June 17, 1924. 1,497,806

E. F. STENMAN

DRESS SNAP

Filed Oct. 25, 1920 2 Sheets-Sheet 1

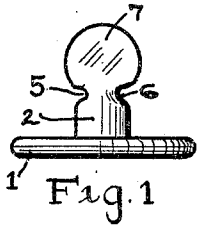


Fig. 1

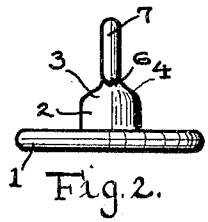


Fig. 2.

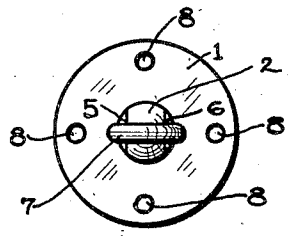


Fig. 3.

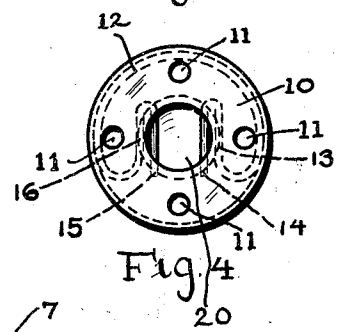


Fig. 4

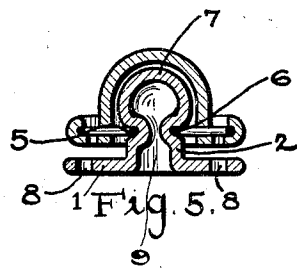


Fig. 5.

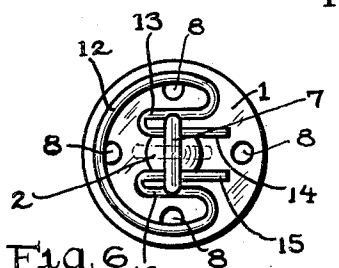


Fig. 6.

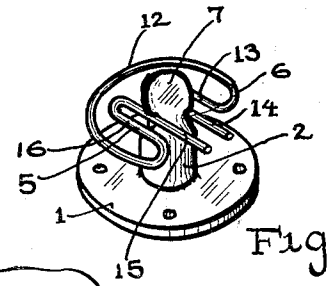


Fig. 7.

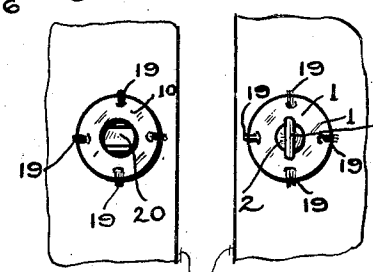


Fig. 8.

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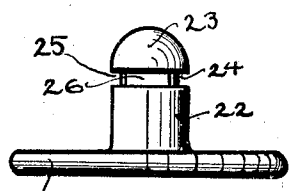



Fig. 9.

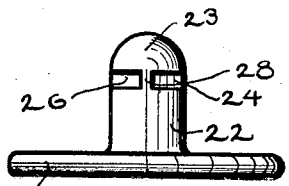



Fig. 10.

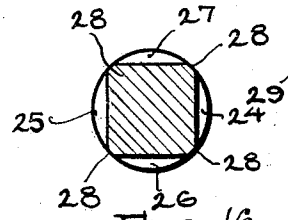



Fig. 16.

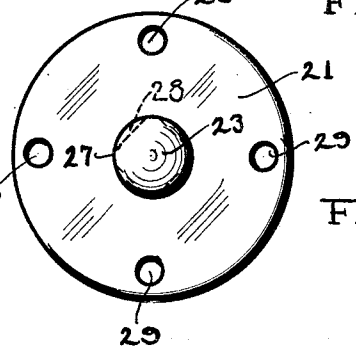



Fig. 11.

