June 2, 1931. L. B. ERWIN 1,808,535

BUTTON FASTENER

Filed Sept. 26, 1930

Fig. 1

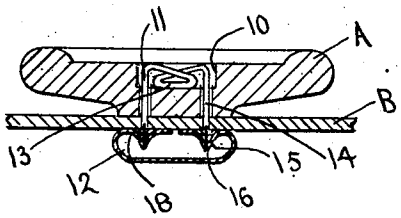


Fig. 2

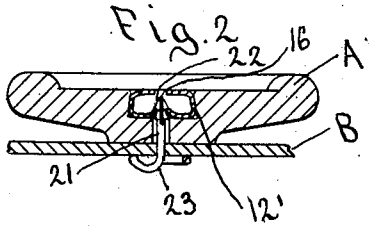


Fig. 3

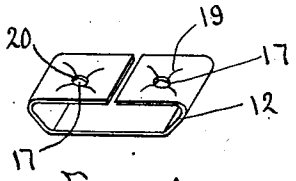


Fig. 4

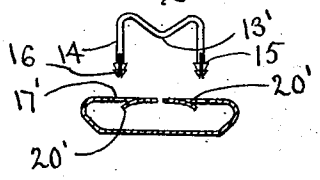
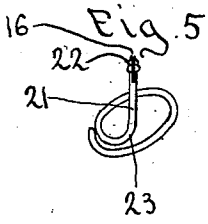


Fig. 5



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UNITED STATES PATENT OFFICE

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BUTTON FASTENER

Application filed September 26, 1930. Serial No. 484,613.

My invention relates to button fasteners and particularly to those which may be used for securing perforated commercial buttons to fabrics or the like.

One object of my invention is to provide a fastener that permits use with varied thicknesses of material or buttons.

A second object is to provide a button fastener of the kind noted which shall be of simple character, and economical in manufacture.

My invention consists in the combination of a yielding pointed element adapted to pass through the eyes of a commercial button and to engage with a perforated holding element, both elements being novel in construction.

In the specification and claims and the drawings forming a part thereof I have described and illustrated a preferred form of my invention, with modifications, but do not confine myself to these forms as other modifications may be made within the scope of my claims.

In the drawings:

Fig. 1 is a sectional elevation comprising a perforated buttom having two or more perforations, and showing the application of my invention thereto.

Fig. 2 shows a modified form of my invention which may be employed with a button having a single perforation.

Fig. 3 is a perspective view of the holding element shown in Fig. 1.

Fig. 4 shows modified forms of both pointed element and holder.

Fig. 5 is a perspective view of a pointed element such as may be used with the device as shown in Fig. 2.

Referring to the drawings:

The perforated button A is provided with a socket 10, and the pointed element 11 passing through the perforations, may be formed of wire, of a shape adapted to yield as it is pressed through the fabric B and into the holder 12.

In Fig. 1, I have shown this pointed element formed with a loop 13, which permits yielding as the legs 14 are pressed into the fabric. In Fig. 4 the form of the pointed element at 13′ is equivalent.

The legs of the pointed element are enlarged near the end to form shoulders 15, and each leg may be slotted as at 16 for reasons to be explained.

The holder 12 is formed with perforation 17 agreeing axially with the legs of the pointed element, and may be formed from a strip of relatively thin sheet metal, the perforations 17 being countersunk slightly as at 18, in the direction of thrust and of a size that will require appreciable pressure to force the pointed element therethrough to engage the shoulders 15.

The perforations may be provided with the slots 19 radiating from the perforations, and forming tongues 20 which are slightly deflected to enlarge the perforations as the pointed element is pressed through. The slotted ends of the pointed element cooperate in this and as the two parts are pressed together, the shoulders 15 pass through the perforations 17, the countersunk form permitting passage of the enlarged portions of the pointed element to engage the shoulder with the underside to resist withdrawal.

In Fig. 4, I have shown a modified form of holder in which the perforations 17′ are provided with a single tongue 20′, which extends inwardly, and is adapted to be deflected, as the pointed element is inserted through the perforation, the enlarged portion passing through and the shoulder 15 engaging therewith to resist withdrawal.

Fig. 5, is particularly adapted for use with the construction shown in Fig. 2, the pointed element 21 being bent to permit yielding as at 23 and to hold against the inside of the material to which the button is to be attached, the point 22 being pressed into the holder 12′ which in this case is seated in the socket 10 of the button, and is of equivalent construction to the holder shown in Fig. 3, the form being varied to fit into the socket 10, with a perforation similar to perforations 17.

With the forms shown both the pointed element and the holder element are formed to yield as the pointed element is inserted into the perforations. It thus follows that the enlarged portion of the pointed element may be slightly larger than the perforation into

which it is pressed, and either or both elements will yield sufficiently to permit passage of the enlarged portions of the pointed element, under axial pressure to engage the shoulders of the pointed element with the material surrounding the respective perforations to resist separation of the elements.

Having thus described my invention, I claim:

1. A button fastener comprising in combination an element having pointed extensions adapted to pass through the perforations of a button and to yield axially, and provided near the ends of such extensions with enlarged portions forming shoulders; a holding element having openings in axial agreement with the pointed extensions; means adapted to yield under axial pressure, to permit passage of the shoulders through the openings to engage the holder and to resist separation of the elements.

2. In a button fastener having an element with pointed extensions and enlarged portions thereon forming shoulders, the combination therewith of a holding element having openings in axial agreement with the pointed extensions, and means adapted to yield and to engage the shoulders on the extension when axial pressure is applied, and to resist separation of the elements.

3. In a button fastener having an element with pointed extensions and enlarged portions thereon forming shoulders, the combination therewith, of a holding element having openings in axial agreement with the pointed extensions, the contiguous material being adapted to yield under axial pressure to permit passage there through of the enlarged portions of the extensions to engage the shoulders with the holder and to resist separation of the elements.

4. In a button fastener having an element with pointed extensions and enlarged portions thereon forming shoulders, the combination therewith of a holding element having perforations in axial agreement with the pointed extensions, the contiguous material being formed with tongues adapted to be deflected to permit the passage through the perforations and under axial pressure, of the enlarged portions of the pointed extensions to engage the shoulders with the holder and to resist separation of the elements.

5. In a button fastener having a perforated holding element, the combination therewith of an element having pointed extensions and enlarged portions thereon forming shoulders and adapted to extend through the perforations of a button and the material to which it is to be attached, and to yield axially under axial pressure, to provide for varied thickness of button and material, and to pass through the perforations of the holder and engage the shoulders therewith, to resist separation of the elements.

6. In a button fastener having a perforated holding element, the combination therewith of an element having pointed extensions and enlarged portions thereon forming shoulders relatively larger than the perforations in the holder, the extensions being formed with slots to permit the enlarged portions to yield to pass through the perforations of the holder when axial pressure is applied and to engage the shoulders with the holder to resist separation of the elements.

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