Aug. 23, 1932. C. L. HALL ET AL 1,873,880

SEPARABLE SNAP FASTENER AND INSTALLATION THEREOF

Filed May 24, 1930

Fig. 1.

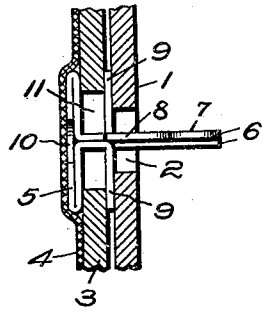


Fig. 2.

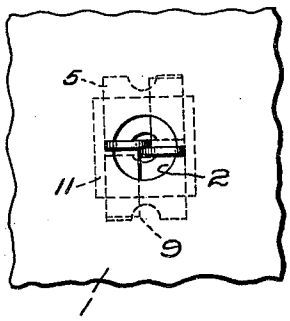


Fig. 3.

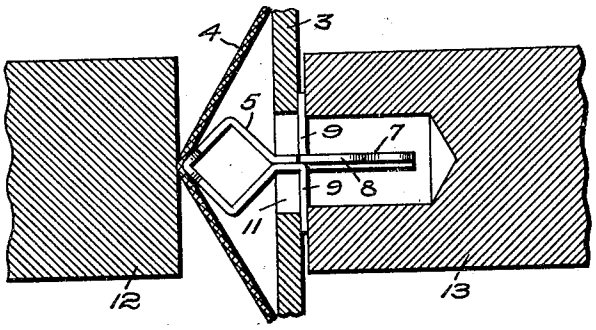


Fig. 4.

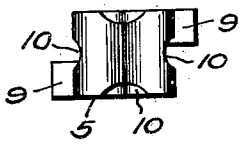


Fig. 5.

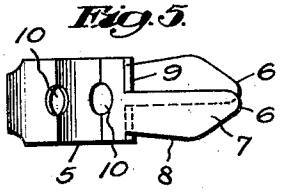
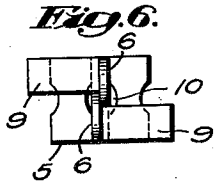


Fig. 6.



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UNITED STATES PATENT OFFICE

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SEPARABLE SNAP FASTENER AND INSTALLATION THEREOF

Application filed May 24, 1930. Serial No. 455,259.

Our invention aims to provide improvements in separable snap fasteners and installations thereof.

In the drawing which illustrates a preferred embodiment of our invention:—

Figure 1 is a section through an upholstery installation showing our improved fastening means;

Fig. 2 is an elevational view of the installation shown in Figure 1 as it appears when viewed from the right of the figure;

Fig. 3 is a view showing the manner of assembling the stud part of the installation; and

Figs. 4, 5 and 6 show a bottom, a side and a plan view respectively of the stud as it appears before attachment to a support.

Referring to the particular embodiment of our invention selected for illustration by the drawing we have shown a snap fastener stud particularly, though not exclusively, adapted for upholstery work.

In automobile body manufacture it has been found advisable to secure some of the upholstery work in place by means of snap fasteners. The upholstery is made up in panels and is therefore very easily attached to and detached from the frame work. It is sometimes desirable to make up the upholstery of backing and covering material and assemble the fastener members thereto just prior to securing the upholstery to the framework and it is just such an installation and fastener adapted for that use that we have shown in the drawing.

A very simple installation is illustrated, comprising a frame part 1 of sheet metal having an aperture 2 therethrough, an upholstered part comprising a backing 3 of cardboard or the like, one side of which is covered by cloth 4 or other flexible material, and a snap fastener stud member securing the upholstered part to the frame 1, as shown in Figs. 1 and 2.

The stud member herein shown is folded up from a strip of sheet metal and before attachment (Figs. 3 through 6) has a collapsible base 5, which base is herein shown as formed by bending the strip of sheet metal in the middle providing portions which diverge and then converge again (Fig. 3) to form a hollow square. The ends 6—6 of the strip may extend face to face in the direction of a diagonal of this square and conveniently may be longitudinally split for a part of their length, the material at one side of the split being turned over to provide a flange or attaching part 9 in spaced relation to the base 5. These two attaching parts 9 are preferably respectively on opposite sides of the center line. The remaining portions of the strips have outer edges which diverge and then converge in cooperation to provide a stud head 7 and neck 8.