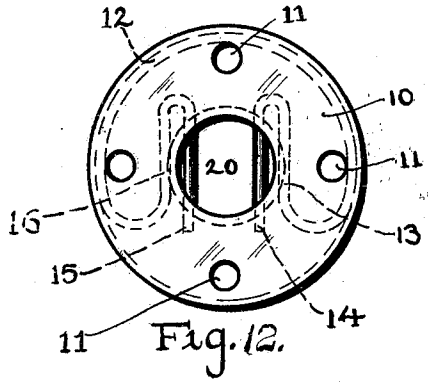



Fig. 12.

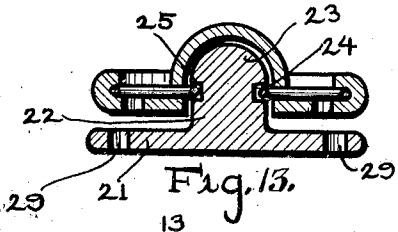



Fig. 13.

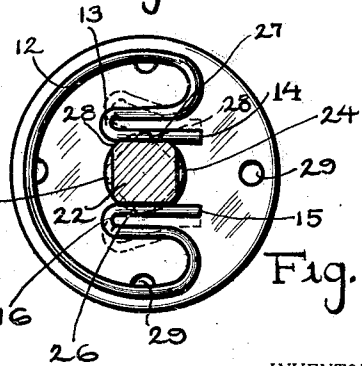
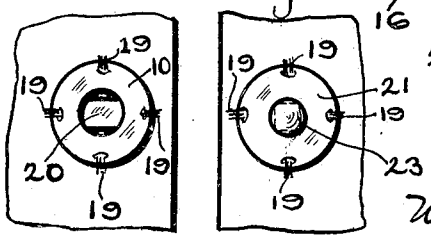



Fig. 14.

Fig. 15.




INVENTOR.

Elis F. Stenman

BY

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Patented June 17, 1924. 1,497,806

# UNITED STATES PATENT OFFICE.

ELIS F. STENMAN, OF WORCESTER, MASSACHUSETTS.

## DRESS SNAP.

Application filed October 25, 1920. Serial No. 419,197.

*To all whom it may concern:*

Be it known that I, ELIS F. STENMAN, a citizen of the United States, residing at the city of Worcester, in the county of Worcester and State of Massachusetts, have invented new and useful Improvements in Dress Snaps, of which the following is a specification.

My invention relates to snap fasteners of the stud and socket type, that are particularly adapted for holding together, or otherwise securing, parts, such as portions of dresses, gloves, or other articles of wearing apparel.

The object of my invention is to provide a fastener of the above described type, the members of which may be cheaply manufactured, easily assembled, and readily attached to the parts to be secured together. A further object of my invention is to provide a fastener in which the members may be quickly locked together and which, when once locked, are proof against accidental disengagement which might otherwise result from some movement on the part of the wearer of the dress or other article of apparel to which the members of the fastener are attached, whereby the members of the fastener are subjected to a force tending to separate them. A still further object of my invention is to provide a fastener in which the members may be readily separated when it is desired by a slight turning movement of one member relative to the other member. These and other advantageous features of my invention will hereinafter more fully appear, reference being had to the accompanying drawings, in which—

Fig. 1 is a view in side elevation of the stud member of my improved fastener.

Fig. 2 is a view in end elevation of the member shown in Fig. 1.

Fig. 3 is a top plan view of the member shown in Fig. 1.

Fig. 4 is a bottom plan view of the socket member of my improved fastener.

Fig. 5 is a transverse sectional view showing the stud member received in the socket member.

Fig. 6 is a top plan view showing the spring of the socket member engaged with a stud member.

Fig. 7 is a perspective view of the parts shown in Fig. 6.

Fig. 8 is a plan view showing the angular relation of the stud member to the socket member, as applied to separate pieces of material.

Fig. 9 is a view in side elevation of a modified form of stud member.

Fig. 10 is a view in end elevation of the member shown in Fig. 9.

Fig. 11 is a top plan view of the member shown in Fig. 9.

Fig. 12 is a bottom plan view of a socket member similar to that shown in Fig. 4.

