F. S. CARR.

FASTENER.

APPLICATION FILED JAN. 16, 1920.

1,387,113. Patented Aug. 9, 1921.

Fig. 1.

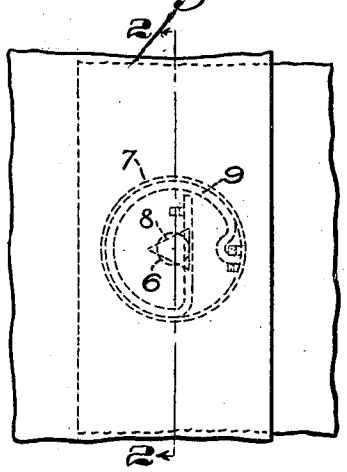


Fig. 2.

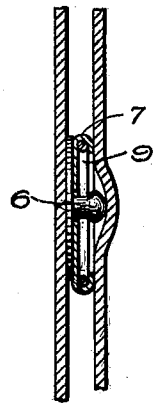


Fig. 3.

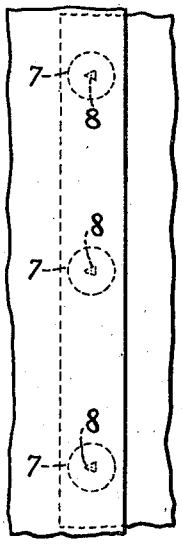


Fig. 4.

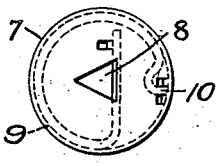
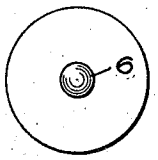


Fig. 5.



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UNITED STATES PATENT OFFICE.

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FASTENER.

1,387,113. Specification of Letters Patent. Patented Aug. 9, 1921.

Application filed January 16, 1920. Serial No. 351,778.

To all whom it may concern:

Be it known that I, FRED S. CARR, a citizen of the United States, and a resident of Newton, in the county of Middlesex, Commonwealth of Massachusetts, have invented an Improvement in Fasteners, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts.

This invention pertains to improvements in separable fasteners. It is among the objects of the invention to provide a fastener of such a construction, having superior holding power.

In the drawings, wherein I have elected to show a preferred construction of one illustrative embodiment of my invention:—

Figure 1 is a view of two pieces of fabric held together by a fastener shown in dotted lines;

Fig. 2 is a section on the line 2—2 of Fig. 1;

Fig. 3 shows two pieces of fabric held together by a plurality of such fasteners;

Fig. 4 is a view of a preferred form of socket for use in connection with such fasteners; and

Fig. 5 is a plan view of an illustrative stud.

Referring to the drawings and to the illustrative form of my invention, I have shown a stud 6 having a head and neck coöperating with a socket including a casing 7 having an aperture 8 therethrough into which the head of the stud may be entered, the casing having preferably, as shown, a flanged-over edge to retain a spring 9. The aperture in the casing is preferably so shaped as to provide a wedge portion and may be triangular as shown. The spring 9 is preferably formed with a jaw portion adapted to engage the neck of the stud and to press the same into wedging relation with the wedge portion of the aperture in the casing. The socket should preferably be applied to the goods in such a way that when strain is exerted to separate laterally the two pieces of goods to which the stud and socket are respectively attached, the neck of the stud will be drawn in the direction of the wedge portion of the opening, being assisted in this movement by the spring. The slope between the head and the neck of the stud, and the strength of the springs, should be such that the stud may be radily withdrawn from the socket when force is exerted at an angle greater than that likely to result from lateral strain on the two pieces of fabric to which the stud and socket are respectively attached. To maintain the spring 9 in proper relationship to the wedge portion of the aperture 8, I may bend the same outwardly at 10 and slightly crimp the flange on the casing at each side of the spring part 10.

When strain is directed in such a way as to draw the neck of the stud into the wedge portion of the aperture, the stud is wedged in such a way as to prevent undesired separation of the parts. When, however, separating strain is exerted between stud and socket at an angle greater than that which is likely to result from lateral strain, the parts may be readily separated.

While I have shown and described a preferred form of one embodiment of my invention, it will be understood that changes involving omission, substitution, alternation and reversal of parts, and even changes in the mode of operation, may be made without departing from the scope of my invention, which is best defined in the following claims.

Claims:

1. A separable fastener comprising, in combination, a stud having a head and a neck, and a socket comprising a casing having an aperture therethrough and providing wedge surfaces for engagement with the neck of the stud under lateral strain, and a spring part pressing said stud toward said wedging portions.

2. A stud and socket fastener comprising, in combination, a stud having a head and a neck, a socket including a casing having a triangular hole therein, and a spring portion adapted to press the stud toward one point of said triangle.

3. A stud and socket fastener comprising, in combination, a stud having a head and a neck, and a casing having an aperture therethrough providing wedge surfaces for engagement with the neck of the stud and a spring retained in said casing by a flanged-over edge therein and held against rotation in said casing, said spring having a stud-engaging portion opposite the wedge surfaces provided by said aperture.

In testimony whereof I have signed my name to this specification.

FRED S. CARR.