The base 5 is preferably scored by notches 10, preferably at the corners of the square so that the hollow square may be flattened, its sides folding together about these corners (Fig. 1) for the purposes presently to be described.

When the stud member is constructed in the manner described and is to be attached to a pre-assembled upholstered part, it may be attached in the manner shown in Fig. 3. In that figure the base is entered through a preformed aperture 11 in the backing 3 shown as square in outline. The flexible material or covering 4 is pressed away from the backing 3 to permit passage of the base 5 of the stud and then the setting members 12 and 13 of a suitable setting tool or machine (not shown) approach each other and flatten the base to a position shown in Figure 1. Thus the fastener can be easily and quickly applied to the upholstery at any time either before or after the covering material has been applied to the backing. The attachment is simple because the base engages one face of the backing after it has been flattened and the attaching parts 9—9 engage the opposite face of the carrying medium.

Our improved stud and means of attachment is formed entirely from a single piece of metal and after the base is set it is sufficiently yieldable to permit the projections 6—6 to move toward each other and spring them back again when forced through a stud-receiving aperture. The stud is cut out of flat sheet material and by a series of simple

folding operations is formed to the shape shown in Figs. 3 through 6.

While we have illustrated and described a preferred embodiment of our invention and one use thereof we do not wish to be limited thereby because the scope of our invention is best defined by the following claims.

We claim:

1. A snap fastener member having a base, means extending directly from said base for snap fastening engagement with a cooperating snap fastener member and attaching means extending laterally from said means in spaced relation to said base and located between the base and the free end of the means extending from the base.

2. A snap fastener member having a collapsible base, means extending directly from said base for snap fastening engagement with a cooperating snap fastener member and attaching means extending laterally from said means in spaced relation to said base and located between the base and the free end of the means extending from the base.

3. A snap fastener member having a base, means extending directly from said base for snap fastening engagement with a cooperating snap fastener member and attaching means extending laterally from said means in spaced relation to said base and located between the base and the free end of the means extending from the base, said base, attaching means and snap fastener engaging means being formed from a single piece of metal.

4. A snap fastener stud having a yieldable base, a pair of projections extending from said base for snap fastening engagement with a cooperating fastener socket, said projections being permitted to move toward and away from each other by said yieldable base and attaching portions extending laterally from said projections in spaced relation to said base.

5. A snap fastener stud having a collapsible and yieldable base, a pair of projections extending from said base for snap fastening engagement with a cooperating fastener socket, said projections being permitted to move toward and away from each other by said yieldable base and attaching portions extending laterally from said projections in spaced relation to said base.

6. A snap fastener member having a collapsible base provided with portions which first diverge and then converge to provide a collapsible base to increase the length of said base in one direction as and for the purposes illustrated and described, said portions being integrally connected together at the point from which they first diverge and said portions continuing from their converged point in substantially parallel relation to provide socket-engaging means.

7. A snap fastener member having a collapsible base provided with portions which first diverge and then converge to provide a collapsible base to increase the length of said base in one direction as and for the purposes illustrated and described, said portions continuing from their converged point in substantially parallel relation to provide socket-engaging means and means extending laterally from the socket-engaging means in spaced relation to the base to cooperate with said base and secure the fastener member to a supporting structure.

8. A snap fastener member having a collapsible base provided with portions which first diverge and then converge to provide a collapsible base wherein said portions fold together to increase the length of said base in one direction as and for the purposes illustrated and described and said portions of said base being weakened substantially at the line of folds only, by scoring said portions at said folds to aid in the ease of collapsing thereof.

9. A snap fastener stud installation comprising an apertured support and a stud member attached thereto, said stud member having a collapsible base normally adapted to pass through the aperture in said support and being flattened to engage one side of said support, yieldable projections extending from said base through the support for engagement with a cooperating socket and means extending from said yieldable projections and engaging the other face of the support thereby to cooperate with the base to hold the stud member in engagement with the apertured support.

In testimony whereof, we have signed our names to this specification.

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