Dec. 5, 1950 J. B. FRAZELLE ET AL 2,532,704

STAPLE PIN ATTACHING MEANS

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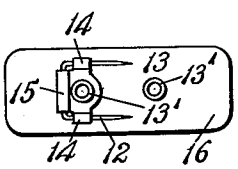


Fig. 1

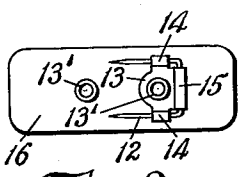


Fig. 2

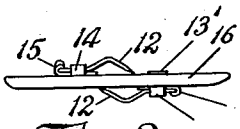


Fig. 3

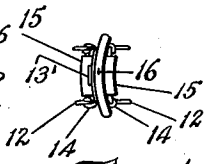


Fig. 4

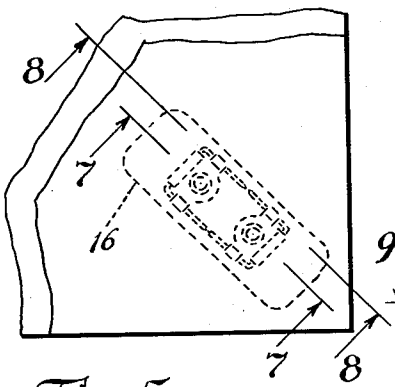


Fig. 5

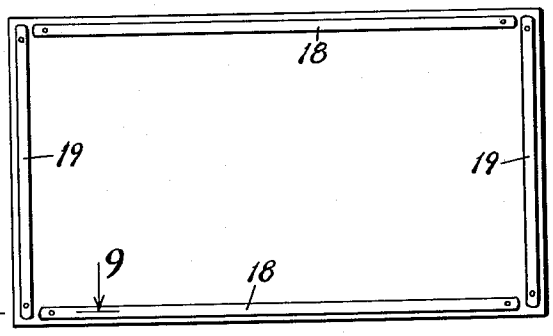


Fig. 6

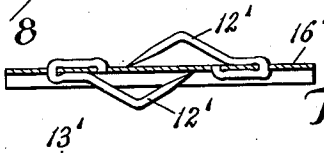


Fig. 14

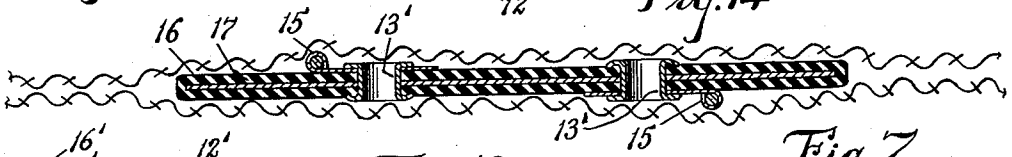


Fig. 7

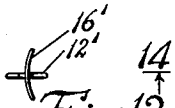


Fig. 12

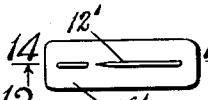


Fig. 13

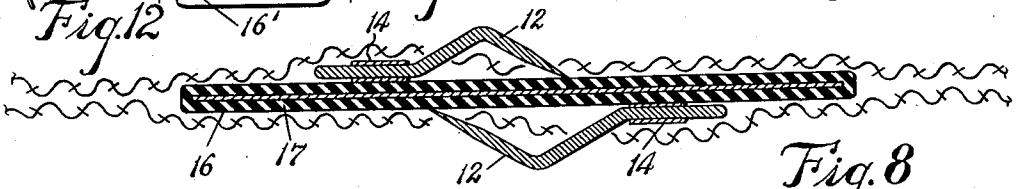


Fig. 8

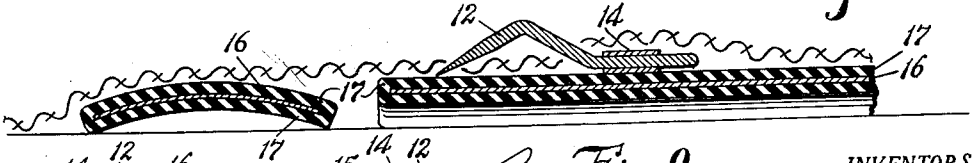


Fig. 9

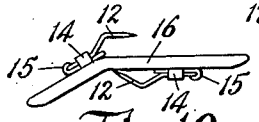


Fig. 10

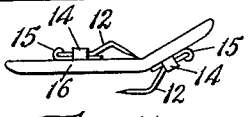


Fig. 11

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STAPLE PIN ATTACHING MEANS

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Application November 4, 1947, Serial No. 784,014

4 Claims. (Cl. 16—8)

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This invention relates to staple pin attaching means, and more particularly to a staple pin attaching device to be used for attaching one member to another, such, for example, as metal strips to the underside of a rug for holding the rug straight on the floor, or for attaching a rug or carpet to the mat thereunder to prevent relative movement thereof, or it can be used for connecting two fabrics together to prevent them from moving apart or in opposite directions.

