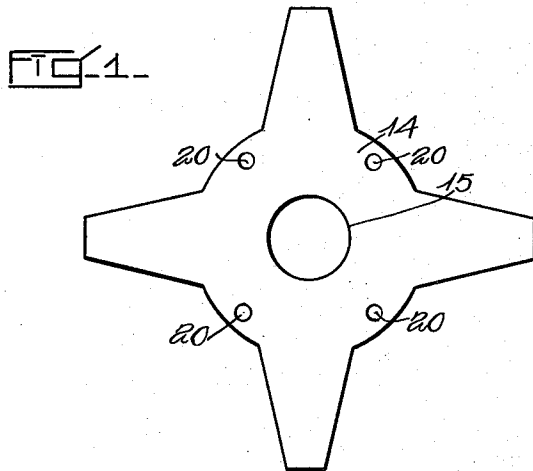


I. PFEIFFER, JR.
SNAP FASTENER.
APPLICATION FILED JUNE 19, 1916.

1,209,019.

Patented Dec. 19, 1916.



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IMMANUEL PFEIFFER, JR., OF BEDFORD, MASSACHUSETTS.

SNAP-FASTENER.

1,209,019.

Specification of Letters Patent.

Patented Dec. 19, 1916.

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To all whom it may concern:

Be it known that I, IMMANUEL PFEIFFER, Jr., a citizen of the United States, residing at Bedford, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Snap-Fasteners, of which the following is a specification.

This invention relates particularly to snap fasteners adapted for use on gloves, garments of various kinds, and for other purposes requiring a fastener of compact form and simple construction.

The invention is embodied in the improvements hereinafter described and claimed.

Of the accompanying drawings forming a part of this specification: Figure 1 represents a plan view of the blank from which the socket member of my improved fastener is formed; Fig. 2 represents a view of the inner side of the socket member formed from said blank; Fig. 3 represents a section on line 3—3 of Fig. 2, and an edge view of the stud member engaged with the socket member; Fig. 4 represents a view of the outer side of the socket member.

The drawings, if understood to represent a glove fastener or the like, are on a considerably enlarged scale.

The same reference characters indicate the same or similar parts in all the views.

The stud member may be of any suitable construction, and may be attached in any suitable way to the part of a glove, garment or other article by which it is carried. As here shown the stud member includes a post 12 of substantially cylindrical form, enlarged at its outer end to form a rounded head, and provided at its inner end with a base 13 adapted to be attached to a carrying part by stitches or otherwise.

The socket member includes a body portion 14, preferably of resilient sheet metal, provided with a central stud-receiving opening 15, and a plurality of resilient S-shaped arms integral with the body portion and bent under the same, each arm including a shank portion 17, and a post-engaging terminal portion or jaw 16. The jaws are adapted to simultaneously engage the post 12 of the stud member, and are held in engagement therewith partly by their own resilience and partly by the resilience of the shank portions 17, said shank portions being adapted to yield and permit bodily ra-

dial displacement of the jaws, and the jaws being adapted to be flexed at the abruptly bent neck portions 18 connecting the jaws with the shank portions. Each S-shaped arm therefore constitutes a double-acting spring maintained by the resilience of its two portions in effective engagement with the post 12.

The spring arms do not project through the opening 15, and do not overlap the outer side of the body portion, hence the smooth outer side of the body is unobstructed and presents a neat and desirable appearance, as shown by Fig. 4. The shank portions 17 of the double spring arms normally hold the jaws in close proximity to the body 14, and project inwardly from the margin of the opening 15. The jaws 16 are adapted to be displaced to a limited extent by the post in the direction indicated by the arrows (Fig. 3) when the post is moved in the same direction, and are supported by the body portion against strain tending to move the post in the opposite direction and withdraw it from the socket member.

The body portion may be of dished or concavo-convex form, as shown by Fig. 3, its inner side being concave and forming a recess which receives the jaws or the main portions thereof.

While any suitable number of arms and jaws may be employed, I prefer to provide four, as shown, the jaws being arranged in two opposed pairs, as shown by Fig. 2.

It will now be seen that the jaws simultaneously engage the post of a stud member inserted in the opening 15, and, by reason of their freedom to yield to the advancing movement of the post, permit the members to be interengaged with relative ease. It will also be seen that the rigid support of the jaws by the body 14 necessitates greater force in withdrawing than in inserting the stud member, the spreading or opening of the jaws by a withdrawing movement of the stud head being resisted by both the body 14 and the arms 17.

The socket member, including a stud-receiving body and resilient stud-engaging jaws formed from a single blank and adapted to operate as described, enables an effective and durable snap fastener to be produced at relatively small expense.

The body 14 may be attached to the part

which carries it by stitches or otherwise. Said body, as well as the stud base 13, may be provided with stitch-receiving holes 20.

Having described my invention, I claim:

5 1. The socket member of a snap fastener, consisting of a plate having a central stud-receiving perforation, and resilient arms integral with said plate and extending from the periphery thereof, said arms being disposed wholly at one side of the plate and
10 converging toward the axis of said perforation, the free ends of said arms being normally adjacent the edge of said perforation and being arranged to permit passage between them of the head of a stud member
15 extending through the perforation from the opposite side of the plate and to engage the head in such manner that said arms shall be braced, between their ends, by the plate
20 when the stud member is being withdrawn.

2. The socket member of a snap fastener, consisting of a concavo-convex plate having a central stud-receiving perforation, and resilient arms integral with said plate and extending from the periphery thereof, said
25 arms being disposed wholly at the concave side of the plate and converging toward the axis of said perforation, the free ends of said arms being normally adjacent the edge of said perforation and being formed to
30 afford a curved surface for engaging the head of a stud member, extending through said perforation from the convex side of the plate, in such manner that said arms will be
35 braced between their ends by the plate when the stud member is being withdrawn.

3. A socket member of a snap fastener, composed of a body having a central stud-receiving opening, and a plurality of resilient S-shaped arms integral with the body,
40 extending from the periphery thereof and disposed wholly at one side of the body, the free ends of said arms having each a stud-engaging portion in close proximity to the body, said arms being freely flexible away
45 from the body by the stud when the latter

is being inserted but arranged to contact with and be supported by the body on the application of stress tending to withdraw the stud from the socket member.

50 4. A socket member of a snap fastener, composed of a body having a central stud-receiving opening, and a plurality of resilient S-shaped arms integral with the body and extending from the periphery thereof,
55 said arms being arranged wholly on one side of the body and converging toward said opening, each arm including a shank portion adapted to spring toward the body, and a jaw portion carried by the free end of the shank portion and projecting into the path
60 of the stud and away from the body, said arms being freely flexible away from the body by the stud but arranged to contact with and be supported by the body on the
65 application of stress tending to withdraw the stud member from the socket member.

5. A socket member of a snap fastener, composed of a concavo-convex body having a central stud-receiving opening and a plurality of resilient S-shaped arms integral
70 with the body and extending from the periphery thereof, said arms being arranged wholly at the concave side of the body and converging toward said opening, each arm
75 including a shank portion adapted to spring toward the body, and a curved jaw portion carried by the free end of the shank portion and projecting into the path of the stud and away from the body, said arms being
80 freely flexible away from the body by the stud when the latter is being inserted but arranged to contact with the body and be supported by the latter on the application of stress tending to withdraw the stud member
85 from the socket member, the stud-receiving opening being unobstructed at the convex side of the body.

In testimony whereof I have affixed my signature.

IMMANUEL PFEIFFER, JR.