No. 628,618. Patented July 11, 1899.

# G. E. ADAMS.

## STUD MEMBER FOR SEPARABLE FASTENERS.

(Application filed July 2, 1898.)

(No Model.)

Fig. 1.

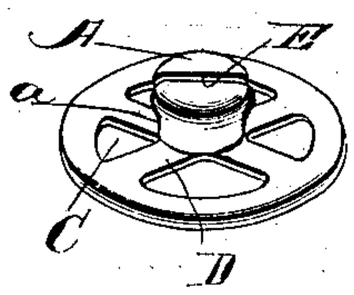



Fig. 2


Fig. 3.


Fig. 4.

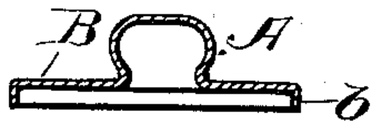



Fig. 5.

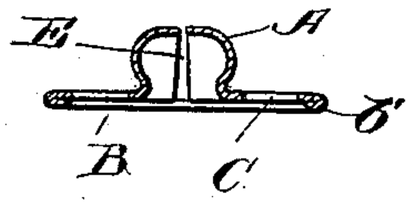
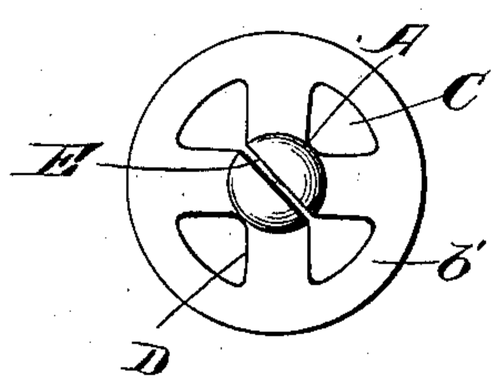



Fig. 6.

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# UNITED STATES PATENT OFFICE.

GEORGE E. ADAMS, OF NEW BRITAIN, CONNECTICUT.

## STUD MEMBER FOR SEPARABLE FASTENERS.

SPECIFICATION forming part of Letters Patent No. 628,618, dated July 11, 1899.

Application filed July 2, 1898. Serial No. 685,007. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE E. ADAMS, a citizen of the United States, residing at New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Stud Members for Separable Fasteners; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, and to the letters of reference marked thereon.

This invention relates to improvements in stud members for separable fasteners, and has for its object to provide a simple, cheap, and efficient stud member such as is adapted to be secured to a garment or fabric preferably by stitches or sewing, and the stud member is provided with a resilient head for coöperation with a rigid socket member or annulus.

Referring to the accompanying drawings, Figure 1 is a perspective view of a stud member of a separable fastener constructed in accordance with my present invention. Figs. 2, 3, 4, and 5 illustrate in cross-section different stages in the manufacture of the stud member. Fig. 6 is a top plan view of the completed device illustrated in Figs. 1 and 5.

Like letters of reference in the several figures indicate the same parts.

The stud member contemplated by my present improvement is preferably struck up from a sheet-metal blank, the stud or head proper (lettered A in the accompanying drawings) being preferably struck up from the center of a disk of sheet metal or base-plate B, Fig. 2, the steps in the manufacture being well illustrated in said Fig. 2 and in Figs. 3, 4, and 5—that is to say, a simple projection is first formed centrally of the base-plate, which projection is then headed or a neck contracted, as at *a*, and the edges of the blank are then turned down or flanged, as at *b*, Fig. 4, and, finally, said edges are turned in, as at *b'*, and the stud member is perforated, as at C, to facilitate the attachment of the stud member to the garment or fabric to which it is to be applied.

The perforations C are formed relatively large at the outer or peripheral portion of the base-plate and narrow inwardly or toward the center of the base-plate, leaving radial arms between the perforations, which arms form the connections between the periphery of the base-plate and the head of the stud. At their inner ends these arms are united in pairs, or, in other words, two of the perforations are connected by a transverse slit E extending up through the head of the stud. Thus the head is made resilient, and while the resiliency of the entire length of the arms is utilized, yet by the uniting of the arms in pairs sufficient strength is insured for all practical purposes.

By the formation of the perforations C not only are the arms formed between the perforations to give the desired resiliency to the stud, but the device is provided with the apertures through which the thread may be passed to secure it in place. The necessity of providing separate perforations for the latter purpose is as a consequence avoided and the device made more simple and presents a more symmetrical appearance. The apertures C being wide at the outer edge of the base-flange also permits the sewing to be continued practically around the whole device, affording greater security, and by distributing the threads they do not project above the surface of the flange and tend to prevent the proper seating of the socket member. The turning in of the flange at *b'* also forms a rounded edge to prevent the cutting of the attaching-threads.

Obviously the number of sections into which the head is divided is immaterial, it only being important that each section should be properly supported from the base or flange of the member, although the construction illustrated is preferred as presenting the greatest resistance to unusual strains tending to distort the shape of the head portion of the stud and so impair its efficiency.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States of America, is—

As an improved article of manufacture, a

fastener consisting of a base-plate with perforations in said base-plate made relatively large at the outer portion of the plate and narrowing toward the center of the plate, thereby forming radial arms, the said arms being united together in pairs at their inner ends and extended upwardly and rounded to form a split resilient head or stud, substantially as described.

GEORGE E. ADAMS.

Witnesses:
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