Fig. 13 is a transverse sectional view showing the modified stud member received in the socket member shown in Fig. 12.

Fig. 14 is a view partially in plan and partially in section, showing the stud member received in the spring of the socket member.

Fig. 15 is a view similar to Fig. 8, showing the angular relation between the members.

Fig. 16 is a sectional view through the depressions in the stud member.

Like reference characters refer to like parts in the different figures.

Referring to Figs. 1 and 2, the stud member comprises a base portion 1 from which extends upwardly a tubular shank 2 having oppositely inclined surfaces 3 and 4 converging to a flattened head 7. As best shown in Fig. 3, the head 7 is of greater width than the shank 2, and diametrically opposed notches 5 and 6 are provided below the head 7 where the edges thereof join the shank 2, for a purpose to be hereinafter described. The base 1 is provided around its outer periphery with a series of holes 8 by means of which it may be secured to a piece of material.

Referring now to Figs. 4 and 5, the socket member generally comprises a casing 10 having a central dome portion of substantially the same curvature as the head 7, and provided around its rim with a plurality of holes 11, by means of which the socket member may be secured to a piece of material. A spring 12 is located within the casing 10, and as best shown in Fig. 6, is provided with a loop 13 terminating in an arm 14 and a loop 16 terminating in an arm 15. The arms 14 and 15 are separated by a space somewhat less than the width of the head 7, and the bottom of the casing 10 is provided with an opening 20 of somewhat greater diameter than the space between the arms 14 and 15, and large enough to receive the head 7.

Referring now to Fig. 8, the base 1 and

the casing 10 are adapted to be secured to separate pieces of material, by means of stitches 19 passing through the holes 8 and 11, respectively. The base 1 is arranged in such relation to the casing 10 that the head 7 extends substantially at right angles to the arms 14 and 15 of the spring 12. Therefore, when it is desired to secure the pieces of material together, it is necessary for the user to apply enough pressure to the parts to cause the head 7 to force apart the arms 14 and 15 enough to allow the head to enter the casing 10, after which the arms will seat themselves in the notches 5 and 6 by reason of their inherent resiliency.

The parts then occupy the position shown in Figs. 6 and 7, from which it is apparent that the arms 14 and 15 will effectively prevent the withdrawal of the head 7 from the socket member by the mere application of a force tending to separate the pieces of material to which the members are secured. When, however, it is desired to separate the members, it is only necessary for the user to turn the stud member relatively to the socket member through substantially 90° so that the head 7 occupies the position shown in dotted lines in Fig. 6. The arms 14 and 15 are thereupon disengaged from the notches 5 and 6, and it is then possible to withdraw the head 7 from the socket member.

Referring now to Figs. 9, 10, and 11, there is shown a modified form of stud member for use in connection with the socket member shown in Fig. 12 which is of substantially the same form as the socket member shown in Fig. 4. The modified stud member comprises a base 21 from which extends upwardly a tubular shank 22 terminating in a dome shaped portion 23. The shank 22 is provided with angular depressions 24, 25, 26, and 27 which are separated from each other by shoulders 28 which are substantially flush with the surface of the shank 22, as best shown in Fig. 16.

Referring now to Fig. 15 the base 21 is secured to a piece of material in such a manner that one pair of depressions 24 and 25 are at right angles to the arms 14 and 15 of the spring 12, while the other pair of depressions 26 and 27 are substantially parallel to the arms 14 and 15. When it is desired to secure the members together, the head portion 23 of the shank 22 is inserted into the opening 20 in the casing 10, thereby forcing apart the arms 14 and 15. It is obvious that when the arms 14 and 15 encounter the depressions 26 and 27, they will be seated therein, and thereby prevent withdrawal of the shank 22 from the socket member, by the application of a force tending to separate the piece of material. The parts then occupy the position shown in Fig. 13.