In order to explain our invention, we have shown it on the accompanying drawings, which we will now describe:

Figures 1 and 2 are opposite sides of a short spring metal member with out staple pins secured thereto ready for use;

Figures 3 and 4 are edge and end views of the same;

Figure 5 is a fragmentary view showing one of the devices in operating position between a rug and the mat thereunder;

Figure 6 shows the underside of a rug with metal strips attached thereto by means of our device attached thereto;

Figure 7 is a sectional view on line 7—7 of Fig. 5, enlarged to indicate thin rubber covering on the metal strip;

Figure 8 is a sectional view taken on line 8—8 of Fig. 5;

Figure 9 is a sectional view taken on line 9—9 of Fig. 6;

Figures 10 and 11 are edge views to show how the member can be flexed to facilitate its attachment by either prong;

Figures 12 and 13 are end and flat views of a modified device with single prongs, instead of staple form of pin or prong; and

Figure 14 is a sectional view taken on line 14—14 of Fig. 13.

Referring now in detail to the drawings, our invention as here shown consists of a staple pin 12, secured to a metal plate 13, having its opposite sides bent around the opposite legs of said staple pin, and its end bent around the connecting portion thereof, as at 14, 14 and 15. In the present embodiment, the device is shown riveted to the member 16, which is spring metal, slightly bowed transversely, as seen in the end view in Fig. 4, and capable of being flexed or bent as seen in Figs. 10 and 11, to facilitate the insertion of the pins into the fabric, rug or mat. Said member is preferably coated or covered with thin rubber or other protecting matter to also give a finish thereto. This is indicated by the sectional shading in Figs. 7, 8 and 9, where said coating is designated 17.

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In Figs. 1 to 4 inclusive, the flexible carrying member is short, as shown and can be flexed, as seen in Figs. 10 and 11, for the purpose of attaching the prongs to a rug and mat thereunder, as indicated in Fig. 5, where the device is indicated in light broken lines, and is seen in section, on an enlarged scale, in Fig. 7, and through the prongs in Fig. 8. The rivets are designated 13'.

In Fig. 6, we have shown the device attached to the ends of long metal members and attached to the underside of a rug for holding it in stretched or flat condition. Said strips are designated 18, 18 and 19, 19. Any number of strips can be used and applied to the rug for holding it stretched. The staple pins are secured to the opposite ends of said metal strips by the rivets, as before indicated in Figs. 1 to 3 inclusive.

In Figs. 12, 13 and 14 we have shown how the device can be made with a single pin or prong instead of the staple form. In these figures the plate or member 16' has the pin or prong 12' secured thereto by inserting its anchored end through the plate and bending it upon itself with the metal therebetween, as seen clearly in the sectional view in Fig. 14, taken on line 14, 14, on Fig. 13.

The invention can be used for many different purposes and made small, as the views are larger than the actual device. The device is between the two fabrics which are to be secured together and the pins or prongs are directed in opposite directions so the two fabrics cannot pull away from each other in their own planes.

We do not limit our invention to the details here shown, except as we may be limited by the hereto appended claims.

We claim:

1. A strip of thin spring metal, bowed transversely to normally hold it straight, an attaching prong having its base secured to said metal strip lengthwise thereof, and having its prong bent upwardly and thence downwardly to position the point adjacent the surface of said metal strip, said metal strip being resiliently bendable away from said point to facilitate the insertion of said prong into an article to which said metal strip is to be attached, said strip of metal automatically returning to straight condition adjacent said point as soon as released.

2. A strip of thin spring metal, bowed transversely to normally hold it straight, an attaching prong having its base secured to said metal strip lengthwise thereof, a second prong having its base secured to said metal strip lengthwise thereof, on the reverse side from said first prong, both

of said prongs being bent outwardly in opposite directions away from said metal strip and thence inwardly to the opposite sides of said metal strip, said metal strip being resiliently bendable in either direction away from the adjacent point of said prong to facilitate the insertion of said prong into another article, said metal strip automatically returning to straight condition adjacent the points of said prongs when released.

3. A long strip of thin spring metal, bowed transversely to normally hold it straight, to hold a rug straight, attaching prongs at its opposite ends, said prongs having their base portions secured to said strip lengthwise thereof and having their prongs bent outwardly away from said strip and thence inwardly to position their points adjacent the surfaces of said metal strip, directed toward the opposite ends of said strip, said strips being resiliently bendable at said prongs away from the points to facilitate the insertion of said prongs into a rug, for attaching the opposite ends of said strip to said rug, said strip automatically returning to straight condition when released, whereby to hold a rug straight.

4. A strip of thin spring metal, bowed transversely, attaching prongs on opposite sides of said strip, said prongs having their base portions secured thereto, lengthwise thereof, and having their prong portions bent outwardly away from the opposite sides of said strip and thence bent toward the opposite sides of said strip, to position their points adjacent the opposite sides of said strip of metal, said strip being resiliently bendable under each prong, in opposite directions, away from the points to facilitate the insertion of said prongs into articles on opposite sides of said spring metal strip.

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