When, however, it is desired to separate the respective members of the fastener, it is only necessary for the user to turn the stud member relatively to the socket member through substantially 45°, whereupon one pair of diametrically opposed shoulders 28 will engage the arms 14 and 15 and separate them enough to permit the withdrawal of the shank 22 from the opening 20, as indicated in dotted lines in Fig. 14.

From the foregoing then, it is apparent that by my invention I have provided an improved dress snap, the members of which are so constructed that they may be locked together by merely inserting the stud member within the socket member. It is apparent that it is impossible to separate the members by a force tending to pull them apart, so that my fastener is particularly adapted to secure parts together which are subjected to strains tending to separate them, such as might be caused by some movement on the part of the wearer. When, however, it is desired to separate the members, this can be readily accomplished by merely turning one member with respect to the other through a great enough angle to cause the arms 14 and 15 of the socket spring to be separated enough to permit withdrawal of the stud.

While I have shown my invention in its simplest and preferred forms, it is not so limited, but is susceptible of various modifications within the scope of the appended claims.

What I desire to secure by Letters Patent and to protect is as follows:—

1. In combination, a male and a female section of a snap fastener, the female section having a yieldable mouth, the male section having a flat head adapted to be presented into said mouth, and wedge shaped shoulders formed upon said male section at right angles to said flat head.

2. In combination, a male and a female section of a snap fastener, the female section having a pair of resilient arms arranged alongside one of the other, the male section being formed with a substantially round shank, said shank being cut away to provide a pair of notches and a flat head upon said shank.

3. In combination, a male and a female section of a snap fastener, the female section having a pair of resilient arms arranged alongside one of the other, the male section having a round shank of a diameter greater than the distance between said arms, and a flat head extending transversely of said shank, said shank being also formed with oppositely inclined shoulders.

4. In combination, a male and a female section of a snap fastener, the female section having a pair of resilient arms arranged along side one of the other, the male section having a shank shaped so as to be wedged

into the resilient mouth of said female member, and a flattened head upon said shank of a greater width than other portions thereof.

5. In combination, a male and a female section of a snap fastener, the male section being shaped to provide a round shank cut away to provide opposing notches and a reduced flat head, said head being wider than the diameter of said shank and forming shoulders with said shank whereby the entrance of said shank into said mouth is facilitated.

6. In combination, a male and a female section of a snap fastener, the male section being shaped to provide a round shank cut away to provide inclined shoulders, said shank terminating in a reduced flat head forming an angle with said inclined shoulders.

7. In combination, a male and a female section of a snap fastener, the female section having laterally resilient cheeks, the male section consisting of a shank round in cross-section having a reduced flat head forming inclined shoulders with said shank and adapted to guide the head between said cheeks.

8. In combination, a male and a female section of a snap fastener, the female section having resilient cheeks, the male section consisting of a shank cut away so as to provide oppositely inclined shoulders, adapted to be wedged into and between said cheeks, and a reduced flat head formed upon said shank and adapted to be introduced at right angles to said cheeks.

9. A device as described consisting of a male and a female member, the female member having a pair of laterally resilient cheeks, the male member being formed with a shank adapted to be wedged between said cheeks so as to separate them, said male member also being provided with a reduced flat head wider in width than said shank and adapted to be locked at the bottom and in contact with said cheeks.

10. A device as described consisting of male and female interlocking elements, the female element being formed with opposing resilient cheeks, the male element having a round shank terminating in oppositely inclined shoulders, and having a reduced flat head wider than the diameter of said shank and round in outline.

11. A snap element consisting of a round shank formed with notches between its ends, a reduced flat head above said notches and of greater width than said shank, and another snap element having a socket for receiving yieldably said shank and also said flat reduced head.

12. A snap element consisting of a round shank formed with notches between its ends, a reduced flat head above said notches, said head projecting laterally of either side of said shank, and another snap element having a resilient mouth for receiving said head below its flattening portion.

In witness whereof he has hereunto set his hands and affixed his seal this 28th day of May, 1920.

ELIS F. STENMAN. [L. S.]

Attested:

WILLIAM E. BAFF,
SILAS H. LORD.